IM Visibility LLC

Making Quality Information Visible

Cathy Blosser

Question 1

Does your organization have a dedicated Information Management department?

1. Yes
2. No
3. I don't know

Making Quality Information Visible

- Information Management Program
- Knowledge Management
    - Information Mapping
    - Metadata Schemas
    - Information Flow
- Quality Management System

Information as an Asset

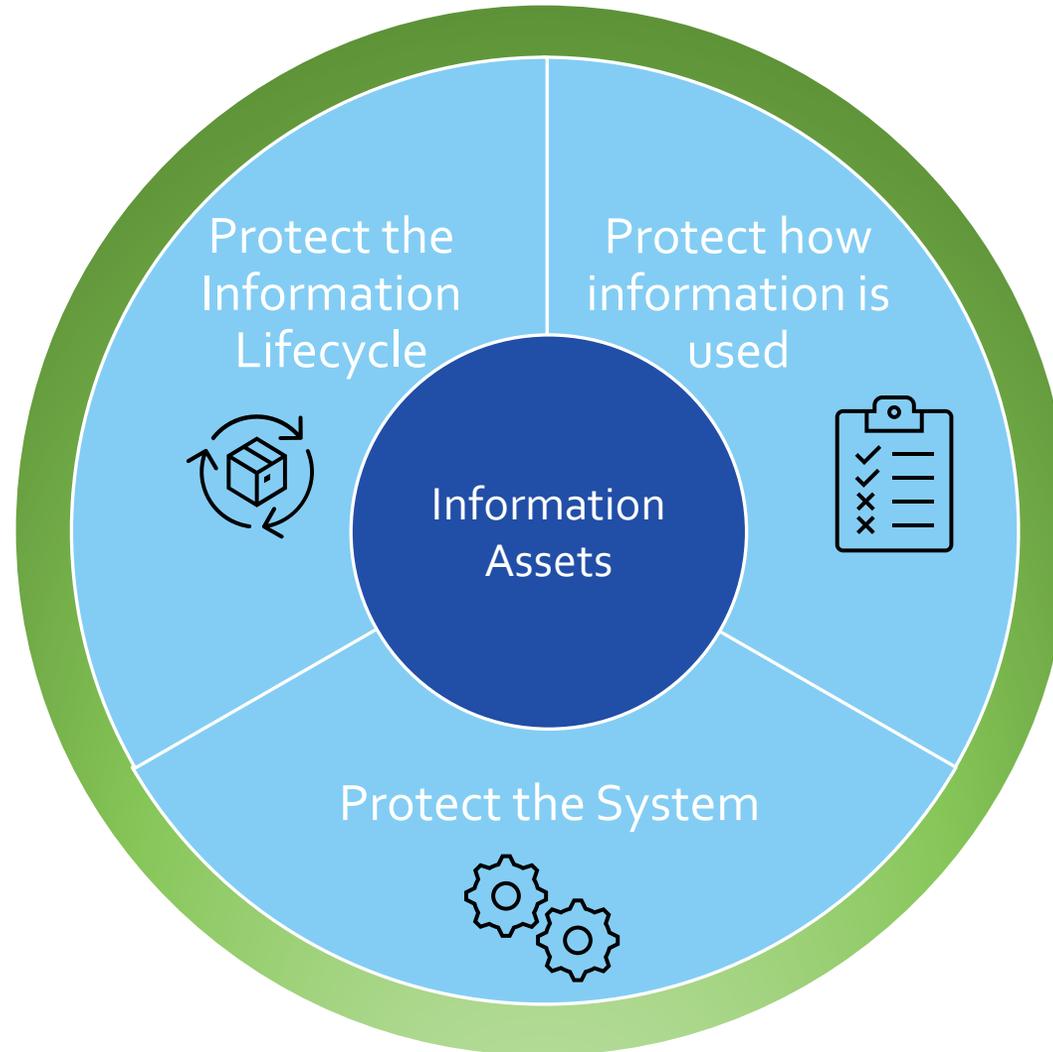Information = Knowledge communicated or received concerning a particular fact or circumstance*
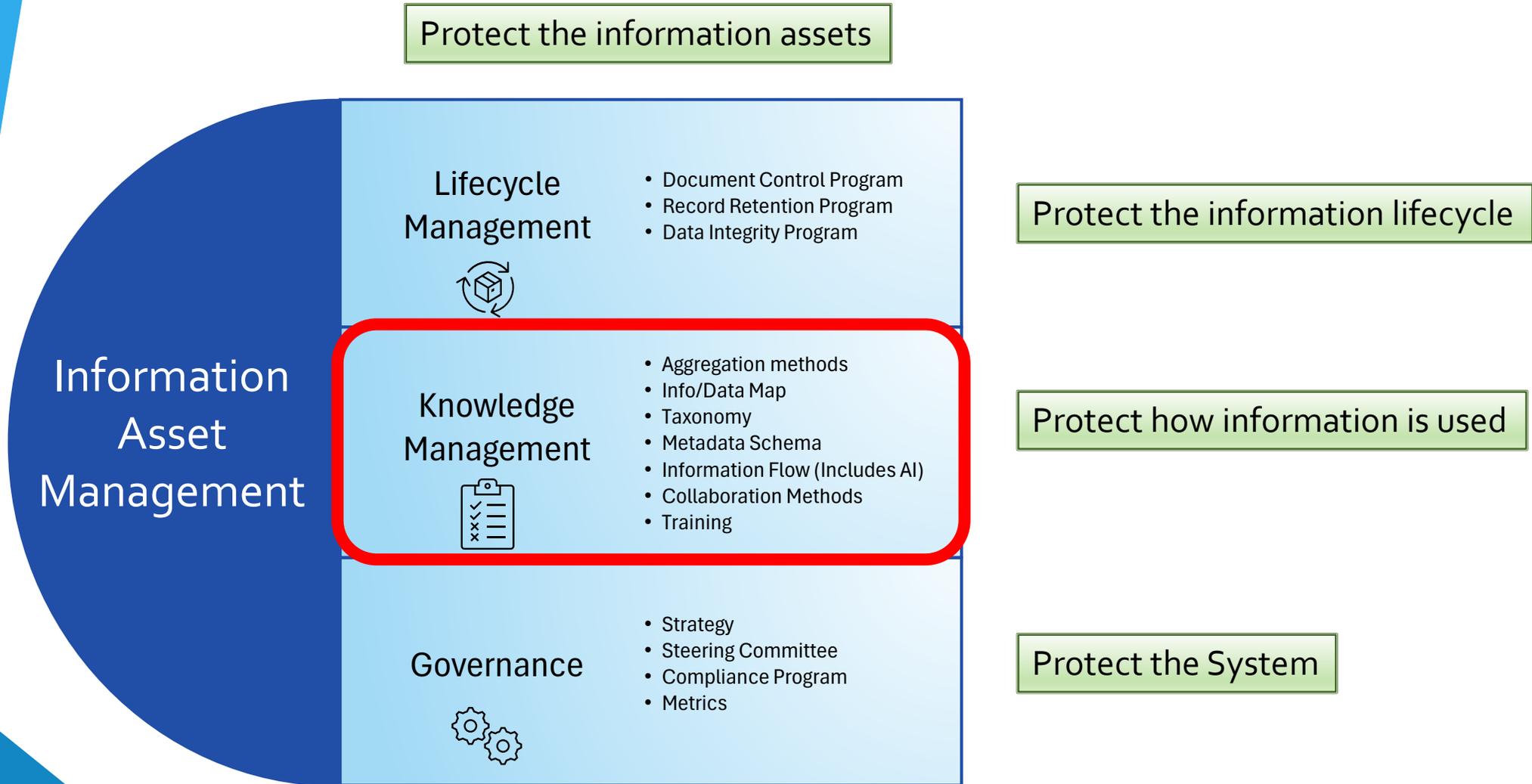
Asset = Item of ownership having an exchange value*

 + **=** Information Asset

Information owned by the organization and generated as a part of business activities has exchange value and must be protected.
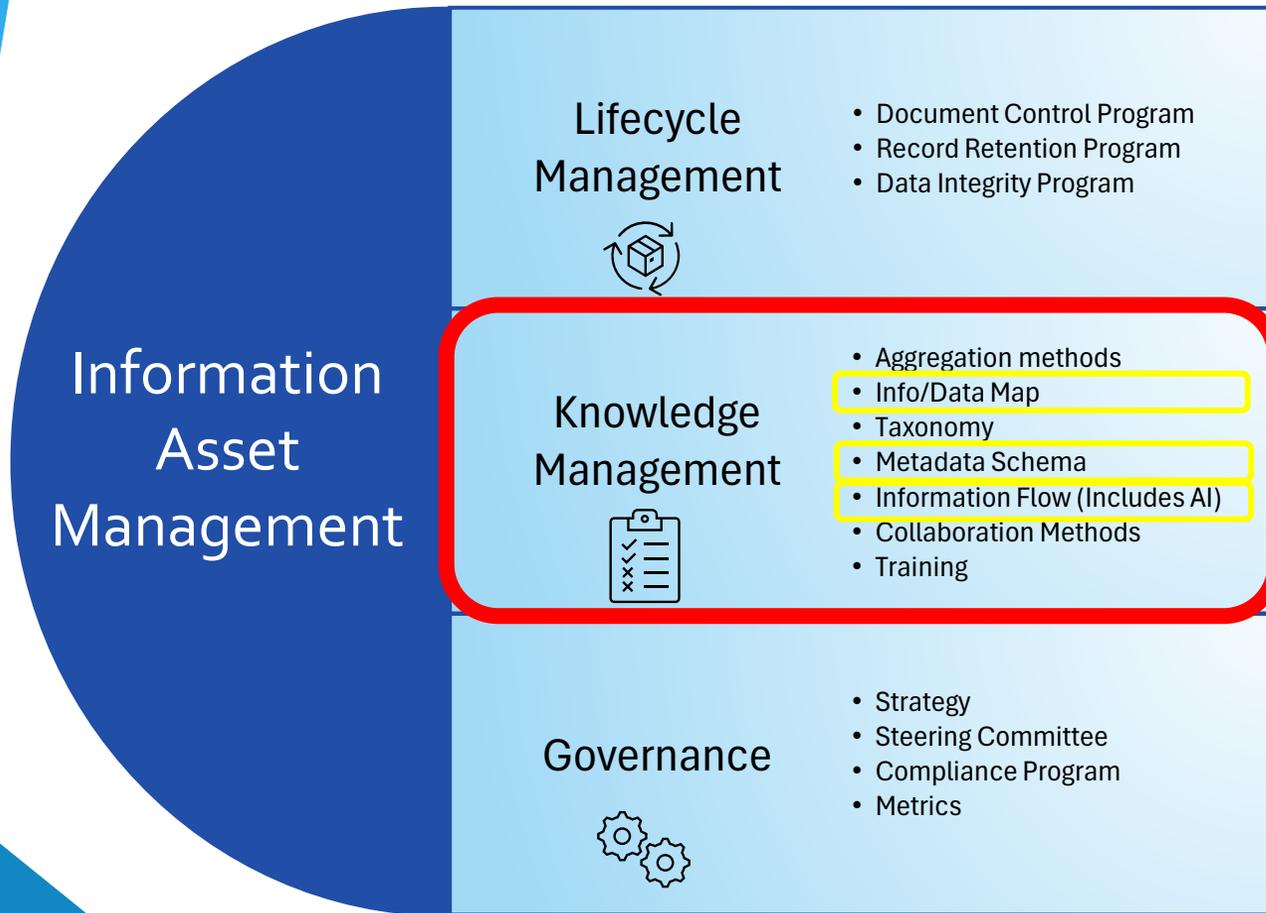
*Reference Dictionary.com

Information Asset Management

Information Management Framework

Protect the information assets

Information Asset Management

Lifecycle Management
- Document Control Program
- Record Retention Program
- Data Integrity Program

Protect the information lifecycle

Knowledge Management
- Aggregation methods
- Info/Data Map
- Taxonomy
- Metadata Schema
- Information Flow (Includes AI)
- Collaboration Methods
- Training

Protect how information is used

Governance
- Strategy
- Steering Committee
- Compliance Program
- Metrics

Protect the System

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Information Management Framework

Information Asset Management

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The element required to implement modern digital tools.
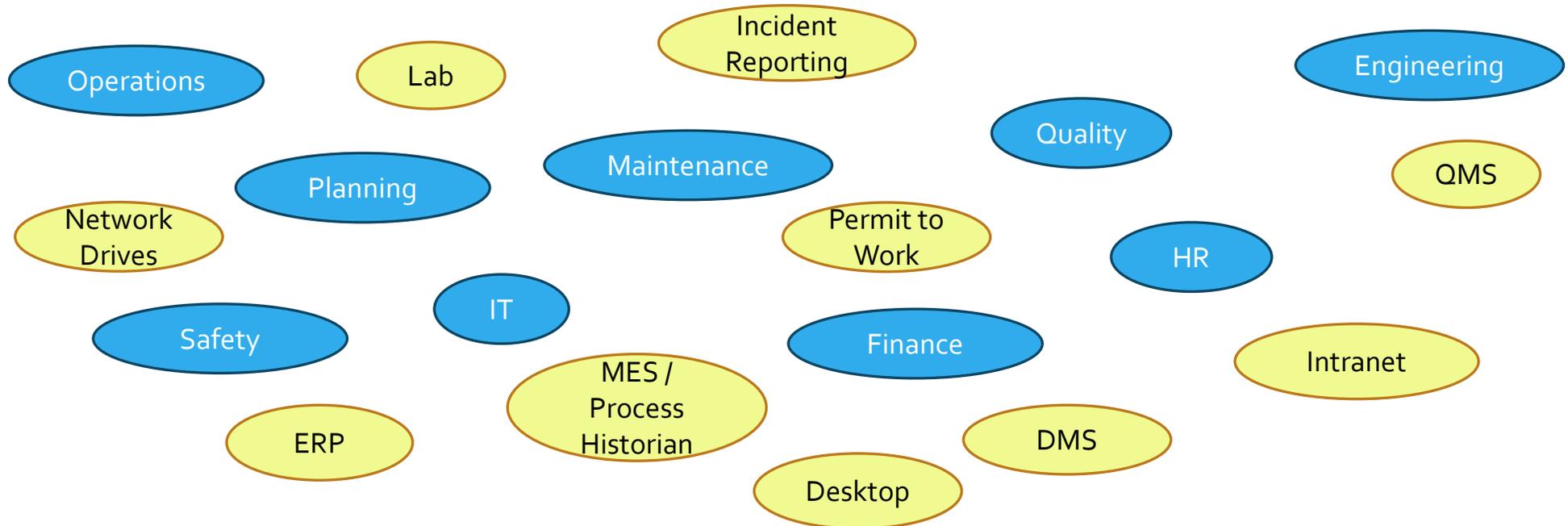
Information / Data Maps

Where is last month's report?
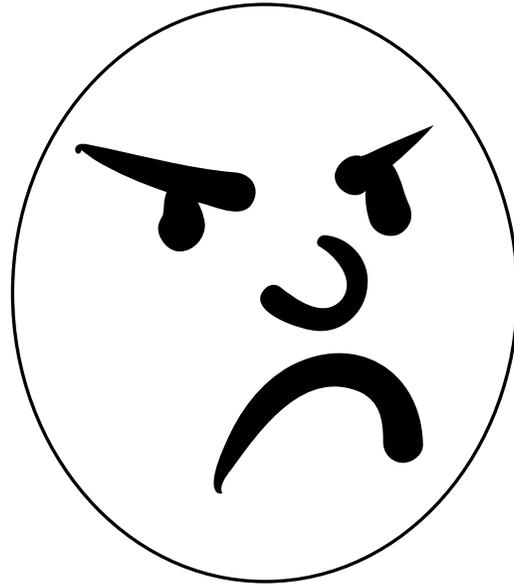
Why do I need to access 3 different software platforms to get the full picture?

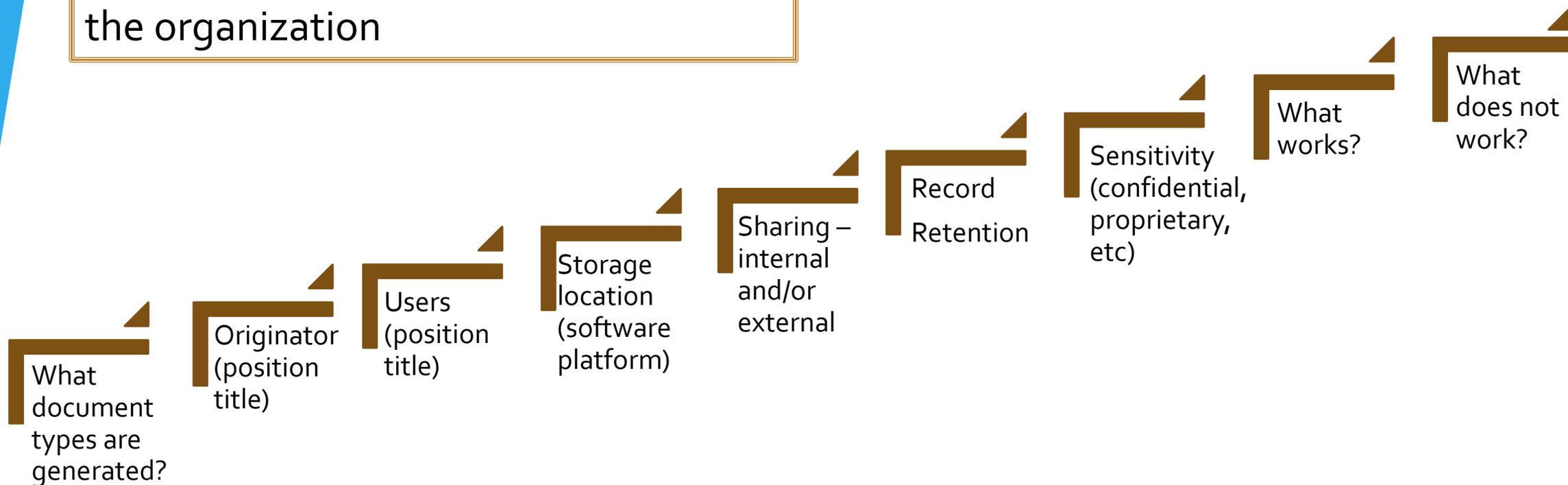# Information / Data Maps

What information is where?

Information Map Creation

Inputs: Information about how content is received, created, and used within the organization

What document types are generated?

Originator (position title)

Users (position title)

Storage location (software platform)

Sharing – internal and/or external

Record Retention

Sensitivity (confidential, proprietary, etc)

What works?

What does not work?

Information Map Creation

Outputs:
- Excel file containing an inventory of information asset types and associated descriptors
- Customized pictorial representations of the information landscape

| Department		Content Information			Content Use Information		Security		Personal Preferences	
Department	Representative	Locations where files are saved (physical and electronic)	Description of type of Content	Examples of content at each location	Who creates the content	Who uses the content	Security (General Knowledge (company public), Department Internal only, Confidential)	Who is this shared with internally	What is working for you?	What would you like to change?

Information Map Creation

Outputs:
➢ Excel inventory
➢ Pictorial representations

Goal: Identify platform connectivity
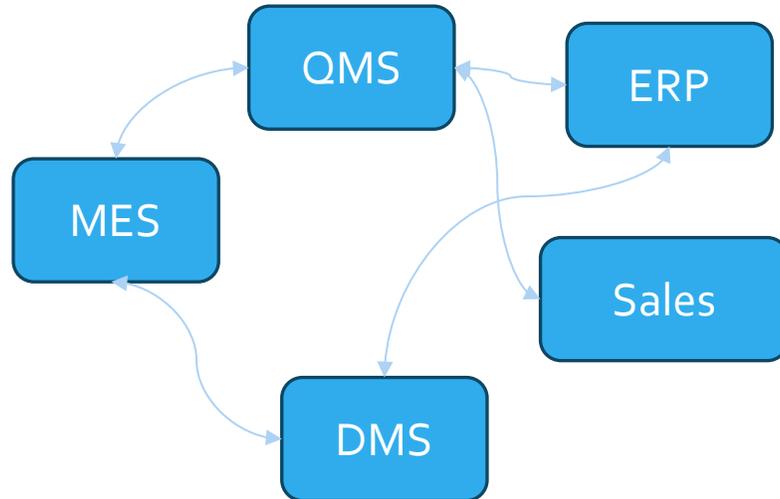
Goal: Identify document location
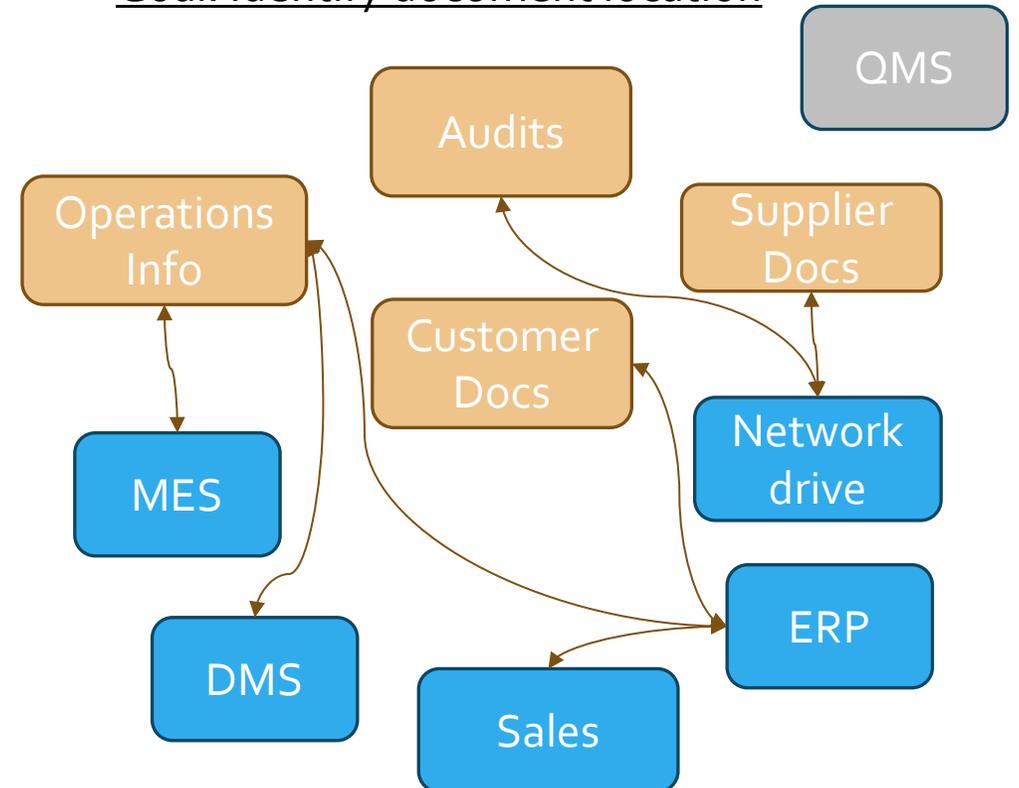
Information / Data Maps Uses and Benefits

- Implement:
  - Aggregation tools
  - Information hubs
- Identify:
  - The number of storage locations
  - Duplicate storage locations
  - Accessibility of sensitive information
- Review:
  - Software licensing terms
  - Software usage

Some of these actions require a metadata schema……….

Question 2

Does your organization have an Information or Data map?
1. Yes
2. No
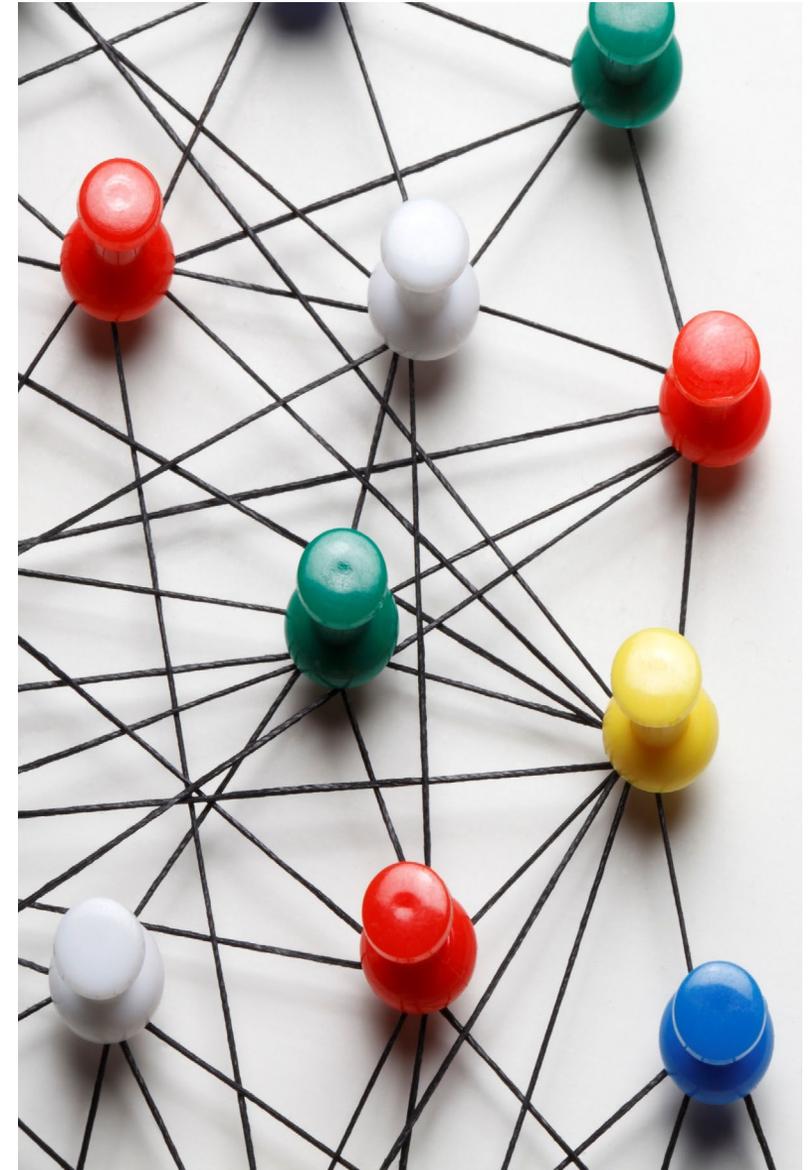3. I don't know

Metadata Schemas

Metadata - defined

Metadata = a tag

Purpose:

- Facilitate record retrieval
- Support information security
- Provide linkage
- Key to aggregation tools

Metadata - application

Category	Detail	Software Platform
Part Number	C123	ERP, MES
SN	99	MES
Description	Wood Chair	ERP, MES, ECM
Wood Supplier	Oak Specialties	QMS, ERP
Date Manufactured	2/13/2025	MES
Work Cell	32A	MES
Safety Reports	Employee got a splinter during assembly	HSSE
Nonconformance Reports	Chip in leg	QMS
Ship Date	2/15/2025	ERP, MES

Metadata Schemas

Metadata Categories / Software Platform	Finance / ERP	Operations / MES	Safety / HSSE	Engineering / ECM	Quality / QMS
Work Center	WC	Work Center	Cell	Work Cell	Unit
Part Number	PN	Part Number	PN		Part Number
Supplier	Supplier	Supplier Name		Supplier Name	Supplier
Part Description	Chair	Wood Chair	Oak Chair	Chair, Wood	Chair, Oak

The language must be the same across all software platforms.

Metadata Schema Prerequisites

- Critical Keys:
  - Teamwork
  - Cross functional consensus
  - Use the organizational language
- Critical Tools
  - Information map
  - Metadata implementation method
- Categories
  - Descriptors of organizational activities.

Human Language = Digital Language

Metadata Schema Development

Manufacturing Location

Miami
Chicago

Drawing Types

Electrical
Civil
Mechanical

Part Numbers

ABC123
XYZ456

Work Center

WC100
WC200

Regions

North
South

Organization

Regions
Manufacturing Location

Design Engineering

Drawing Types
Part Numbers
Manufacturing Location
Work Center

Nonconforming Material Location

Customer
End of Line Test
Receiving Inspection

Quality

Nonconforming Material location
Defect Types
Region
Manufacturing Location
Part Numbers
Drawings

Defect Types

Chips
Scratches
Color

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Metadata Schemas Benefits

- A uniform methodology to describe organizational information
- Disparate information aggregates on a single pane of glass
- Fast, accurate results from a search
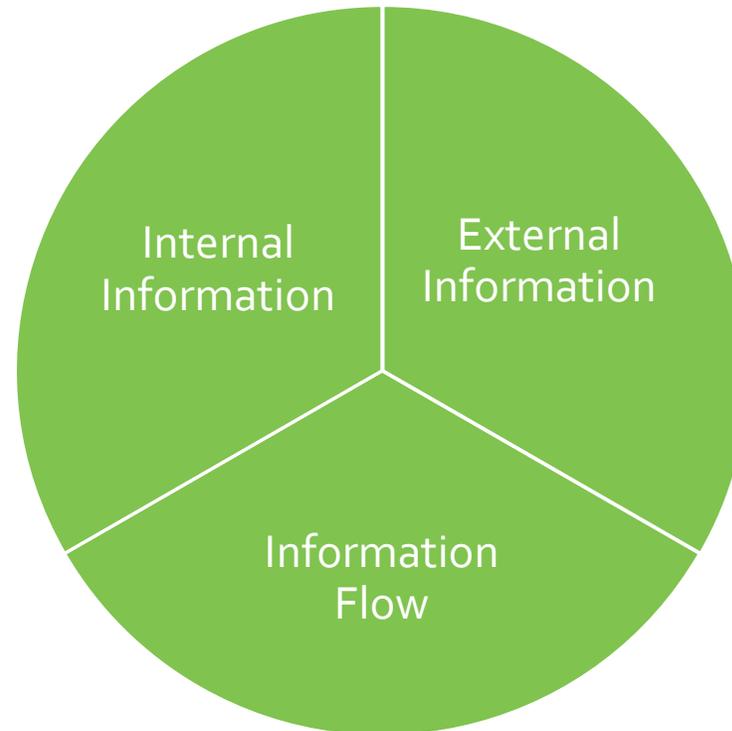- Critical for automating the flow of information within the organization
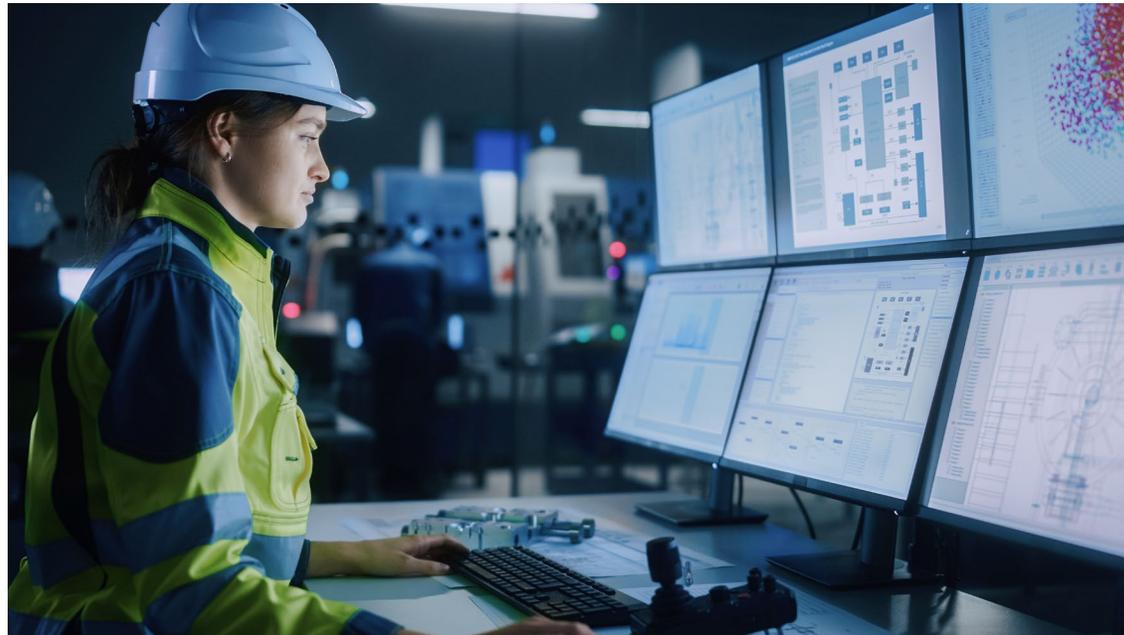
Question 3

Does your organization have a metadata schema?
1. Yes
2. No
3. I don't know

Information Flow

- ➢ Policies
- ➢ Procedures
- ➢ Records
- ➢ Technical Data
- ➢ Regulatory Reports
- ➢ Contracts
- ➢ Working Documents

- ➢ Vendors, Contractors, Customers
- ➢ Reports
- ➢ Inspection Data
- ➢ Test Results
- ➢ Technical Data
- ➢ Procedures

Internal Information

External Information

Information Flow

- ➢ Approval Workflows (Projects, Procedures)
- ➢ Action Tracking
- ➢ Incident Reporting
- ➢ Change Management
- ➢ Metadata usage & assignment
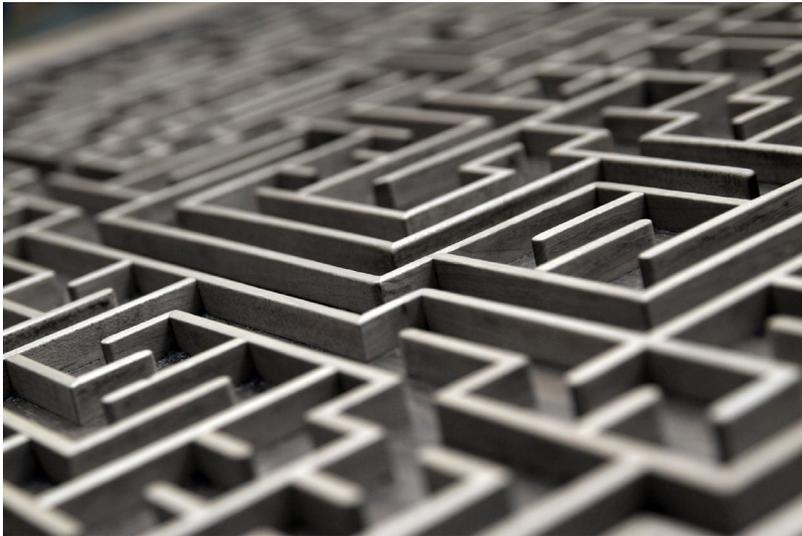- ➢ Communications
- ➢ Collaboration

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Information Flow Types

- Approval/signature loops
- Data analysis
- Movement of documents to the "proper" location based on the file classification scheme
- Generation of routine reports
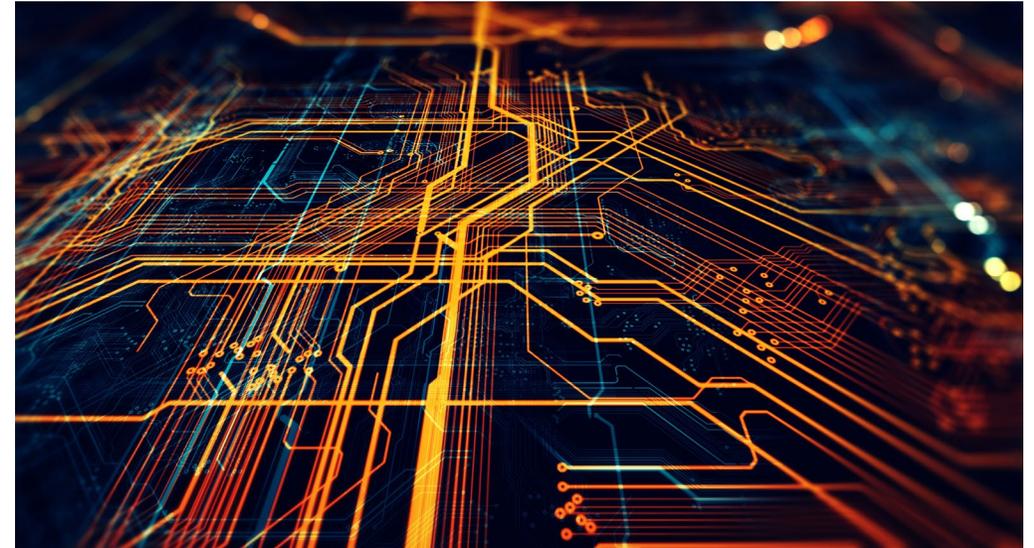
Information Flow Tools

- Workflows
- Algorithms
- Large language models
- Generative document platforms
- Search tools
- Analytical tools machine learning

How do you define AI? Artificial Intelligence???

Information Flow Action Plan

- Implement a Knowledge Management process that defines acceptable flow tools.
- Specifically define what AI means to your organization.
- Ensure that appropriate security measures are in place when implementing CoPilot, ChatGPT, or similar technology.
- Capture all Information Flows on the Information Map.

Question 4

Does your organization have an AI policy?
1. Yes
2. No
3. I don't know

IM and QM ...

Quality Management System	Supplier Quality	• Specifications • Scorecard • Qualifications
	Process Quality	• Nonconforming Product • In-line testing • End-of-Line testing • Scrap
	Customer Quality	• Warranty claims • Returns • Complaints
	Continuous Improvement	• Organizational Metrics • Meet Customer Requirements • Drive Supplier Improvement
	New Product Development	• FMEA • MSA • Developing inspection criteria
	Compliance	• Supplier Audits • Internal Audits • Customer Audits • Regulatory Audits
	Document and Records Management	• Document Control • Policy and Procedure Management • Drawings • Records Retention

Keys to Successful QMS Implementation

1. Determine what is where: Use the Information Map
2. Connect disparate systems using the metadata schema
3. Automate processes: Define how information will flow to, from, and through the system.
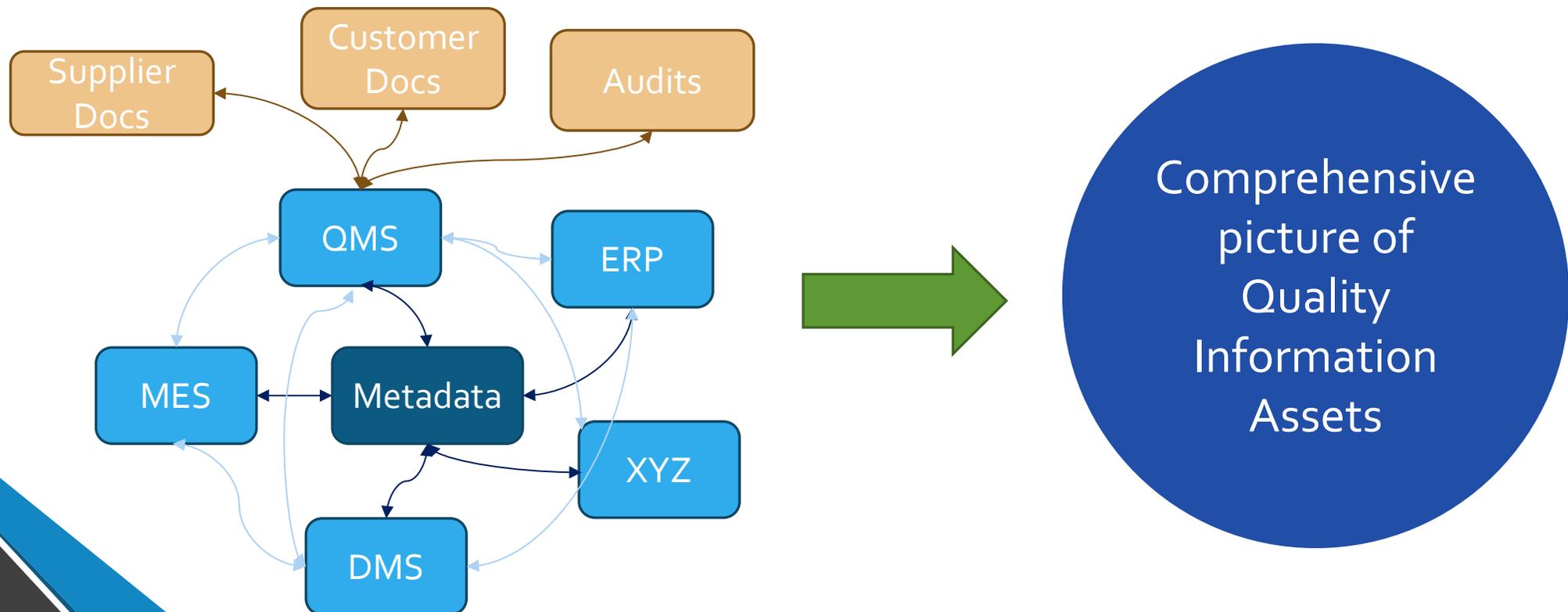
Conclusion

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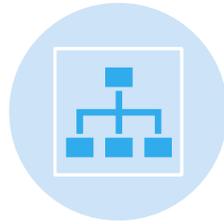- Steering Committee
- Compliance Program
- Metrics

An organizational activity ensuring information is:
- ✓ Available
- ✓ Accurate
- ✓ Reliable
- ✓ Accessible

Provides the foundation for successful QMS implementations
- ✓ Information map
- ✓ Metadata schema
- ✓ Information flow philosophy

About IM Visibility

Services:

*IM Program Development

    Comprehensive Program

    Key Element Development

    Governance

*IM Strategic Planning

    Strategy, Mission, Vision, Scope

    Maturity Assessment

    Information/Data Mapping

*Tactical Services

    Technical Document Writing

    Classification schemes

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Discussion