

Elevating Excel as an Enterprise Solution

Dynamic Enterprise Forecasting

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Most large organizations have a department of Forecasters who perform Strategic Long Range and Operational Forecasting using Excel®-based models, due to the complexity and fluidity of their model requirements. Scarsin defines the space these Forecasters work in as the 'Dynamic Enterprise Forecasting' space.



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The Challenges of Excel in Global Organizations for Operational & Strategic Long Range Forecasters

Many large organizations have adopted enterprise solutions for the highly visible functions of Corporate Performance Management (CPM), Sales & Operations Planning (S&OP), and Advanced Analytics. The vendors that provide the enterprise solutions for these areas are well known and established. But even with the implementation of these enterprise solutions, there is still a functional group that has remained largely untouched by the advancements of technology and software for the last 20 years. This group performs Operational/Tactical and Strategic Long Range Forecasting and continues to use a tried and true technology, Microsoft Excel, which for all its strengths has its fair share of challenges as well.

Defining Dynamic Enterprise Forecasting

Forecasters who do Operational and Strategic Long Range Forecasting fall into a functional area that we call *Dynamic Enterprise Forecasting*. These Forecasters tend to fall outside of the other functional areas that use a myriad of well-known enterprise solutions. They focus specifically on revenue generation and rely on highly complex, customized models that are updated regularly as new data sources and influencers are identified to produce their forecasts. They work almost exclusively in Excel because it is a powerful tool that they are deeply familiar with and gives them complete control over their models. Trying to port these models over to other enterprise solutions is just not practical in terms of functionality, training, control, and time.

These Operational and Strategic Long Range Forecasters are responsible for determining what might happen in the future based on historical data combined with team inputs about growth drivers that help determine their future projections for anywhere from one year to 25 years.

Dynamic Enterprise Forecasting

Forecasters focus on revenue generation, relying on highly complex, customized models in Microsoft Excel.

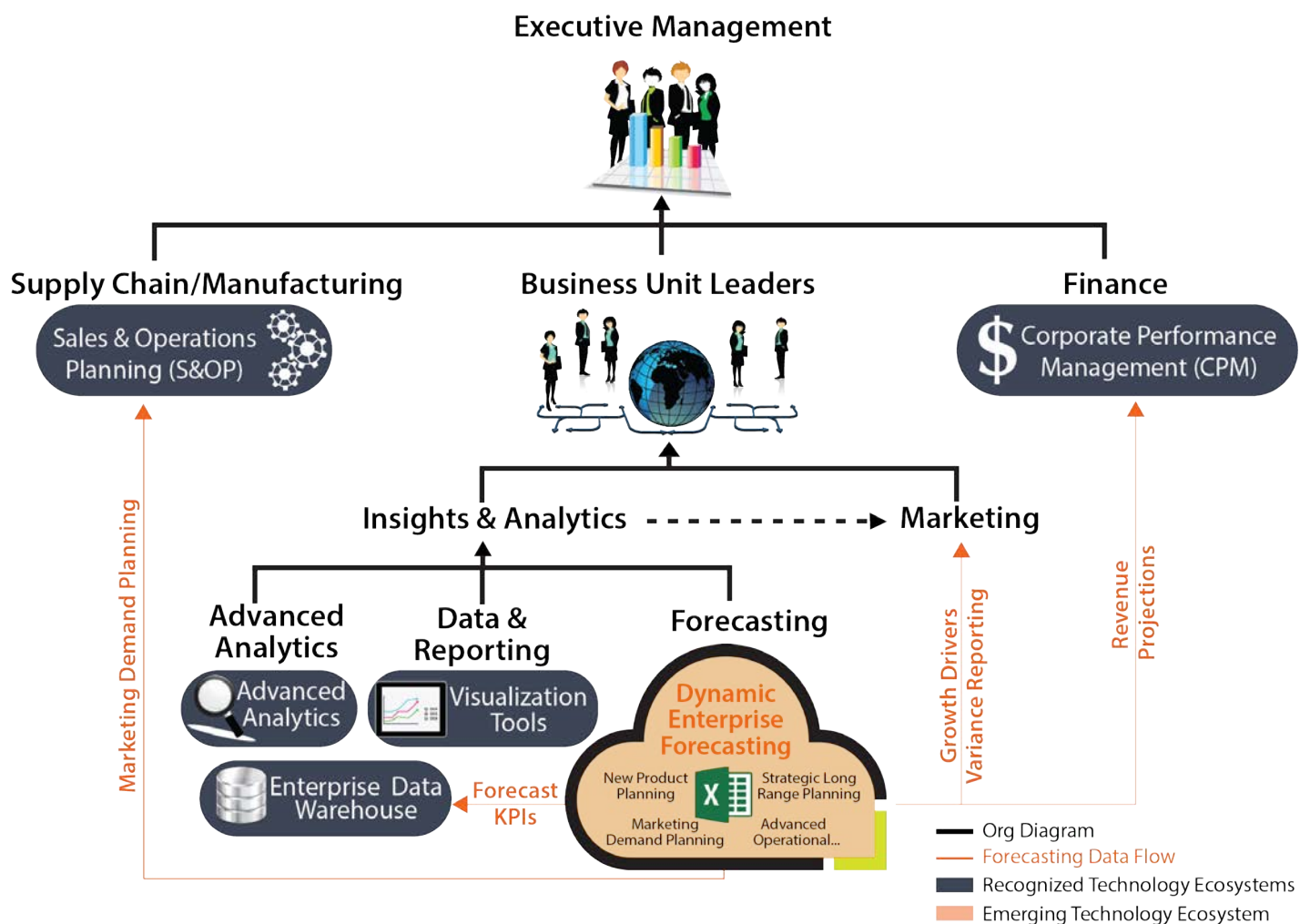
For example, if you are forecasting how a new compact car model might sell over the next 10 years, you could incorporate historical third-party sales data for all compact cars, historical and predictive data on gas prices (which could influence the sales of compact cars), factors for new technology that might be incorporated into the new car thereby influencing consumer preferences, and so forth to try to determine the potential revenue projections. This will then help quantify the ROI based on all the investments.

This type of Long Range Forecasting is typically called New Product Planning (NPP). Other Forecasters in this department might also be tracking the revenue potential of cars on a more Operational basis (monthly for the next two years) on the market to determine when to retire a car or update the style of the car to rejuvenate sales.



Dynamic Enterprise Forecasting within Organizations

The following diagram provides an overview of how many Fortune 1000 companies are structured, including where Dynamic Enterprise Forecasting fits into the organization.



The Dynamic Enterprise Forecasting team customarily functions within most Insights and Analytics departments to provide their Marketing or Business Unit leadership internal customers with revenue generating forecasting insights. Their forecasting processes supply critical information to decision makers and can also feed into other systems, such as Operational Revenue Projections, Strategic Long Range Planning, New Product Planning, and Marketing Demand Planning.

For example, Advanced Operational Forecasters that function in the Dynamic Enterprise Forecasting space design market-based models in Excel that allow them to provide Revenue generating forecasts to the organization. The Advanced Operational Forecasters generally load weekly or monthly data into complex, custom models and combine statistical projections or machine learning along with event-driven adjustments based on their expert knowledge of upcoming events and primary market research. These events are highly customized to the business dynamics and allow the Forecaster to quantify competitive threats to the business as well as estimated ROI of investments made by the Business Unit.

As depicted in the diagram on the previous page, Revenue projections for the Budget, as well as Latest Estimates (LEs), are passed to the Corporate Performance Management (CPM) system so they can be consolidated into Profit and Loss (P&L) summaries for the Business Unit and the Enterprise Data Warehouse (EDW) for management reporting purposes.

Why Excel is the *Imperfect Perfect Solution*

In large global organizations, there are typically many Forecasters working away in the Dynamic Enterprise Forecasting space. Although their Excel-based models can be very effective even though they are extremely complex, there are many challenges and inefficiencies that they face on a regular basis when these models are used on an Enterprise scale. This occurs regardless of the industry and falls into two distinct categories:

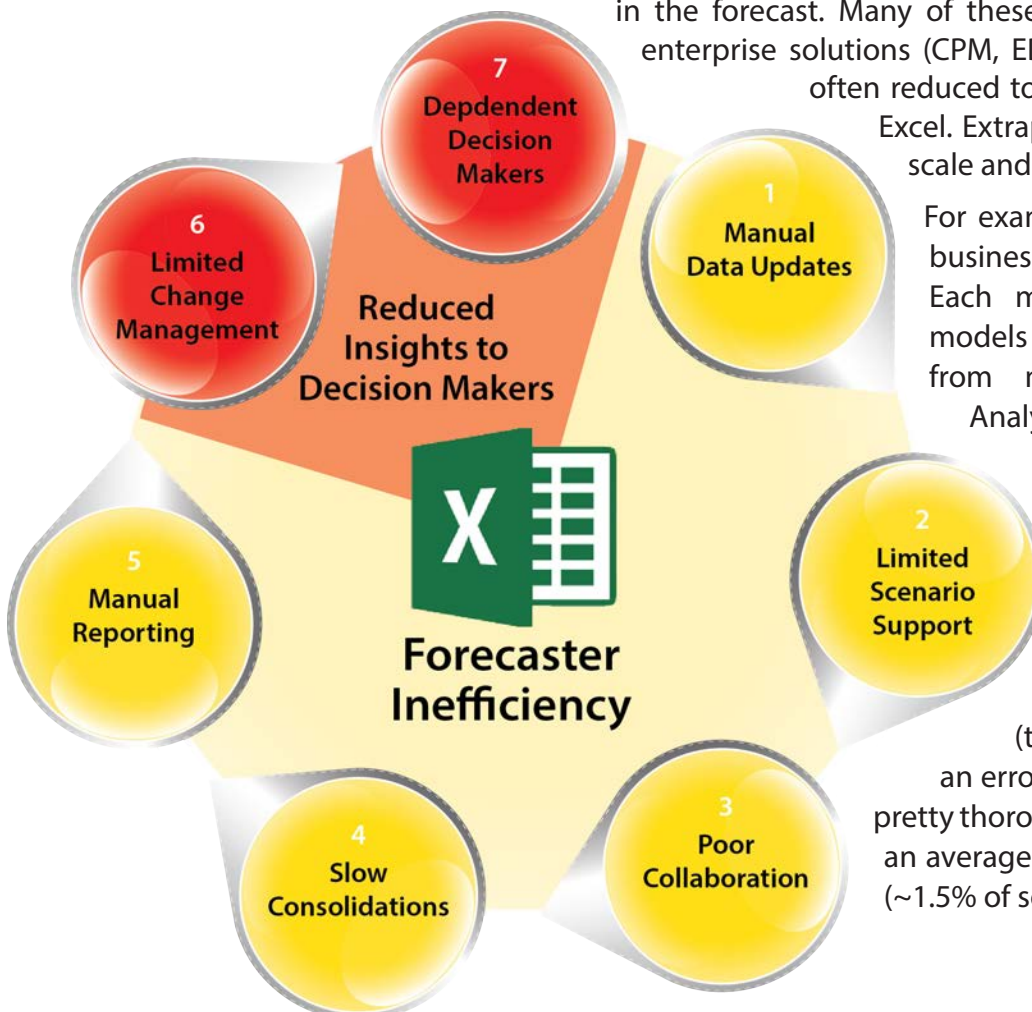
- Forecaster Inefficiency
- Reduced Insights to Decision Makers

Both sets of challenges can have a negative impact to the organization, but usually in different scales. Forecaster inefficiency can often go unnoticed at higher levels of the organization or, even worse, might just be considered a by-product of what the job entails. In the end, even though deadlines are met, there is a silent opportunity cost associated with inefficient Forecasters that can impact business performance.

This opportunity cost comes from Forecasters allocating too much time to manual data preparation tasks and reporting requirements at the expense of Insight Generation. It takes time to identify insights that highlight business opportunities and threats. When the time available to identify these business opportunities is shortened, so too are the insights that flow to management. Most organizations that perform Strategic Long Range and Operational Forecasting in Excel face most, if not all, of the Forecaster inefficiencies listed below:

- **Manual Data Updates.** Most models leverage data refreshes from internal and external sources to update the key trends in the forecast. Many of these data sources reside in other enterprise solutions (CPM, EDW, etc.) but the Forecaster is often reduced to cutting and pasting data into Excel. Extrapolate this process on a global scale and the problem becomes clear.

For example, one of our clients had 7 business units supporting 30 countries. Each month, over 200 Excel-based models needed manual updating from multiple data sources. The Analytics team estimated that each Forecaster spent about 2 days each month performing the manual loading and quality checking of the data. So 10% of the Forecasting team's resources were being consumed on a low value task (that could have high impact if an error slipped through). Even with a pretty thorough quality check, they still had an average error rate of 3 events a month (~1.5% of solutions).



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- **Manual Reporting.** Most communication to management does not occur using the actual Excel spreadsheet. Key elements of the story are summarized to PowerPoint for presentations. Unfortunately, this process is often very manual and can consume significant time to produce, so the responsiveness to management is a combination of running the analysis in the model and then updating the relevant PowerPoint slides. As forecasting cycles are wrapping up, the amount of effort to produce reports can go up significantly. This manual reporting can also lead to two other organizational impacts. An increased burden on business unit leadership in reviewing PowerPoint reports of all shapes and sizes from regional teams. The second is a delay in the responsiveness of consolidation input changes. Management always makes changes to bottom-up forecasts, so the question then arises, how quickly can a global Forecast team make the changes and update the reports to management?
- **Limited Scenario Support.** Forecasters are often tasked with simultaneously managing a number of scenarios. Quantifying the variance across these scenarios helps inform management on the sensitivity of various events or investments. The challenge Forecasters face in an Excel-only environment is that they often have to manage these scenarios across multiple copies of the original workbook. This makes scenario generation challenging and less scalable. Most of the time is spent managing the workbooks and manually consolidating the data once completed.
- **Slow Consolidations.** Many of the forecasting processes require hierarchical consolidations. Countries to Regional Business Units to Global Business Units. As a result, there are iterative requirements to consolidate the data for management. In an Excel-only world this process can be slow, cumbersome, and potentially error prone.

- **Poor Collaboration.** Many forecasting processes require a level of consensus or alignment on the key assumptions of the model. Leveraging Excel-only solutions makes this collaboration process challenging. Forecasters often end up working in different versions of the model and therefore can become side tracked on what is causing variance in forecasting results.

The Forecaster inefficiencies have a ripple effect to the Decision Makers, who rely on the input from the Forecasters to drive key business decisions:

- **Limited Change Management.** Decision Makers are often the group in an organization who identify relevant market dynamics or competitive intelligence. One of the challenges on a global scale is that when those ideas are identified, the change management to add them to the modeling environments on a global scale prevents them from being implemented in a timely manner, if at all. Then the business is stuck in the situation where a key dynamic is not quantified in the corporate forecasting.
- **Dependent Decision Makers.** The second area of impact comes from the highly dependent relationship between management questions and analyst support. Because so much of the value of the modeling exercise is left in spreadsheets, management is forced into a highly dependent relationship. They have to wait hours or even days to receive information about their business questions.

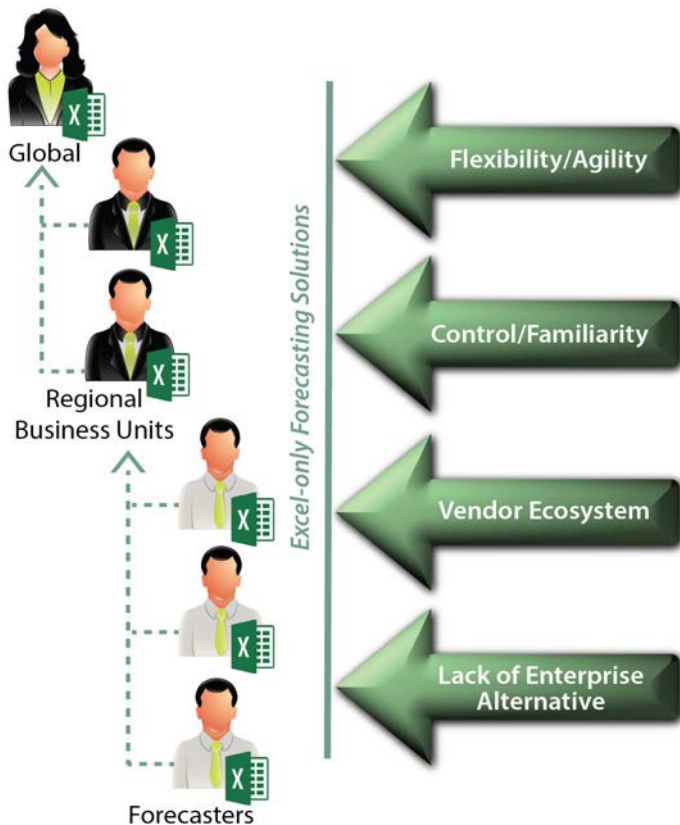
Forecaster inefficiencies have a *ripple effect* to the Decision Makers, who rely on the input from the Forecasters to drive key business decisions.

Making Excel the *Perfect Perfect* Solution

Given the list of challenges for Excel-based forecasting processes, it begs one to ask the question: Why would teams stick with an Excel-only solution? Particularly when they are aware of the challenges it brings.

There are a number of 'Restraining Forces' leading teams to choose the status quo use of Excel-only solutions, even in a world of Enterprise-class solutions:

- **Flexibility/Agility.** Very few tools have become as ubiquitous as Excel. Forecasters have become extremely adept in designing flexible models.
- **Control/Familiarity.** Forecasters, by their very nature, are highly analytical. As a result, they tend to gravitate to more familiar technologies that do not impact the design and control they have for the solution.



- **Vendor Ecosystem.** There is no shortage of consulting or professional services firms in the market that have built successful businesses selling "bespoke" (customized) models based in Excel to clients. Adopting new technologies can be perceived as a threat to these established vendors, so they tend to go with the status quo as a trusted advisor.
- **Lack of Enterprise Alternative.** As we discussed in the opening of this paper, there are many other Enterprise technologies in the market. Many of those ecosystems (CPM, S&OP, etc.) or Gartner quadrants cannot meet the complex requirements of these business unit Forecasters. CPM, for example, sounds like a potential support for this process since some CPM solutions leverage Excel as part of the framework. However, they are designed to model less complex accounting-based flows. The mathematical complexity and number of input cells are dramatically smaller within the CPM-deployed solutions. Because this is not a recognized ecosystem or quadrant, there are fewer companies that have *purpose built* a solution for these Forecasters.

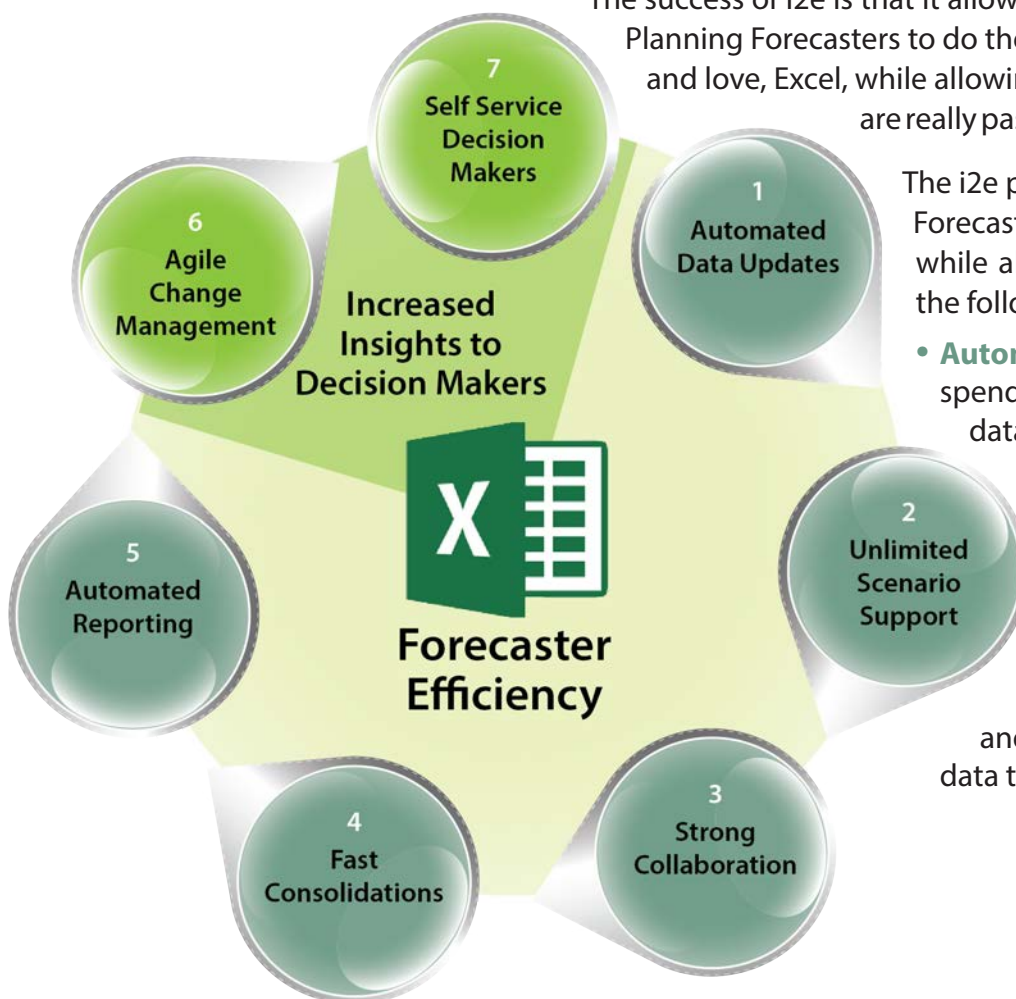
The i2e Forecasting & Insights Platform: Elevating Excel in an Enterprise Solution

As a person who experienced a successful career in the Operational and Long Range Planning Forecasting fields, even I have spent hours and hours mindlessly cutting and pasting thousands of rows of data into a master spreadsheet so I could update and run my models to deliver my projections. I thought that there had to be a better way to leverage the power of Excel, but ease many of the challenges associated with it. With over 10 years of development under our belt and Fortune 1000 global organizations using it, the i2e Insights and Forecasting Platform addresses many of the greatest pain points associated with Excel for Forecasters.

The success of i2e is that it allows Operational and Long Range Planning Forecasters to do their job with the tool they know and love, Excel, while allowing them to focus on what they are really passionate about, the forecasting!

The i2e platform wraps around Excel so Forecasters can do what they do best, while also providing Forecasters with the following benefits:

- **Automated Data Updates.** Don't spend hours cutting and pasting data from one file to another. i2e not only provides automated data integration and management, but does so in the context of your business objectives by defining the data in such a way that users can quickly and easily identify and access the data they need when they need it.



- **Unlimited Scenario Support.** Create as many Scenarios as you desire. Even compare Scenarios to understand the differences between scenarios.
- **Strong Collaboration.** Regardless of whether your Forecasters are centralized or decentralized, one of i2e's core strengths is its built-in collaboration, which includes submitting Forecasts for consolidation, Report design, Scenario creation, and Model development.
- **Fast Consolidations.** Automate the process of performing roll-up consolidations so decision makers can get the 'big picture' and then 'drill down' into the supporting data.
- **Automated Reporting.** Update reports with the click of a button, reducing the time that is customarily required when last-minute updates are made to PowerPoint reports.
- **Agile Change Management.** In i2e, many forecast solutions can be developed from a single Model (Excel workbook), so change management is now centralized for efficiency. All Forecasters get simultaneous updates.
- **Self Service Decision Makers.** Web/Mobile Dashboards give Decision Makers the ability to visually view the data (no more having to just look at the Excel spreadsheets) and drill-down into the data, providing new and faster insights for better business decisions.

There are several reasons why Operational and Strategic Long Range Forecasters have continued to use Excel for the last 20 years, because it works (mostly)! The i2e Insights and Forecasting Platform embodies everything Forecasters love about Excel and mitigates its challenges, so Forecasters can spend their time *doing the job of forecasting*.



Paul Minshull

Founder & CEO

Scarsin Corporation

Paul Minshull is founder and CEO of Scarsin, a software organization dedicated to the development of a best practice platform “i2e” (Integrated Insight Environment) for global forecasting teams. Having worked in the pharmaceutical industry for 15+ years, Paul recognized the need for a more cost effective, agile platform that could provide quick business insights to users. To meet this growing need, Paul founded Scarsin in 2002 and spearheaded the development of i2e, an enterprise-class Forecasting solution incorporating data integration and automated reporting, leveraging Microsoft Office®.

i2e - Elevating Excel as an Enterprise Solution

Contact us today at
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the **i2e Forecasting & Insights Platform.**

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