



# Assortment Intelligence on AWS

[www.sigmoid.com](http://www.sigmoid.com)





## About Sigmoid

---

# Sigmoid is an emerging leader in data engineering and AI solutions.



**750+**

Employees



Work with **30+**  
Fortune 500 firms



**>97%**

CSAT score



**200+**

ML models operationalized



**5000+**

Data pipelines built

Backed by

**SEQUOIA** 

## Awards and Recognition

**500™**

Technology **Fast 500**  
2023 NORTH AMERICA  
**Deloitte.**

**\*ISG**

Provider Lens 2023 Quadrant

**Analytics Services**  
Rising Star, U.S. ★

Report releasing Jan 2024



America's  
Fastest-Growing  
Private Companies



Open Source data  
solution provider  
of the year



**FORRESTER**  
**Now Tech:**  
**AI Consultancies,**  
Q1, 2021 Report

Major Contender in

**EVEREST GROUP**

Analytics and AI Services Specialists  
PEAK Matrix (2022)

## Offices



New York



San Francisco



Dallas



Lima



Bangalore



Amsterdam

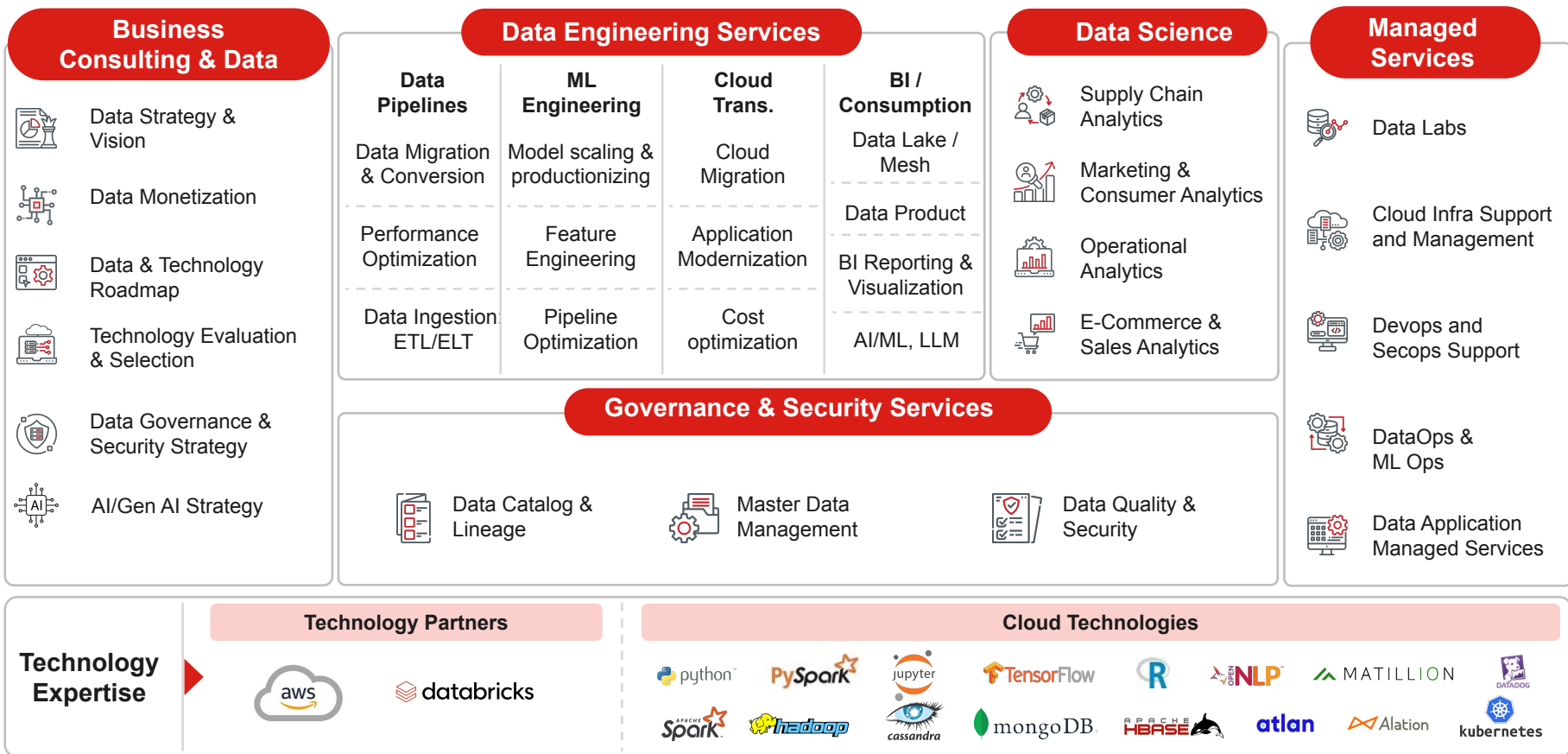


London



Sao Paulo

# Enabling Business Transformation with Full-Service Capability Suite



# Sigmoid Capabilities - Experience in implementing data solutions in AWS

Sigmoid has worked with more than Five large customers to design, build and deploy solutions in AWS

## Data Processing & Transformation:

- **Amazon EMR:** Collaborative Apache Spark-based analytics platform used for big data processing and machine learning.
- **AWS Glue:** Fully managed ETL (Extract, Transform, Load) service for preparing and transforming data.

## Data Analytics & Visualization:

- **Amazon Redshift:** Data warehouse service used for analyzing large datasets with either serverless or provisioned resources.
- **Amazon QuickSight:** Business intelligence tool for creating interactive visualizations and reports.

## Machine Learning & AI:

- **Amazon SageMaker:** End-to-end platform for building, training, and deploying machine learning models.
- **AWS AI Services:** Pre-built AI services for vision, speech, language, and decision-making (e.g., Amazon Rekognition, Polly, Comprehend, Textract).

## Security & Compliance:

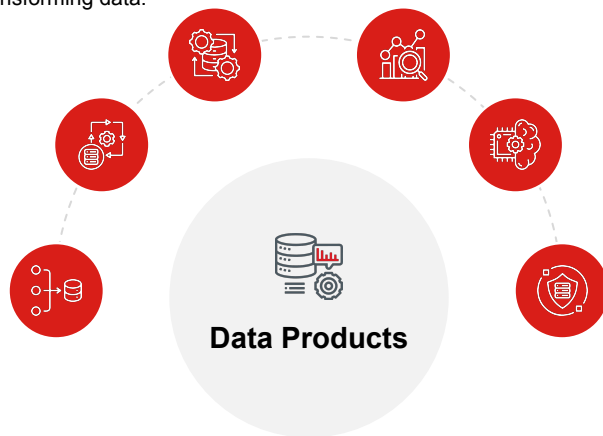
- **AWS IAM (Identity & Access Management):** Identity and access management service.
- **AWS Organizations & AWS Config:** Governance and compliance tools for managing AWS environments at scale.

## Data Storage & Management:

- **Amazon S3:** Scalable and secure data lake for storing large amounts of structured and unstructured data.
- **Amazon RDS:** Managed relational database service for structured data storage.

## Data Ingestion & Integration:

- **AWS Data Pipeline:** Creating data workflows that move and process data across AWS services.
- **Amazon Kinesis:** Real-time data ingestion from applications, devices, or any streaming data sources.



Sigmoid's implementation of solutions in AWS involves leveraging a combination of services and tools tailored to specific business needs. Sigmoid would facilitate collaboration between data engineers, data scientists, business analysts, and other stakeholders to align the implementation with business goals and ensure success.





# Assortment Intelligence

# 4 Pillars - Revenue Growth Management



Revenue Management (RGM) is the application of disciplined analytics that predict consumer behavior at the micro market levels and optimize product availability and price to maximize revenue growth.

## RGM Visibility & Business Analytics

### Assortment Intelligence

*Maintain right mix of products across channels, retailers & geography to optimize across profitability & service levels.*

### Product Pricing

*Identify the optimal pricing model for the product portfolio based on elasticities of price, distribution & weights.*

### Promotion Management

*Develop a balance in promotion activities for the portfolio considering promo sensitivity, its impact on the portfolio & the supply chain.*

### Trade Term Management

*Design process to marry right retailers with right products while identifying apt incentives.*

## Data Layer



Data Lake



Ingestion



Consolidation



Harmonisation



Enrichment



Consumption

## Process Revaluation

# Driving business growth through Assortment Planning

## B2B Order Recommendation

- **Identification of SKU level whitespaces** through sales history analysis and similar store gap analysis
- Recommending products for each POS with **store level forecasting models** - for existing and new products along with **quantity recommendations**

**2-3%** uptick in portfolio profitability with an overall improvement in market share

## Planogram Optimization

- Providing the best **planogram configuration** within constraints to drive revenue, exploring possibilities of introduction of new SKUs
- Taking into account existing **demand of products, lost sales, item attributes**
- **Scenario modelling** wrt growth, profit, revenue maximization

**12-15%** improvement in revenues, with an increase in SKU s achieving days of sales

## Assortment Lifecycle Optimization

- Providing a **lifecycle view** of the movement of different categories, brands, products, **assigning profitability buckets** and accordingly realizing investment opportunities
- A competitive **Growth Share Matrix** and **investment prioritization logic** is defined in conjunction with business Insights & Sales teams

**3-5%** improvement in contribution margin with an improvement in market share



# Success Stories



## Driving growth with Planogram assortment optimisation

**Client:** Big Box Retailer

**Industry :** Retail



### Business Problems

Optimization of the planograms provided by Big Box Retailers which were not optimized & finding out opportunities to drive more revenue and days of sale



### Analytics Solution

Understanding the value chain to identifying growth avenues through a consulting exercise, this led to identification of shelf optimisation.

- Similar stores were grouped together in clusters
- Opportunities were identified in similar stores where similar SKUS could be sold.
- Forecasting Model was created to identify future Sales opportunities
- For different scenarios pertaining to growth, profit, revenue maximisation etc optimisation algorithms were explored that identified optimum configuration of products at cluster level



### Expected Business Value

Solution led decision making demonstrated

- **11 %** improvement in Revenues
- **2%** improvement in SKU's achieving days of sales.

## Reducing SKU-location whitespaces through **Intelligent B2B Order Recommendation**

**Client:** F&B CPG Company Manufacturer **Industry :** CPG/Manufacturing



### Business Problems

Presence of SKU-location whitespaces in many retail locations & subpar Inventory Turnover.



### Analytics Solution

Developed a recommendation engine to eliminate SKU-location whitespaces and enable intelligent order creation

- Performed Data Collection followed by feature extraction and whitespace identification in order to perform sales history analysis and similar store gap analysis
- Built hybrid recommendation model for new products or white spaces which provides new product recommendations for each POS
- For existing products, performed product ranking and then feed to the quantity estimation model.
- Performed recommendation optimization which delivers output-Optimal Order Quantity, No of new products, Product Ranking, Strategy selection



### Expected Business Value

- **1.5%** improvement in portfolio level profitability.
- **2 %** market share improvement in organized Trade Snacks Category.

# Identifying Investment Opportunities by Assortment Lifecycle Intelligence Framework

**Client:** F&B CPG Company Manufacturer **Industry :** CPG/Manufacturing



## Business Problems

- Declining Market Share in Snacks Category in Organized Trade Channel.
- Absence of lifecycle view of the movement of categories, brands & products to understand current Situations



## Analytics Solution

Gained lifecycle view of the movement of categories, brands & products across various investment & profitability buckets designed based on their growth rate & their relative market share

- Defined a competitive Growth Share Matrix and investment prioritization logic in conjunction with business Insights & Sales teams
- Focused on daily data at granular levels to assess the performance of similar lines/plants and recommend actionable insights
- Model outputs & real world scenario matching was tested weekly across 2-months duration



## Expected Business Value

Solution led decision making demonstrated

- **3%** improvement in contribution margin on an average across whole Snacks assortment.
- **0.8%** uptick in country level market share.
- Development of easy to identify competitor insights to enable agile counter strategy development.



# Engagement Models

---



# Sigmoid's Engagement Models

## Project Based



- Starts with consulting/scoping (2-3 weeks)
- Delivery Program Management
- Interim review
- Success criteria met and IP handover
- Option to continue with product support
- Fixed bid contract
- 3-5 months duration given complexity of problem

### Benefits

- Cost effective
- KPI/SLA/Outcome driven
- Suitable for Fixed scope of work
- Less overheads

## Staff Augmentation



- Understanding of skill requirements
- Profile match and rate card
- Onboarding and monthly billing
- Focused training based on client tech stack
- Project Management support
- 10% backup resources unbilled and trained

### Benefits

- Scalability
- Flexibility in resourcing
- Ability to change/redefine scope

## Hybrid-Flexi Model/Data Labs/CoE



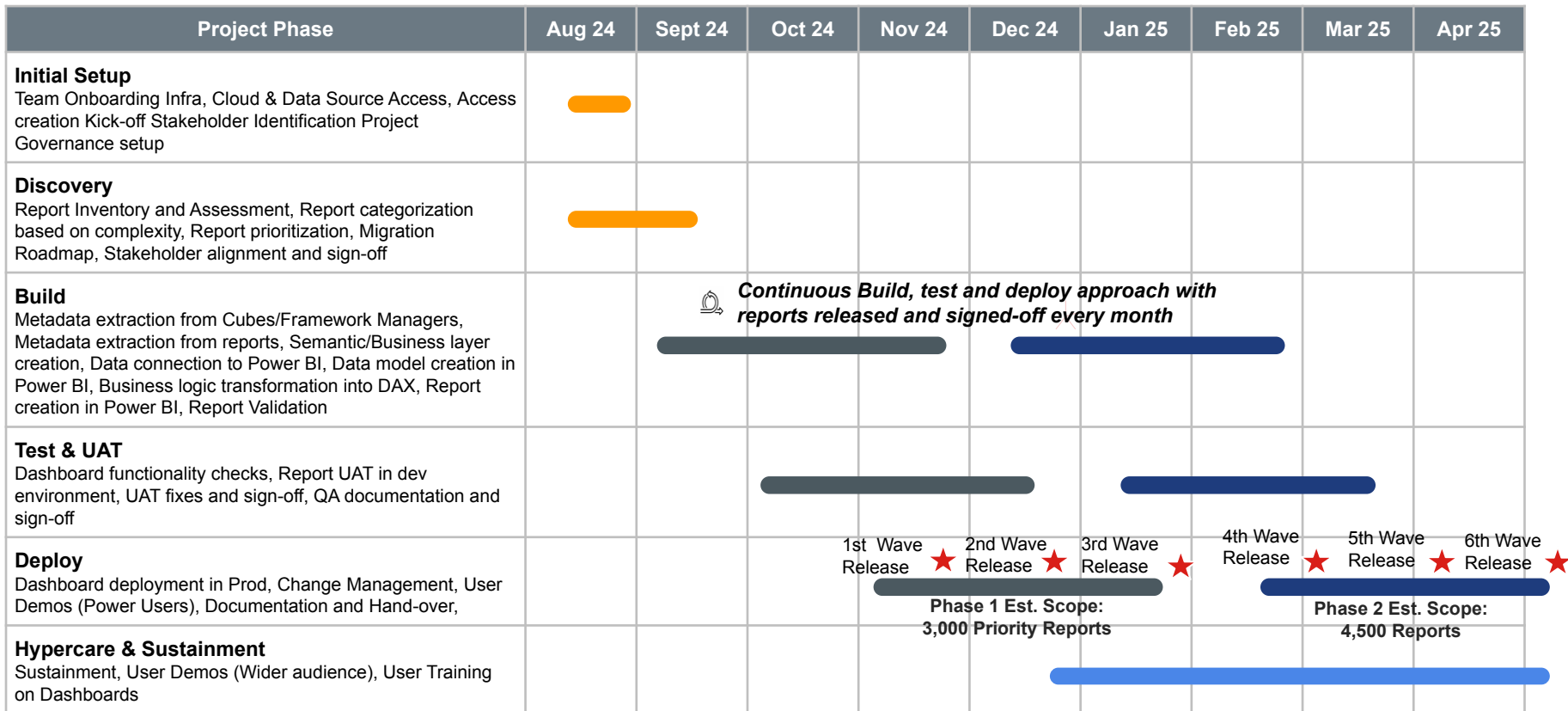
- Mix of project and staff augmentation engagements
- Requirement gathering
- Requirement classification - as project or staff augmentation
- Joint delivery plan
- Secure resources internally from Sigmoid and bill monthly
- Dedicated PM, Engineering Managers
- Dedicated Management Consultant(s)
- Dedicated Team Leads and Product Owners

### Benefits

- Cost effectiveness by focus on output
- Ability to change/redefine scope/Change requests
- Risk/Reward linked to KPI/SLA

# Implementation Roadmap

Implementation will be completed in continuous Waves, aligned with Goodyear's Region x BU prioritization



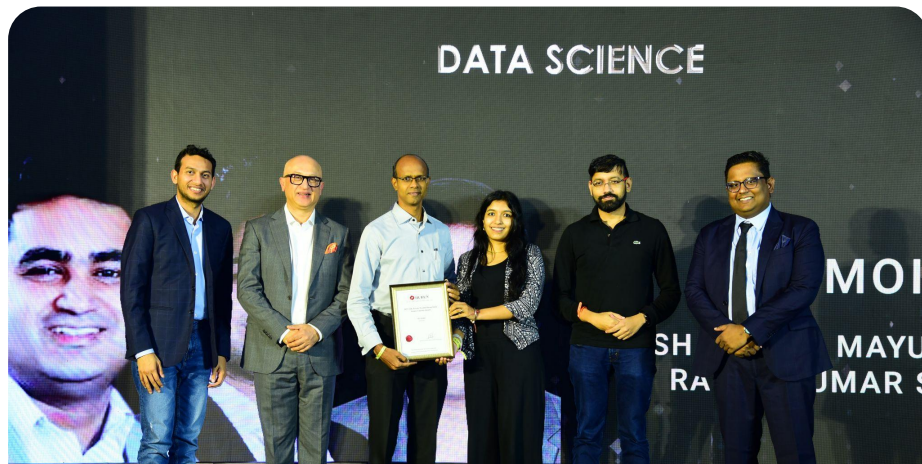
# Thank you



Email: [abhishek.vora@sigmoidanalytics.com](mailto:abhishek.vora@sigmoidanalytics.com)



Website: [www.sigmoid.com](http://www.sigmoid.com)



**'India Future Unicorn Award'**  
in Data Science category by Hurun India

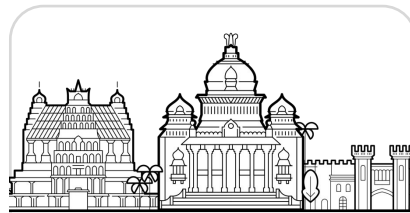
**Global presence:**



**USA** (NY, SF, Dallas,  
Chicago)



**EU** (Amsterdam,  
London)



**India**  
(Bengaluru)



**LATAM** (Lima)