



Supply Chain Control Tower on AWS

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

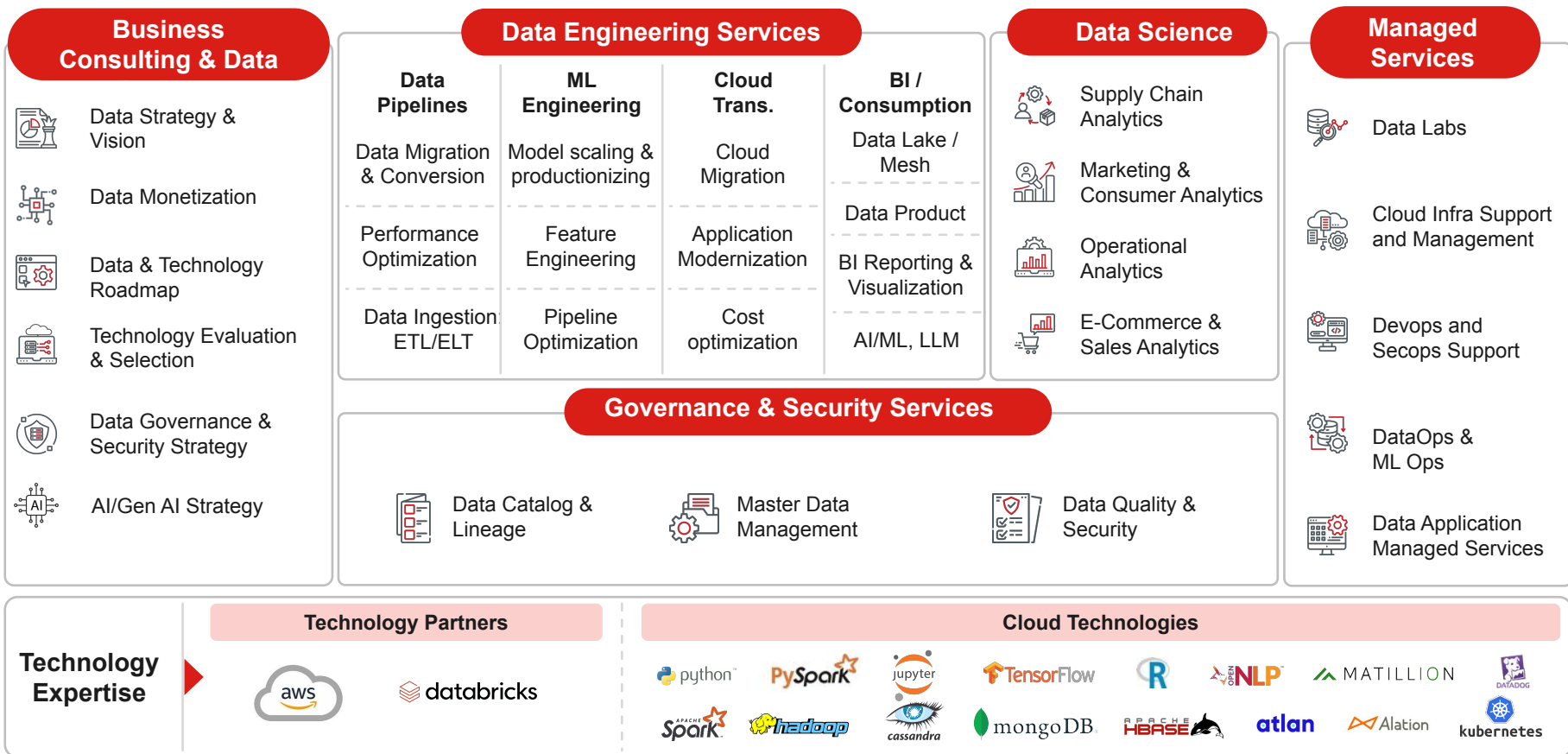


London



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.

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.



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:

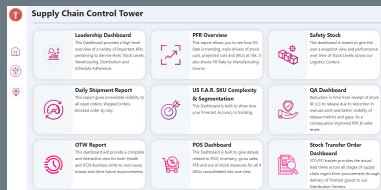
- **AWS IAM (Identity & Access Management):** Identity and access management service.
- **AWS Organizations & AWS Config:** Governance and compliance tools for managing AWS environments at scale.

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.

Supply Chain Control Tower



Supply Control Tower - Snapshot



Digital Control Tower (DCT) is a key building block of the NA Supply Chain Ambition: To become *best-in-class, flexible and agile customer/consumer centric* supply chain that delivers excellence in safety, quality and operational performance.

1



One single place to manage all Supply Chain Analytics

23



Use cases/programs registered in JIRA via PIF

35%



Time savings in Report Generation & Collaboration

10



SCT is in the Top #10 most popular Dashboards at CPG Co.

2



Near real-time use cases

+108



New Business capabilities added in 2022

\$100k



Cost avoidance

\$1m



Additional revenue thanks to the visibility provided by the insights

272



Unique Users

\$120k



Projected AWS cost in 2022

17K



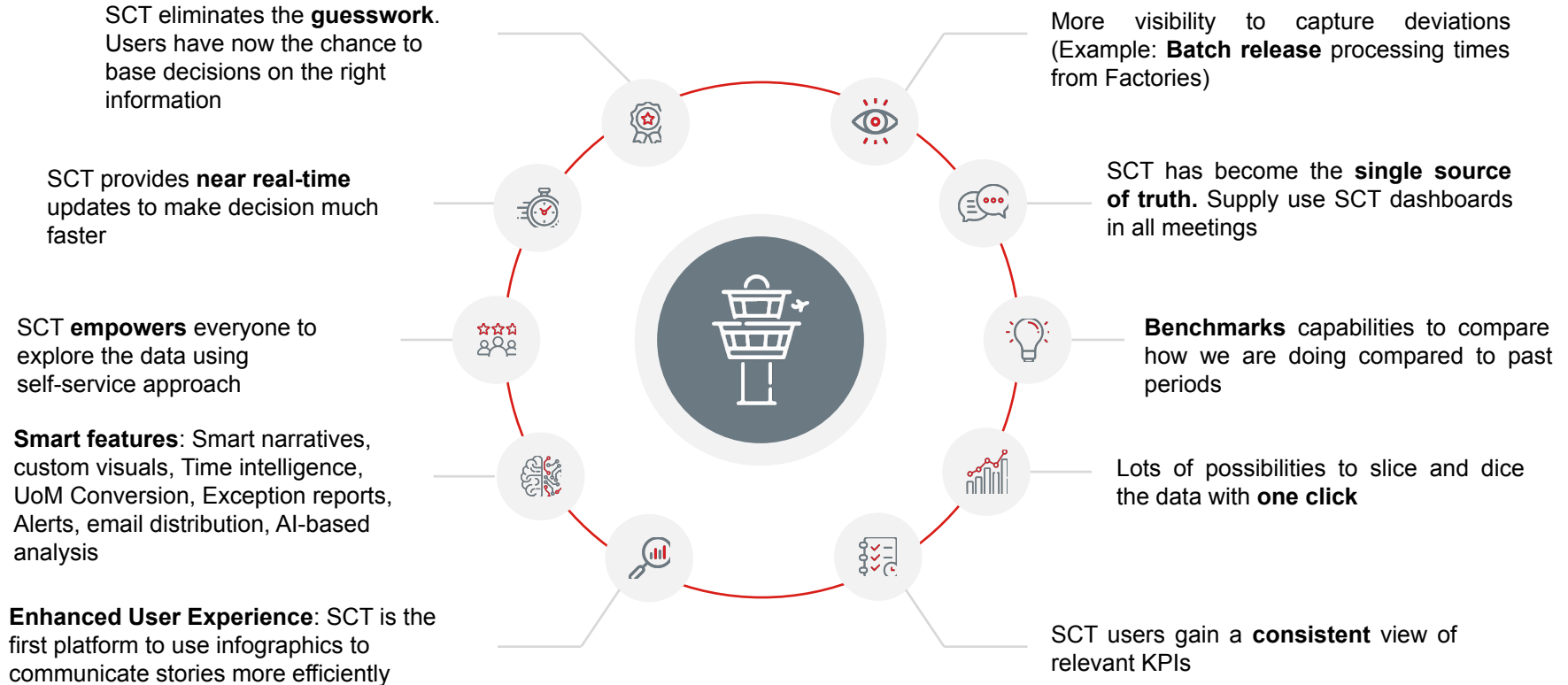
Views across all dashboard in the last 90 days

~50+



Main data sources (Internal / External)

Supply Control Tower - Offering at a glance



Covered various use-cases via a “Supply Chain Control Tower”

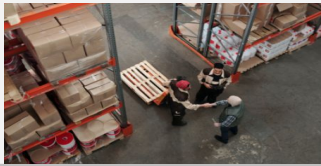


Leadership Dashboard



Demand Planning

- Forecast Accuracy
- HEALTH Allocation Analysis
- IFCN Write-off Estimation
- Safety Stock
- IFCN Forecast Evolution
- Tracking Signal Report
- IFCN Allocation Analysis



Service & Supply Planning

- PFR Overview
- POS Dashboard
- IFCN Stock Transfer Order Dashboard
- IFCN Inventory Dashboard
- Health Stock Transfer Order Dashboard
- Safety Stock
- Shipment Report
- Health Inventory Dashboard
- EMO OTIF



Manufacturing Excellence

- Overall Equipment Efficiency - WIP
- Forecast vs. Plan vs Actual Production levels .



Quality

- QA Dashboard
- Testing Workbench
- Ready for Testing Report



Logistics & Distribution

- Shipment Report
- Current Day Expectation
- Projection Report
- OTW Report
- EDD Changes
- OBD Volume [Health & Nutrition]

Success Story



Integrated 50+ data sources and built a “Supply Control Tower” capability



Consumer Packaged Goods



- Sigmoid helped drive the SCT agenda to drive (i) Supply Operating Model changes in short term (ii) Drive Network Optimisation in the medium term
- Initiated and implemented tech stack change from SQL to pySpark for reliability, scalability and performance.

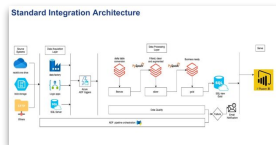


Client Overview and Requirements

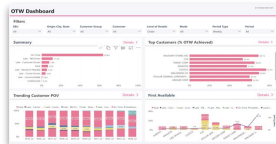
- The client is a leading multinational consumer goods company and a producer of health, hygiene and nutrition products.
- The requirement was to build a decision-making platform that enables a real-time, integrated, and omniscient supply chain through end-to-end visibility and predictive / prescriptive analytics
- Earlier solution was bunch of complex SQL queries which were non-performant and incomplete
- Current systems don't deliver insights across organization



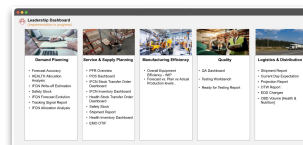
Sigmoid's Approach



Technology Architecture to Automate data from 50+ sources



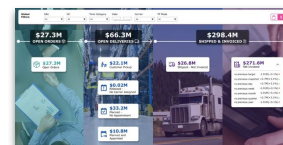
Last-mile Performance Dashboard (Early / At-risk)



Multiple Use-cases under Supply Planning, Quality & Distribution



Unassigned Shipment Risk Report & Risked Dollars



Enhanced Order Management Summary



Jointly Developed CT Product Roadmap Vision with client

Datasets & Sources Used

Order Allocation Report	Partial Fill Rate Report	Transportation Shuttle Reports
Carrier Assignment	Inventory Under QC Check	Order Forecast Reports

Business Impact

90 %

reduction in as-is report efforts

3%

improvement in OTIF levels across in-scope Modern Trade accounts

80 %

Solution coverage across all NA Warehouses

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

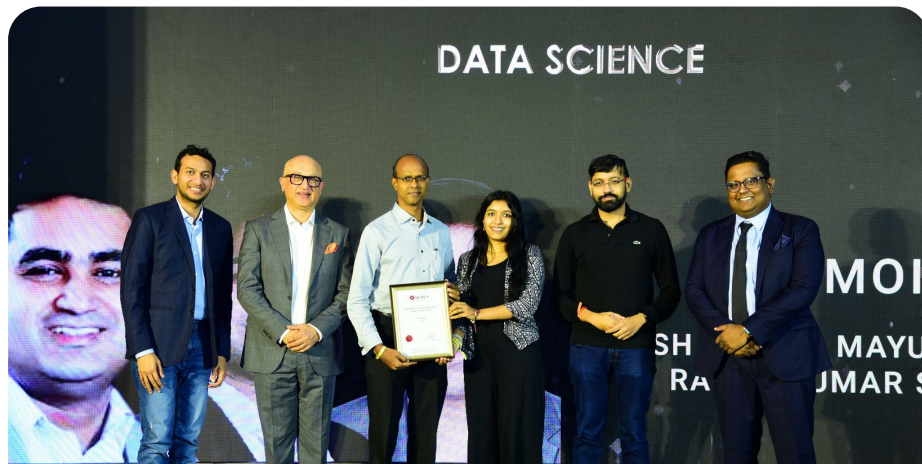
Thank you



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

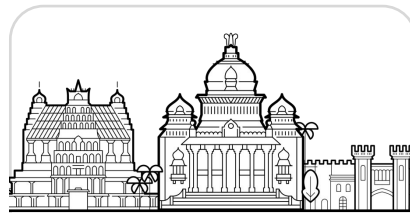
Global presence:



USA (NY, SF, Dallas,
Chicago)



EU (Amsterdam,
London)



India
(Bengaluru)



LATAM (Lima)