

// 2025

SPARK  BEYOND

# AI for 'Always Optimized' Retail Operations

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## About us

Established in 2013 to accelerate AI-powered problem-solving.

Since then we have **delivered \$Bns in tangible ROI** for our customers **across 100s of use cases**.

## Mission

Unlock AI-driven **'Always Optimized' KPIs** for any organization



### Global Footprint

Presence across Asia, Europe and US with employees spread across **8 countries**



### Industry Validated

100s of success stories across within **Fortune 500 companies globally**



### Partner first DnA

**Partner-first organisation** with global reach with GSIs



### Enterprise Ecosystem



Azure



aws



Google Cloud



ChatGPT

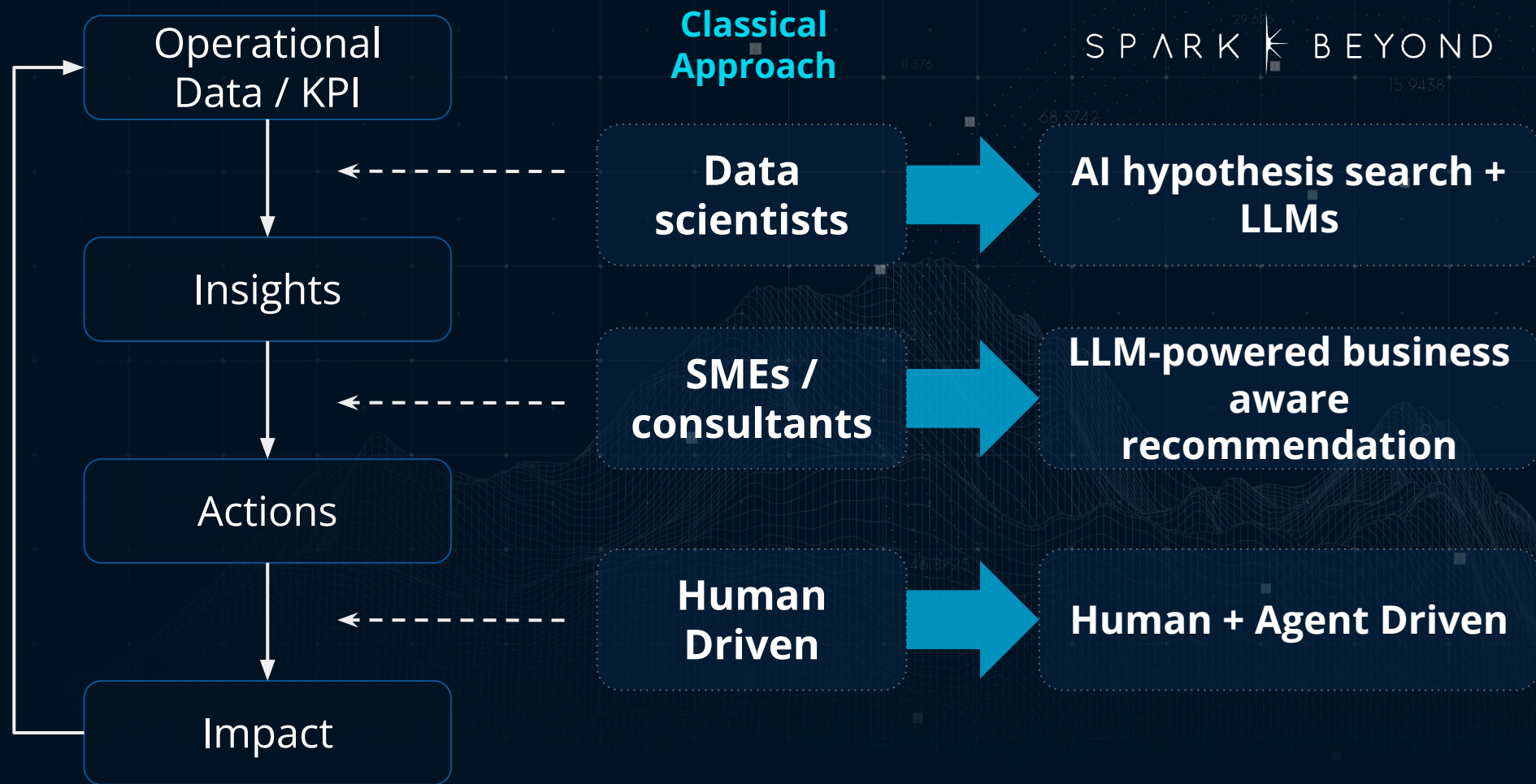


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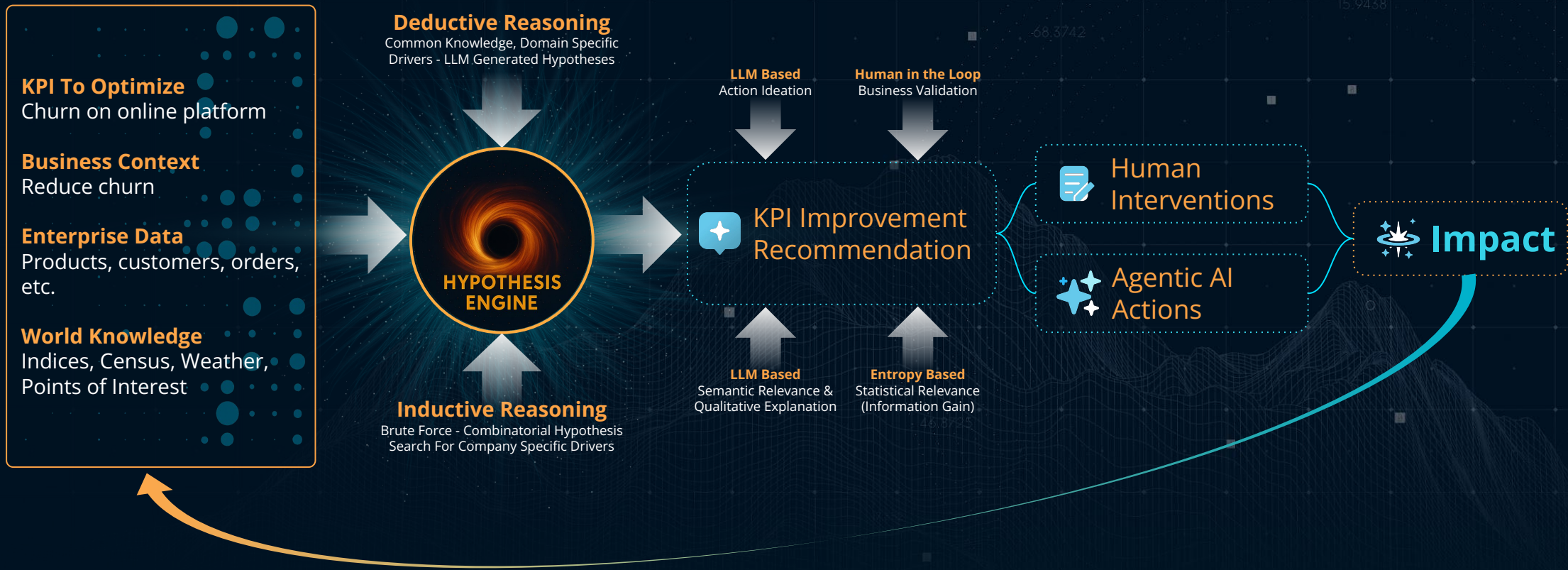
Gemini

# Making the paradigm shift to 'Always Optimized' KPI Optimization



# 'Always Optimized' KPI Architecture

Continuous feedback loop creating impact from enterprise structured data





## Retail Use Cases

Top-line and bottom-line impact generating



### Pricing Optimization

Develop dynamic pricing strategies tailored to retail outlets and segments to maximize profitability and competitiveness



### Assortment Optimization

Curate product assortments for each retail location, tailored to customer preferences and store-specific performance drivers



### Loyalty Programs

Improved efficiency and automation for automated underwriting, incorporate alternative data



### Demand forecasting

Forecast sell-in and sell-out demand at retail outlets for more accurate supply chain and inventory management



### Store Location Selection

Identify optimal store locations based on customer demographics, market trends, and potential sales opportunities



### Marketing Campaigns

Identify high-propensity micro-segments to improve campaign targeting, enhance messaging effectiveness, and maximize ROI on marketing spend



# Credentials

# Assortment Optimization in Grocery Retail

SPARK ✦ BEYOND

**Boosted  
margins by  
€15M through  
tailored store  
assortments by  
location and  
behavior**



## CHALLENGE

- A leading grocery retailer wanted to automate assortment management by store and identify **key customer segment drivers to optimize shelf space allocation**.
- The objective was to get the right product to the right shopper at the right price.

## APPROACH

- Identified common purchase behaviors of customer segments across store locations
- Correlated those patterns to optimized assortment segments
- Created new assortment packs tailored to each store's **demographic profile**

## RESULTS

- **€15M margin impact** achieved through optimized assortment allocation
- Constant updates with fresh transaction and external data to refine segments



# Dynamic Pricing in Convenience Stores

SPARK  BEYOND

**Boosted  
margins by \$6M  
through  
dynamic pricing  
tailored to store  
segments**



## CHALLENGE

- A large Polish convenience store chain operating over 10,000 stores across Europe needed to identify the **right pricing strategy** per product category and store type.
- The goal was to **maximize gross margin** through **dynamic pricing**.

## APPROACH

- Segmented stores into 13 groups using **price elasticity profiles**
- Used segmentation to optimize pricing by product and store profile
- Applied **different price per category per store segment** (e.g., +5% on chocolate bars in corporate and prime locations)

## RESULTS

- Identified 6 priority categories to increase prices, leading to **a 3% gross margin gain**
- Estimated improvement of **~\$6M in annual gross margins**



# Geospatial Analytics For Store Location Selection

SPARK ✦ BEYOND

**Unlocked 1,300+ high-performing store locations using AI-powered site selection**



## CHALLENGE

- A top Japanese convenience store retailer aimed to open **2,000 new stores** in Tokyo.
- However, the **first 200 openings underperformed**, triggering an urgent need to uncover profitability patterns and select better locations.

## APPROACH

- Combined internal data and external sources (e.g., **Google Maps backend**, store networks) to identify drivers of store profitability.
- Built a model to **predict store revenue** and applied optimization algorithms to select the best 1,300+ sites out of 5,000+ possible locations.

## RESULTS

Identified 1,300+ potential high-profit locations based on non-obvious factors, such as proximity to:

- Laundromats
- Fast food chains
- Mobile phone shops
- Gas stations

# Demand Forecasting in Retail Chain

SPARK  BEYOND

**Forecasted sales  
with 90%+  
accuracy for  
4500+ stores up  
to 15 months in  
advance**



## CHALLENGE

- A retail chain wanted a more accurate long-range sales forecast to better inform its strategic positioning.
- SparkBeyond partnered with the client to build a monthly sales forecasting model by store segment, 15 months rolling forward.

## APPROACH

- Incorporated complex dimensions:
- Diverse store segments characterized by differing categories (e.g., fresh vs. non-fresh).
- Considered the impact of new store openings and closures.
- Included store maturity curve effects.
- Accounted for Sunday closure bans (e.g., 25% of franchisees closed).

## RESULTS

- Built a suite of models predicting monthly sales up to 15 months ahead for 4500+ locations.
- Achieved 90%+ accuracy in 80% of 1-month revenue forecasts.
- Used to set franchisee sales targets and support long-term planning (budgeting & promotions).



# Customer Segmentation in Grocery Retail

SPARK  BEYOND

**Created six  
value-based  
segments from 3  
years of data in  
one week**



## CHALLENGE

- A premium grocery retailer needed to understand the lifetime value of its customer base.
- However, it lacked a robust analytical approach to build a value-based customer segmentation.
- The goal was to identify and target its most valuable customer profiles.

## APPROACH

- Identified common behaviors of the highest-value customers.
- Most valuable customers of “tomorrow” bought value products and preferred seafood.
- Discontinuing household product purchases was a leading churn indicator.
- Defined behavioral segments and tailored marketing strategies accordingly.

## RESULTS

- Defined six customer segments using behavioral dimensions like purchase categories, channel, loyalty, promotion spend, and private label usage.
- Analyzed 3 years of transaction-level data within one week to uncover trends and customer behaviors.

# Thank You



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