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How to build your Data Governance framework?

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Is a Data Governance Program Needed?

Assess business drivers, industry benchmarks, and internal readiness to determine the scope of DG.

Business Drivers (Top-Down Approach)

Identify Business Challenges & Objectives
- What data issues impact decision-making and efficiency?
- Are teams struggling with data inconsistency, silos, or trust?

Analyze Business & Data Team Pain Points (Bottom-Up Approach)
- Interview business users & data teams to understand frustrations
- Identify gaps where governance could provide measurable impact

Market Analysis (Benchmarking)

Review DG Strategies of Similar Companies
- What governance models do companies in our industry use?
- What tools, frameworks, and roles do they implement?

Assess Regulatory & Compliance Needs
- Are there industry-specific regulations driving DG adoption?
- Do competitors comply with stricter data policies than us?

Build DG Business Cases
- How has DG helped other companies improve efficiency & compliance?
- Can we estimate potential ROI for our business?

Internal Readiness (D&A Maturity)

Evaluate Existing Data Platform & Usage
- What data systems, tools, and workflows are currently in place?
- Are they being used efficiently, or is there duplication/waste?

Assess Organizational Readiness
- Do we have executive buy-in and data leadership support?
- Do we have the resources to implement and maintain DG?

Identify Governance Gaps
- Do we have documented data ownership & responsibilities?
- Are there policies around data access, quality, and lineage?

Scope Definition

Define DG Objectives & Scope
- Should DG focus on compliance, enablement, quality, lineage, or all?
- What departments need governance the most? (Finance, Marketing, Product, etc.)

Determine Success Metrics
- How will we measure the impact of DG? (e.g., fewer data errors, faster decision-making, regulatory compliance)

Establish Next Steps
- If we move forward, what's our roadmap? (Phased rollout vs. company-wide?)

If at least two areas indicate a strong need for DG, move to Step 2

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Defining the DG Framework & Gaining Buy-In

Develop a structured DG approach, assign ownership, and assess investment feasibility.

DG Vision

Assembling a Custom "DG Solution / Framework"

Define the key objectives and structure of the Data Governance (DG) program based on business needs, industry standards, and organizational capabilities.

- What should our DG framework include?
- Who needs to be involved in shaping it?

Design

Phase 1

Designing the DG Solution

- Select Tools (Data Catalog, DQM Tools, etc.)
- Select Organizational Model (Centralized vs. Decentralized)

Roles

Phase 2

Defining Roles & Responsibilities

- Defining the Governance Leader (Who owns and drives the DG initiative?)
- Assembling a Team to Develop the Program Project

Evaluation

Phase 3

Evaluating Investment & Risks

- Financial Return-on-Investment Model (What cost savings or efficiency gains can DG bring?)
- Identification & Analysis of Major Barriers and Risks

Decision: Are we ready to move forward?

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Two Approaches to Data Governance

Choose the right DG strategy based on your organization's needs.

Approach 1 – Practical DG

DG with Common Sense:
Small, high-value initiatives teams can implement themselves

Approach 2 – Targeted DG MVP

DG Minimum Viable Product:
Focused governance where pain points are highest and maturity allows quick wins

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DG with Common Sense: A Flexible, Team-Led Approach

A set a data management projects with clear value that individual teams can implement as part their internal initiatives.

When to Use This Approach

- When data teams lack dedicated resources for governance
- When teams want quick results without complex policies
- When decentralization is the norm (e.g., separate business units)

Key Features

- **Simplicity:** Low effort, high value
- **Flexibility:** Individual teams drive their own initiatives
- **Autonomy:** Teams choose what aligns best with their needs

Examples

- Marketing defines consistent campaign tags for analytics
- Finance documents data ownership for reporting accuracy

DG Minimum Viable Product: Targeted, High-Impact Governance

A simplified initiative focused on the most “painful” areas within one “mature” domain.

When to Use This Approach

- When there is an urgent data issue (e.g., compliance risk, reporting errors)
- When at least one domain is mature enough for governance to succeed
- When leadership wants proof of value before scaling DG

Key Features

- **Pain-Driven: T** argets the most critical business pain points first
- **Scoped & Focused:** One domain, one problem, one clear win
- **Scalable:** Once proven, this model can expand across teams

Examples

- Finance applies DG to ensure accurate revenue reporting
- Data teams implement lineage tracking for critical BI reports

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Laying the Foundation for a Scalable DG Program

Key Milestones

Establish a Data Office
Build the core team responsible for driving and overseeing the DG program

Develop a Project Plan
Define clear timelines (1, 2, and 3 years) for rolling out the DG framework

Adopt the DG Policy
Set the principles, guidelines, and compliance rules to formalize governance

Create a Detailed Roadmap
Outline the step-by-step implementation plan for DG initiatives

Data Governance Program: Launched & Ready to Roll

The foundation is set—now let’s focus on execution.

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Executing DG: Prioritizing the Most Critical Data Initiatives

01.

Identify Key Data Domains Pinpoint the most critical data areas that require governance first (e.g., Finance, Customer, Product)

02.

Define & Automate Data Classification Rules
Set criteria for identifying critical data and automate classification for consistency

03.

Assign Roles & Responsibilities
Establish clear ownership by defining Domain Data Owners, Data Stewards, and Custodians

The Building Blocks for Scalable & Sustainable DG Execution

Step-by-Step Data Catalog Implementation Roadmap

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Step 1: Laying the Foundation for Data Catalog Implementation

Before launching the Data Catalog, define clear goals, select the right tools, & plan integration strategy.

Define Goals, Teams & Budget Set a clear vision and align stakeholders before execution	**Evaluate & Select the Best Data Catalog Platform** Assess tools and select the most suitable platform for your needs	**Assess Infrastructure Readiness** Ensure your data infrastructure supports a successful catalog rollout	**Plan Metadata Integration & Automation Strategy** Define how metadata will be collected, structured, and automated
Identify business & technical objectives for the catalog	Conduct a market analysis of available Data Catalog tools	Define functional & non-functional requirements	Establish a strategy for integrating metadata from source systems
Define key stakeholders (Data Owners, Stewards, IT Teams)	Test and validate tools based on business requirements	Assess existing metadata management capabilities	Set up rules for data classification, scanning & updating
Allocate budget & secure executive buy-in	Finalize platform selection & plan integration strategy	Identify gaps in infrastructure (storage, APIs, integrations)	Design an automation plan for metadata enrichment & scoring

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Step 2: Deploying the MVP Data Catalog & Defining Metadata Standards

With the foundation set, deploy the MVP catalog, establish metadata standards, & assign governance roles.

Assembly of the MVP Catalog & Deployment to Production
Ensure a smooth initial rollout with key stakeholders involved

- Deploy the MVP version of the catalog into production
- Identify ”Data Power Users“ for early testing and feedback
- Train key teams on catalog functionality and governance processes

Advanced Classification of Sensitive Data
Ensure structured metadata and enforce governance policies

- Enable advanced classification for sensitive and critical data
- Integrate column-level lineage tracking for transparency
- Develop monitoring tools to track metadata completeness & relevance

Integration of Data Quality Status into Object Card and Lineage
Ensure metadata is well-classified and traceable across systems

- Establish data quality rules (completeness, accuracy, freshness)
- Integrate data quality status into metadata lineage
- Assign responsibilities to Data Owners, Stewards, and Custodians

Step 3: Scaling & Automating Metadata Management

With the MVP deployed, the focus shifts to automation, classification, & metadata governance.

Advanced Column-Level Lineage
Improve metadata visibility and establish a lineage tracking system

- Implement column-level data lineage for traceability
- Automate lineage capture from key source systems
- Establish reporting mechanisms for lineage gaps and anomalies

Integration of Data Source System Schemas & Business Glossary
Ensure alignment between business terms, data assets, and governance rules

- Link business glossary terms to technical metadata
- Define data contracts between data producers and consumers
- Enforce standard naming conventions across domains

Automation of Documentation & Metadata Quality Monitoring
Ensure governance is sustainable by automating key processes

- Use metadata scoring to track data quality over time
- Automate documentation updates through CICD processes
- Develop dashboards for Data Stewards to monitor metadata health

The Building Blocks for Scalable & Sustainable DG Execution

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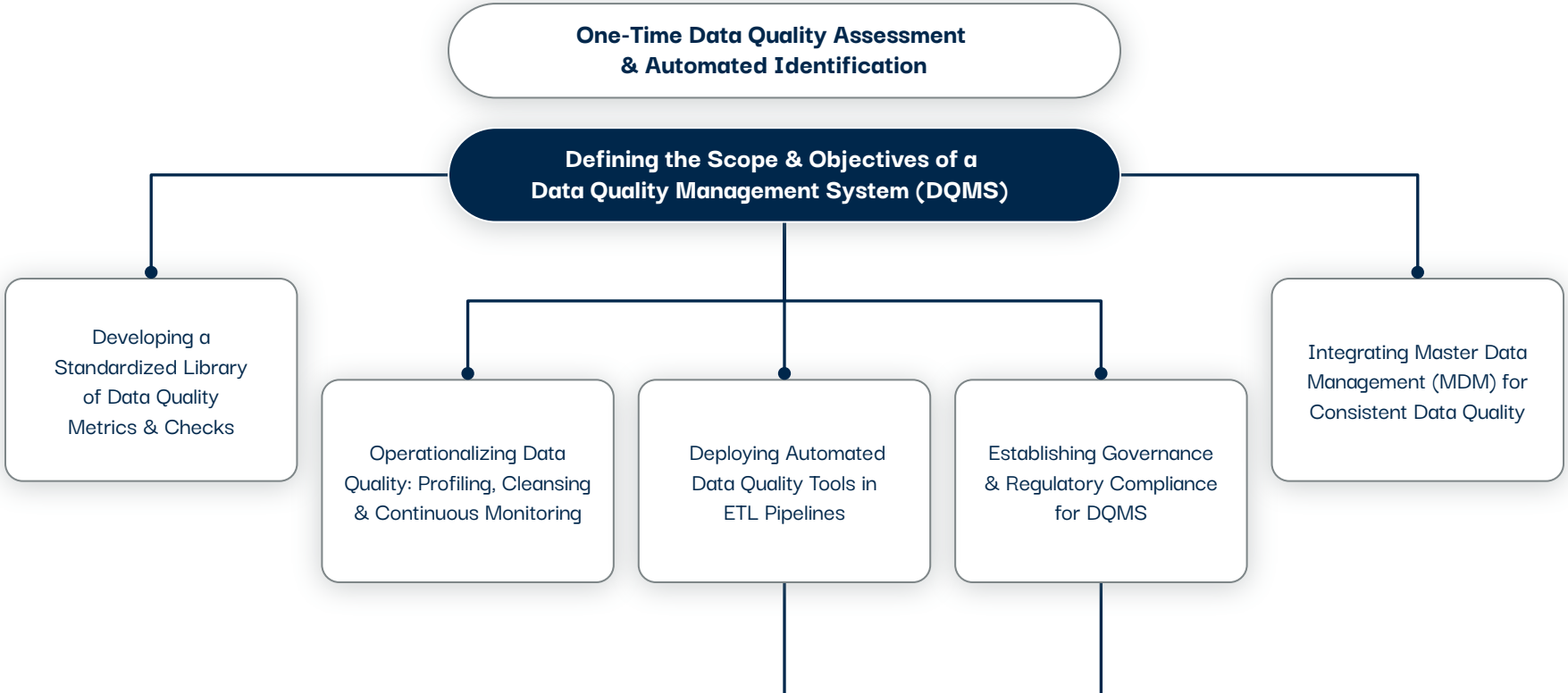
Data Quality Management System (DQMS)

From assessment to governance, DQMS framework ensures continuous data quality monitoring.



Developing Metadata-Driven Data Quality Solutions for Global Checks

Embedding Automated Data Quality Checks into Data Pipelines

Implementing Data Contracts to Ensure Accountability Between Systems

Improving Domain-Level Data Quality Monitoring & Coordination

Making Data Quality Statuses Visible & Actionable in the Data Catalog

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Data Operations

The 6 Pillars of a Scalable & Automated Data Operations Framework

1

Data Platform Architecture Design / Audit

Active Participants in the Deployment of the Data Catalog and DQ Tooling

2

Process Automation: ETL/ELT, Orchestration

Automated Data Testing

3

CI/CD for Data – Continuous Integration, Deployment, and Delivery

Version Control System – (Git, GitHub, Azure DevOps, etc.)

4

Data Infrastructure Organization – Flexible Management, Microservice Architecture, and Containerization

5

Data Monitoring and Observability – Monitoring of Process Performance

Performance Monitoring
Logging and Alerts for Failures and Errors

6

Organization of Team Interaction – Between Data Engineers, Analytics, and Developers

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Certified Data Management & Data Products

Establishing governance, certification workflows, & structured data products to ensure data reliability.

Data Certification Process

- **Certification Criteria for Data** (Quality, completeness, security, ownership)
- **Certification Workflow** (Data audits, business requirements, certification labels)
- **Automated Certification Processes** (Integrated into Data Catalog & Stewardship tools)
- **Data Product Framework**
  - **Dashboard for Monitoring Certifications** (Track status & ownership)
  - **Certified Data Visibility** (Display certification in lineage & object profiles)
- **Integration with Master Data Management (MDM)**

Certified Data Products & Business Use Cases

- **Selecting High-Value Data for Certification**
  (Prioritize key datasets)
- **Business Cases for Using Certified Data**
- **Test & Launch Certified Data Products**
  (Ensure usability before scaling)
- **Training for Domain Teams**
  (Enable data product ownership)
- **Cross-Usage of Master Data Objects**
  (Improve reusability across teams)

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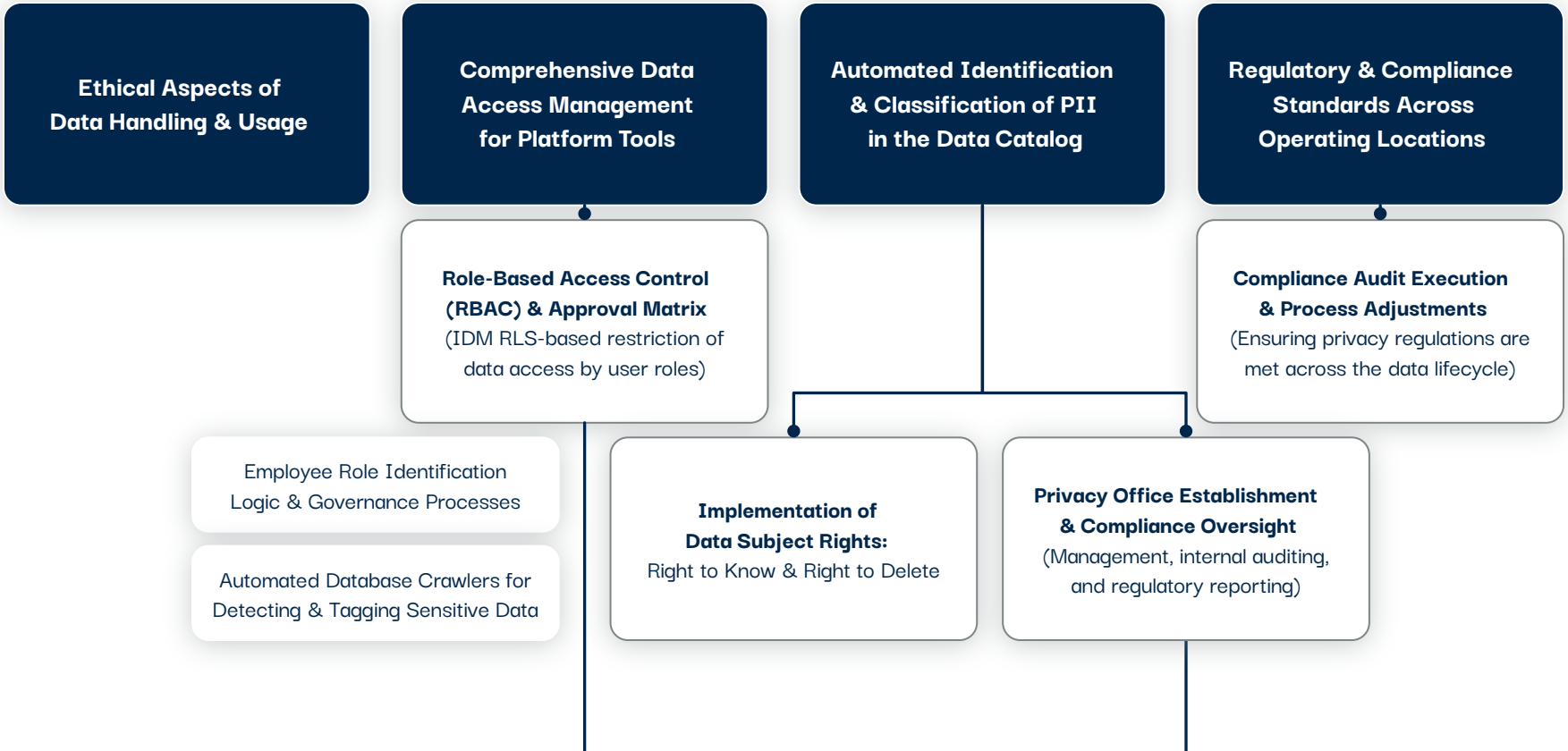
Data Privacy Compliance



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Role-Based Data Access Control & Restriction
(Ensuring data access is aligned with user roles & permissions)

Training & Awareness
Security & Privacy Awareness Training

- Recognizing Phishing Attacks & Cyber Threats
- Periodic Security Audits & Compliance Checks

Data Risk Management
Identifying & Mitigating Data Security Risks

- Vulnerability Scanning & Threat Detection
- Data Leakage Prevention & Response Measures
- Risk-Based Data Security Procedures & Assessments
- Minimizing Data Collection to Reduce Exposure

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Data Literacy Program

Data & Analytics Competency Framework

Defining skill levels & required competencies for all key roles

- Developing a Standardized Data & Analytics Competency Matrix
- Mapping Required Data Skills to Specific Job Roles

Modern & Engaging Learning System

Blended learning approach to scale data literacy across teams

- Comprehensive Onboarding & Mandatory Training
- Group Learning, Self-Paced Modules & Certification Paths
- Gamification & Community-Driven Engagement (Skill Belts, Marathons, etc.)

Hiring & Integrating Data-Literate Talent

Ensuring recruitment aligns with data-driven culture

- Embedding Data Literacy Criteria into Hiring & Onboarding
- Aligning Training Programs with Talent Development Strategy

Step 1 | Step 2 | Step 3 | Step 4 | Step 5

Development of the DG Framework in the company

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Operational Model for Managing the DG Program

Communication & Awareness

Project Communication & Marketing (Portal, newsletters, and engagement tools)

Performance Monitoring

Operational Monitoring Tools (Track ongoing projects & objectives)

Role Definition & Assignment

Classification & Distribution of Roles

Data Stewardship Program

- **Defining & Training Data Stewards**
  Clarify responsibilities & document roles
- **Automating Stewardship**
  Processes: Regular audits via the data catalog
- **Integrating Stewards into DG/DQ**
  Projects: Scale into a Data Culture Program

CDO Office & Governance

- **Expanding Governance Roles as Needed**
  (Adjust based on adoption & growth)

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Finalizing & Scaling Your DG Framework

Regulatory Compliance & Documentation System

(Developing & maintaining regulatory frameworks for data governance)

Refining & Optimizing DG Processes

- **Shifting to Active, Non-Intrusive DG:**
  Embed governance into daily workflows, automate manual processes
  - **Aligning DG with Broader Data & Analytics Initiatives:**
    Integrate with BI, ETL, Data Mesh, and strategic goals
  - **Scaling DG Through a Decentralized, Community-Led Model**
- **Refining the Roadmap & Eliminating Inefficiencies:**
  Identify blockers, improve execution, and optimize team capacity

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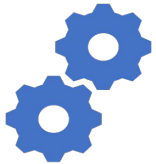
Evaluating the Cost-Benefit Impact of the DG Program

1



Measuring DG Program Success

Tracking Data Governance Metrics & Scorecards

2

Evaluating Financial Efficiency

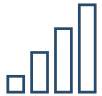
Assessing DG Program ROI & Cost Optimization

3

Adoption & Product Efficiency

Measuring Data Catalog Adoption & Usage Impact

4



Maturity & Strategic Growth

Assessing DG Maturity & Long-Term Scalability

5

Monetization & Value Creation

Developing Data Monetization & Cost Management Strategies

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Launch Initiatives to Further Develop the DG Program

Leadership, Change & Culture
Driving a Data-Driven Culture & Organizational Adoption

Governance Challenges & Innovation
Solving DG Bottlenecks & Scaling Adoption

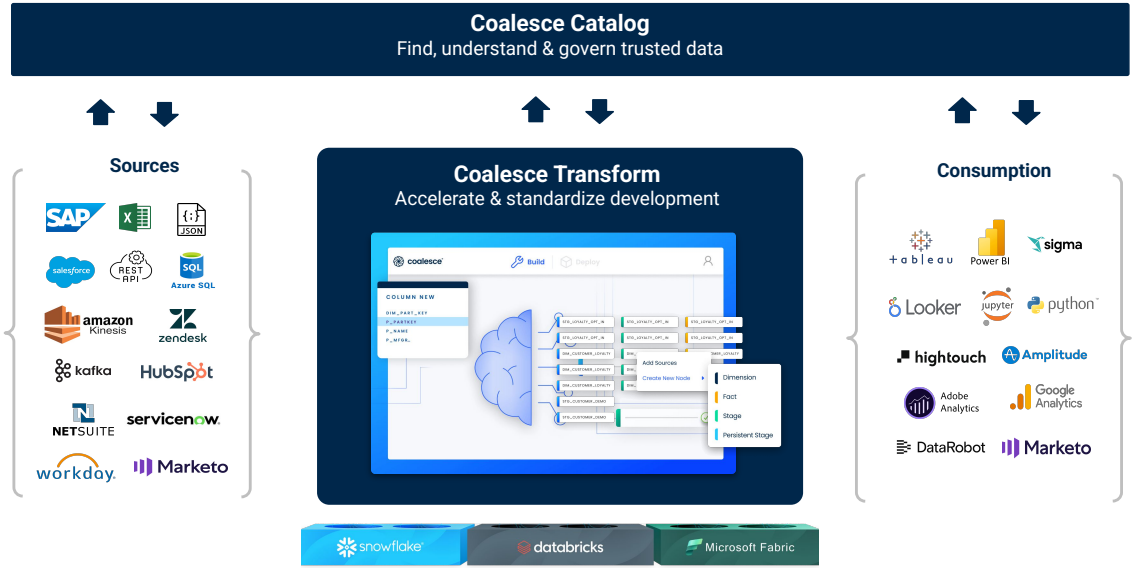
Strategic Data Governance Alignment
Integrating DG with Business & AI Strategy

- **Proactive Data Quality & Observability**
- **Engagement-Driven Governance** (Gamification to increase adoption & ownership)
- **AI & Automated DG Oversight** (Ensuring responsible AI governance)
- **Embedding Governance Early** (Governance integrated at the start of workflows)
- **Knowledge Graph-Driven Data Discovery** (Enhancing relationships & connectivity in data)

About Coalesce

Coalesce is a **data governance & engineering platform** . Recognised by Gartner as a Metadata Management visionary, it enables data teams to work with data in the most collaborative, scalable and trusted way.

Coalesce platform has multiple modules. Coalesce Transform is helping data teams build data pipelines at scale, faster. Coalesce Catalog brings visibility & trust across the data ecosystem with its data governance capabilities.



The world's best data teams run on Coalesce

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Thank you !