

KBTG



Building Cloud-Optimized Data Ecosystem for Enterprise Agility

Big Data & Cloud Computing 2025

Kramol Pulkes

25.09.2025

A synergistic partnership driving digital banking innovation and regional growth

Introduction of KBANK and KBTG

Kasikornbank (KBANK)

- One of Thailand’s leading banks, serving **20M+ customers** with a robust presence across **Retail, SME, and Corporate Banking**.
- **As of end 2024 manage Asset of 4.33 trillion** (approximately **USD 127.3 billion**), marking a 0.97% increase from the previous year.
- Operator of **K PLUS**, Thailand’s top mobile banking app with **20M+ active users**, driving digital financial inclusion at scale.
- Strategic investments in **AI, Data Platforms, Web3, Digital Asset Ecosystem, and Emerging Technologies**.

KASIKORN Business-Technology Group (KBTG)

Technology and Innovation Engine

- **Technology subsidiary of KBank**, responsible for engineering and running digital banking infrastructure.
- **Leads innovation in AI/Gen AI, real-time data analytics, and enterprise automation** across banking operations.

**20+ Million
Customers and
Active users in K+
(#1 in Thailand on mobile
banking)**



**Leading innovation
in financial
technology**

**Asset of 4.33
trillion Baht
(0.97% increase YoY
As of 31 Dec 24)**



What is a data lakehouse?

A Unified Data & AI Platform

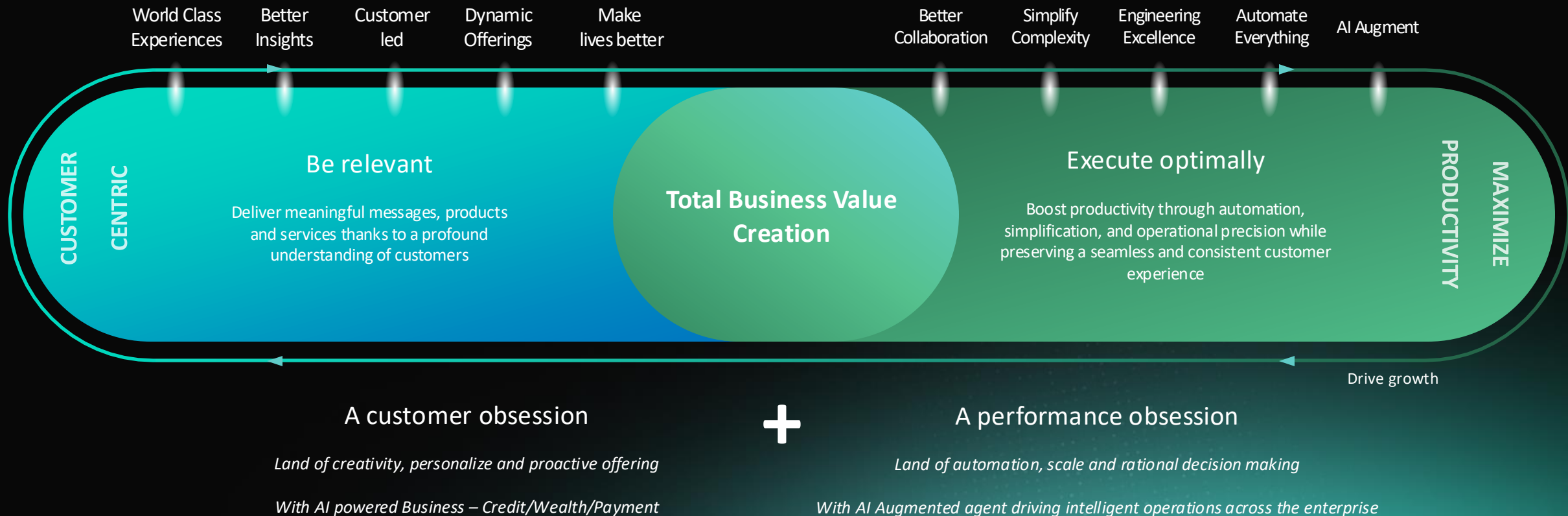
A Data Lakehouse is a scalable, flexible, and cost-effective storage system that ingests, stores, and processes vast amounts of structured and unstructured data. It enables AI, machine learning, and real-time analytics while ensuring data governance and security.

Key Characteristics:

- ✓ **Scalable & Cost-Effective** – Stores raw and processed data at scale, often in the cloud. Separates data storage from processing power for flexibility and efficiency.
- ✓ **Multi-Format Support** – Handles structured (tables), semi-structured (JSON, XML), and unstructured (voice, videos, logs) data.
- ✓ **Real-Time & Advanced Analytics** – Supports AI, machine learning, and streaming data decision-making.
- ✓ **Strong Governance & Security** – Ensures data quality, compliance, and access control.



Leverage data & AI platform as customer centric business transformation enabler and AI-augmented productivity booster



How can we achieve everything in a year?

Future Proof with Extensibility Design

Automation First in Mind

Bank-wide Empowered Platform

Scale with People

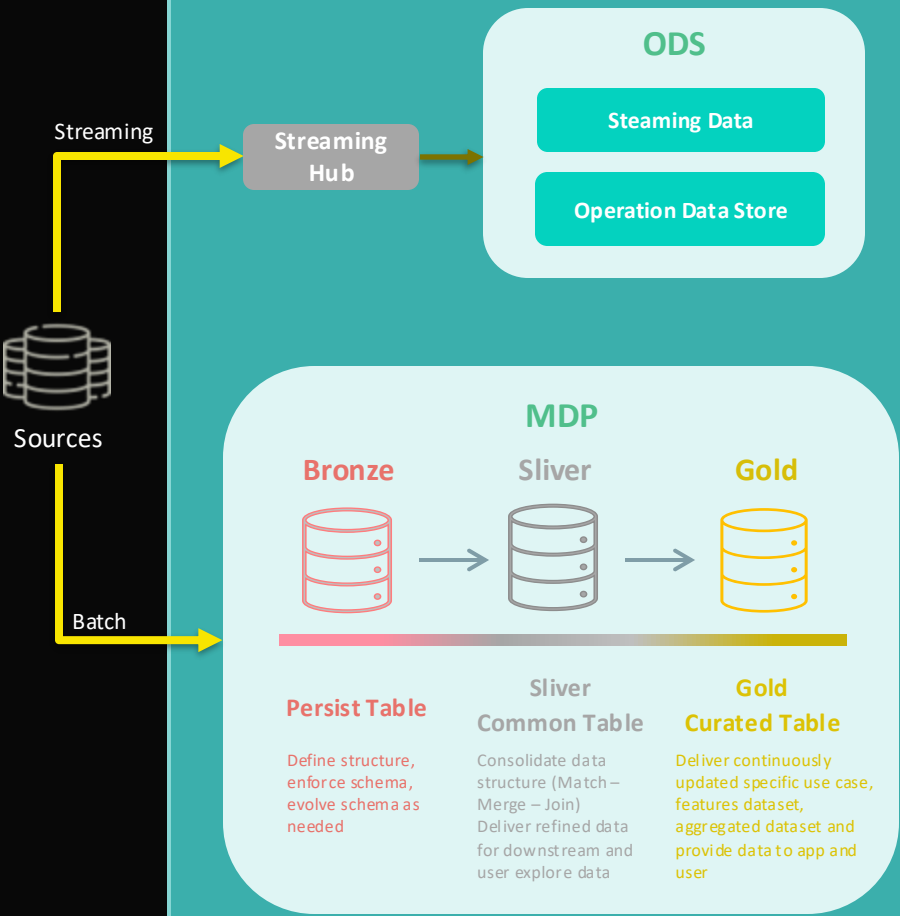
Choosing the right deployment model

Criteria	Cloud Data Lakehouse	On-Premises Data Lakehouse
Scalability	Elastic, scales on demand	Limited by hardware capacity
Cost	Pay-as-you-go, lower upfront cost	High upfront investment, ongoing maintenance
Performance	Optimized with cloud-native AI & ML	Dependent on in-house infrastructure
Security & Compliance	Built-in security, requires cloud governance	Full control over security & compliance
Maintenance	Managed by cloud provider	Requires in-house IT resources
Deployment Speed	Faster, ready-to-use infrastructure	Longer setup & upgrade cycles

★ **Key Takeaway:** Cloud data lakehouse offers scalability, cost efficiency, and rapid deployment, while on-premises provides greater control but requires higher investment and effort.

DATA PLATFORM

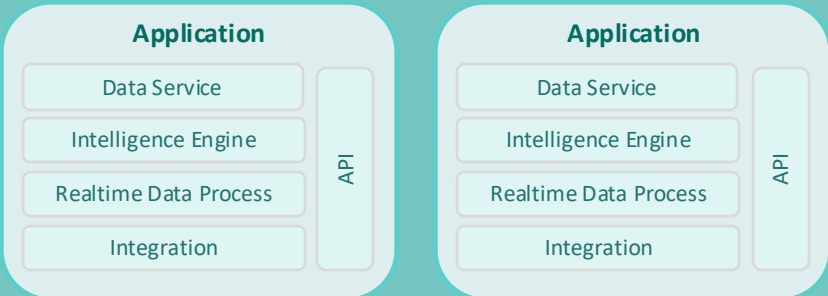
Data Foundation



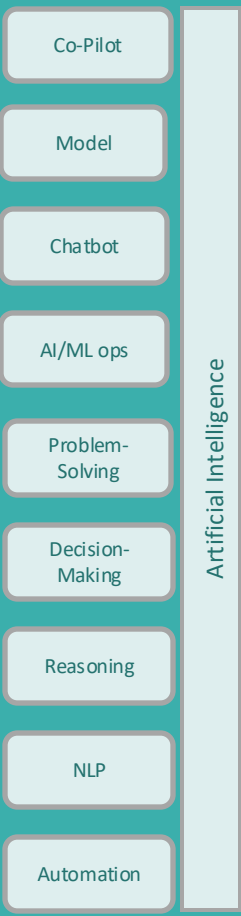
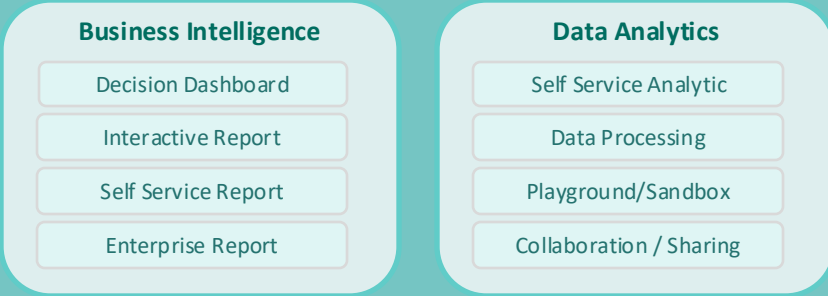
DATA INTELLIGENCE

Data Intelligence and Applications

Data Applications



Data Intelligence



AI

Infrastructure and Data Management

Infra As Code

DevSecOps

Data Catalog

Data Quality

Metadata

Framework

Data Security

Data Lineage

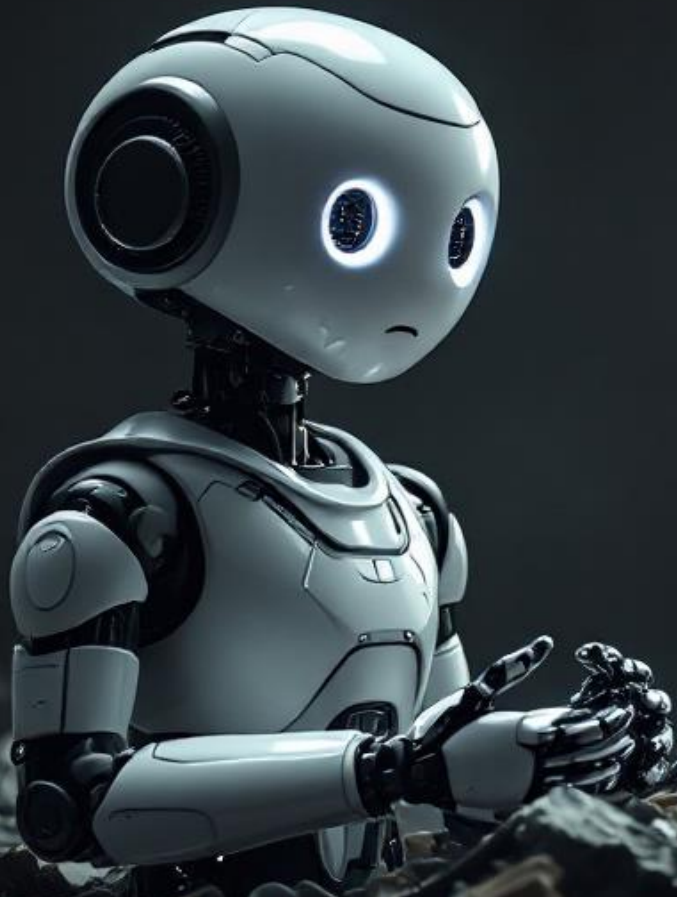
Observation

Automation/
AI Assistant

AI & analytics are only as good as its data

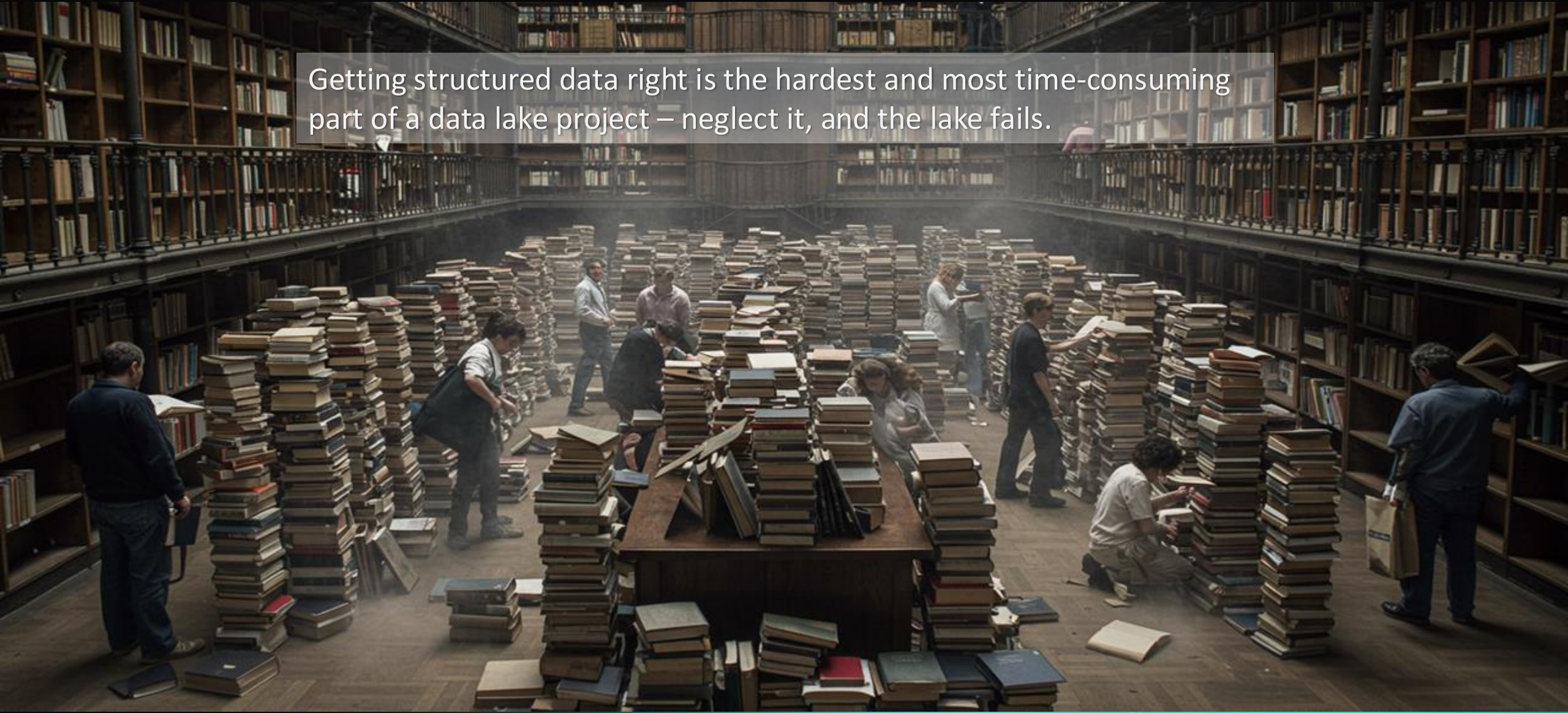
Garbage In, Garbage Out

AI and analytics are only as good as the data they are trained on. Data must be clean, complete, accurate, and timely.



The #1 culprit of data lake failures

Getting structured data right is the hardest and most time-consuming part of a data lake project – neglect it, and the lake fails.

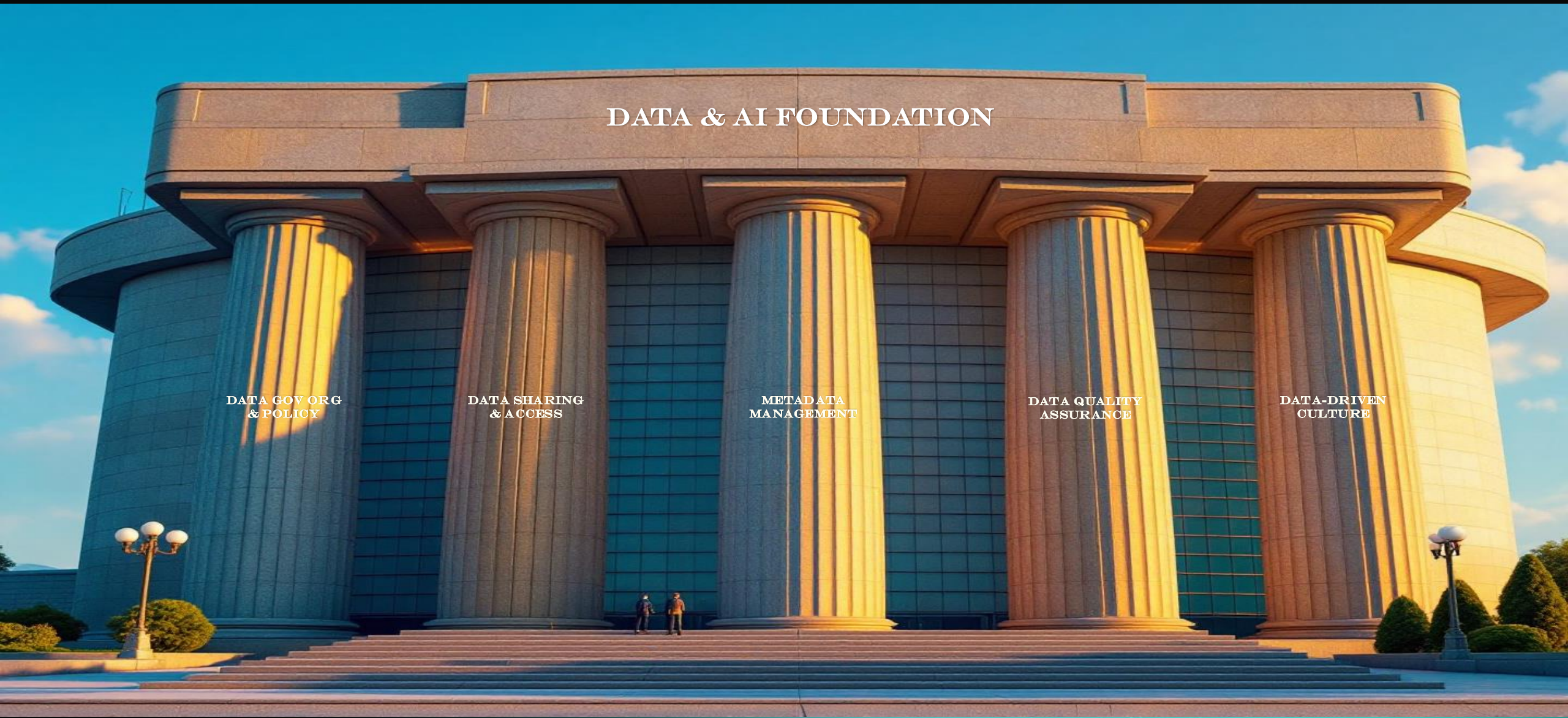


Ensuring sustainable & Reliable Data & AI Foundation

KBTG



Enterprise data management key focus areas



DATA & AI FOUNDATION

DATA GOV ORG
& POLICY

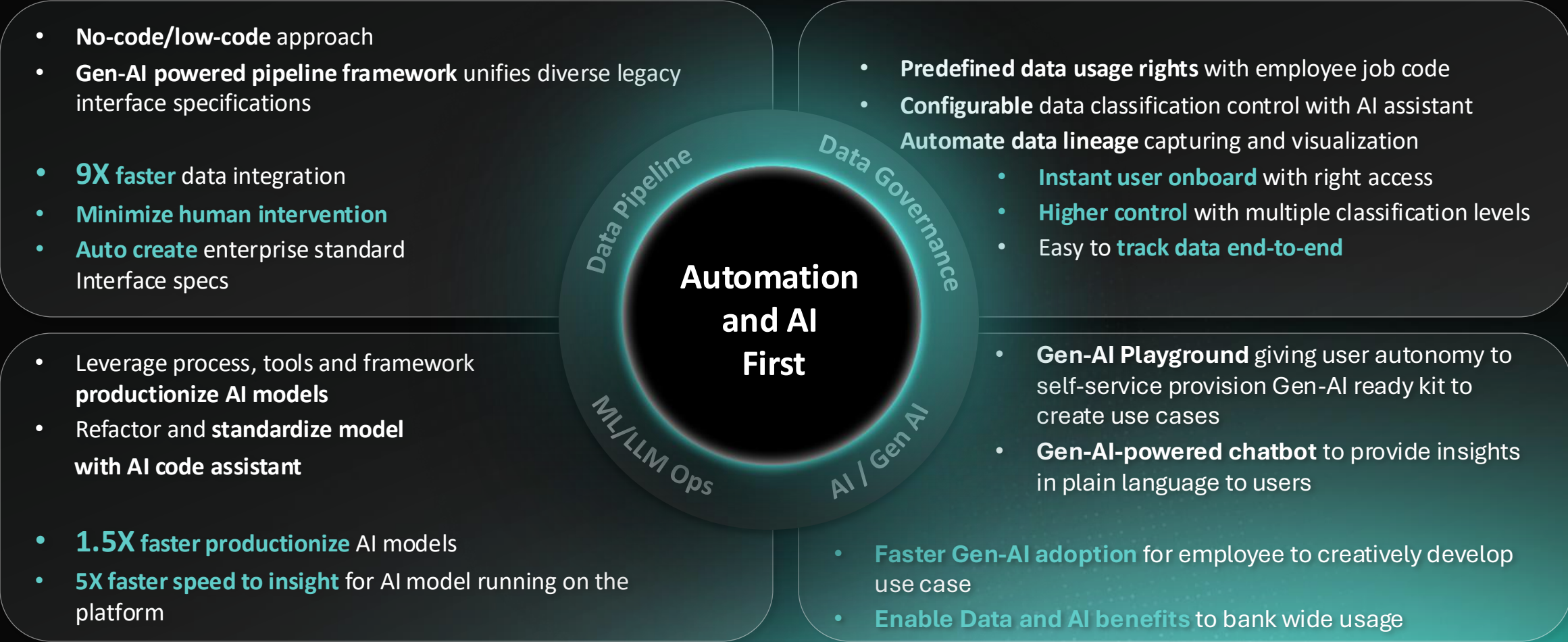
DATA SHARING
& ACCESS

METADATA
MANAGEMENT

DATA QUALITY
ASSURANCE

DATA-DRIVEN
CULTURE

To achieve scalable implementation from design to operation at speed, we keep the principle of automation-first leveraging AI/Gen AI capabilities



Comprehensive change management program to uplift Data & AI skills fostering Data & AI Culture with Gamification Concept

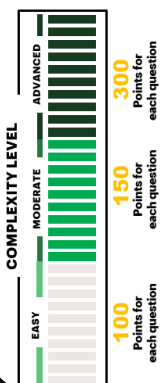


21-DAY CHALLENGE REWARD SYSTEM

01 PLAY

02 EARN

03 REDEEM



BONUS
50
Points
(For first 5 participants to complete all questions)



FROM WHAT WE FOUND FROM DATA USERS EXPERIENCES

Via...
30 DATA VALIDATION SESSIONS
30 MONTHLY CATCH-UP CALLS

THEY EXPERIENCED

STABLE CONNECTIVITY
ROLE & RESPONSIBILITY
USABILITY OF TOOLS
SKILLS SET
METADATA UPDATE
KNOWLEDGE SHARING
CONTACT POINTS
COMMUNICATION
LEADERSHIP
DATA READINESS
PROCESS IMPROVEMENT
INCIDENT MANAGEMENT

THIS BECOMES THE OPPORTUNITY FOR CHALLENGES DESIGN

Challenges are part of any new technology transformation. We aim to minimize the challenges by seeking to understand the users and then tailor customer-centric solutions to enhance their experiences.

THEY KNOW

KNOW their role and responsibilities per their data user type
KNOW all their stakeholders and the touchpoints
KNOW what is available in the data lake
KNOW contact points for end-to-end process of a data lake users

THEY CAN

CAN use the tool
CAN understand how to extract data from the data lake
CAN use the data to support their daily work
CAN add value to their work by using data from the lake



78%
of Target Employee
Engaged in AI
(10,862 of 12,457)

45
of 55
Departments
adopted AI to daily
workflow

97%
of Target Users
Certified
on Data and AI
Literacy

Key Takeaways

- 🎯 **Align Technology with Business & Regulatory Goals** – Ensure data & AI investments support regulatory oversights and data management.
- 🔒 **Minimize Risk of Vendor Lock-in** – Choose open, interoperable platforms to maintain control and flexibility.
- 🚀 **Build for Scalability & Future Growth** – Ensure the platform can handle increasing data volumes and evolving AI use cases.
- 📊 **Take a Phased Approach to Implementation** – Start with a proof of concept (POC) before scale strategically across functions.
- 🤝 **Partnership** – Leverage reputable cloud providers and/or technology vendors for expertise.
- 🧑💻 **Develop Talent & a Data-Driven Culture** – Invest in skills, training, and change management to maximize platform value.





Thank You