



EDM Webinar

Accelerate Cloud Data Platform Adoption with Automated Data Intelligence

A conversation with



Danny Sandwell
Director of Product Marketing
erwin



Moderated by **Mike Meriton**

Co-Founder & COO, EDM Council

- Joined EDM Council full-time 2015 to lead Industry Engagement
- EDM Council Co-Founder & First Chairman (2005-2007)
- EDM Council Finance Board Chair (2007-2015)
- Former CEO GoldenSource (2002-2015)
- Former Executive for D&B Software and Oracle
- FinTech Innovation Lab – Executive Mentor (2011 – Present)



Danny Sandwell

Director of Product Marketing, erwin

- An IT industry veteran focused on delivering value from data for more than 30 years.
- Responsible for communicating the technical capabilities and business value of the company's data intelligence solutions.
- During Danny's 20+ years with the erwin brand, he also has worked in pre-sales consulting, product management, business development and business strategy roles
- His goal is to help enterprises unlock the value of their data assets while mitigating data-related risks.



The Business Drivers for Modern Data Architecture



Perpetual
Transformation



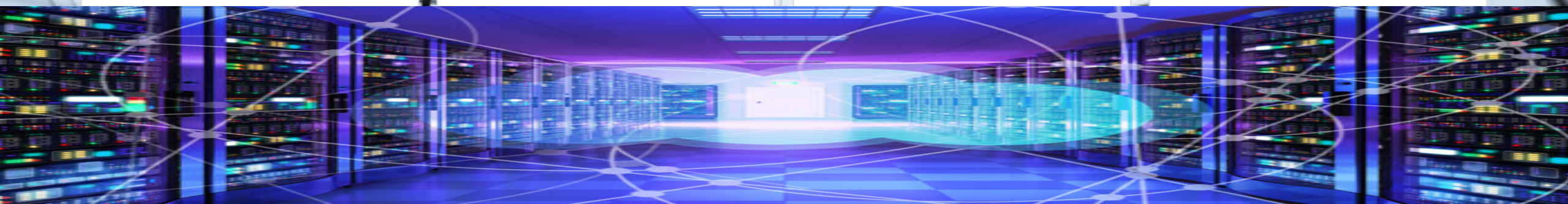
Data-Driven
Innovation



Data
Agility



Risk
Mitigation



Why Modernize? The Enterprise Data Dilemma

➤ 95% of organizations integrating at least six different types of data across 10 different data management technologies.

➤ 94% of organizations were integrating data across hybrid cloud environments.

➤ 85% of time spent on data prep and only 15% in analysis hampers data-driven digital transformation.

➤ 50% of organizations lack sufficient AI and data literacy skills to achieve maximum business value



Usage-Driven Architectures: Analytics First!!

Data Pipelines

Intelligent Data Services

Business Friendly Preparation

Smart Data Architectures: Intelligent and Learning Everyday...

Active Metadata

Dev/Ops Automation

Predictive Data Voyages

“From The Cloud Out” Data Architectures Agility, Scale-Ability and Resilience

Strategic Applications

Strategic Workloads

Strategic Platforms

Data Architectures Governed For The Good of All: Mitigating Risk and Assuring Opportunities

Intelligent Governance Frameworks

Data Literacy Facilitation

Built-in Stakeholder Participation



Cloud Data Platform Benefits and Capabilities

Benefits

- Performance and Scalability
- Elasticity and Agility
- Lower TCO and Future Proof
- More Value From Data

Capabilities

- High Performance Data Store
- Hybrid DBMS Modalities
- Agile Data Integration
- Integrated BI & Analytics



Challenges To Realizing Modernization Benefits

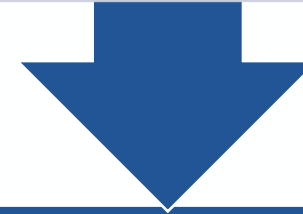


Migrating Legacy Deployments

Time To Value

Conversion
Accuracy

Cost
Containment



Data Governance and Intelligence

Migration
Transparency

Documenting
cutting edge
technologies

Data
democratization
enablers

Utilize Your Enterprise Architecture to Plan The Move

1. Business Case

- Drivers
- Cost
- Benefit
- Risk
- Scope
- Plan

2. Architecture Assessment

- Current State
- Complexity
- Impacts
- Priorities
- Requirements
- Security

3. Migration Strategy

- Stakeholders
- Approach
- Priorities
- Roadmap
- Capabilities
- Resources

6. Testing and Operationalization

- Testing
- Data Quality
- Monitoring
- Support
- Security
- Governance

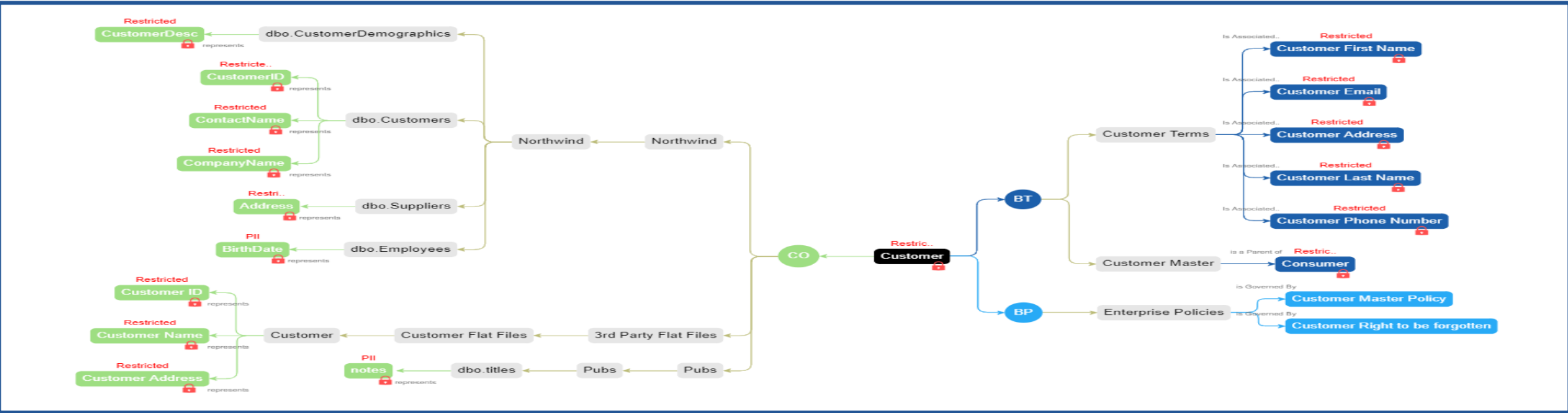
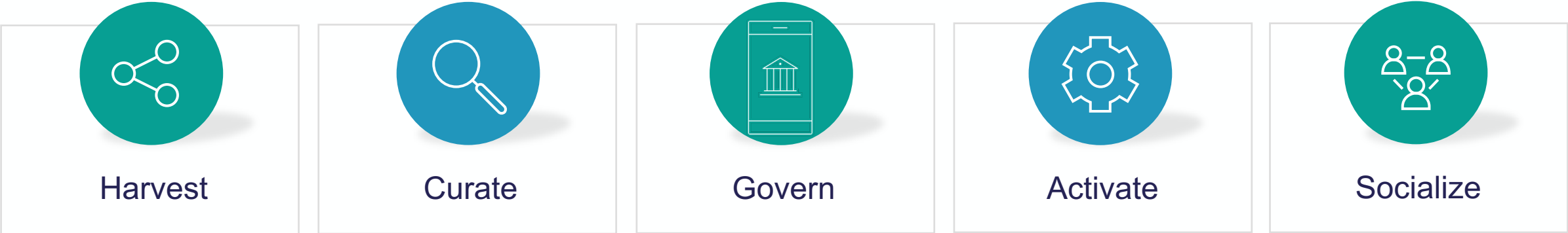
5. Migration



4. Technology Selection

- Future State
- Technologies
- Tools
- Architecture
- Vendors
- Integrators

Data Intelligence Enables Automation and Governance



Data Intelligence: Get More Utility From Your Metadata

Auto Document

- ✓ Data Sources
- ✓ Data Models
- ✓ Data Movement Processes
- ✓ Data Consumption

Auto Curate

- ✓ Technical Asset Associations
- ✓ Business Asset Associations
- ✓ Sensitive Data Classification

Auto Render

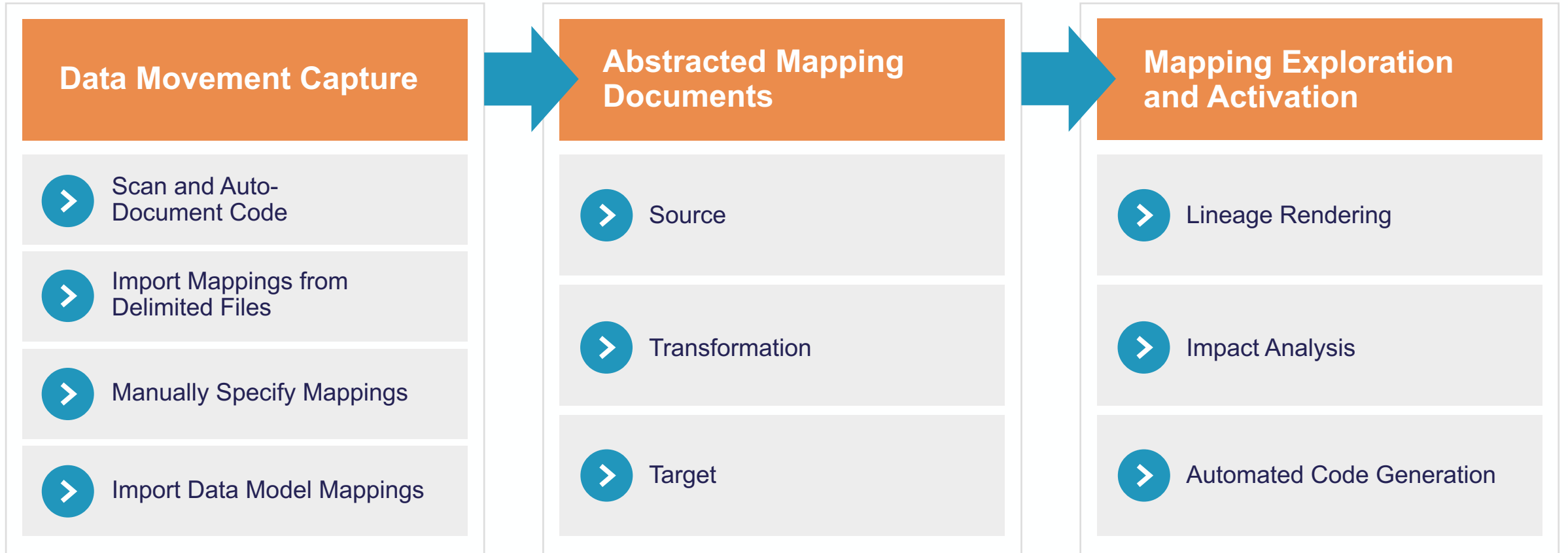
- ✓ End-to-End Lineage
 - ✓ Impact Analysis
- ✓ Mind Map Graph Views
- ✓ Focused Dashboards

Auto Generate

- ✓ Data Pipelines
- ✓ Data Workloads
- ✓ Data Movement Code
- ✓ Platform Orchestration

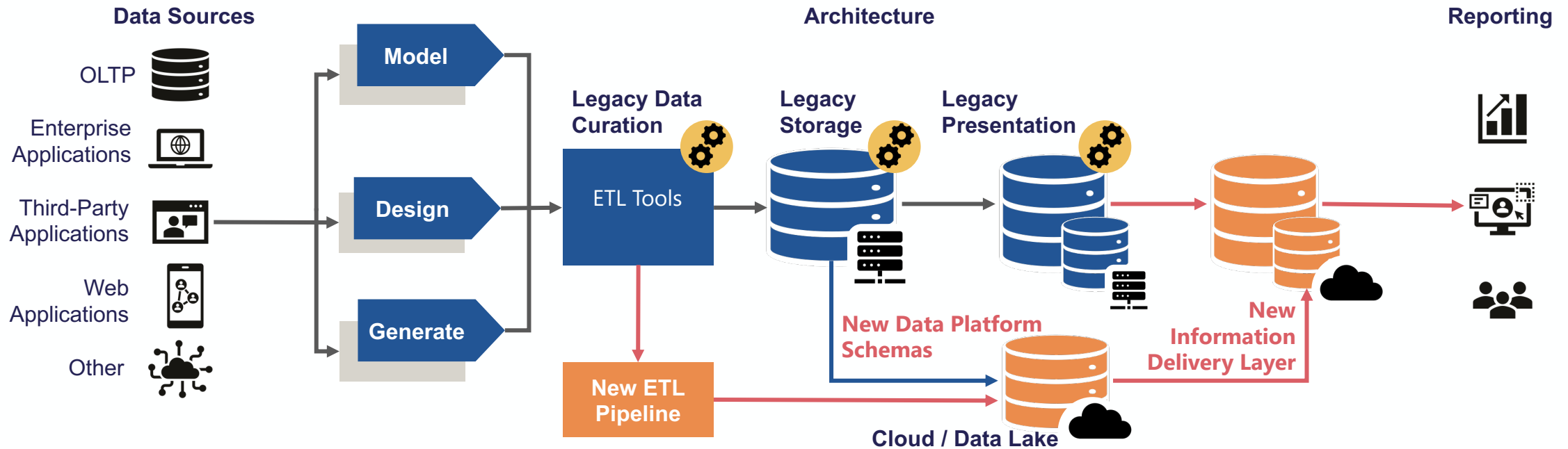


Data Mapping Documents: Activating Metadata For Maximum Utility



Accelerating and Assuring Architectural Modernization

Automated documentation, transformation, code generation and governance



Convert Data Structures

Accelerate Data Migration

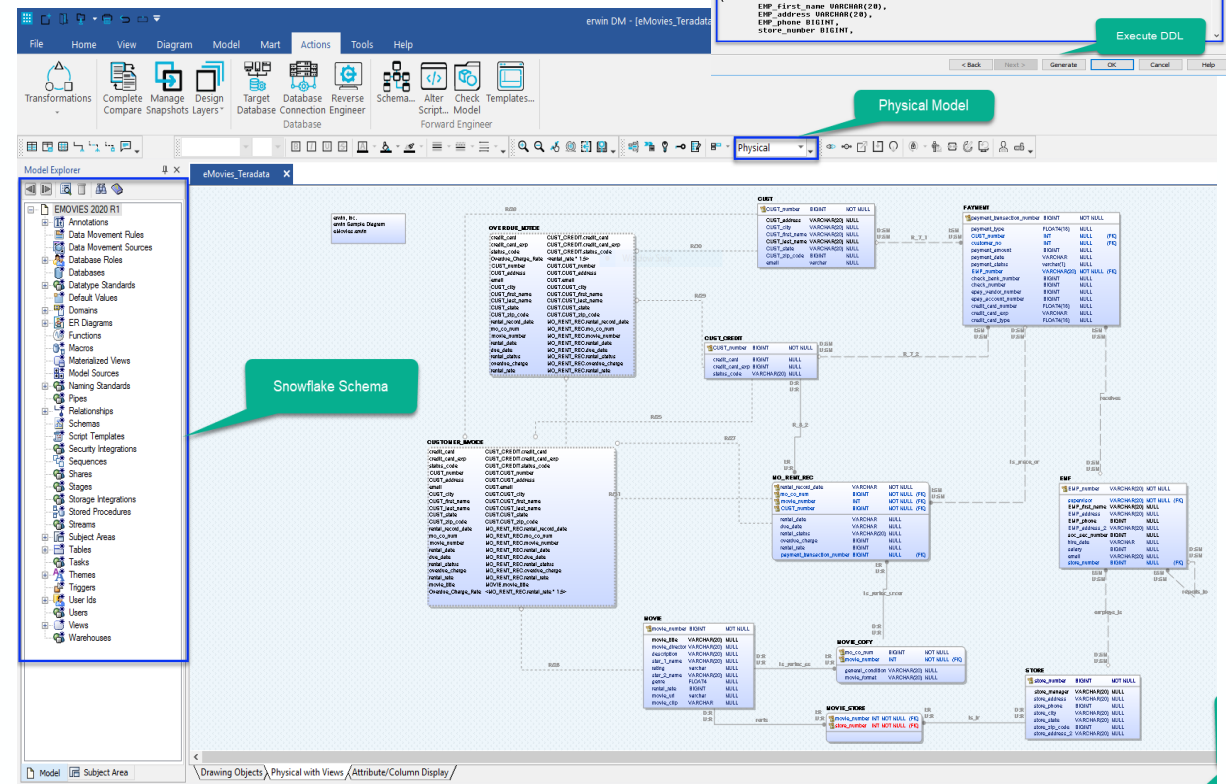
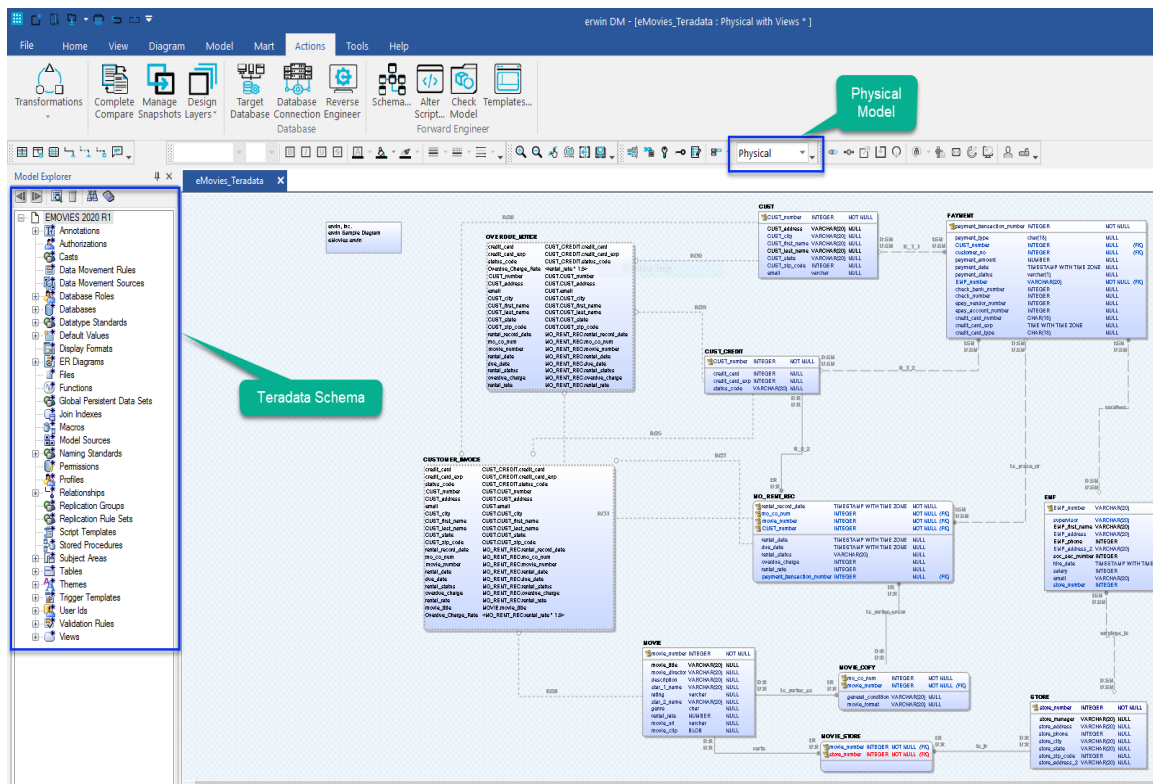
Transform Data Movement

Re-Align Usage Models

Automate Dev/Ops

Continuous Data Governance

Migrate legacy schema to the cloud with data modeling



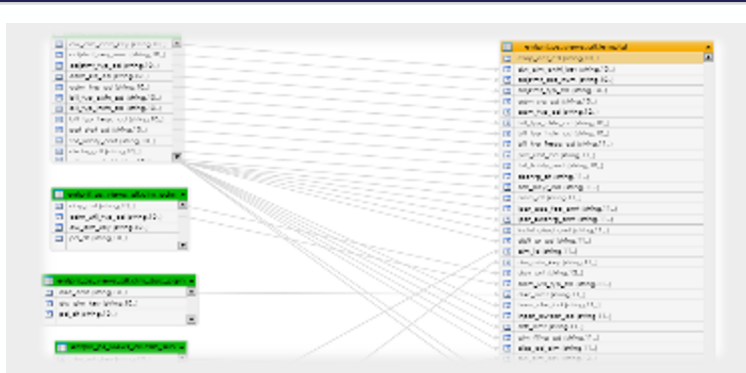
Reverse Engineer

Transform

Forward Engineer

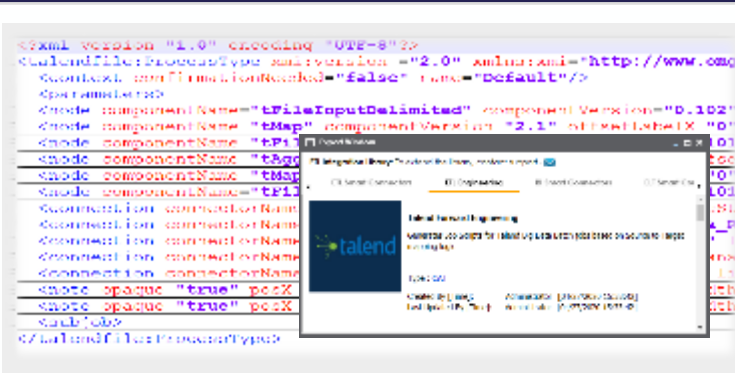
Data Migration Accelerators for Cloud Migration

Source to Target Mapping



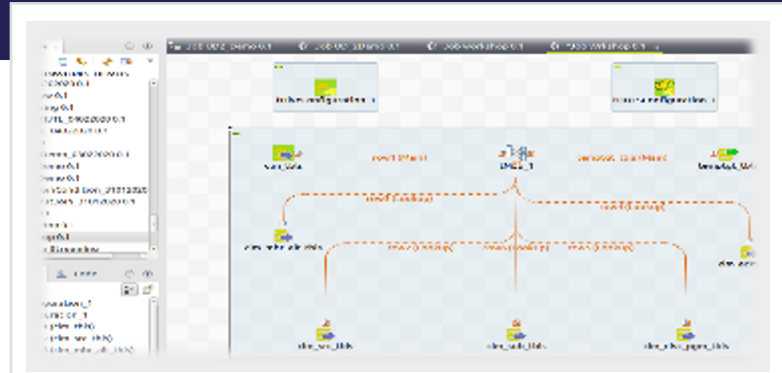
- Data Migration Specification
- Manual Mappings
- Automated Mappings
- Transformations

ETL Generation



- ETL Job Generation
- Open Source / Enterprise
- Corporate Standards
- Native ETL Frameworks

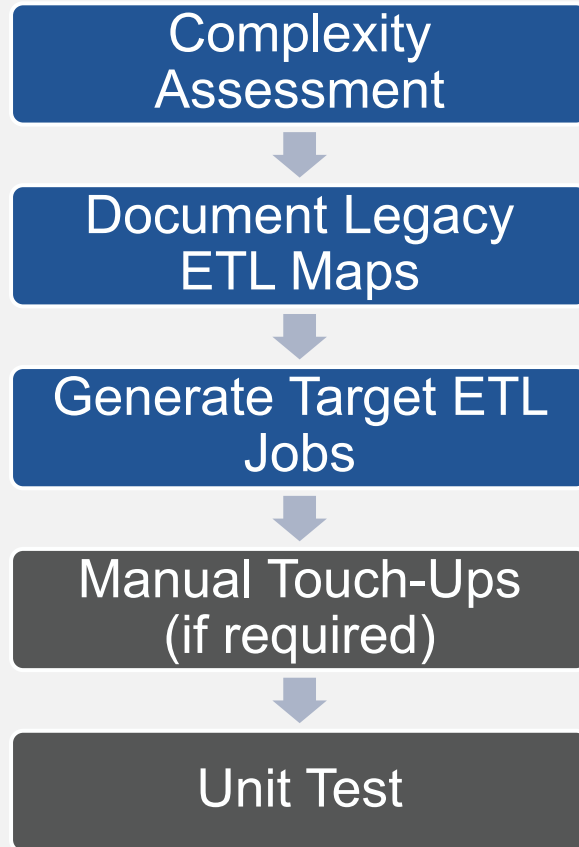
Data Migration



- Native Technology Execution
- Big Data Batch
- Source Type Detection
- Target Type Detection

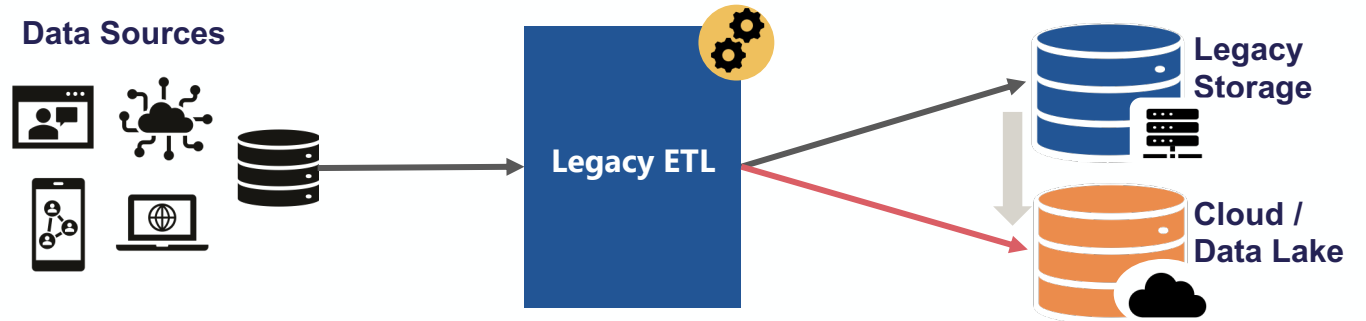


ETL Transformation



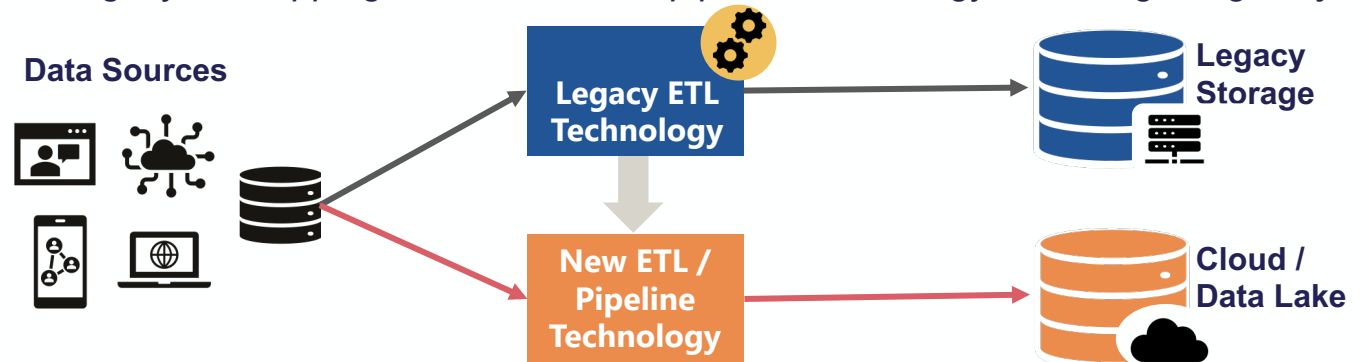
ETL Repointing & Migration

Repointing & Deploy legacy ETL jobs with new cloud environment Mappings



ETL Conversation & Migration

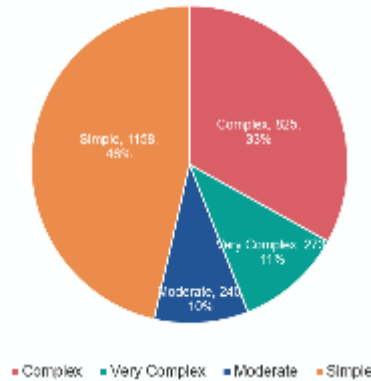
Convert legacy etl mappings to a modern etl/pipeline technology while migrating the jobs



ETL Transformation Complexity Assessment

Stratification

Complexity Distribution



Complexity Definition

Simple: <=5 Components

- example : jobs consists of one source, one target and other components

Moderate: <=5 Components, 1 User Written, 1 pre/postcode

- example : mappings consists of multiple homogeneous sources (not more than 3), multiple targets (not more than 3) or multiple transformers (not more than 3)

Complex: >5 and <10 Components, >=5 User Written, >=5 pre/postcode

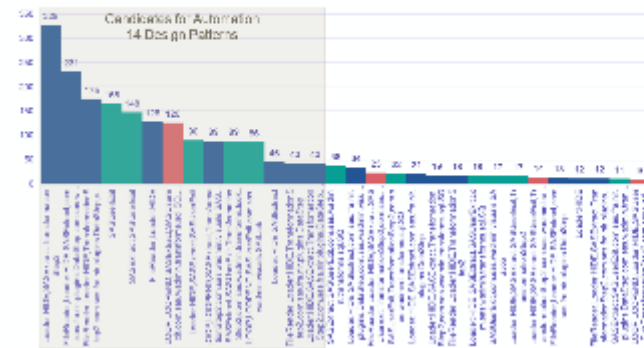
- example : mapping consists of multiple sources, multiple targets, multiple transformers (not more than 10), multiple mapping pipelines (not more than 5)

Very Complex: >10 Components, <5 User Written, <5 pre/postcode

- example : mapping consists of multiple pipelines, complex logic or business rules, custom components, or use of sub mapping

Load Design Patterns

Jobs containing the same distinct component list (5+ repetitions displayed only)



Jobs containing the same distinct component list (5+ repetitions displayed only)

Generic Design Patterns

Patterns identified based on the jobs that have some distinct components are considered Generic Patterns

Candidates for automation represent 72% of the total number of jobs, although the remaining jobs will also benefit from automation, but to a lesser extent.

Component Frequency gives us an estimation of the amount of reuse to be expected across Mappings from the automated component conversion

Total Components : 22

ADF Target equivalent : 10

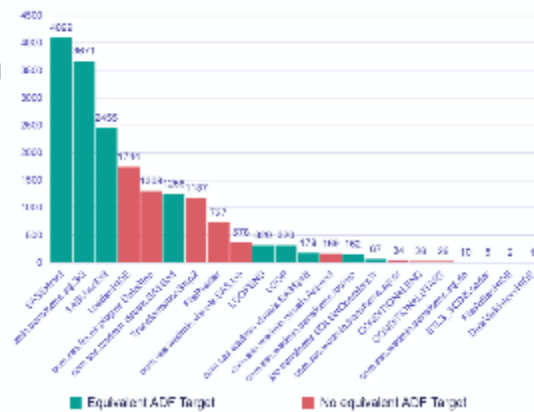
No equivalent ADF Target : 12

erwin must create custom components or patterns to meet the required functionality

Hidden Complexities :

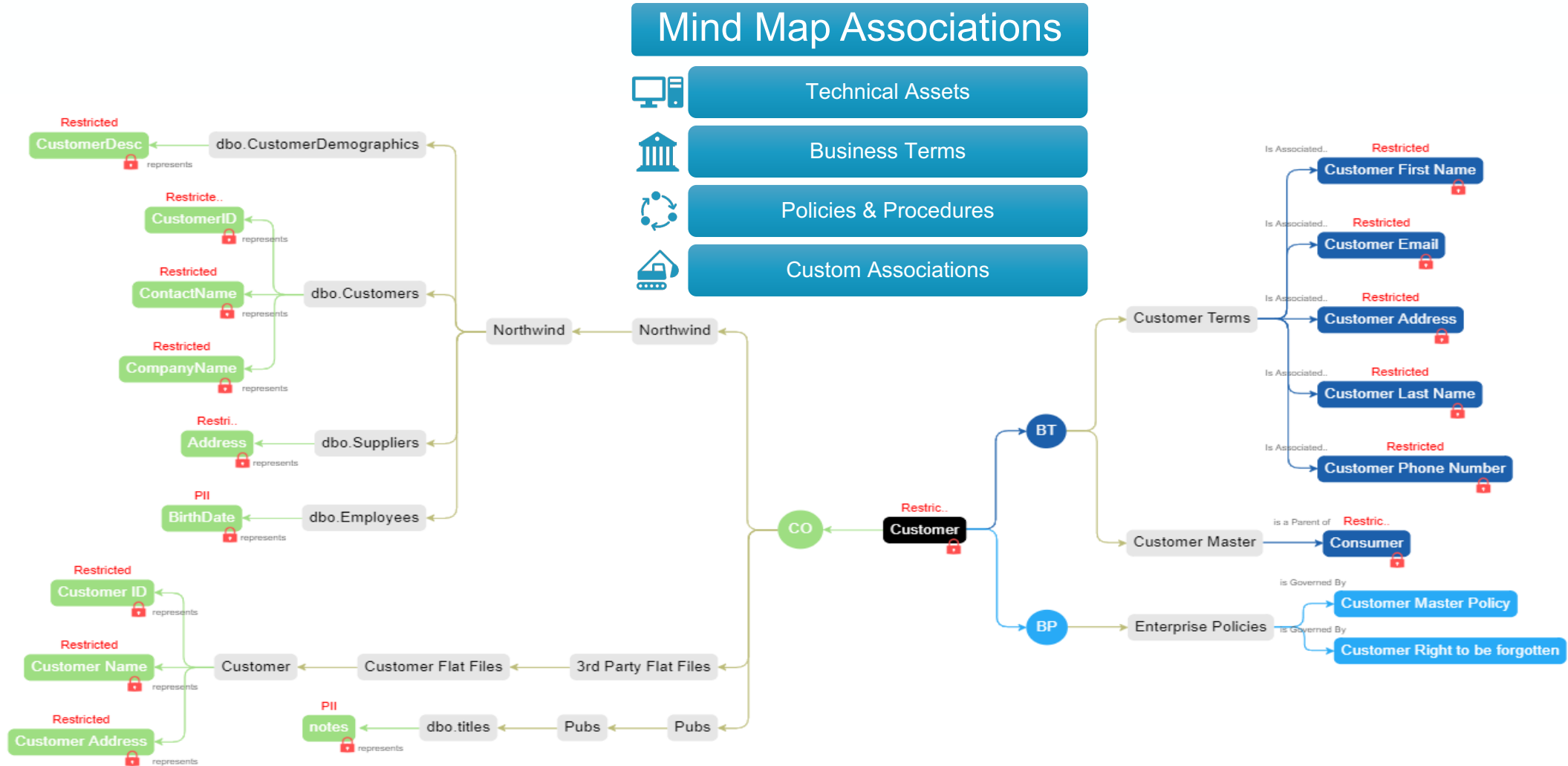
SASUserExit (User Written) : 2455 – some automation possible

Component Frequency



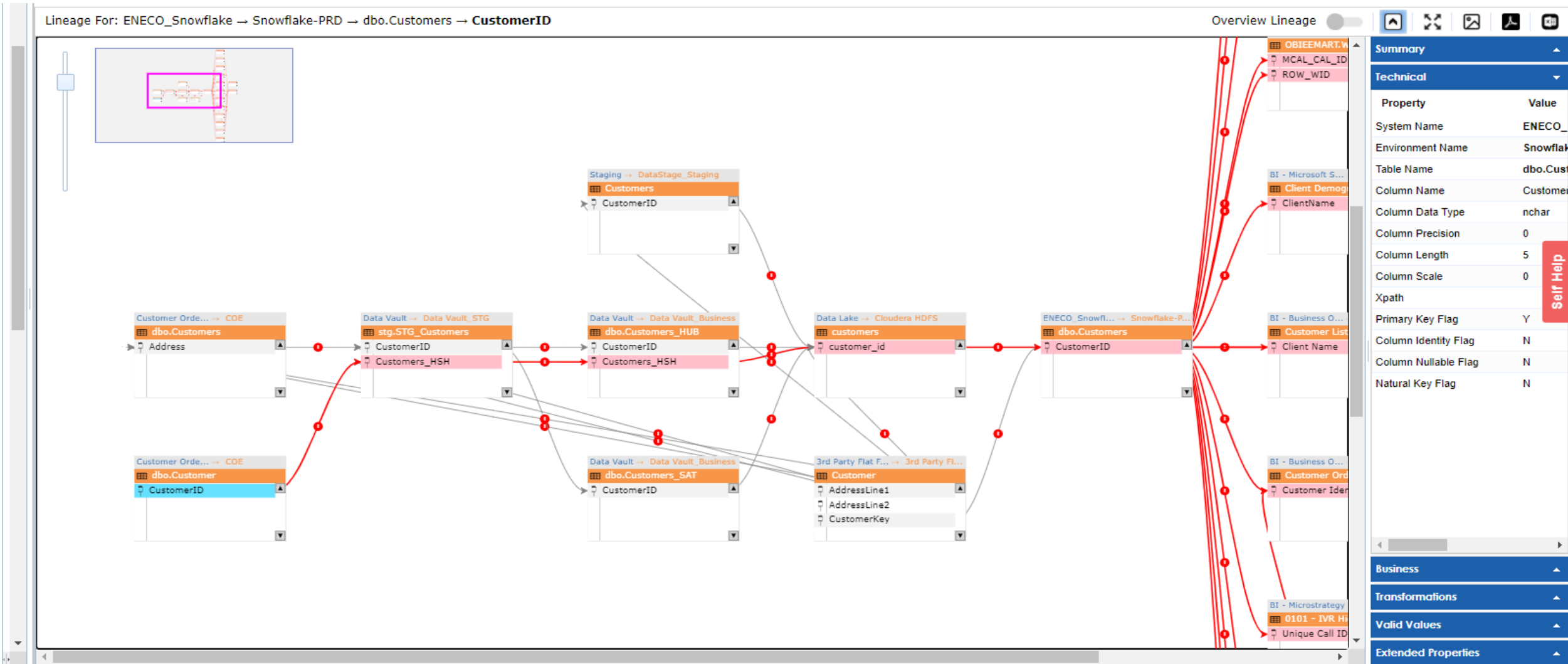
Cloud Governance

Enabling democratization of technical assets with a Contextual Business Asset Framework



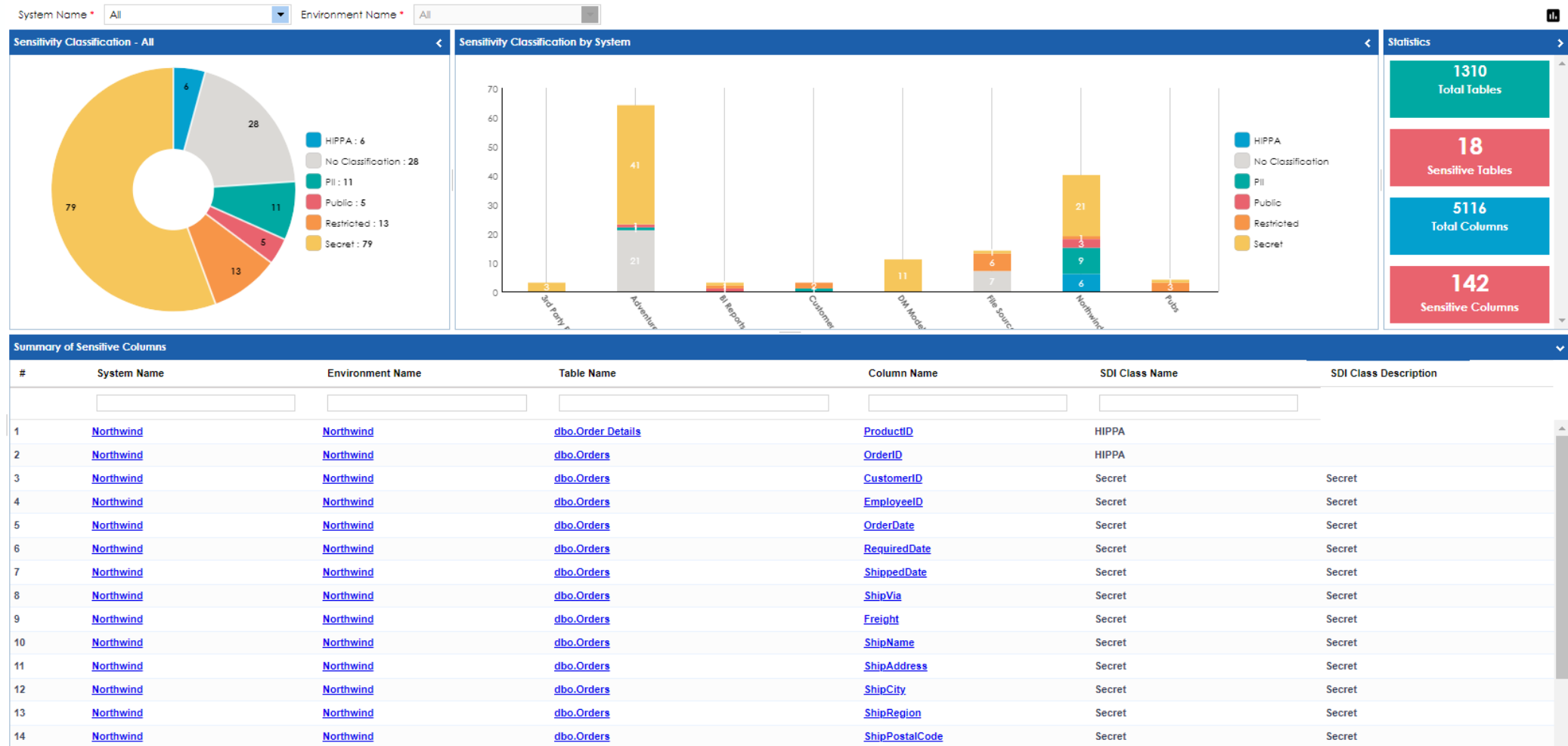
Cloud Governance

Automate the Discovery and Rendering of Detailed Lineage



Cloud Governance

Automate the Classification of Sensitive Data



**An Insights-
Driven Data
Architecture...**

**With
Intelligence,
Automation
and
Governance at
the Core**

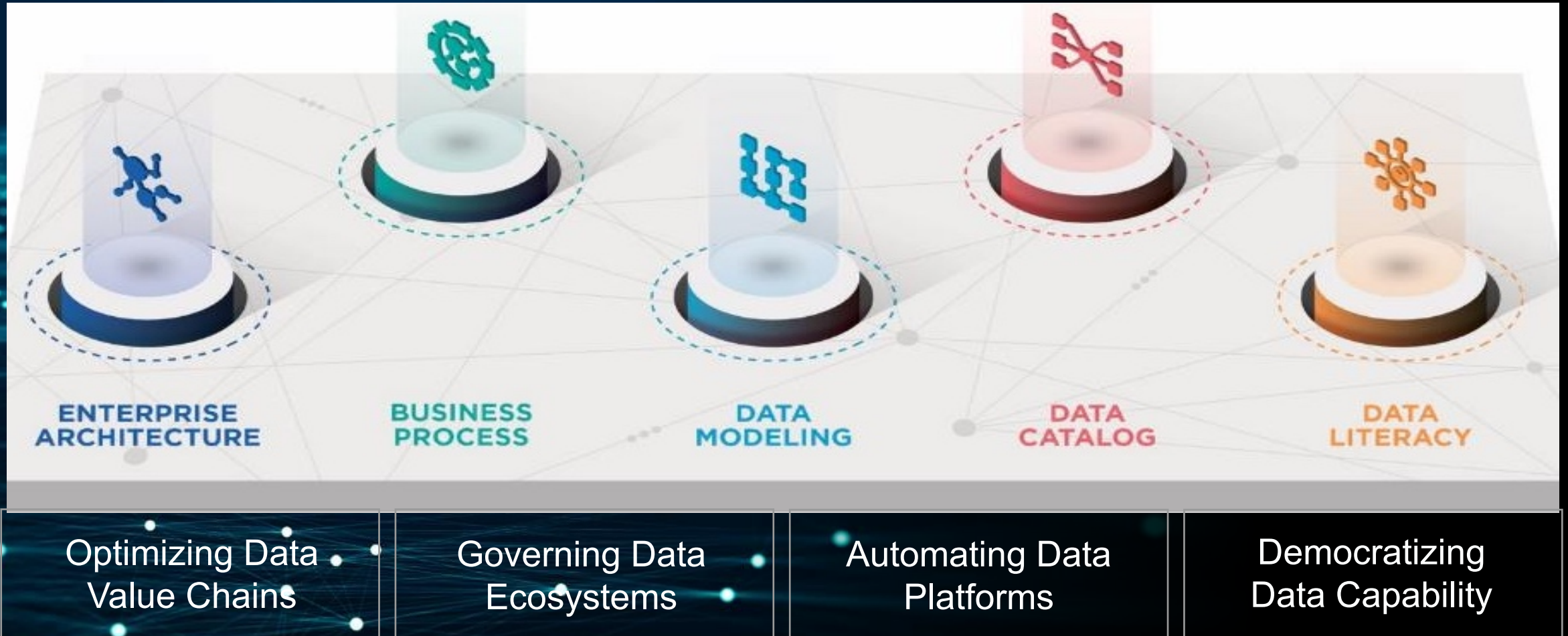
**That is as
Adaptable as
The Business
it Serves**

Questions?



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The erwin Data Intelligence Platform



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