Access Sciences

From Legacy Burden to Strategic Asset



A Taxonomy Transformation Story

November 16, 2026

Taxonomy Bootcamp

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From Chaos, Clarity

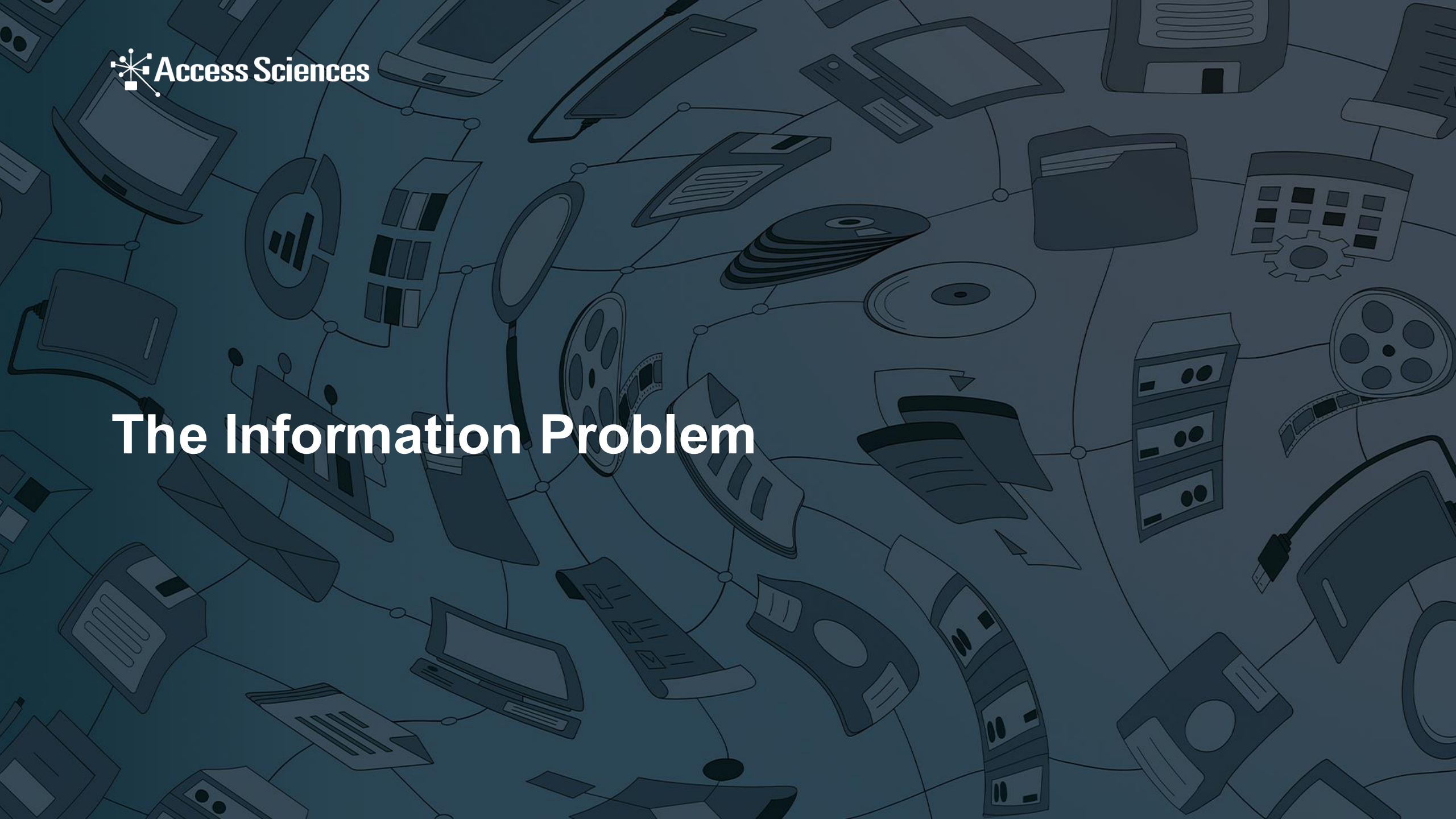
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Agenda

1 The Information Problem
2 The Semantic Solution
3 Metadata Transformation at Scale
4 Taxonomy by Stealth
5 Q&A




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The Information Problem

Information context that reflects the plant

Two facilities, two approaches

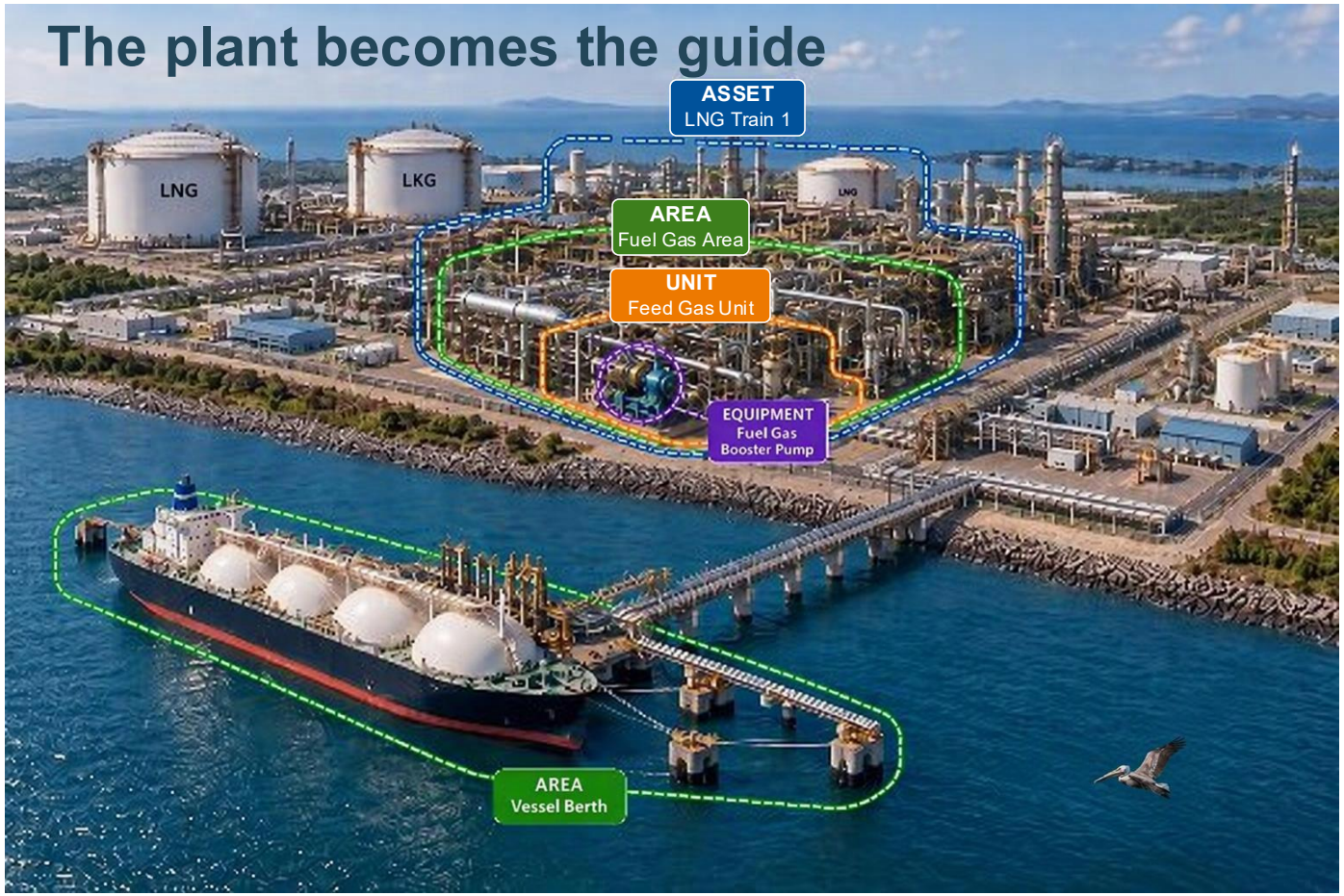


Operating facility



New facility coming online

IM program to align language and enable scalability



If you know the plant, you know how to find the information

Supporting safe operations and more efficient work

One document number for all technical documents

TODAY

2.2 million

technical documents

8 numbering schemes

Goal: One simple number sequence

Unique	One ID for each document
Meaningful	Recognizable asset context for end users
Stable	Document details can change. The number stays fixed.
Simple	Keep numbers simple, high level, less subject to change

Controlled document number schema

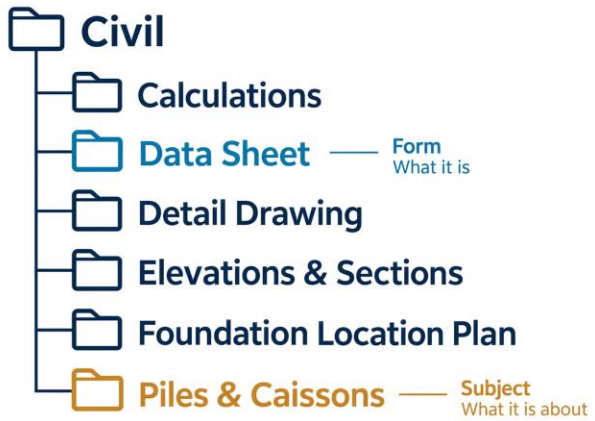
FFF	-	AAA	-	UUU	-	DDD	-	TTT	-	NNNNNNN
Facility		Area		Unit		Discipline		Document type		Sequential number

Aligning discipline and document type

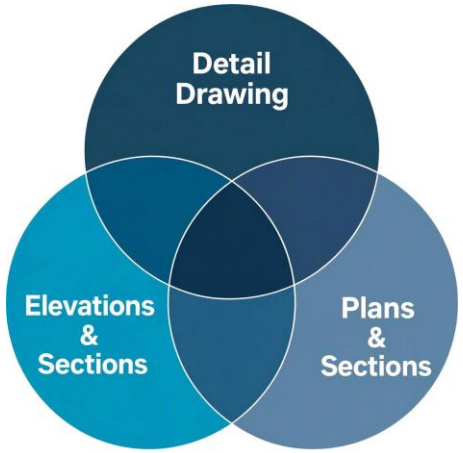
Where classification diverged

- Facilities used different classification values.
- Projects and Operations used different values.
- No centralized governance and oversight.

Mixed purposes



Overlapping types



Agreed taxonomy values

Legacy → New EDMS

Document types

What the technical data is

451 to **92**

Disciplines

Who creates the technical data

75 to **48**

Fewer choices, less confusion

Standard controlled document number	FFF	-	AAA	-	UUU	-	DDD	-	TTT	-	NNNNNNN
	Facility		Area		Unit		**Discipline**		**Document type**		Sequential number

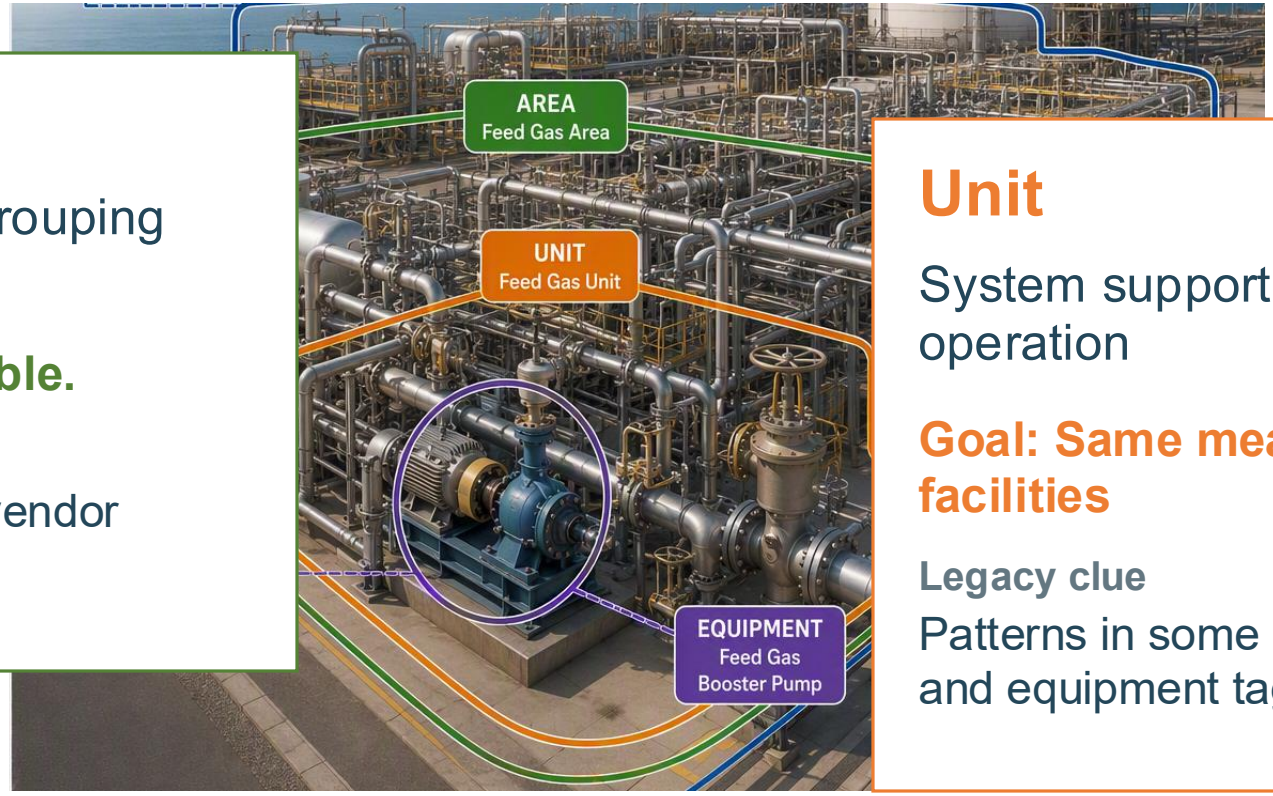
Area and Unit: alignment and metadata recovery

Area

Location or equipment grouping
Varies by facility.

Goal: Align where possible.

Legacy clue
Area WBS codes in some vendor document numbers



Unit

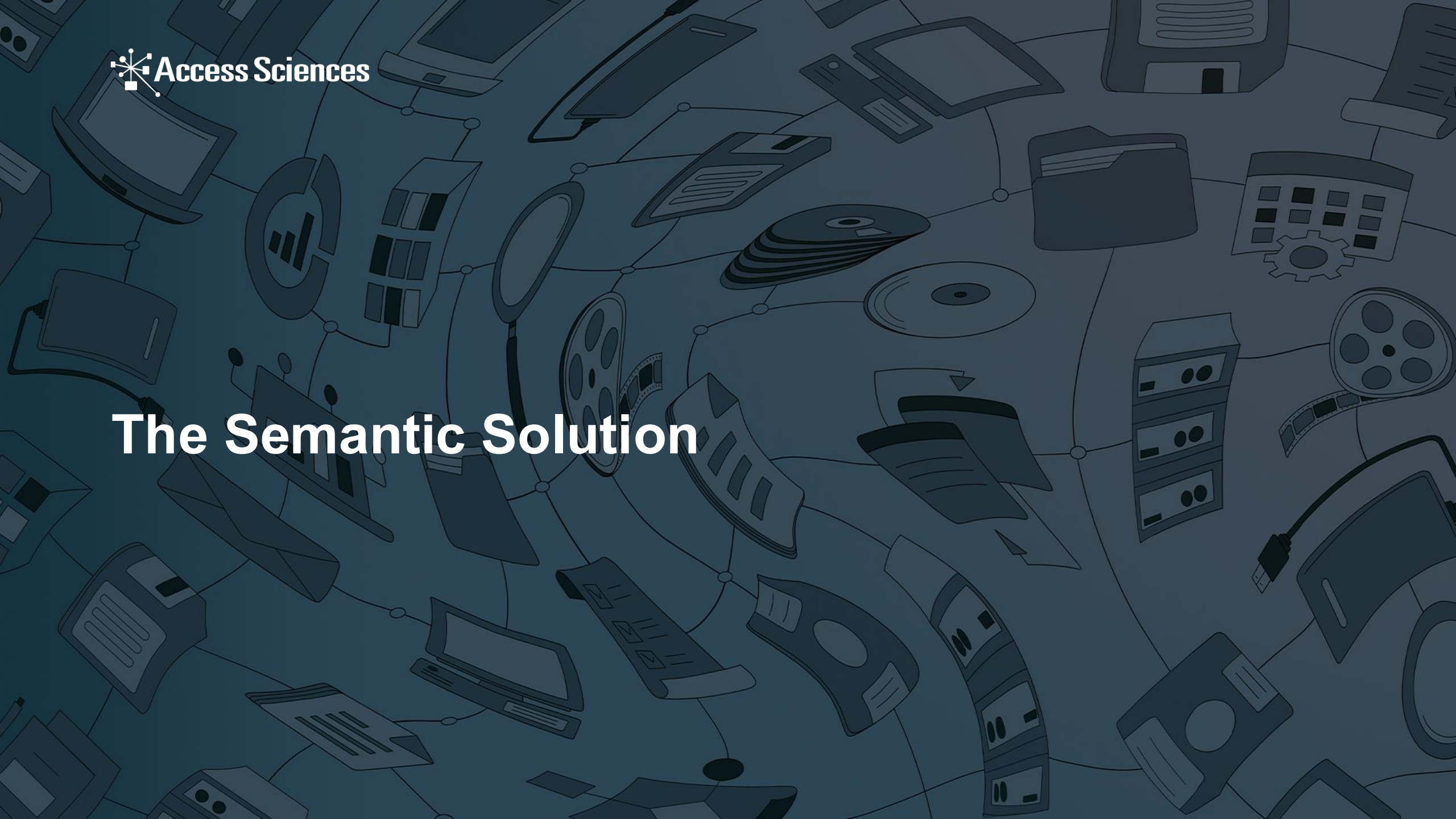
System supporting plant operation

Goal: Same meaning across facilities

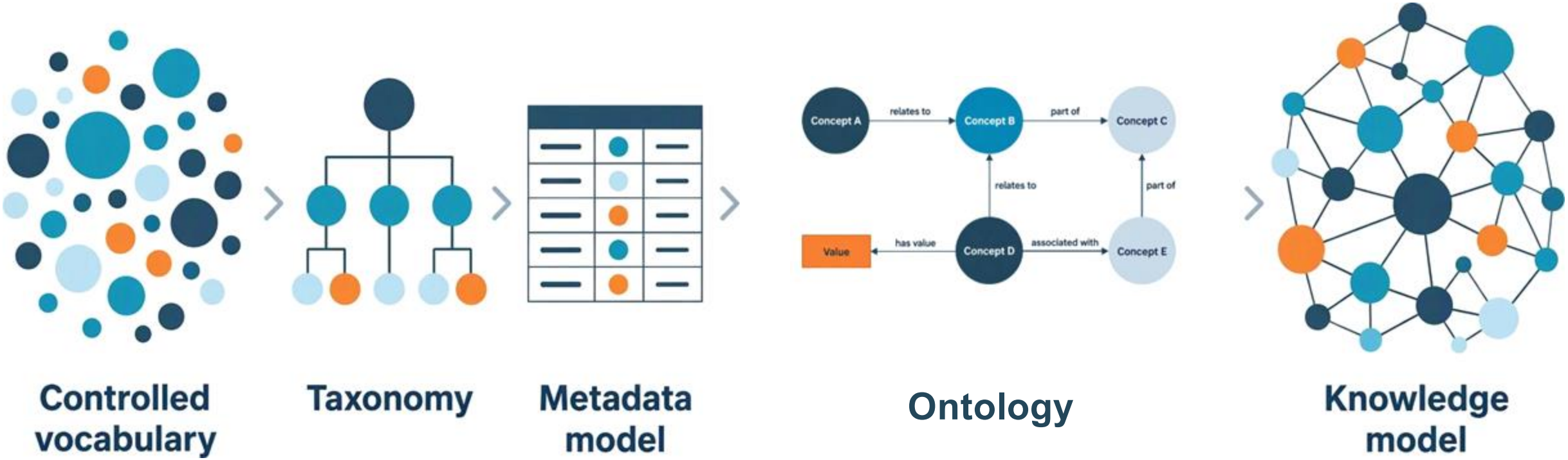
Legacy clue
Patterns in some document numbers and equipment tags

Area and Unit support numbering, facilities folders and search sorting/filtering

Standard controlled document number	FFF	-	AAA	-	UUU	-	DDD	-	TTT	-	NNNNNNN
	Facility		**Area**		**Unit**		Discipline		Document type		Sequential number


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The Semantic Solution

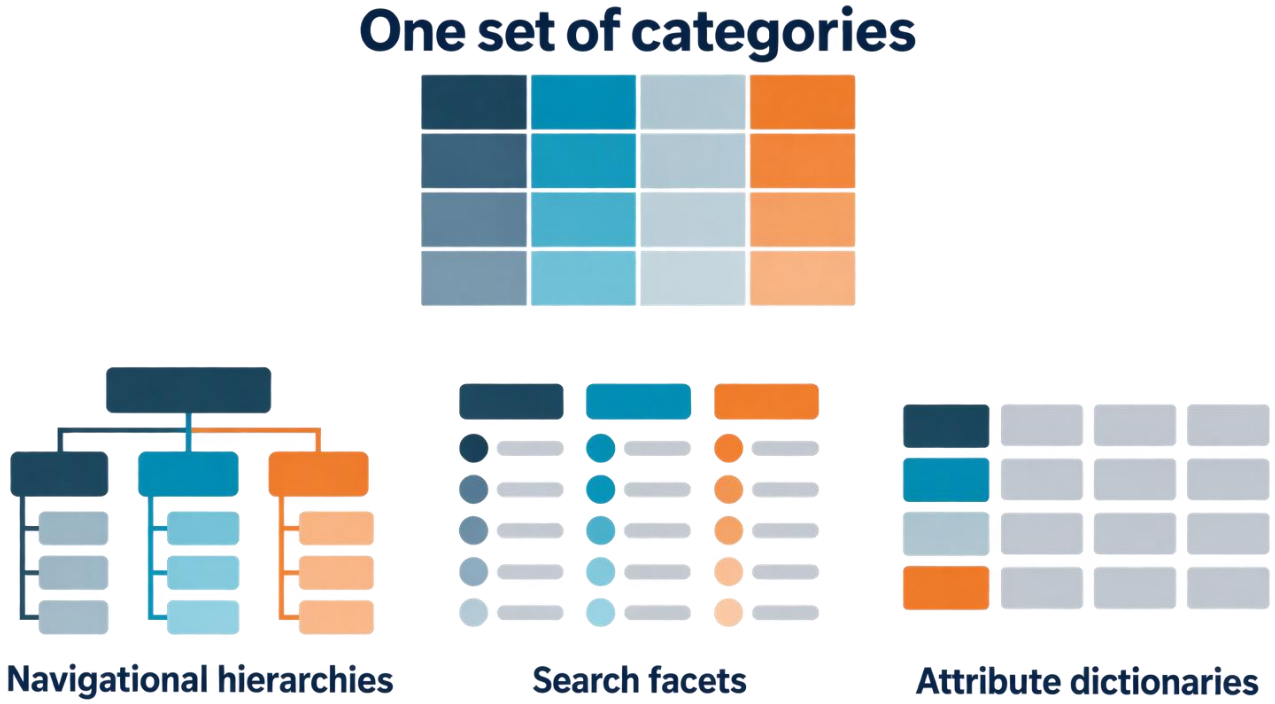
Our Taxonomy and Knowledge Model Evolution



Shared terms become a connected model of the business

Enterprise Taxonomy

A controlled set of categories and terms for consistent classification



One taxonomy supports multiple ways to organize and find information

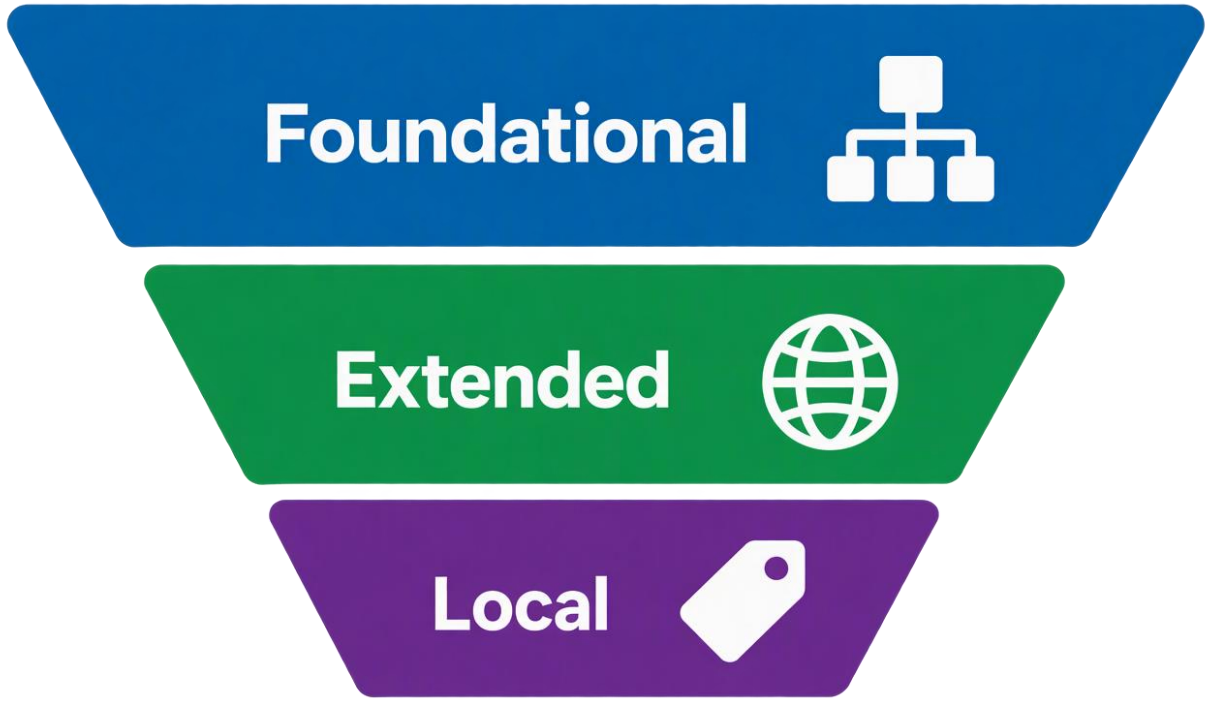
Taxonomy Vision

Foundational

Classify consistently
Support the records lifecycle

Extended and Local

Find and use information
Get the right information
at the right time

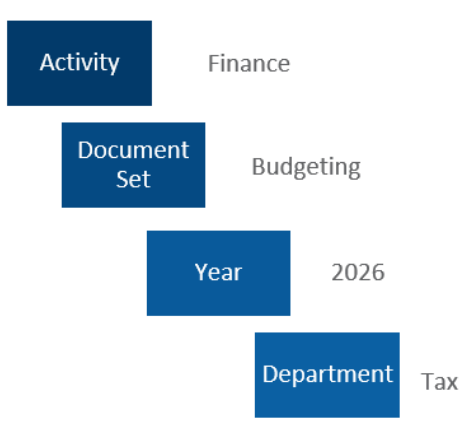


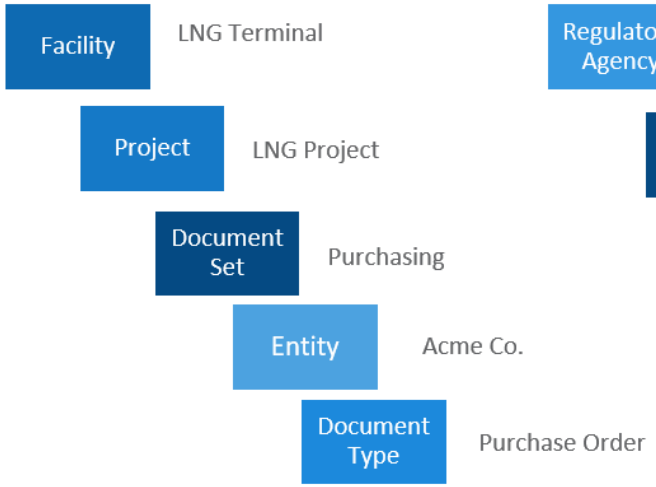
Power of Categories

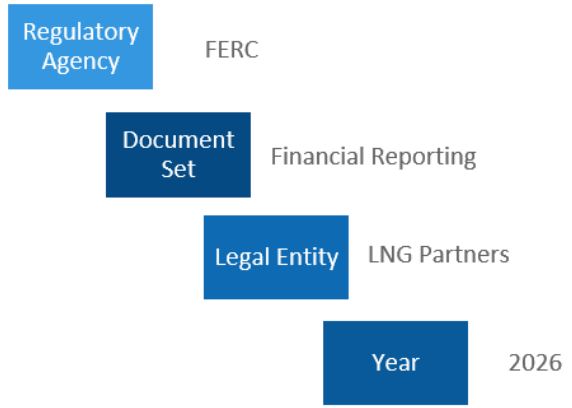
Foundational categories

Function + Activity + Document Set = Consistent Compliance

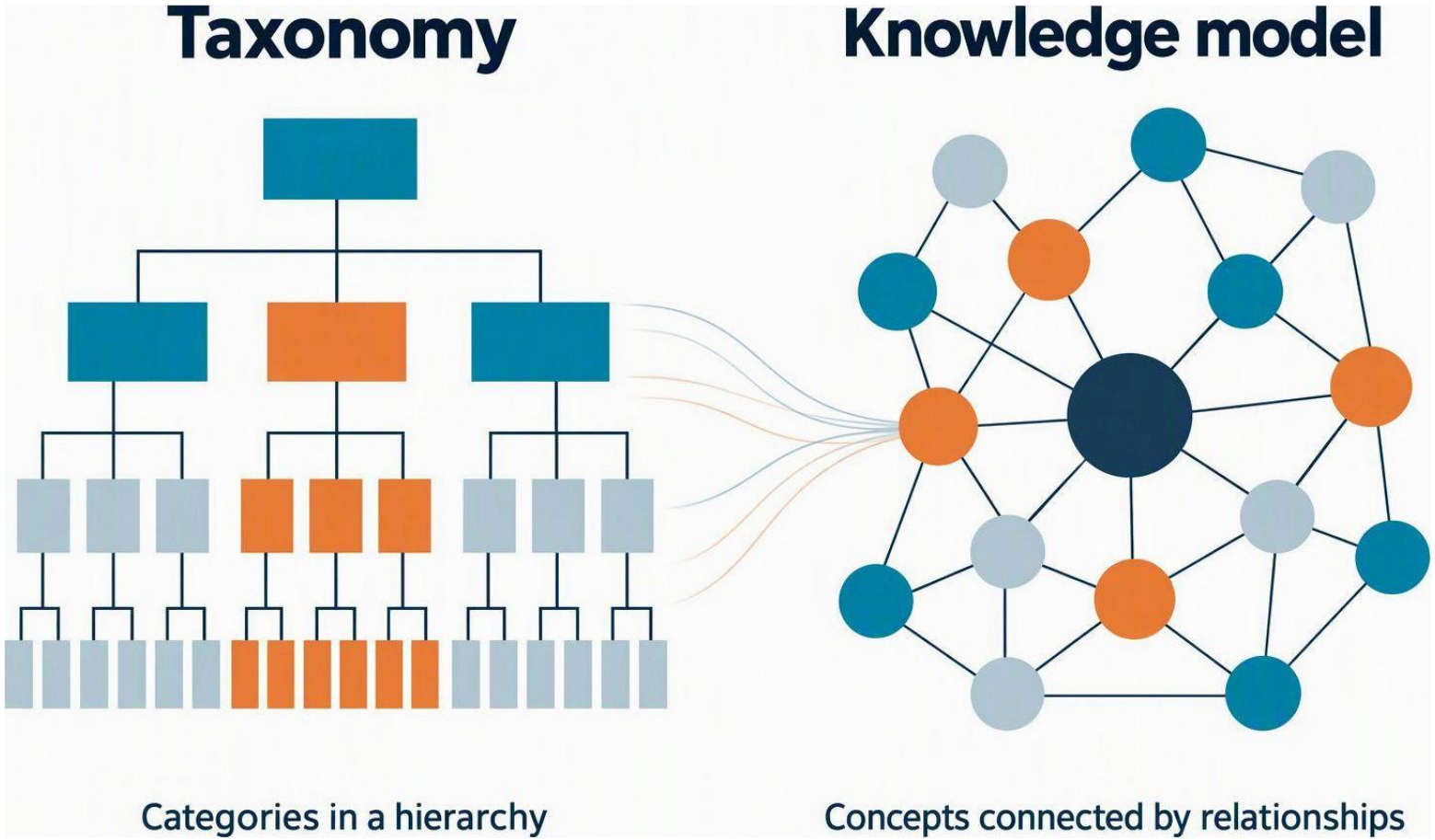
Foundational + Extended + Local = Flexible Findability







From Enterprise Taxonomy to Enterprise Knowledge Model



Relationships add meaning and context to the categories

Applying the model to 2.2 million technical documents

Old-to-new mapping

Legacy value

CMP

Data Sheet
Compressors

Agreed taxonomy

Document type

Data Sheet

Discipline

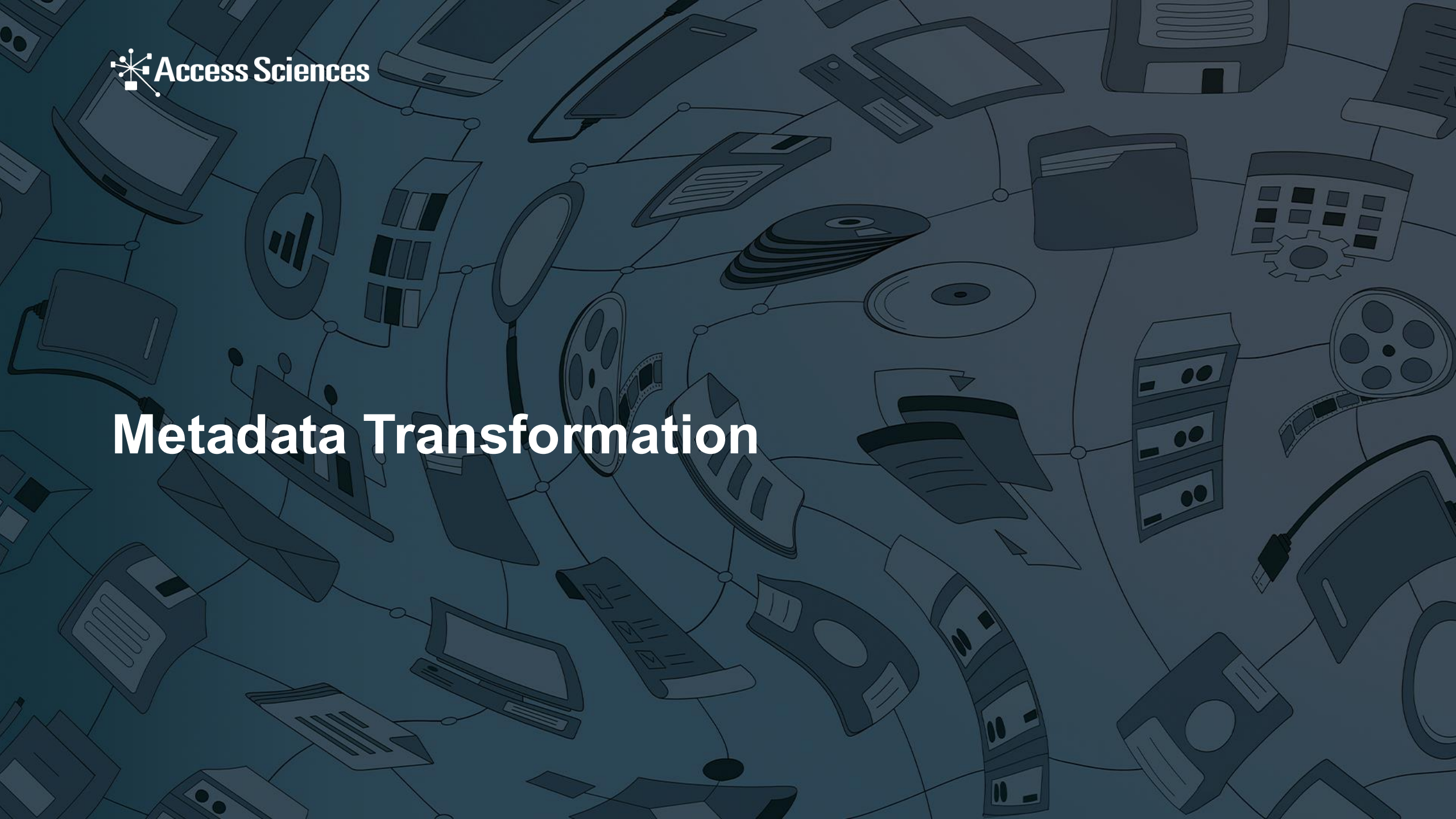
MER

Mechanical – Rotating

Mappings for migration

Built in the modeling tool




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Metadata Transformation

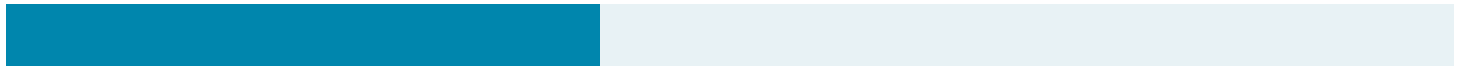
Migration transformation challenges

2.2
million documents

underwent migration transformation

Missing values in the legacy system

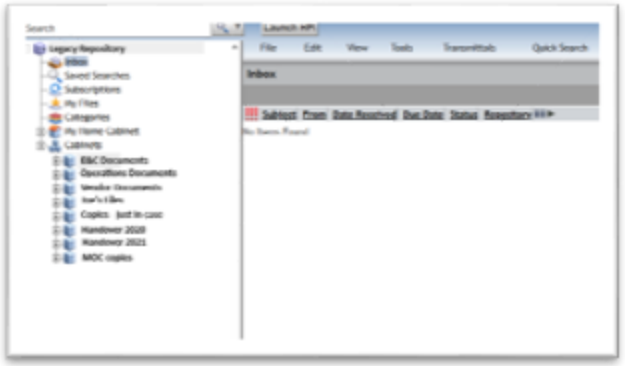
41% **Discipline and Document Type**



82% **Area and Unit**

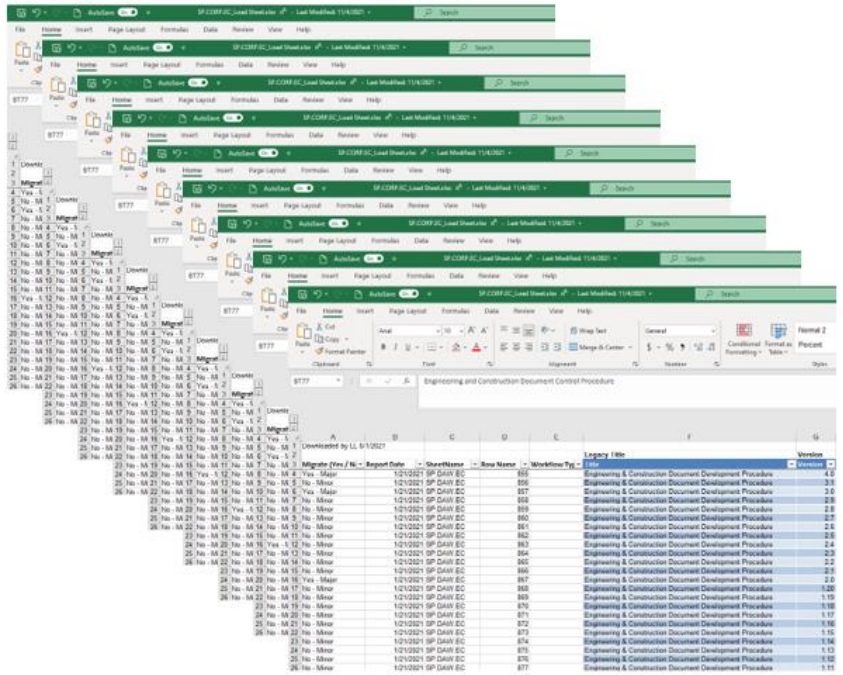


Using Known Patterns and Data Models to Transform Metadata

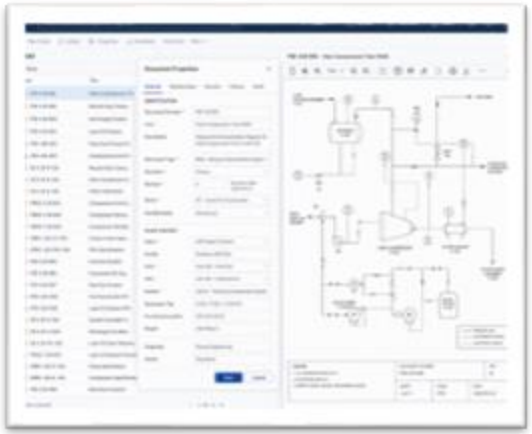


Getting from this....

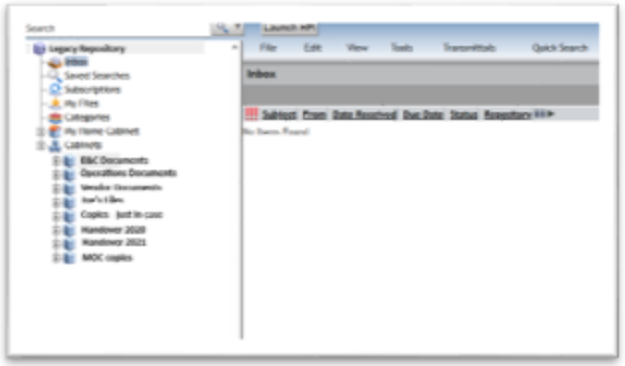
Used to take this:



...To this

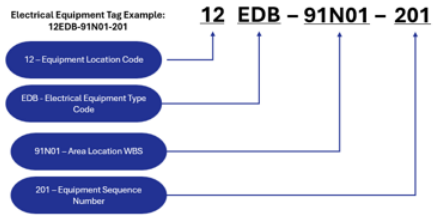


Using Known Patterns and Data Models to Transform Metadata



Getting from this....

Instead, we took known patterns



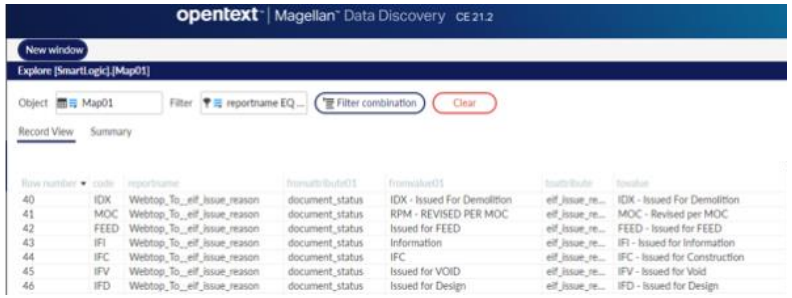
Legacy Document Numbers for LNG Facility

Projects	Job No.	Subdivision	-	Document Type	-	Locator Code	-	Sequence
LNG Phase 1	55027	100		Z6		110		000820
LNG Phase 2	55279	100		Z6		120		000051
LNG Phase 3	55457	100		P20		3120		000422
LNG Phase 4	55652	100		P20		4120		000723
LNG Phase 5	55932	100		P20		5120		000853
LNG Phase 6	56012	100		P20		6120		000005

And robust knowledge models



To write transformation rules



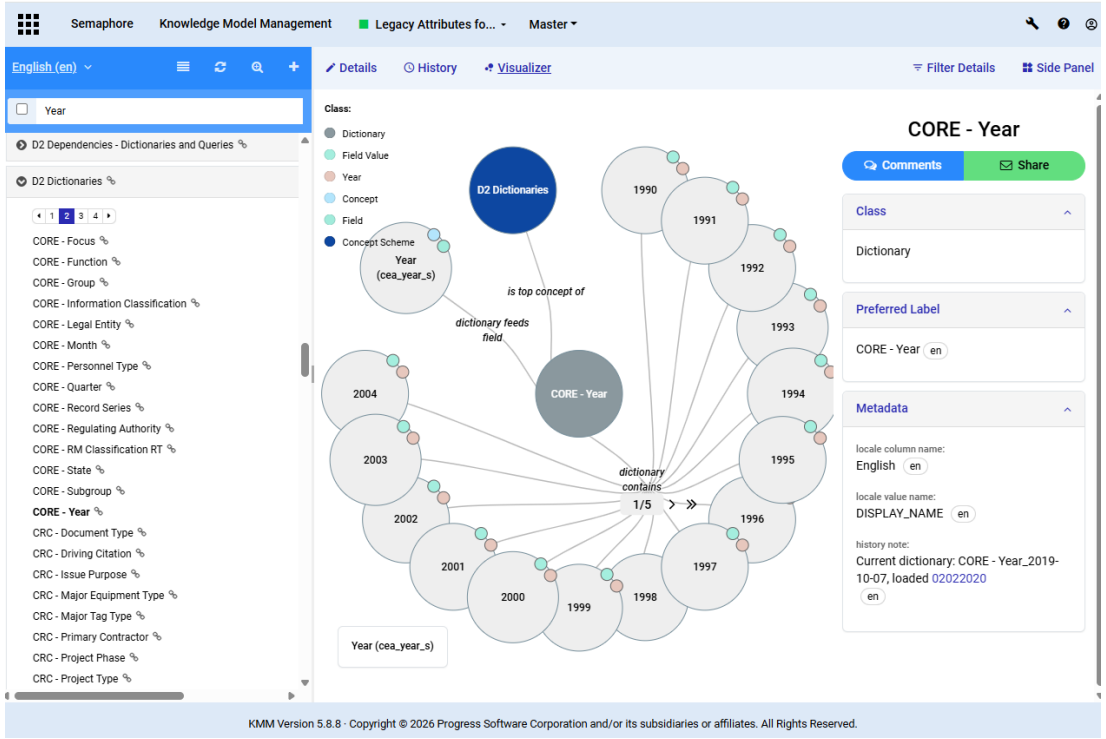
...To this



Semaphore generates mapping rules

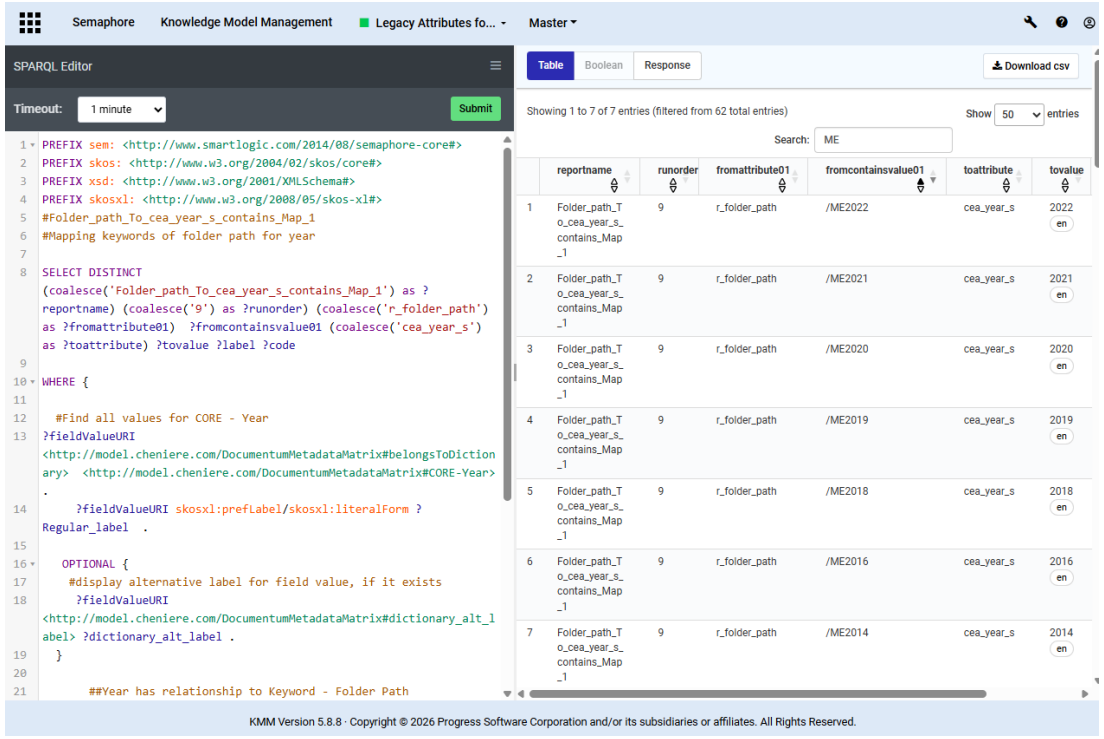
Knowledge models

Major concepts and their relationships



SPARQL queries

Queries generate rules that map old to new



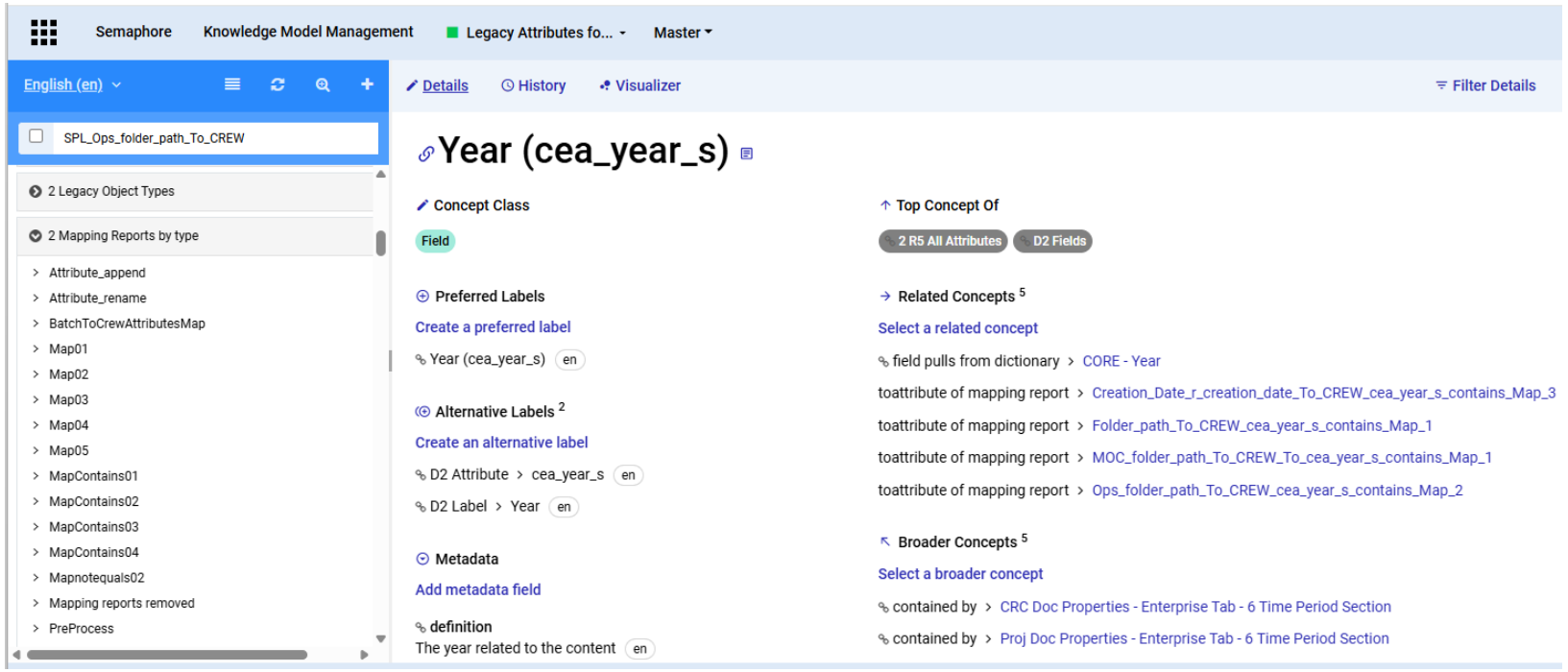
Mapping types and rules sequence

Year example

1 Folder path

If no year found

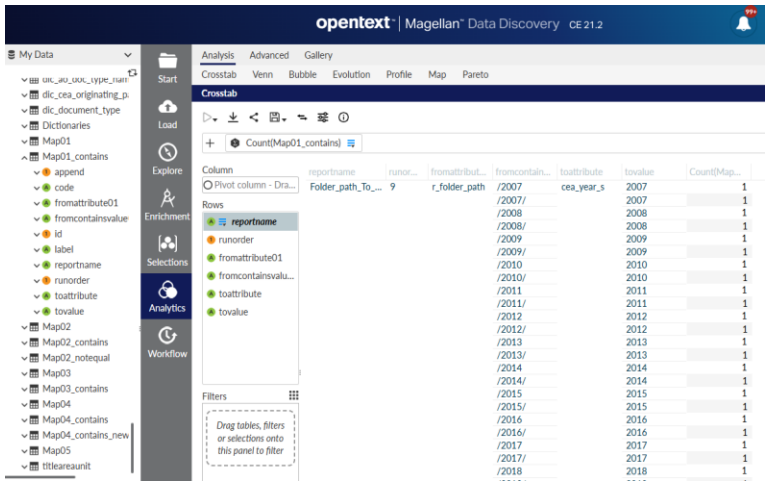
2 Creation date



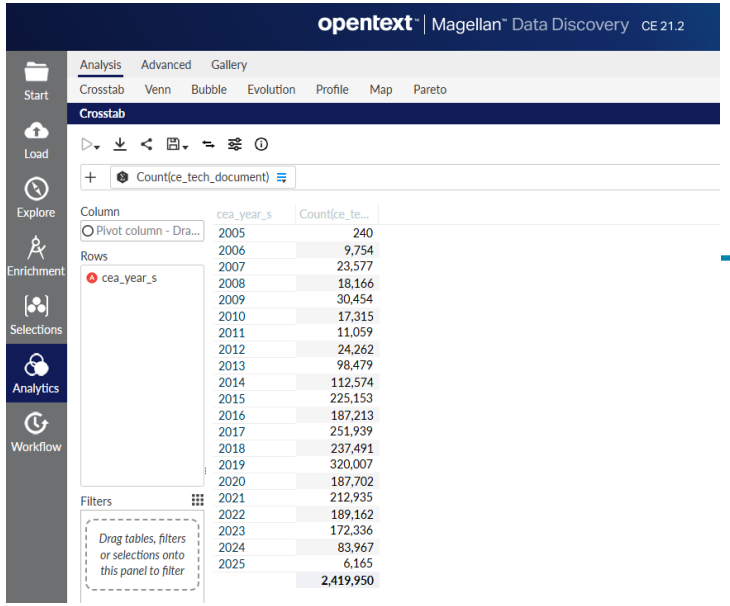
The sequence determines which value the rule applies

Magellan applies rules and generates results

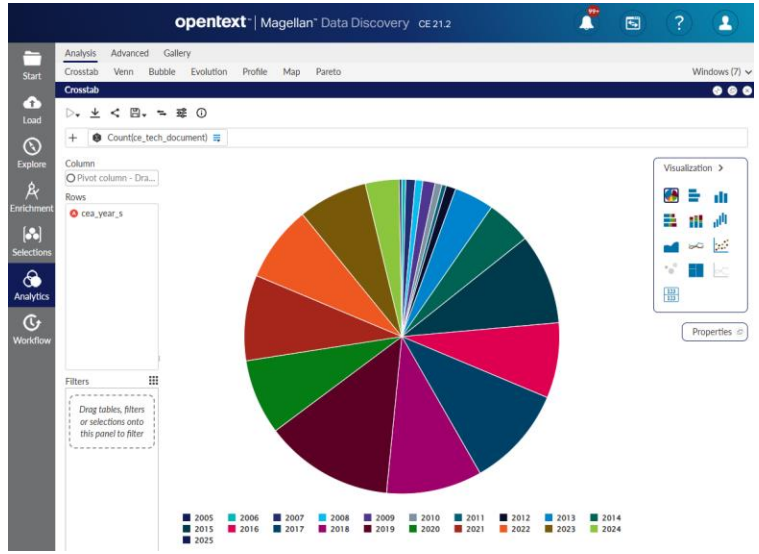
Published Rules



Applied to Content



Analyze Results



Rules run on extracted tables, not the live legacy system

Migration process overview

1 Select content and gather requirements

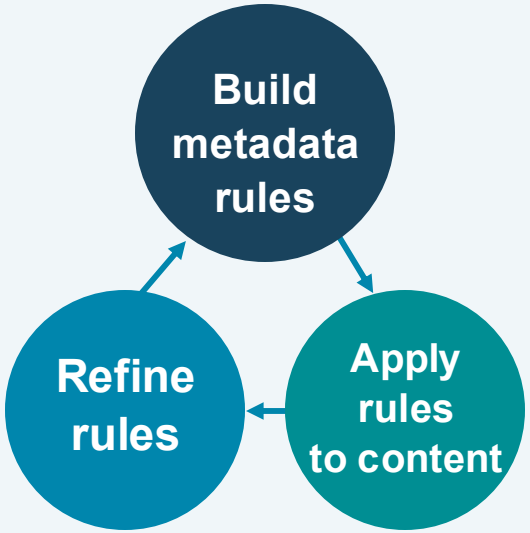


2 Get approval and build

Business approves IT builds

3 Build, review, and refine rules

Business reviews exceptions



4 Test batch migrations for UAT

5 Business validates correct metadata applied to all batches

6 Extract content and apply approved rules

7 Migrate to EDMS

8 Business validates migrated files

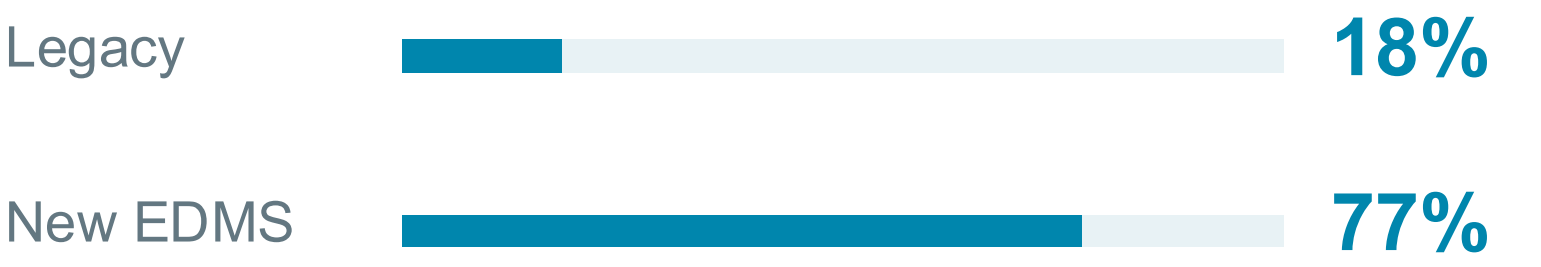
Business can adjust legacy content at any point prior to 6

Migration transformation results

Discipline and Document Type populated



Area and Unit populated



2.2 million
technical documents

Document types
451 to **92**

Disciplines
75 to **48**

Placeholders enable post-migration reviews for missing 18%


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Taxonomy by Stealth

Current to Future State

Technical Documents
Information Architecture
Migration Rules





Foundational Categories in other unstructured systems





Active model growth using real-time data in EAMs, ERPs, etc.

SEMANTIC LAYER

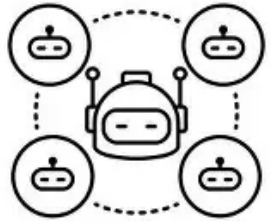


Natural Language Queries
Auto-Classification



Federated Dashboards and Reporting

Multiple AI Agents
Domain Assistants




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Thank You!