



# Demand Forecasting & Planning

# Introduction to Asper

# Significant value unlocks interconnected autonomous AI

**+10%**

Revenue Growth and Financial Performance



Break functional silos and interconnect demand and supply

**+40%**

Increased Productivity



AI first process transformation in enterprise decision making

**3X**

Faster time to Value



Seamless integration of AI on top of current infrastructure and data



# Who we are



**Asper is the World's  
only **purpose-built AI** enabling  
**interconnected autonomous  
decisions** for CPG, Retail and  
Manufacturing Enterprises**

# Built at Fractal, world's largest AI company



- World's **largest AI company** with **20+ years** of powering decisions in **100+ Fortune 500 companies** with AI, engineering, and design
- Client first philosophy resulted in **NPS of 75**, on road to deliver **\$1B value** for multiple strategic partners
- Deep expertise in **CPG, Retail and Manufacturing**



Agile scenario planning to manage macro and industry headwinds



Interconnected Autonomous decisions



Committed 5-15% accuracy improvement



AI first business process transformation



100+ leading external indicators curated by domain SMEs



Cloud based SAAS platform, seamless integration

# Interconnected modules focused on revenue growth

Improve SFA  
**5%-10%**

Reduce forecast bias  
**20%-50%**

**Dynamic Demand AI**

**Pricing & Promotions AI**

Improve sales  
**2% - 2.5%**

Improve promo ROI  
**10% - 25%**

Improve margins  
**3% - 5%**

Improve sales by  
**4% - 5%**

**Sales & Distribution AI**

**Inventory AI**

Improve Fill rates  
**2% - 4%**

Reduce OOS  
**20% - 30%**

Reduce lost sales  
**30% - 50%**

# Dynamic Demand AI

Demand Forecasting at Asper

# Demand Forecasting challenges in categories amplified by external headwinds



**COVID driven consumer mobility changes**



**Innovation and Niche alternatives**



**Channel shifting – On vs Off premise**



**Commodity price inflation**



**Changing Consumption Occasions**



**Extreme weather events**



**Global supply chain disruptions**



**Bigger baskets, fewer trips**










**Disposable income, Consumer Confidence**

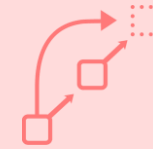


# Purpose built to solve 8 key pain points in demand planning

## 8 Major Pain points in demand planning

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 • **Reactive response** due to lack of anticipation
- 
 • **Low accuracy** of forecast at granular levels
- 
 • **Human bias** in planning and collaboration
- 
 • **Manual effort** in managing long-tail
- 
 • Inability to **decompose drivers** of demand forecast
- 
 • **Slow response time** for changing demand patterns
- 
 • Inconsistency in **multi level reconciliation**
- 
 • Poor **new product forecasting**

## Purpose built AI platform to solve for these pain points



### Anticipate

Early warning of risks and opportunities  
Focus to drive value and impact



### Quantify & Attribute

Isolate drivers of demand and impact  
Simulate potential scenarios



### Recommend & Collaborate

Prescriptive recommendation from AI  
Track and learn from interventions



### Automate & Integrate

Automation and collaborative workflow  
Connects w inputs and output systems

# Our Solution approach is based on category domain and best-in-class forecasting approach



Dedicated Modules for **Seasonal Forecast and Innovation** products based on product/category features



Leverage the historical trends on **Inventory and orders** to improve accuracy



Separate models for **Short-Term and Long-Term** forecast with different driver features



**Category-specific consumer trends**, that could influence behaviour and purchasing habits, alcohol consumptions, etc..



**Internal and external data and drivers** – retail sales, weather, macroeconomic, sporting events, commodity prices etc.

# We use 100+ external indicators to model leading indicators of demand



+



<b>Income</b>	<b>Expenses</b>	<b>Special Events</b>
<ul style="list-style-type: none"> <li>Gross Income</li> <li>Disposable Income</li> <li>Savings Rate</li> </ul>	<ul style="list-style-type: none"> <li>Inflation</li> <li>Interest Rate</li> <li>Credit</li> </ul>	<ul style="list-style-type: none"> <li>Sports</li> <li>Weather</li> <li>Holidays</li> </ul>
<b>Behavior</b>	<b>Employment</b>	<b>Other Factors</b>
<ul style="list-style-type: none"> <li>Sentiment</li> <li>Mobility</li> <li>OOH consumption</li> </ul>	<ul style="list-style-type: none"> <li>Unemployment Rate</li> <li>Wage Hours</li> <li>Participation Rate</li> </ul>	<ul style="list-style-type: none"> <li>COVID-19</li> <li>Political events</li> <li>Demographics</li> </ul>

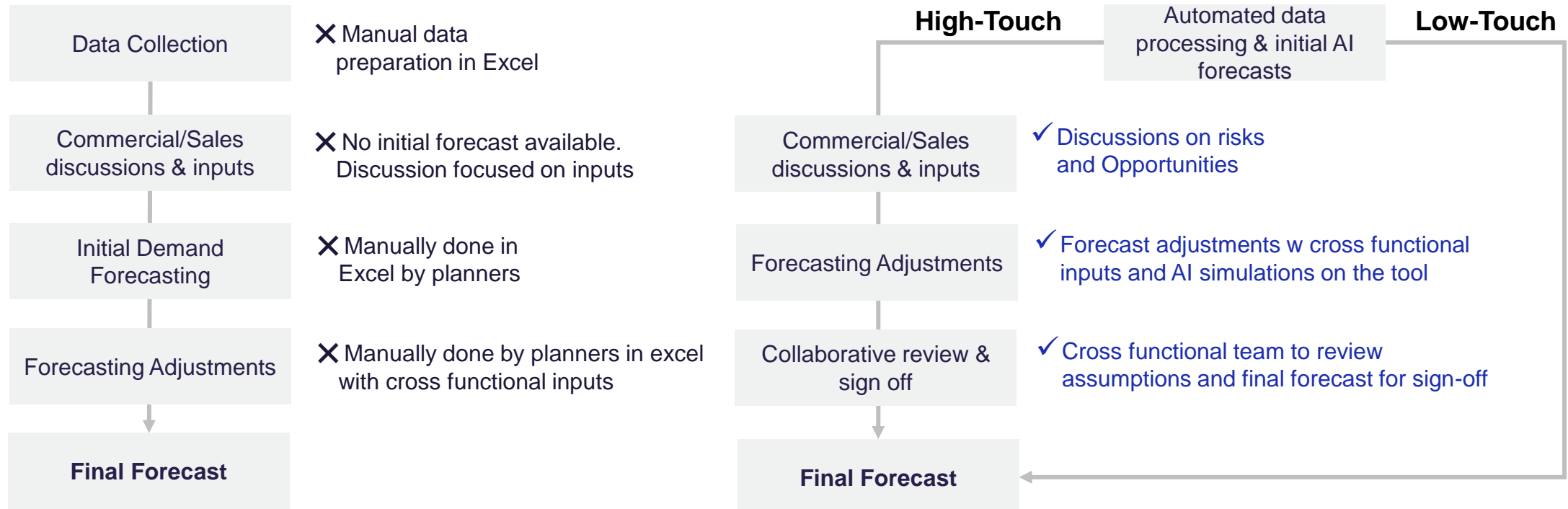
<b>Cost</b>	<b>Macro</b>	<b>Category</b>
<ul style="list-style-type: none"> <li>Commodities</li> <li>Energy</li> <li>Labor &amp; Freight</li> </ul>	<ul style="list-style-type: none"> <li>GDP Growth</li> <li>Credit</li> <li>Yield Curve</li> </ul>	<ul style="list-style-type: none"> <li>Sales growth</li> <li>Distributor Depletion</li> <li>Innovation</li> </ul>
<b>Industrial Activity</b>	<b>Trade</b>	<b>Other Factors</b>
<ul style="list-style-type: none"> <li>Retail Sales</li> <li>PMI and Confidence</li> <li>Housing Index</li> </ul>	<ul style="list-style-type: none"> <li>Forex, Exchange Rate</li> <li>Imports</li> <li>Exports</li> </ul>	<ul style="list-style-type: none"> <li>Sovereign Risk</li> <li>Geo-Political Risk</li> <li>Capex</li> </ul>

# Building future ready capabilities and process transformation for demand planning

Illustrative

## Today

## Tomorrow



# Faster realization of value unlocks

## \$50-100MM

ACCURACY

PRODUCTIVITY

AGILITY

SPEED



Capture Lost Sales Due to Lower Forecasts  
(2-4% of Topline)



Improved Inventory Positioning  
(1-2% of Topline)



Lower Inventory Levels and Warehousing Cost  
(7-10% Lower Inventory)



Optimized Markdowns based on Inventory  
(15-20% Less Investment)

# Success Stories

# Consistently exceeding existing accuracy by 5-10%



Multinational B2B food processing company

**6.8%**

Accuracy Improvement on Shipments forecast

F100 Personal Care Company

**10-16%**

Accuracy Improvement on 3 month and 5 month forecast

F100 Multi-Category Consumer Goods Company

**5-22%**

Accuracy Improvement on High volume and long tail for primary sales forecasts

F100 Consumer Electronics Company

**12%**

Device activation accuracy improvement

F100 Snacks Manufacturer

**6%**

Accuracy Improvement on quantity sold

# Digitized demand planning process for a \$5B food processing company



Leading Snacking, Beverage, Meal Preparation Customer

**\$4.5B**  
Revenue

**11K** SKUs  
**32** Categories

### Key business challenges

- Low Forecast Accuracy
- Heavy manual adjustments
- Lack of bandwidth to review entire portfolio
- Incomplete understanding of drivers



### Year 2

- 10+ppt improvement in Forecast accuracy
- 25-40% No touch forecast automation

### Year 1

- Consistently improved 5-7ppt Forecast accuracy

### 12 Week Full implementation

- Scaled to all 32 Categories and 11K SKUs

### 8 Week POV on select categories

- Beat existing accuracy by 5+ ppt

### Business Impact



**\$39.4M** value unlock

- +1% Annual revenue growth
- +8% Savings on inventory holding cost
- +8% Less working capital on inventory



**\$150k** less infra cost

Storage and Computing on Cloud etc.



**25%** Freed up people time

Repurpose freed up bandwidth to focus on high value opportunities





# Thank you

Reach out to us at [contact@asper.ai](mailto:contact@asper.ai)

