



Intelligent forecasting

From proof of concept
to connected capabilities

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Overview

The case for connecting your forecasts

Making the planning process more intelligent has been a tantalizing goal for business leaders since ... well, pretty much since the first business forecast was created. And these days especially, executives know that faster, more accurate insights powered by advanced data and technologies can deliver transformative results—and a serious competitive edge. Indeed, generating more intelligent forecasts is no longer a nice-to-have capability, but an essential need in a business climate in which the only thing that seems certain is rapid change.

Most leading companies today understand the concept of intelligent forecasting, and the proven ability of robust tools like advanced algorithms, predictive analytics, artificial intelligence (AI), machine learning, and automation to unlock game-changing new insights from enhanced and ever-expanding data sets. It's a powerful new capability, of course: Who's against smarter forecasts that produce tangible, bottom-line value?

But for too many companies, intelligent forecasting is still just that tantalizing but largely unfulfilled goal. Some might test-drive it in a single business unit as a one-and-done proof-of-concept, while others may have multiple forecasting initiatives in motion across different business units that use different data sets, analytics tools, business rules, and outputs. And while all of those different proof-of-concepts may seem to “work” in their silos, do they work together?

This fundamental gap in connectivity across the enterprise continues to be the biggest barrier that many companies face when trying to unlock intelligent forecasting's full potential. It's a challenge our KPMG teams have been helping clients solve with an approach that envisions connected forecasting from the start. **That's because successful intelligent forecasting today means *integrated* intelligent forecasting:** Reporting and insights across multiple core functions—finance, operations, customer-facing—draw from a synchronized, high-quality enterprise data foundation that is super-charged by a consistent set of advanced technology tools, forecasting interfaces, and business rules.

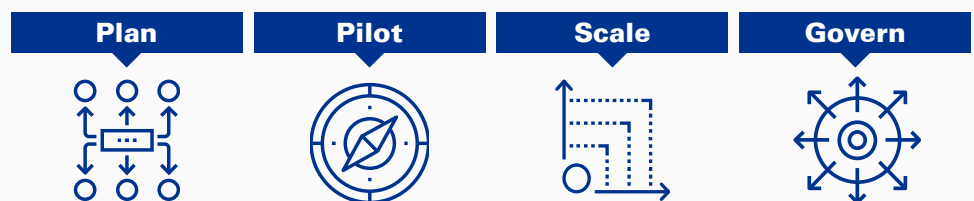
The result? Companywide forecasts that are interdependent from the start, based on consistent, trusted values for things like demand, volume, revenue, and costs. That connectivity generates insights that are consistent across the relevant business units for cohesive decision-making. And it means that forecasts are linked up and down company hierarchies—and continuously match—from SKU-level reports to division-level forecasts all the way through to the C-suite’s dashboard.

Make no mistake, the data, algorithms, AI, and more are not simply window dressing—they are essential components for the engine that drives intelligent forecasts. But if the engine isn’t designed correctly or, even worse, if there are multiple engines that are not connected, then that’s where we continue to see even well-intended intelligent forecasting initiatives stall out and, ultimately, end up in the remote parking lot.

Instead, our teams are working with clients today to deploy fully integrated intelligent forecasting solutions that are built for the increasingly complex road ahead—step by step, matched with each client’s current forecasting capabilities and challenges, and maybe even retooling a few stalled-out legacy efforts along the way.

Most important, these do not require massive project lifecycles that take years to demonstrate results. Successful intelligent forecasting initiatives are highly iterative and typically deliver enhanced new forecasts in at least a few target areas within three to four months—all while establishing an integrated foundation that allows a company to steadily scale and expand the effort across the enterprise at a pace that matches its needs and priorities.

Our recommended roadmap:





Plan

Start with alignment and collaboration




Integrated intelligent forecasting starts with integrated thinking—that means establishing buy-in, ground rules, and a real commitment to collaboration from the start. Without that, a company’s forecasting efforts will continue to feel like the marching band that just keeps breaking off into multiple different blind alleys.

In our experience with successful intelligent forecasting initiatives, we often see the finance team take a leadership role, working closely with representatives from all essential units. Typically, it ultimately comes down to connecting core forecasting disciplines across finance, the customer-facing teams, and operations.

Together, these teams can develop a steering group that defines the strategy and vision for the people, processes, and technologies that will be involved in the pilot—a unified set of rules around things like staff needs, data sources, technology and data science tools, reporting interfaces, key performance drivers, and consistent forecast outputs. These initial guidelines are not intended as permanent guardrails, but the basis of a flexible framework that will allow the company to regularly evaluate and update business rules through ongoing governance as the initiative expands. This steering group can also identify initial forecasts to pilot, and make sure the related staff and resources understand the priorities and are ready to support.

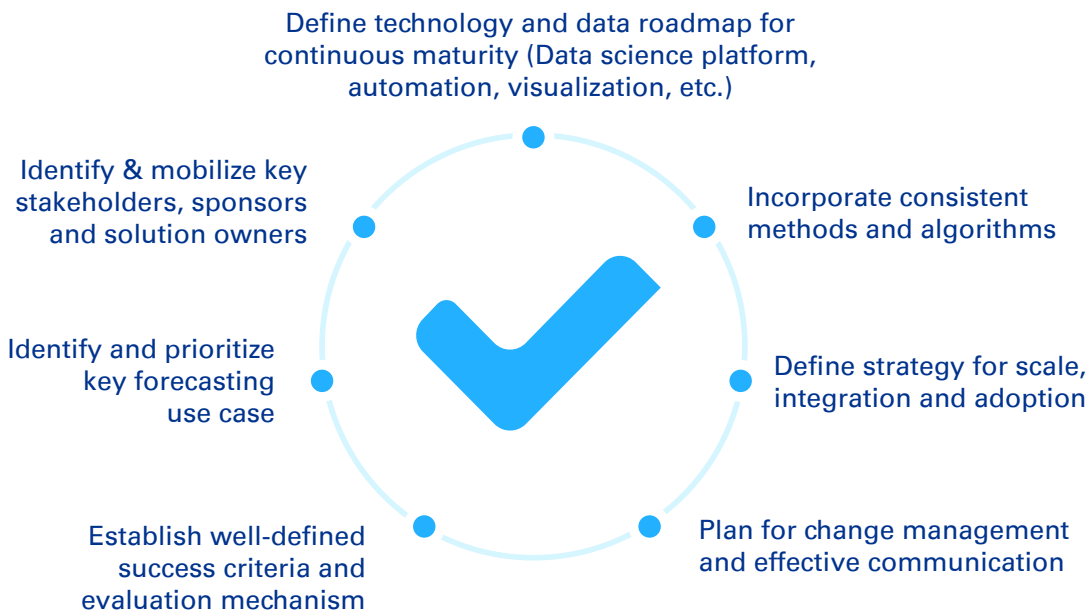


Alignment around data sources and intelligent forecasting technologies from the start is essential. Over time, the goal is to have everyone working from the same core set of data and technologies. And while the types of insights and reporting will be very different, they must all draw from that common data foundation and technology overlay. This enables three fundamental types of forecast outputs and related insights across different business functions and time horizons—at any time, and always consistent:

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Strategic: A high-level and longer-term view—for example, a 12-month revenue forecast that can be updated in real-time
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Tactical: A more medium-term view—for example, marketing promotions over the next three months
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Operational: An on-the-ground near-term view—for example, inventory requirements over the next two weeks

Ultimately, building alignment will require someone to take the reins, and finance is uniquely suited to lead the charge, given its involvement in so much of the data and reporting across the company. But “finance-led” does not mean “finance-dictated.” Intense collaboration among all stakeholders on business rules, data sources, and agreed-to inputs and values will be essential to developing forecasts that are accurate, trusted, and deliver real results.

Key planning considerations to drive success





Pilot

Rapidly establish and field-test capabilities with targeted deployments

Step-by-step, prove-it-as-you-scale execution is intelligent forecasting's mantra. And that's by design. Predictive analytics is still a relatively new area for many companies, and results can vary based on myriad factors: This is not a standardized enterprise software solution that works the same for every company. One of the immediate project goals is to identify just how predictive different data and functions are for each company, and then how those results can be steadily expanded and applied across the company—step by step, proof-point by proof-point.

That's why a core approach of integrated intelligent forecasting is to rapidly develop and prove out capabilities on a small number of pilot forecasts to start. This allows a company to establish an initial framework of the signals, predictive tools, and forecast outputs that perform best for them, which in turn starts to define the roadmap of how to efficiently scale these new forecast capabilities to other relevant parts of the company. It's an approach that also enables a company to move quickly, rapidly demonstrating results with much less up-front heavy lifting than company leaders might expect. On many of our projects, we've helped clients stand up initial intelligent forecasting pilots in a few targeted areas in just three months.

Considerations for selecting the right pilot

While many factors go into deciding where to begin your intelligent forecasting journey, the list below provides some key considerations to help narrow down an initial use case that will get you started on a solid foundation.

Time savings/automation

- What areas of your current planning process are most time-consuming?
- Which processes involve a high amount of manual human effort or spreadsheets?

Organizational support

- Which use case(s) would provide a quick win to get broader stakeholder support?
- Who will be the future owners of the solution; are they supportive?
- Who will be the consumers of the results coming from the solution; can we include them in the project?

Corporate hierarchy

- Which areas of the business (brand, division, business unit, etc.) are most volatile or impacted by external factors?
- What geographic specificity would you need in the forecast (e.g. national, international, regions)?
- Do individual customers and/or channels display unique behaviors that should be forecasted separately?

Data availability/quality

- What is the availability of accurate data at various levels? (in many cases 3–5 years historical data is needed)
- Note that data does not need to be perfect or in one place, as it can be consolidated, adjusted, and corrected for the pilot; it just needs to be available

Trust and adoption

- Which areas of the P&L (revenue, margin, expenses, SG&A, etc.) get the most attention from leadership?
- Which products, offerings, or channels have the biggest impact on forecast accuracy?
- Do any existing areas allow for too much human bias in the forecast?
- Is there a clear definition and timeline for measuring success?

Forecast timing

- What time interval (e.g. daily, monthly, quarterly) is required to make business decisions?
- What time horizon (e.g. 12 months out, quarter to close, etc.) would be most useful?



Scale and integrate

Steadily expand across the enterprise

The pilot phase is about much more than just showing off one or two new forecasts. It's about proving out some initial use cases that can help establish the first few bricks in an intelligent forecasting foundation that can be steadily built upon with additional use cases and forecast wins in other areas. Over time, this foundation allows forecasts to be increasingly integrated as things scale up, and always underpinned by the agreed-upon data, tech, and business rules established in the Plan phase.

Here again, this scale-up will be an iterative process. Getting the data and tech "perfect" from the start is not the intent. By design, intelligent forecasting is an ongoing opportunity to continually evolve and upgrade forecast processes—to keep them "learning," with each new enhancement shared across the business teams and the increasingly interconnected forecasts.

Key characteristics of successful scaling:

- Expanding from the pilot both horizontally (different business units and product lines, for example) and vertically (different levels of company hierarchy), as well as extending to entirely different business functions
- Maintaining data availability, especially as the number of models in use grows, to ensure that the increasingly sophisticated approaches have the necessary internal inputs and external signals they require
- Using forecast outputs and scenario planning consistently, via appropriate reporting and user interfaces
- Steadily integrating the connections between forecasts, with each new use case built into the prior enhanced forecasts, when logical, so that results are consistent across the full intelligent forecasting landscape
- Deploying each new forecast update on the same standard data science and visualization platforms for a consistent user experience.



Just how quickly intelligent forecasting expands will be unique to each company's opportunities and bandwidth.



Operationalizing this will require thoroughly field-testing each new use case after it has been developed. Models tend to act a bit differently when they're rolled out into the real world, full of real and changing data. Each use case should be tested for a period of time in production, with results fully evaluated before it is formally integrated it into the operating model.

In time, these integrated forecasts will deliver valuable and trusted new insights for the relevant business units based on their needs and timelines. For example, strategic forecasts can leverage the common data and modeling tools to provide guidance on macros like long-term investment scenarios (finance), growth opportunities (sales), and asset planning (supply chain) or at the operational level, weekly cash flow (finance), orders (sales), and fulfillment and line production (supply chain).

Just how quickly integrated intelligent forecasting expands will be unique to each company's opportunities and bandwidth. Finance's leadership during this larger rollout will be critical, especially in helping to identify and prioritize the hierarchy of forecasts that will deliver the most business value quickly.

Considerations for selecting the right pilot

While many factors go into deciding where to begin your intelligent forecasting journey, the list below provides some key considerations to help narrow down an initial use case that will get you started on a solid foundation.



Finance	— 12-Month sales & Margin forecasting	— Periodic sales by BU	— Cash forecasting
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Sales	— Pricing strategy — Volume	— Customer/Geography plans	— Weekly orders forecasting
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Supply chain	— Inventory optimization	— Production planning	— Line production — Fulfillment
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Govern

Establish oversight and foster ongoing collaboration and growth

Alignment on business rules across the company doesn't stop with the initial, high-level buy-in for a pilot. Indeed, ongoing governance is every bit as important as getting the data and technology right. To reiterate: intelligent forecasting is not a one-time setup, but is powered by a continuing, collaborative governance process that will regularly monitor and update the underlying business rules based on the rich feedback loop that is built in from the start. For example, enhanced new insights from initial forecasting pilots or the potential to mine dynamic new data sources will allow the governance team to upgrade the business rules and continue to expand overall goals—to regularly “think bigger” as things evolve.

A key focus will be regular “health checkups” that keep an eye on data integrity and ensure that the forecasting models continue to learn and expand insights. Forecast accuracy should be monitored regularly over time to identify models that may need to be updated, and most forecasts should be retrained annually. And beyond just the continued performance of each individual model and forecast, the governance team will want to monitor how they are connected to one another and being used by different stakeholders, making adjustments where needed. This will help with solution adoption and ensure that the enhanced new forecasts and insights are fully leveraged and properly used.

One of the best ways we have seen companies successfully nurture integrated intelligent forecasting across the company is by establishing a center of excellence (CoE) or a similar cross-functional entity that manages training and fosters ongoing innovation. A CoE is most effective when it's a company-directed effort, with representatives from the business working

alongside technical and data teams to drive the intake, evaluation, and prioritization of future models. The business teams will own the business requirements, forecasting capabilities, and roadmap, while IT teams can own technology, data availability, and solution maintenance. Ongoing collaboration is vital for success and value. If needed, service partners can help with some of the more specialized CoE roles, such as emerging new analytics tools and data sources, depending on the company's in-house expertise.

Other key considerations for successful governance:

- Ensure data, technologies, and forecast outputs remain consistent—for example, adding new data sources or predictive tools will need full governance review, not individual “let's try this!” initiatives.
- Establish a clear roadmap for extending to other forecasts and functions, based on agreed-to business impact and value.
- Monitor data availability and quality on a regular basis.
- Ensure architecture scalability and its ability to unify the underlying technology framework.
- Continue to expand automation and additional AI.
- Establish change management processes and expectations as forecasts migrate from old to new to support the organization and build trust in the data.
- Quantify success measurements—for example, staff time, supply chain efficiencies, and revenue results—that tie directly to the bottom line.

Why KPMG

KPMG has worked with a wide variety of clients to transform their business planning and forecasting across multiple functions and time horizons. By bringing deep digital transformation expertise and a signature suite of intelligent forecasting services that spans project architecture, data and signals, and world-class data science and business talent, KPMG delivers leading digital solutions that unlock lasting value.

Let's start a conversation.



Brett Benner
Partner,
Finance Transformation



Pete Irwin
Principal, Lighthouse,
Data Analytics & AI

Contact us



Brett Benner
Partner, Finance Transformation
267-256-2059
bbenner@kpmg.com



Peter Irwin
Principal, Lighthouse Data Analytics & AI
212-872-7805
pirwin@kpmg.com



Upendra Kendurkar
Director, Lighthouse Data Analytics & AI
469-288-6186
ukendurkar@kpmg.com



Colleen Schohl
Director, Finance Transformation
440-655-6258
cschohl@kpmg.com



Shehtaz Zaman
Director, Finance Transformation
212-954-6295
sszaman@kpmg.com

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