

# AI + Human Intelligence: Unlocking the Next Era of Demand Forecasting

The synergy that transforms planning from reactive to strategic



Founded in 2018, Pecan helps business intelligence, operations, supply chain and revenue teams predict mission-critical outcomes.

14 Trillion + records

Processed daily

---

15 Countries

Countries our customers are in

---

117\$ Million

Venture capital raised

---

Our Investors



# AI Demand Forecasting

- What's the difference between a **Stat Forecast and AI Forecast**?
- What is the **gain / uplift from AI forecasting**?
- How much **time, effort and resources** requires an implementation of **AI forecasting** system?



**AI**  
in Demand  
Forecasting

# What is AI?

# What is AI?

If you ask ChatGPT  $\Rightarrow$  AI (Artificial Intelligence) is the field of computer science focused on creating **systems that can perform tasks that normally require human intelligence.**

# What is AI?

AI Systems are typically build with **Machine Learning models** (e.g., LLMs, Tree-Based Models like XGBoost, Deep Learning, etc.,)

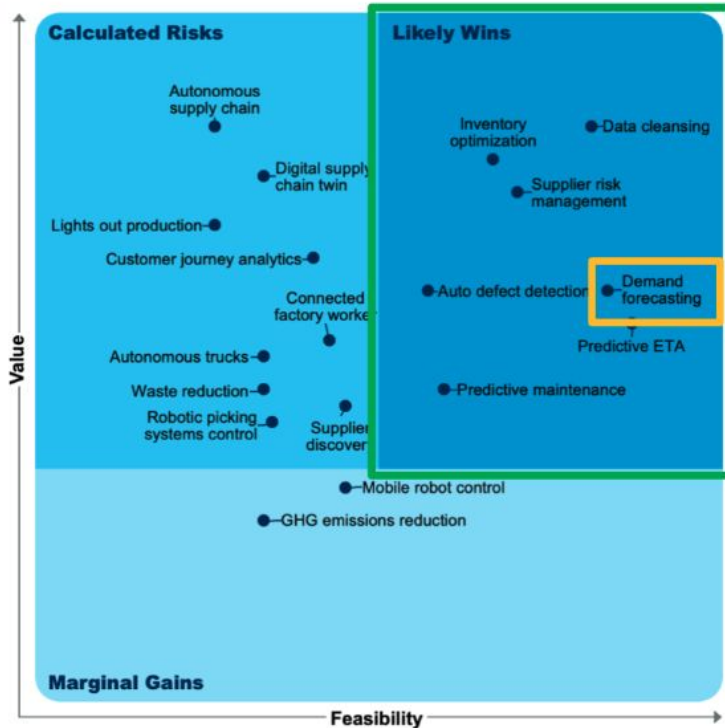
**ML Models “learn” like humans** - observe historical examples to deduce/**predict the future**

# What is AI?

**Large language models** (LLMs) try to predict the best textual answer to a “prompt”

**Predictive AI** (e.g., neural network) try to predict the best answer to a Classification or Numeric question

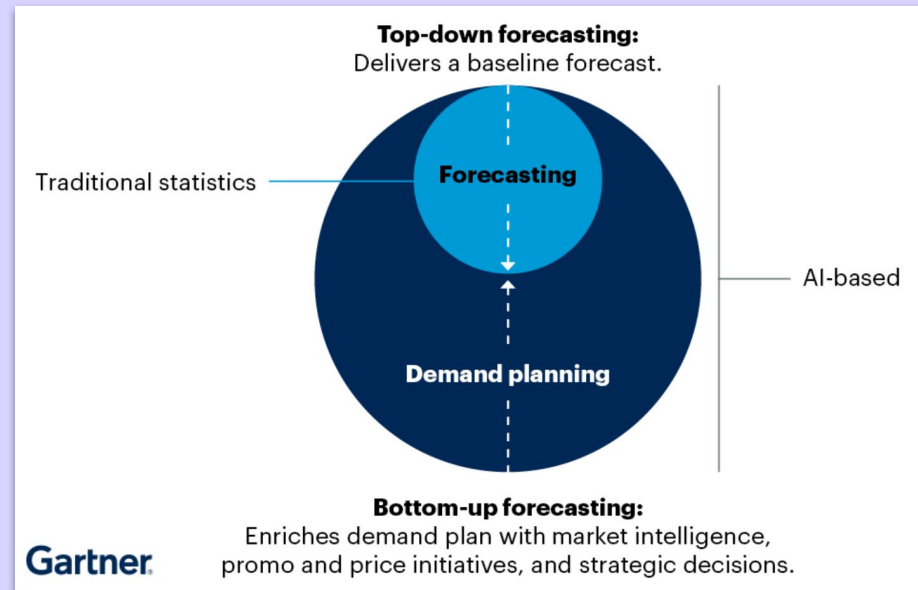
# Gartner Research: AI Use-Case Comparison for Supply Chain



Use Case	Value	Feasibility
<b>Demand Forecasting</b> Data and predictive analytics are used to create a more accurate, short-term granular demand forecast to support improved customer service and inventory location and allocation decisions.	Leverages current, short-term demand signals to highly contribute to service-level improvement. Efficiency gains and revenue growth are most dependent on executing the resulting demand forecast.	Culturally, organizations realize the importance of sensing demand. Technology solutions are available. Data availability varies significantly by industry and maturity level.

# Planning in an Unpredictable World

- Market volatility and rapid change make **accurate forecasting harder** than ever
- Traditional tools struggle with complexity and speed
- The opportunity lies in **combining AI's scale and speed with planners'** context and judgment



# AI Demand Forecasting

- What's the difference between a Stat Forecast and AI Forecast?
- What is the **gain / uplift from AI forecasting**?
- How much **time, effort and resources** requires an implementation of AI forecasting system?



AI  
in Demand  
Forecasting

## Trusted by Industry Leaders

 kenvue

MARS

NUCOR



BOSTON  
PROPER

goodfood 

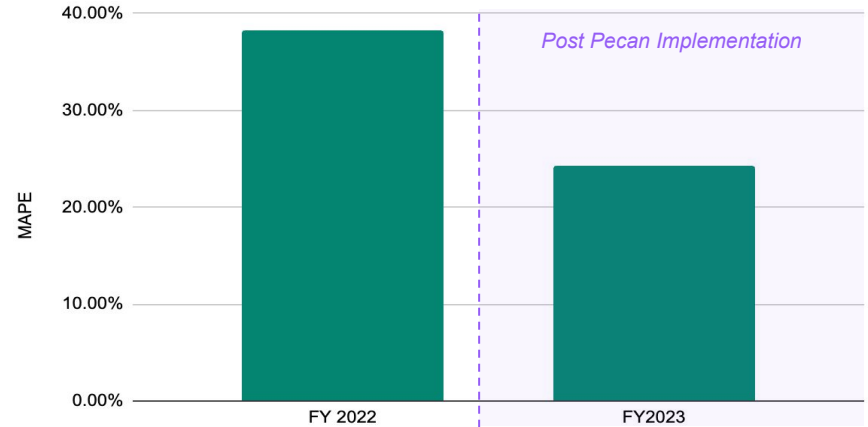
"Pecan's Predictive GenAI framework is truly a game changer in building accurate, reliable and explainable forecasts."

Neil Ackerman

Head, Worldwide Innovation and Disruption, Global  
Consumer Supply Chain



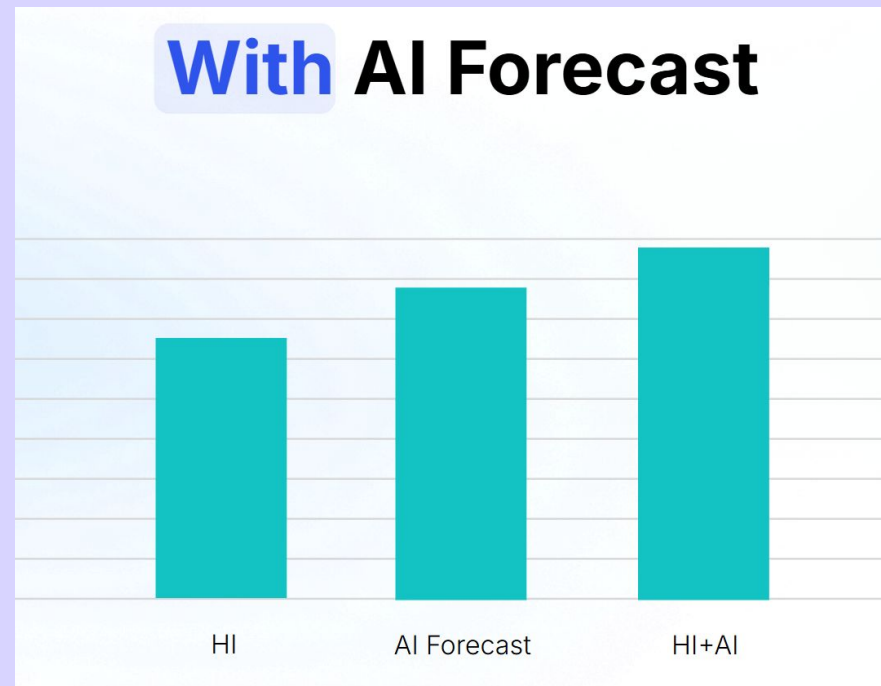
## Mean Absolute Percentage Error (MAPE)



**Kenvue, the world's largest consumer health company by revenue, achieved 36% Reduction in Forecast Error** drove a dramatic over and understock reduction

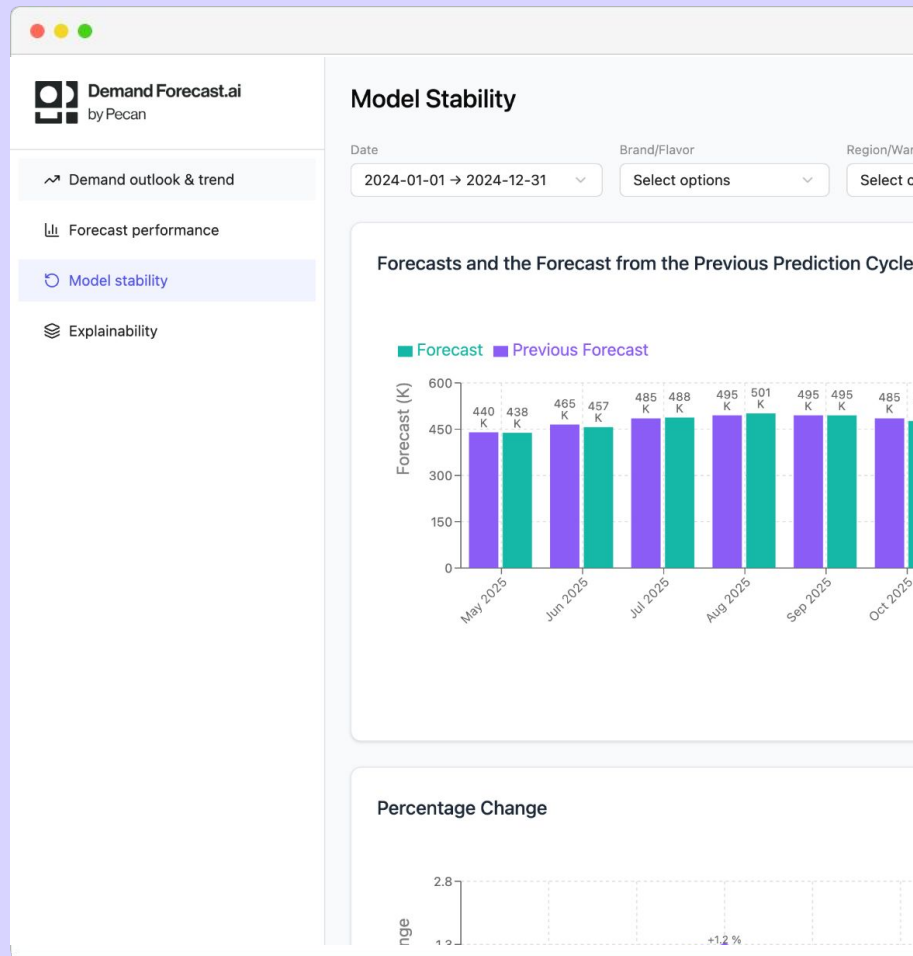
## Combining Intelligence for Better Forecasts

- **AI models process massive, complex data sets** reducing the need for assumption-based predictions
- Planners refine predictions with real-world insights
- **Blended intelligence** consistently outperforms AI-only or manual forecasts
- Turns data complexity into **clear, actions** (not insights)



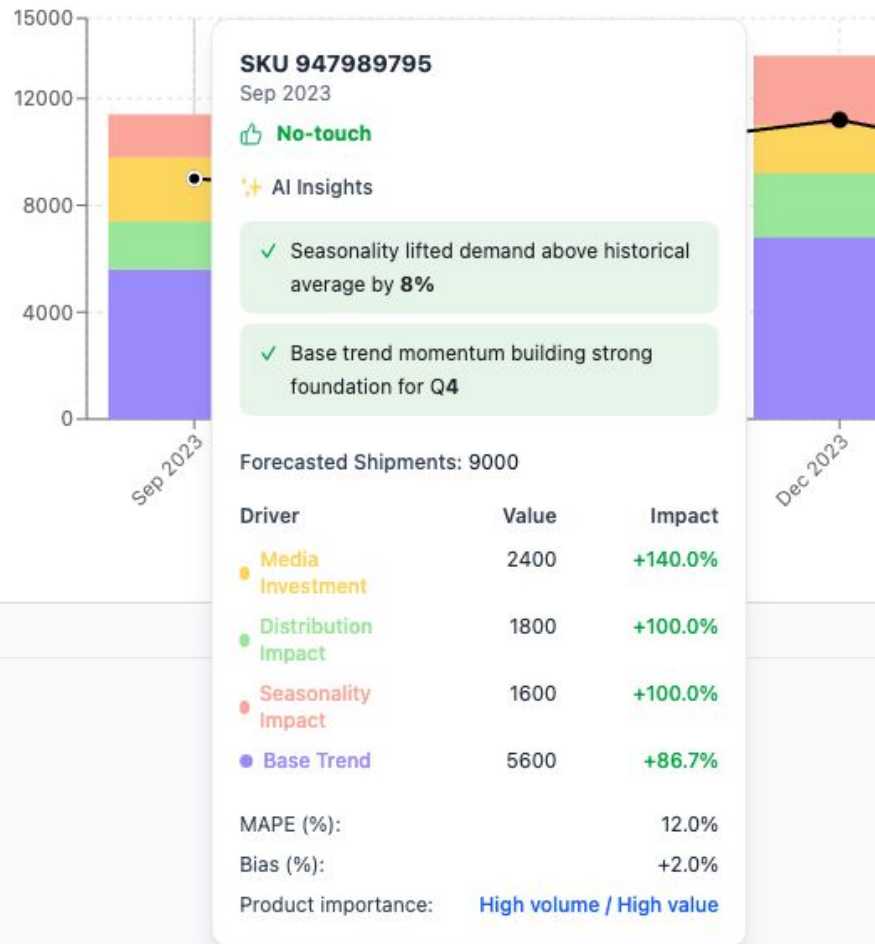
# Trust, Transparency, and Alignment

- **Explainable AI** reveals why predictions change
- **Humble AI** admits uncertainty and invites planner input
- Builds transparency, trust, and alignment across planning teams



# From Reactive to Proactive Planning

- **AI detects early signals** in demand, supply, and market shifts
- Enables planners to **act before disruptions occur**
- Moves planning **from firefighting to strategic impact**



# Predictions support actions

- Distinguishes **no-touch items** from those needing **planner input**
- Focused Human Effort: Planners **prioritize uncertain or high-impact items.**
- Human + AI Collaboration: Ensures **automation where reliable**, and **expert insight where needed.**

## Forecast Performance

Date: 2024-01-01 → 2024-12-31 | Brand/Flavor: Select options | Region/Warehouse: Select options | Category/Product: Select options

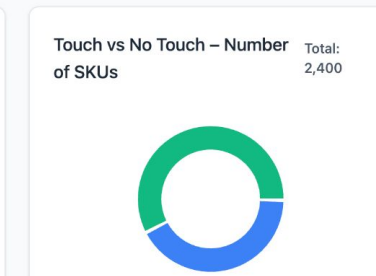


**No touch**

Region	wMAPE (%)	Bias (%)
> North London	22.1	+1.8
> South London	18.3	-1.7

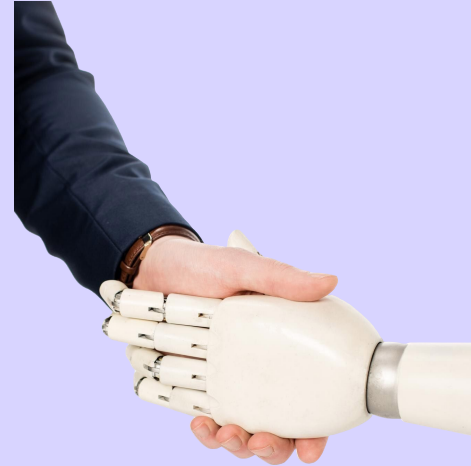
**Touch**

Region	wMAPE (%)	Bias (%)
> North London	25.2	+1.3
> South London	28.3	-0.7



# A Smarter, More Strategic Planning Function

- Higher forecast accuracy and agility
- Stronger cross-team alignment
- Planners become strategic partners driving business growth



# AI Demand Forecasting

- What's the difference between a Stat Forecast and AI Forecast?
- What is the gain / uplift from AI forecasting?
- How much **time, effort and resources** requires an implementation of AI forecasting system?



AI  
in Demand  
Forecasting

# Experience the Value with a Fast, Low-Risk POC

01.

## Exploratory Data Analysis

- DF.ai to connect to your data
- Align on modeling scope
- Define deliverables and success criteria

02.

## Modeling

- Pecan configures AI models & feature engineering for your business
- Incorporate numerous data sets to improve model performance

03.

## Model Evaluation & Optimization

- Forecasts generated and benchmarked against your current process
- Tune and optimize models based on human feedback and analysis

04.

## Testing

- Review accuracy, volatility, and potential FVA improvements with your team
- Prep for model deployment and adjust dashboards

**Have your first AI model in a few weeks!**

# Come visit our booth us to initiate your AI Forecasting journey!

DemandForecast.ai by Peacan
demandforecast.ai info@peacan.ai

## Forecasting that feels like magic.

DemandForecast.ai is the AI-native forecasting tool for Ops and Supply Chain teams.

### The Challenge

- Forecast inaccuracy wastes margins, wastes inventory and causes stockouts.
- Planners spend weeks manually cleaning data and building forecasts they don't trust.
- Weak baseline forecasts require too much manual intervention.

### The Solution

Get the industry's most accurate forecasts  
DemandForecast.ai connects to all your planning data sources and runs ensemble models that capture both seasonality and short-term demand spikes.

Forecasts you can understand and trust  
DemandForecast.ai explains what building blocks and data sets are driving predictions. The model outputs includes confidence levels, drift alerts, and model stability.

Humble AI that focuses on adding value  
DemandForecast.ai proactively provides decision supporting AI insights as well as product segmentation into no-touch vs touch categories so planning teams can know where they can add the most value.

**kenvue**  
"Peacan's Predictive GenAI framework is truly a game changer in building accurate, reliable and explainable forecasts."  
Neil Ackerman  
Head of Global Consumer Supply Chain

MAPE reduction in a year **↓37%**

Lower Bias **↓20%**

Faster time to market **10X**

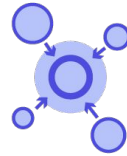
Built over years with global supply chain experts

# Thank you.

# State-of-the-art Modelling techniques

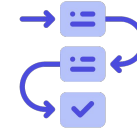


## Multivariate data input forecasts



## Ensemble of Machine Learning Model Families

Capture the **unique dynamics** of each SKU:  
seasonality, trend changes,  
and phase-out stages



## Hierarchical modeling (multiple aggregation levels)

Multi-level forecasting, capturing relationships within data to improve consistency across: categories, regions, and products



## NPI modeling