# How to accelerate AI and BI impact with an effective data strategy

ATSCALE

# Today's Speakers

## Maria Villar

Head of Enterprise Data Strategy & Transformation
SAP NA

Maria has over 25 years of experience as a Chief Data Officer responsible for building enterprise data management organizations from the ground up and leading the culture change across the enterprise. Most recently, she was the CDO at SAP from 2009 - 2017.

Today, Maria is Head of Enterprise Data Strategy & Transformation, where she advises SAP's customers on the strategic role of data management in their digital and cloud transformation, leveraging her practical, operational experience as CDO.

## Ramdas Narayanan

VP PM of Data Analytics and Insights Tech
Bank of America

Ramdas is an accomplished information technology professional offering over 25 years of hands-on experience in handling all facets of Data Analysis/Relational Database Management Systems.

He has managed and implemented projects relating to Data Modeling, Data Integration and Data Provisioning projects for Mortgage Servicing as part of the Home Loans Business at Bank of America.

## Karan Dhawal

Enterprise Data Leader
Rockwell Automation

Karan is a professional Customer-Centric transformations executive with a strong record of achievement building and managing "cross-functional, high-performance" delivery and service management teams.

He is a sought out leader for mergers & acquisitions, transformational, strategic data & business board level top initiatives.

## Srinivasan Sankar

Enterprise Data & Analytics Leader
The Hanover Insurance Group

Srinivasan is a visionary senior executive with 25 years' experience in leading and managing a global data and analytics organization. As a data leader at Hanover, he is focussed on innovation, mentorship, collaboration, and motivation to create next generation of data and analytics talent.

He has a strong industry domain experience in Financial Services (Insurance, Banking, Capital Markets) and experienced in Retail, Technology and Healthcare.

# Data & Analytics Maturity Model

| Capabilities | Level 0 Initial | Level 1 Centralized | Level 2 Proactive | Level 3 Leading |
|---|---|---|---|---|
| Infrastructure | Data Marts | Data Warehouse | Cloud Data Platform | Data Ops |
| Access | Data Extracts | Data Pipelines | Direct Query | Data Sharing |
| Modeling | Dataset | Physical Tables | Logical Views | Dimensional |
| Consumption | Dashboards | Self Service | Data as Product | Embedded |
| Insights | Descriptive | Diagnostic | Predictive | Prescriptive |

Smarter Decisions

# WHY A DATA STRATEGY?

- A Data Strategy is a “North Star”
- A Data Strategy provides Focus & Scope
- A Data Strategy provided Priorities & Expectations
- A Data Strategy is a Funding & Budgeting Justification Case
- A Data Strategy is a Resource and Skill Planner
- A Data Strategy is a Communication & Literacy Tool
- A Data Strategy can be Measured & Tracked

*BUT……Business Outcome Driven Data Strategy - All data , All capabilities*

# HOW WILL I KNOW IF MY STRATEGY IS EFFECTIVE?

**FUNDED & RESOURCED**

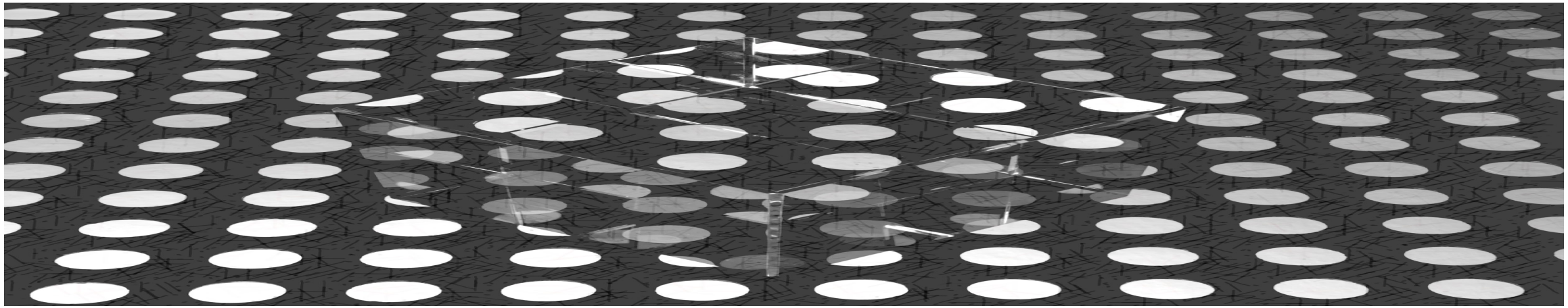
**UNDERSTOOD**

**CREATES EXCITEMENT & ENGAGEMENT**

**DEMONSTRATES *BUSINESS* VALUE**

**ACHIEVABLE**

**GUIDES PROJECT DECISIONS**



## *All Data* to Achieve Business Outcomes

master, transactional, reference, analytic, AI/ML, external

## *All Capabilities* to Achieve Business Outcomes

### **Business** Capabilities

Prioritized business outcomes

Scope

Organizational structure

Policies & Standards

Metrics & KPI framework

### **Operational** Capabilities

Data process capabilities

Functional capabilities

Quality Management capabilities

Compliance capabilities

Analytics capabilities

### **Technical** Capabilities

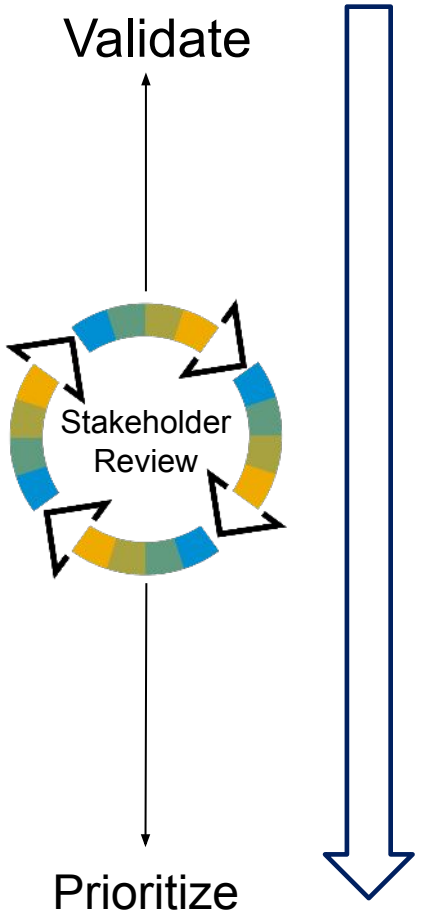
Enterprise capability map

Integrated data architecture

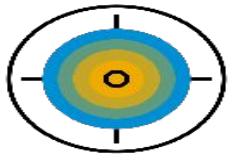
Security strategy

3rd party data acquisition

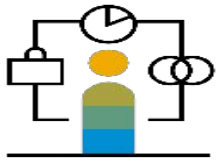
# Business Outcome Discovery Methodology



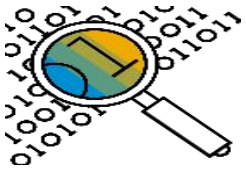

**Business Outcome** **1** Identify & scope business outcomes aligned with strategic priorities



**Processes Involved** **2** Identify process change required to support business outcomes



**Critical Data** **3** Identify all critical data required to support business process outcomes, AI/ML, Analytics



**Data Strategy Implications** **4** Identify capabilities to the data landscape (people, process, tech) required to achieve the business outcome

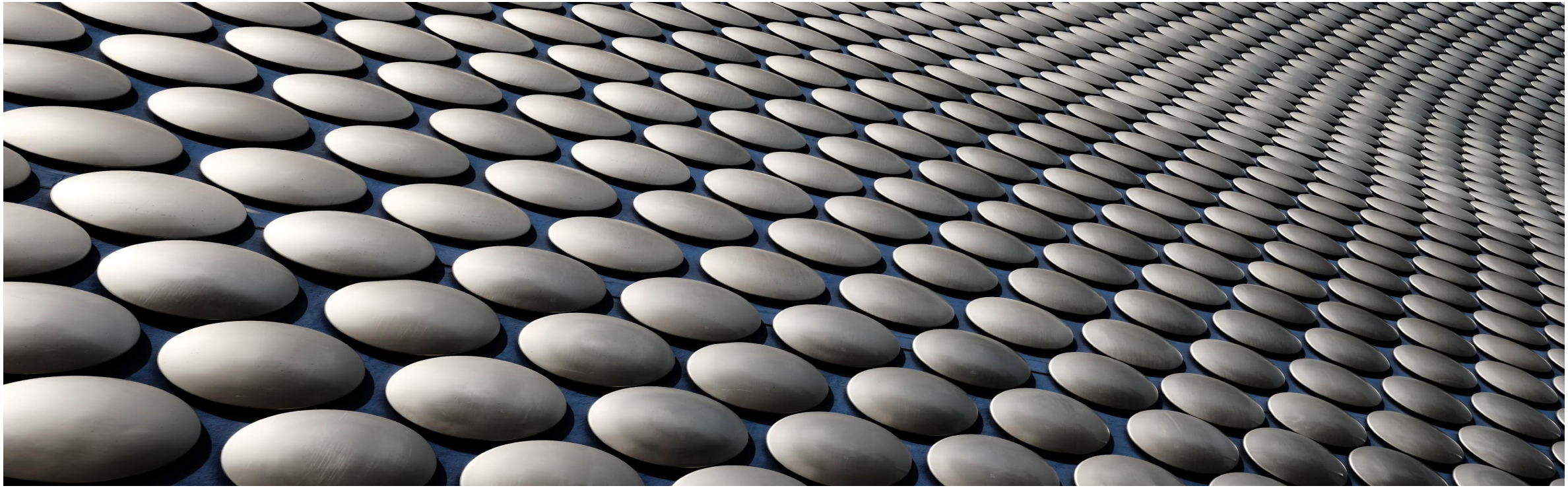
Visit business outcome data strategy master class on YouTube

# ALSO .....

KEEP STRATEGY RELEVANT

MAKE YOURSELF CREDIBLE

GET LOTS OF “*FRIENDS OF DATA*“



# Data As A Product

## ***Capabilities//Services***

*Innovation/Agility*

- Data pipelines(Sourcing/Transformation)
- Data lineage(Metadata, Catalogs)
- Data observability(Data profiling/Data quality)
- Business intelligence/Visualization
- AI/ML capabilities
- Data governance/Data Management.

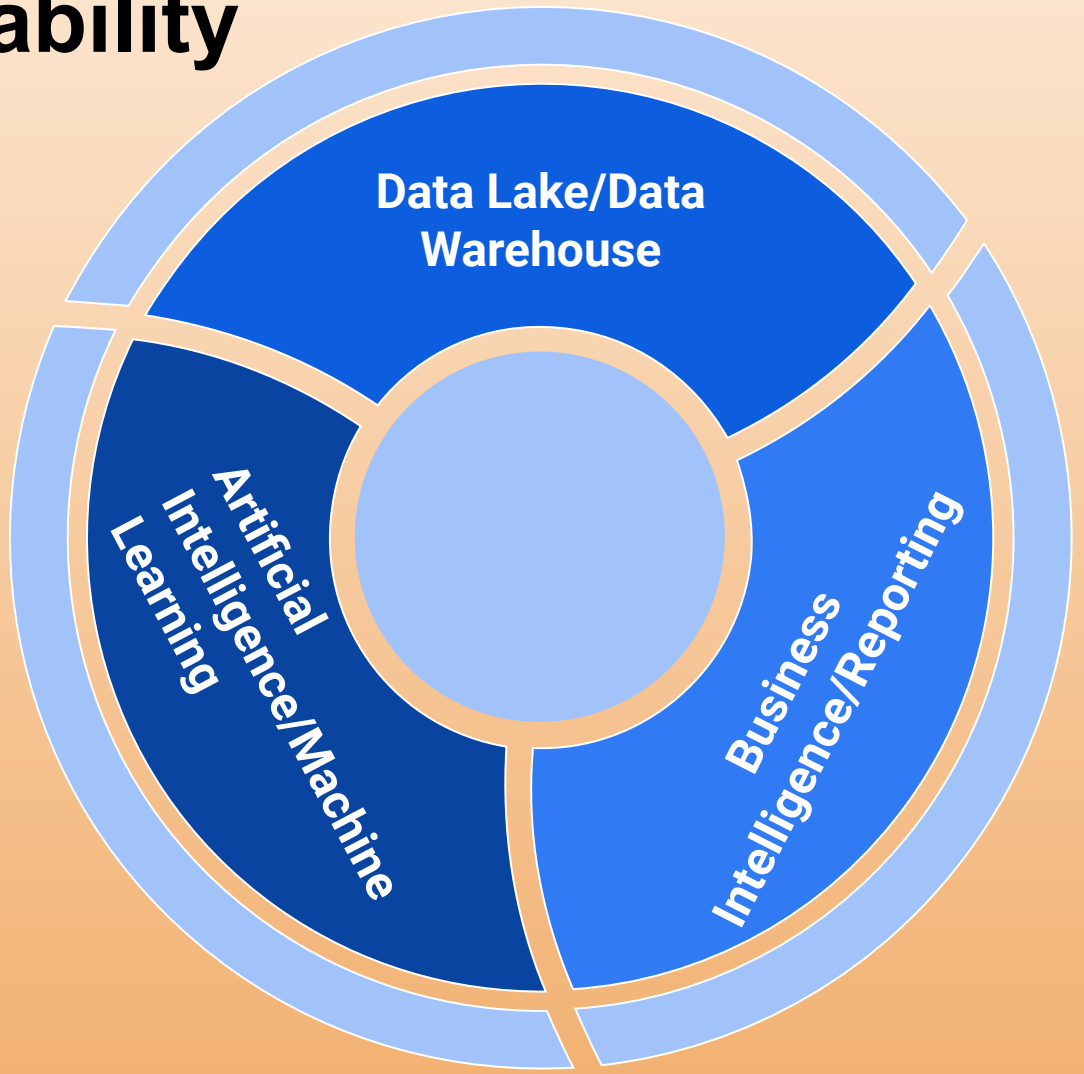
- Data Product as a Trusted Source
- Availability (Uptime, Never Down)/Reliability
- SLA Requirements
- Data Classification (NPI/Regulation)
- Provisioning/Data Services
- Data governance/Data Management.
- Cloud Readiness

***Data Architecture/Cloud Readiness***

# BI/AI Data Capability

**AI/ML**

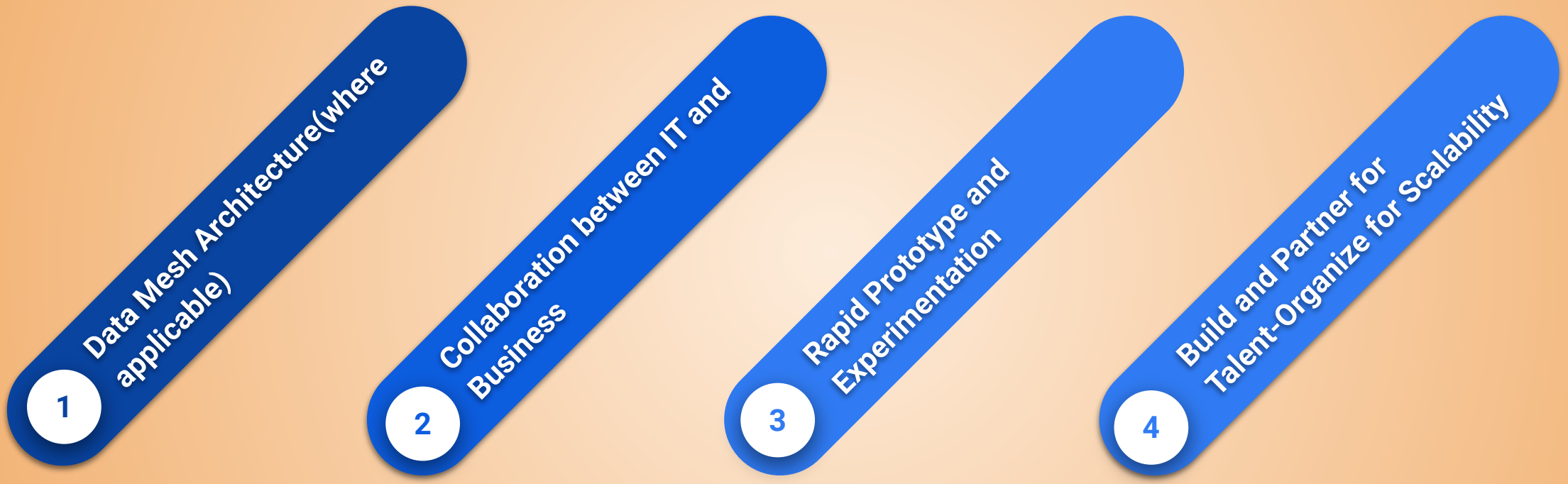
- Data Shared from BI(Aggregated Data)/Data Lake (Raw Data)
- Data Cleansing/Feature Selection
- Model Evaluation/Training
- Model in Production
- Model Results Provisioning
- Model Results Share to BI Layer/Data Store
- Model Compliance/Governance




**Business Intelligence**

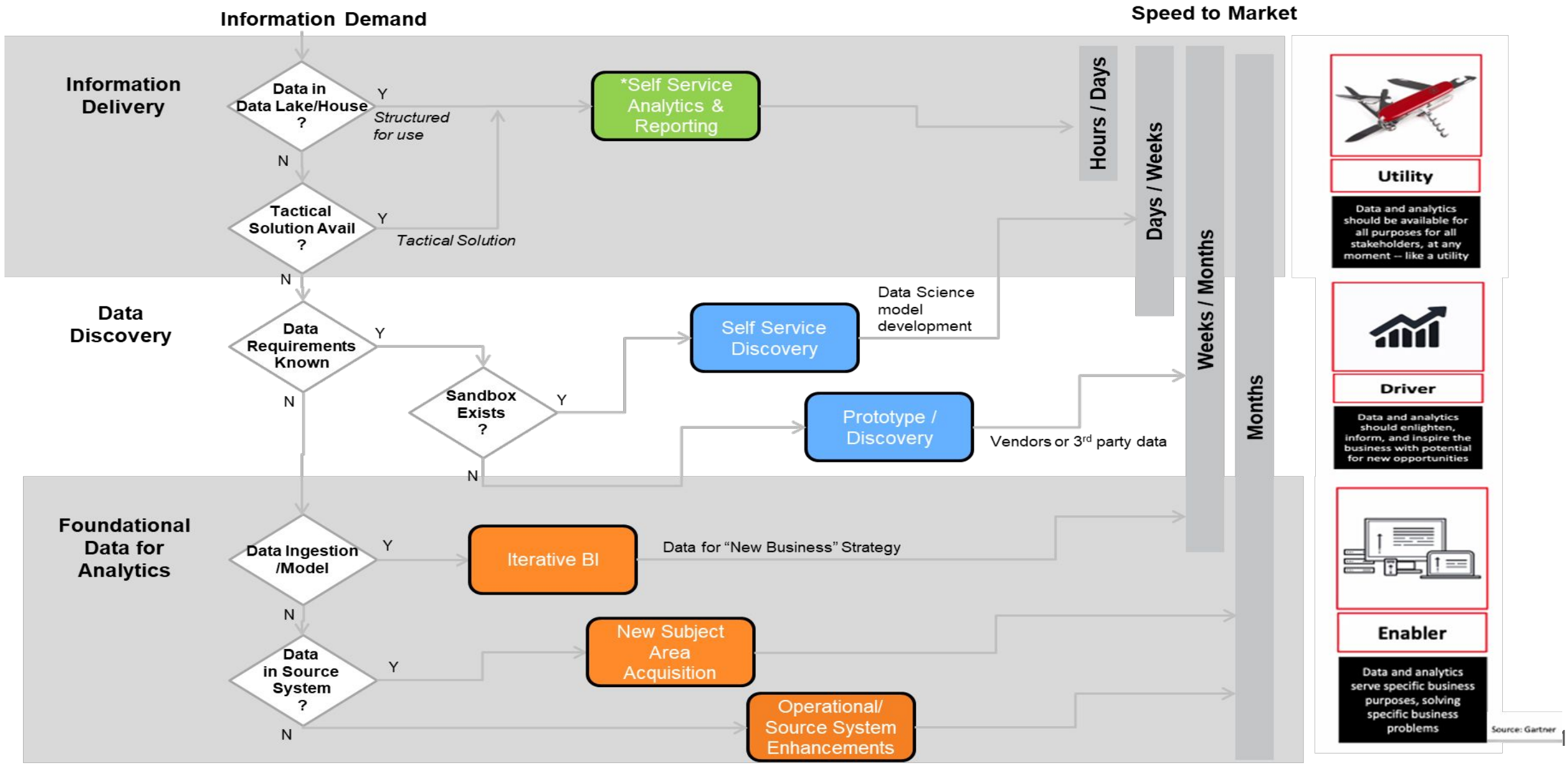
- Data Shared from Data Lake/Data Warehouse
- Metrics/Insight Generation/Visualization. Dashboards with KPIs.
- Aggregate Data/Dimensional Modeling
- BI Data Share for AI/ML Models
- Continuous Refinement of Metrics based on Data Drift/Model Evaluation Results

# Key Drivers - AI/BI




**Data Governance/Cloud Architecture/Data Science Platform**

# Key Decision Matrix - Business Value & Type of Demand



# THERE IS NO AI WITHOUT IA (INFORMATION ARCHITECTURE)

Goal

Artificial Intelligence

Machine Learning

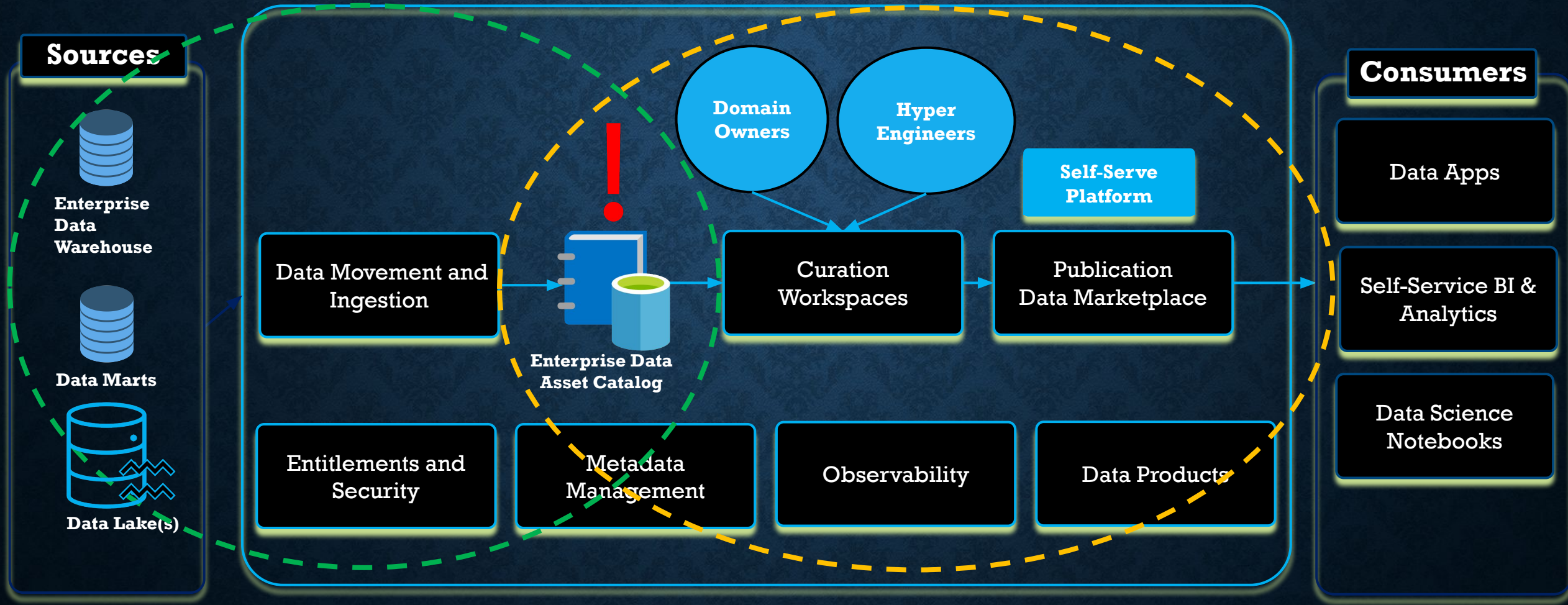
Analytics

Profiling & Quality

Data (foundation)

Strategy Starts Here

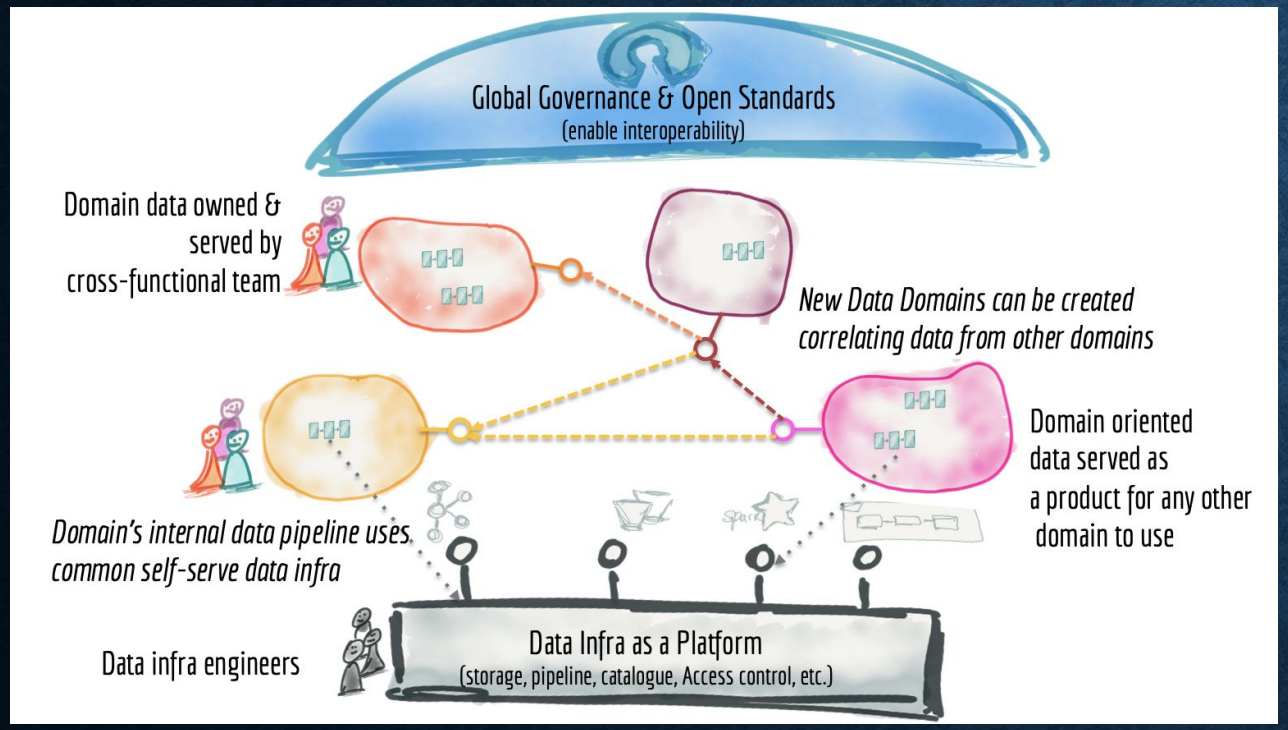
# EMERGING IA & DATA STRATEGY - DATA FABRIC AND DATA MESH




Data Fabric – Infrastructure, Technology, Architecture driven

Data Mesh - Business Centric domain ownership of the data

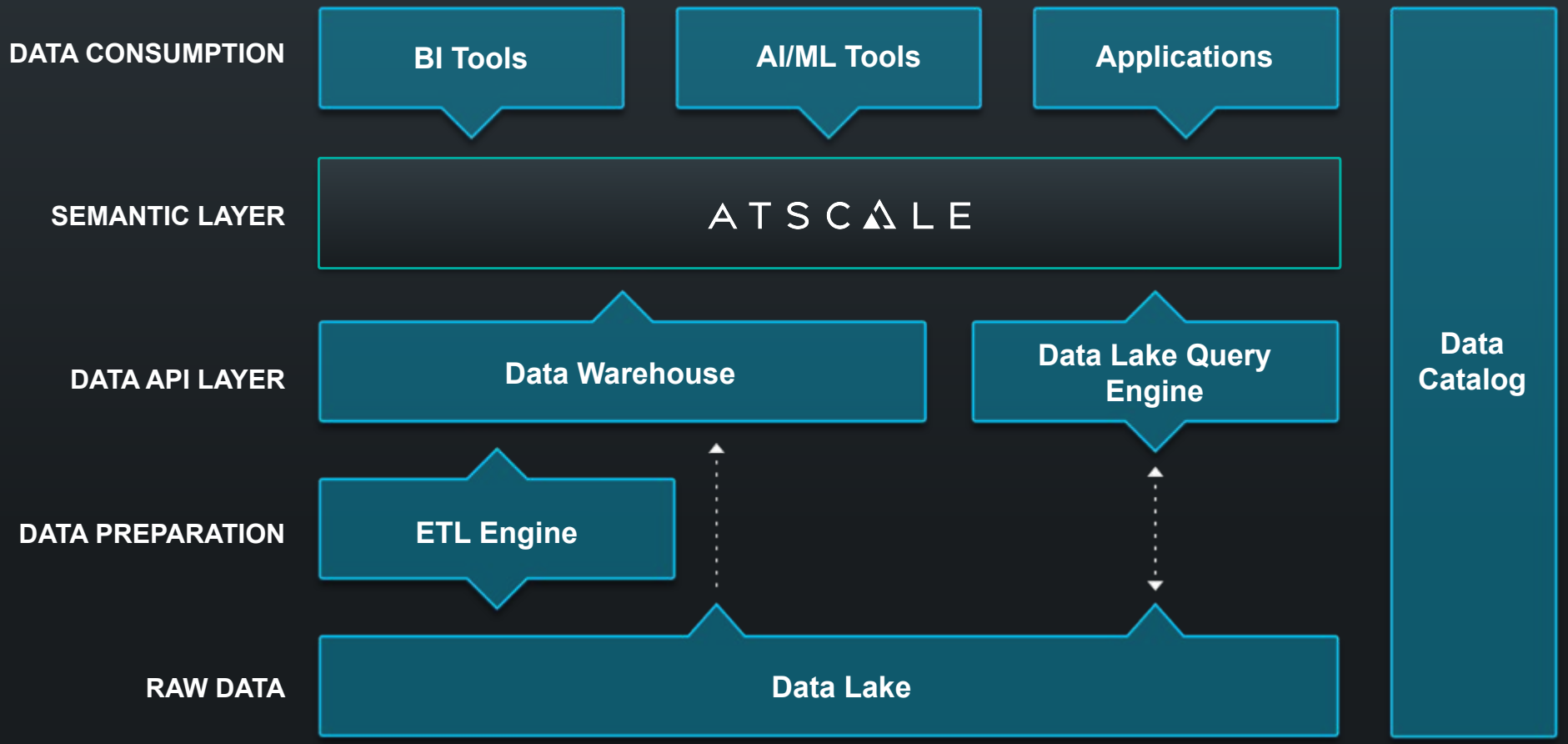
# DATA CATALOG
# *THE NUCLEI OF A DATA MESH**



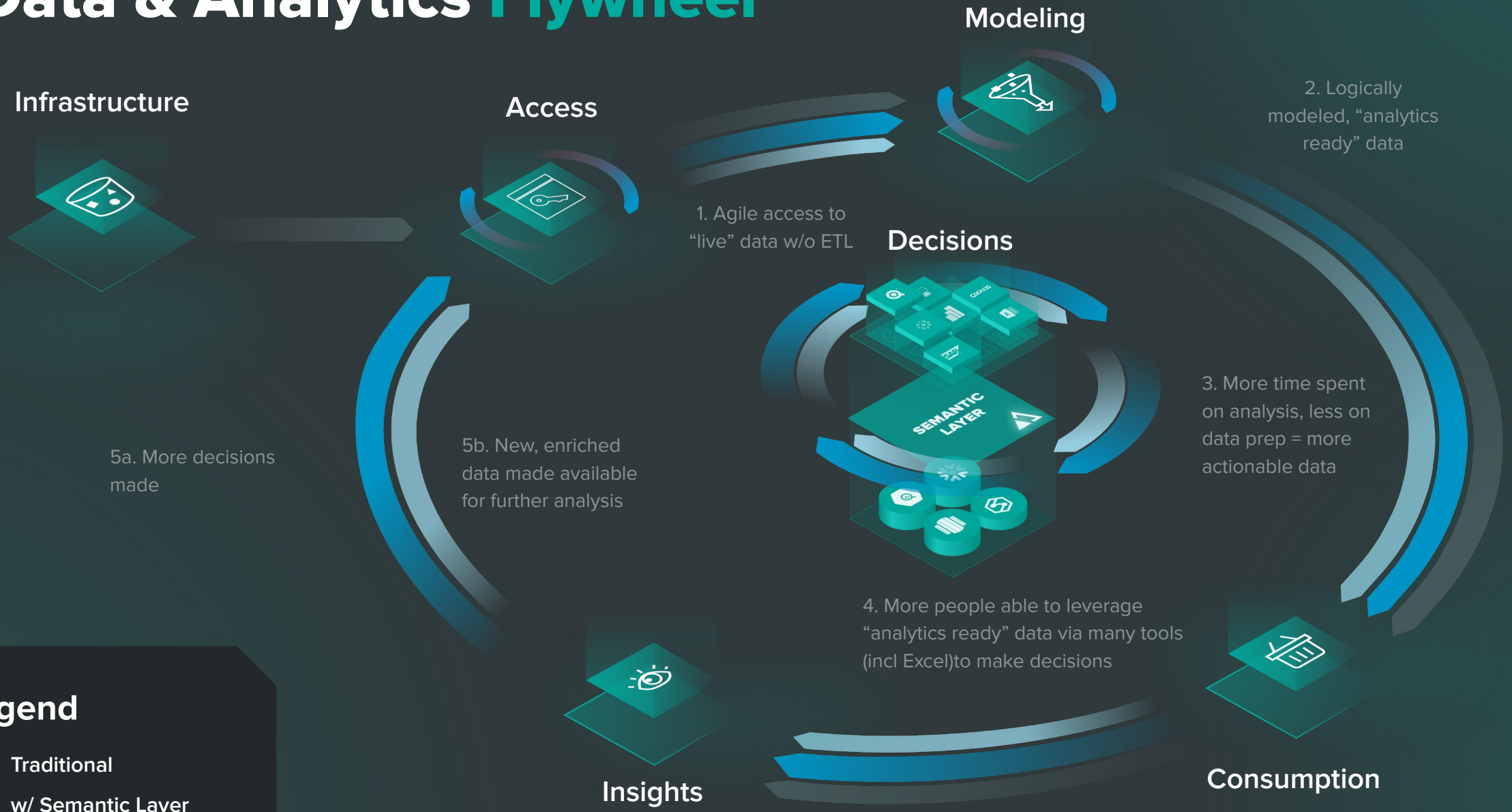

- A data product must be easily discoverable especially with a data catalogue, with their meta information such as their owners, source of origin, lineage, sample datasets, etc. This centralized discoverability service allows data consumers, engineers and scientists in an organization, to find a dataset of their interest easily. Each domain data product must register itself with this centralized data catalogue for easy discoverability.
- Note the perspective shift here is from a single platform extracting and owning the data for its use, to each domain providing its data as a product in a discoverable fashion.
- Data catalog platforms provide central discoverability, access control and governance of distributed domain datasets.

**Data Mesh (concept founded by Zhamak Dehghani) is a sociotechnical approach to share, access and manage analytical data in complex and large-scale environments - within or across organizations*

# **AtScale:** *Where we fit.*



# Data & Analytics Flywheel



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