Easy*Plan*™

Using SAS Intelligent Planning

What is it?

SAS® Intelligent Planning is one of the main solutions within CT Global's **Easy*Plan*™**. It is a modular suite of products that enable S&OP and Integrated Business Planning (IBP) process. It includes advanced analytics for both demand and supply forecasting, demand-supply planning and consensus management, new product forecasting, supply (inventory) optimization, and advanced dashboards and reporting including SAS's Visual Analytics. These solutions include award winning access engines and data quality to manage your source data to ensure dependable results.

Forecast Accuracy is the key to supply chain success. Poor forecast accuracy (both on the demand and supply side) leads to over/under supply, obsolescence, production snafu's, excessive transportation expenses, and poor marketing decisions. While you hear a lot about AI and ML (Artificial Intelligence and Machine Learning), SAS actually has deployed these concepts in thousands of companies. Patents for AI and ML in Forecasting demand and supply include **automation,** which allows clients to deploy advanced models (such as causal models) without statistical knowledge. This combined with **scalability,** allows millions of forecast combinations to be deployed quickly and seamlessly with a greater degree of accuracy providing less human intervention for demand/supply overrides – leading to greater trust and **productivity.** Furthermore, scenario planning (what -if) on both supply and demand provides planning you need to better asset utilization at a lower cost and higher service level.

Financial Planning integrates and deploys, with workflow, the Demand and Supply Plans in a friendly **workbench environment.** This allows demand planners and supply planners to coordinate their efforts to enable S&OP and/or IBP processes. Demand - Supply plans can be expressed with different unit of measures, be converted to financial plans in different currencies, provide comprehensive reconciliations, and integrate profit and revenue planning as well as price optimization.

Inventory (Supply) and Network Optimization uses SAS's award-winning Operations Research (OR) to ensure optimized supply (Inventory) based on input parameters and constraints such as forecast variance, lead time, various costs, shelf life, etc. Included is what-if analysis and replenishment. Additionally, network optimization can be enabled to ensure optimized flows of product through a multi echelon supply chain.

Visual Analytics provides the optional reporting portal for supply chain exceptions, executive dashboards, alerts, competitive analysis, risk assessment and much more.

Assortment Planning tailor and plan your assortment mix based on relationships between customers, products and locations. Design ideal plans that maximize sales while minimizing costs and increasing company performance.

QUICK FACTS

> Demand-Supply Analytics

> Data Access and Quality

> Organizational Readiness

> Automated AI and ML models*

> True Causal Models

> 'Price'/cost Elasticity w/ scenario's

> Multi Echelon Supply and Network Optimization

> Demand-Supply Planning Using Consensus Workbench

> Financial and Profit Planning

Embedded AI/Machine Learning

> High Performance Forecasting using advanced AI/ML Models: Naive, ESM, UCM, ARIMAX, NN and more

> Data Mining using multiple regression type, ANOVA, Clustering

> Descriptive statistics, text analytics

> Integrate 'R', Python, etc.

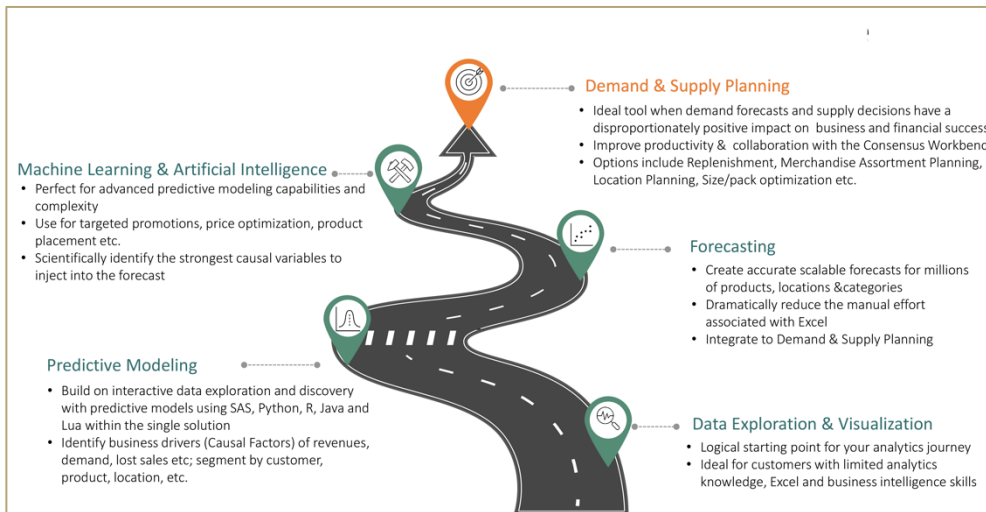# When is SAS Intelligent Planning the Best Option for Your Analytics Needs?

SAS® Intelligent Planning is the ideal tool when demand and supply forecasts and decisions, such as replenishment, pricing and promotion, have a disproportionately positive impact on business and financial success. Accurate forecasts and demand plans increase revenues and improve downstream decisions, which in turn impact inventory levels and availability. Even a 1% increase in forecast accuracy can yield a significant ROI. A SAS forecasting and collaboration process also provides much needed infrastructure and automation, which reduces costs and increases effectiveness.

Do these benefits require an implementation of SAS Intelligent Planning? Ultimately that is the goal when you want to impact plans and decisions across the demand and supply chains. It is desirable when business requirements and financial performance demand it. It is feasible when the company has the analytics maturity to take on new challenges or will build the needed maturity during a phased implementation.

Some companies, however, may not be ready for full SAS Intelligent Planning. In this case, Intelligent Planning is the final step in the Demand and Supply Planning Road Map. It follows a carefully structured plan to provide business and financial value each step of the way *without* stepping out of bounds with analytics maturity. For example, for a company with little skill or history of data exploration, it is prudent to start the journey with SAS Visual Analytics. As capability ramps up the company will continue along the Business Value Road Map adding analytics value and maturity along the way. Depending on need and capability, some may choose to start with statistics, forecasting or machine learning and data mining. Or they may go straight to Intelligent Planning. Whatever your business needs and potential, whatever analytics maturity you desire, and whatever investment you wish to make, CT Global has the solution for you and the journey to your success.

The Power of the Partner

CT Global Solutions is a strategic SAS partner that helps turn your data into profits. A Gold SAS alliance partner for 18 years, CT Global has demonstrated domain expertise in analytics, cost and profit management, financial management, demand planning and decision optimization. CT Global puts SAS to work and amplifies its value to MAKE EVERY DECISION COUNT.

Demand & Supply Planning
- Ideal tool when demand forecasts and supply decisions have a disproportionately positive impact on business and financial success
- Improve productivity & collaboration with the Consensus Workbench
- Options include Replenishment, Merchandise Assortment Planning, Location Planning, Size/pack optimization etc.

Machine Learning & Artificial Intelligence
- Perfect for advanced predictive modeling capabilities and complexity
- Use for targeted promotions, price optimization, product placement etc.
- Scientifically identify the strongest causal variables to inject into the forecast

Forecasting
- Create accurate scalable forecasts for millions of products, locations &categories
- Dramatically reduce the manual effort associated with Excel
- Integrate to Demand & Supply Planning

Predictive Modeling
- Build on interactive data exploration and discovery with predictive models using SAS, Python, R, Java and Lua within the single solution
- Identify business drivers (Causal Factors) of revenues, demand, lost sales etc; segment by customer, product, location, etc.

Data Exploration & Visualization
- Logical starting point for your analytics journey
- Ideal for customers with limited analytics knowledge, Excel and business intelligence skills

SAS and CT Quick Facts

> Financially Stable for 40 years

> Proven and Working

> Automated AI and ML

> Highly Tailorable using non-IT

> Implementation alternatives

> REAL Analytics the Differentiator

Who uses the proposed solution?

> Over 8,000 clients use SAS analytics

> 95% of fortune 1,000 customers reply on SAS analytics for forecasting to better their supply chain results

> Customers include Aerospace, Manufacturing, Transportation, CPG, Retail, Telecommunications, Government, Logistics, Medical Supply, hospitals & more!

To talk with a CT Global about Demand Planning, please contact us at **info@ctglobalsolutions.com**

§.sas Reseller

§.sas Service Provider

§.sas Gold Partner