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Evolution of the Data Map:
Why Your Organization Needs One

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Agenda

- Data maps
  - Background / definitions
- Today's drivers
- Multi-dimensional / 3D data maps
- Developing / maintaining the data map

Background

- Federal Rules of Civil Procedures, 2006 revision
    - Explicitly clarifies that electronically stored data is discoverable
    - Mandates early pre-discovery attorney conference
        - Rule 26 (f) "Meet and confer"
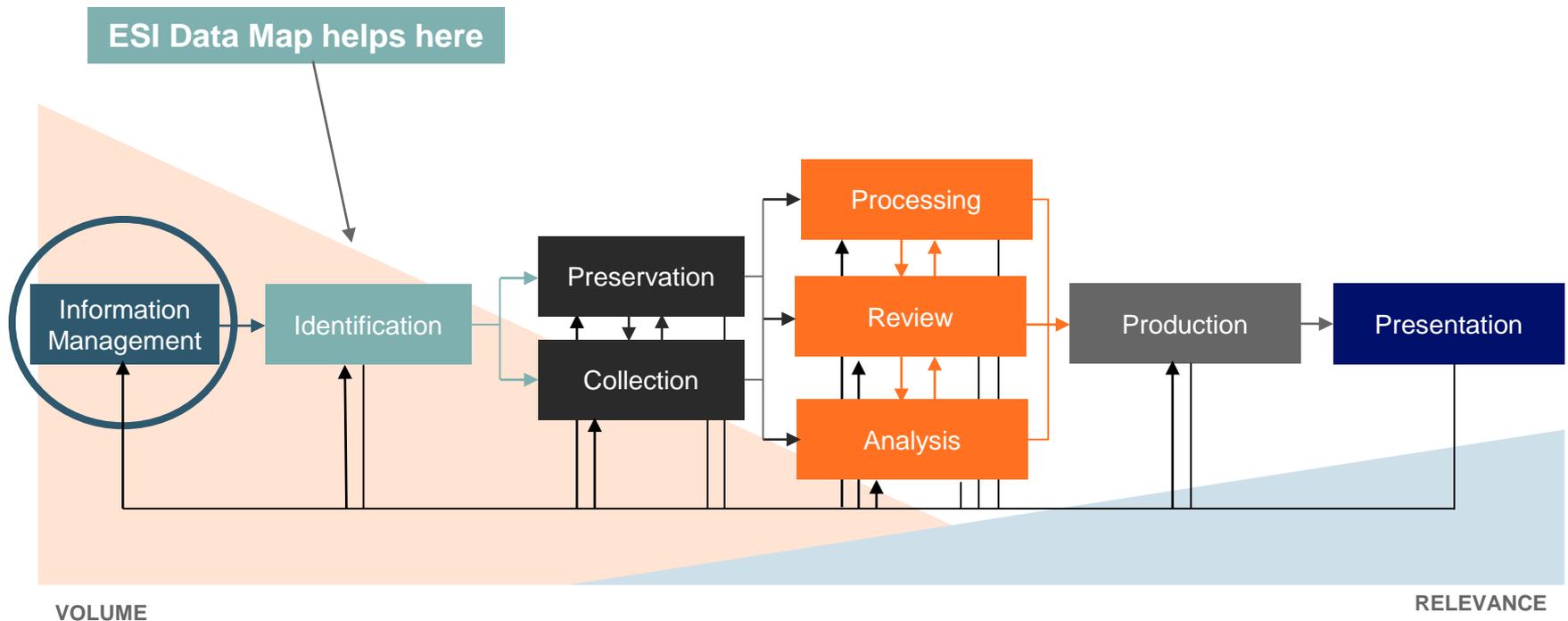   - Purpose: Limit the scope of e-Discovery

ESI Data Map

An accurate, comprehensive, and understandable inventory of an organization's IT systems which may contain ESI potentially relevant in any legal or regulatory discovery.

Objectives:

- Understand the universe of potentially responsive ESI
- Effectively manage the ESI preservation and collection processes
- Minimize disruption to business and revenue-generating employees
- Reduce the cost of electronic discovery
  - Discovery cost = 50% cost of litigation

Electronic Discovery Reference Model

ESI Data Map helps here

Information Management → Identification → Preservation / Collection → Processing / Review / Analysis → Production → Presentation

VOLUME ─── RELEVANCE

- Costs for phases are volume-driven
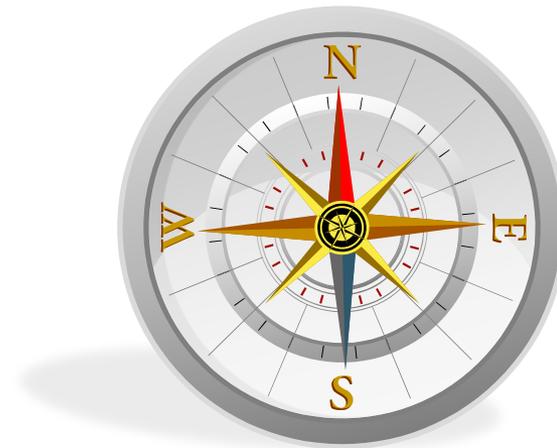- Limited scope = smaller volumes = reduced cost

Information Mapping

What is an Information Map?

An information map is an inventory of enterprise information that tells you **what you have**, **where it is** and **who is responsible** for managing it.

Common types of information maps include:

- Application
- Discovery
- Records and information management
- Privacy and security

Application Inventory

- An application inventory catalogs the enterprise applications and systems across the enterprise, primarily for IT management purposes.

- The primary use is to mange licensing, IT responsible parties, disaster recovery and system health.

- While useful for managing the various applications across an organization, it tends to reveal relatively little about the information each system contains.

A	B	C	D	E	F	G
Application Id	Application Name	Application Short Name	PAI Indicator	Status	Item Type	Application Type
3113	WWW (Enterprise)	WWW (Enterprise)		Production	Application	Corporate
3114	WWW (SB)	WWW (SB)		Production	Application	Corporate
3115	Siebel CRM	Siebel CRM		Production	Application	Corporate
3116	Eloqua	Eloqua		Production	Application	Corporate

Discovery Maps

- A discovery map informs legal counsel as to the repositories of ESI in an organization.

- Primary role of a Discovery Map is:
    - the identification of systems / repositories commonly relevant to discovery requests
    - assistance with application legal holds
    - 26(f) meet and confer conferences

- Discovery maps were popular immediately after the FRCP rules were expanded in 2006 to specifically address electronic information, but have declined in use since that time due to the lack of commitment to keep them current.

Records Retention Schedules

- Identifies records and information across the enterprise that needs to be retained and/or disposed of based on specific time periods.

- Often the most comprehensive guide to enterprise records and information.

- May serve as a starting point for more comprehensive mapping efforts.

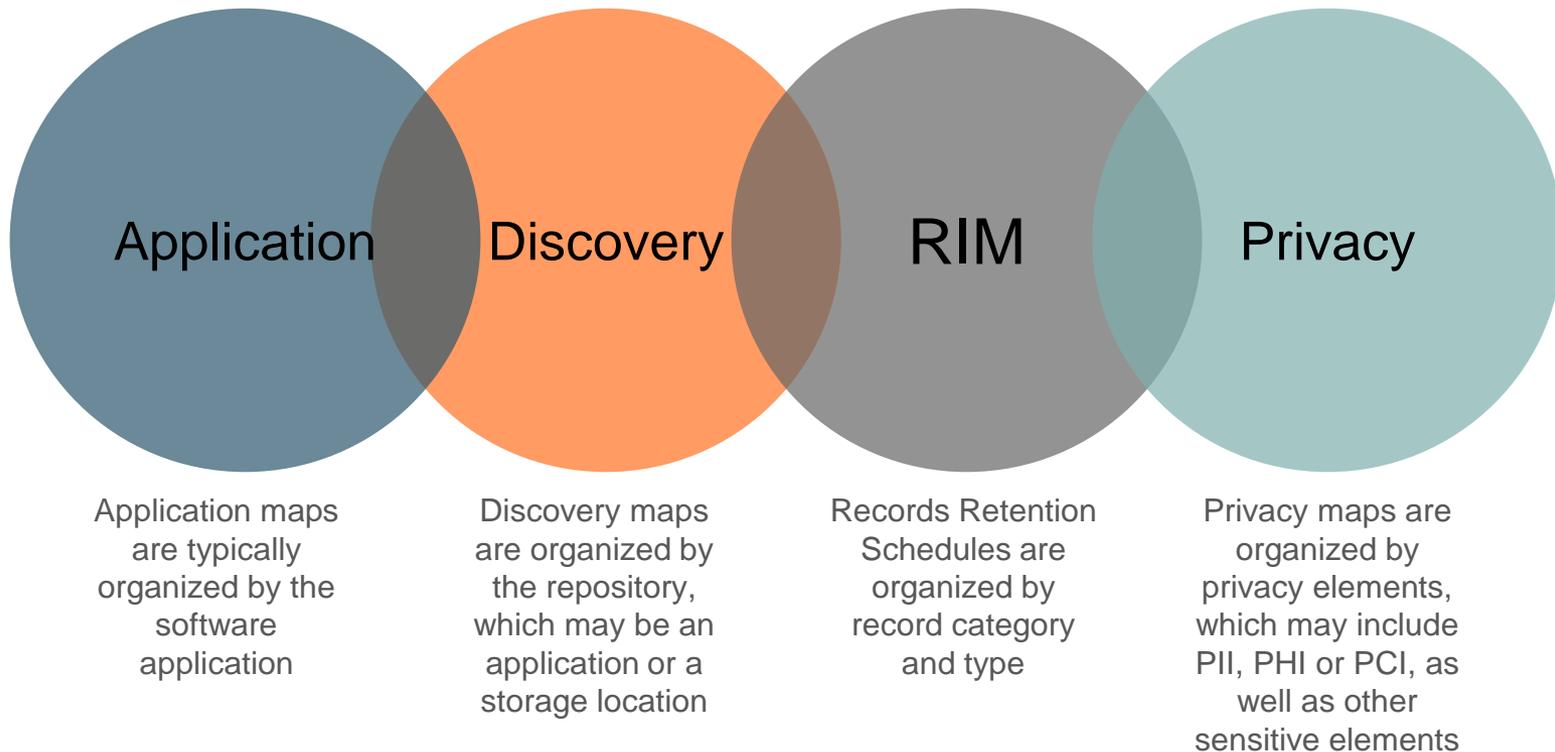- Some organizations attempt to map repositories to their schedules.

Human Resources

Retention Code	Record Category Title	Record Category Description	Global Retention
HUM-100	Benefits and Compensation Benefit Enrollment & Participation	Information documenting the enrollment and renewal of employees in Stryker's benefit programs. Includes benefits for loans, profit sharing, medical, health and welfare, disability plans, stock plans, and supplemental life insurance. Includes benefits for Flex-Time Employees. Does not include Workers' Compensation Benefits.	6 Years
HUM-110	Benefits and Compensation Benefit Plans	Information documenting the design and development of Stryker's benefit plans as well as annual review of those benefit plans. Includes plan-related and vendor correspondence and general employee communications that pertain to the benefit plans.	Life of Plan + 6 Years
HUM-120	Benefits and Compensation Compensation Administration	Records related to determining and monitoring salary and deduction amounts.	6 years
HUM-130	Benefits and Compensation Salary Plans	Information documenting employee compensation programs, as well as planning, salary administration and supporting documentation. Includes executive / officer compensation and incentive plans and approvals, deferred compensation and staff - non-executive - salary plans.	Life of Plan + 6 Years
HUM-200	Labor Relations Labor Negotiations	Information documenting all labor negotiations and contract-related information pertaining to the negotiation and approval of a particular master Collective Bargaining Agreement. Includes history of revisions of particular sections of the agreement that are retained to identify intent of the language in case of future disputes.	6 years
HUM-210	Labor Relations Grievance Files / Labor Resolution	Information documenting the submission and resolution of formal grievances, which may be resolved at the department manager level, at the Human Resources manager level, by an arbitration panel or in civil court.	Final Resolution + 6 years
HUM-220	Labor Relations	Information documenting meetings between Stryker and	2 years

Privacy + Security

- **Privacy data maps** reveal where privacy related data is at a particular point in time.

- **Privacy data flows** tracks the step-by-step flow of a particular information type from the point it enters an organization through to the point it leaves or is destroyed.

- **Data classification** identifies levels of sensitivity.

What is the Difference?

Application   Discovery   RIM   Privacy

Application maps are typically organized by the software application

Discovery maps are organized by the repository, which may be an application or a storage location

Records Retention Schedules are organized by record category and type

Privacy maps are organized by privacy elements, which may include PII, PHI or PCI, as well as other sensitive elements

Can These Efforts Be Combined?

Privacy

RIM

Applications

Discovery

Typical Silos

RIM	E-Discovery	Privacy	Compliance	InfoSec
Record retention schedules and policies	Discovery response	Privacy policies	Sarbanes-Oxley	Enterprise security
Content management	Regulatory requests	Risk impact assessments	FCPA	Cybersecurity
Information lifecycle management	Identification collection and preservation	Management of sensitive information	Enterprise risk management	Information classification
Defensible disposition	Processing, review and production	Sensitive data mapping	Audits and controls	Access controls
		Breach response	Regulatory and industry specific	Breach detection and response

Coordination is Good, but Collaboration is Better

Metcalfe's Law:
The more people who use something, the more valuable it becomes.

RIM

E-Discovery

Privacy

Compliance

InfoSec

INFORMATION
GOVERNANCE
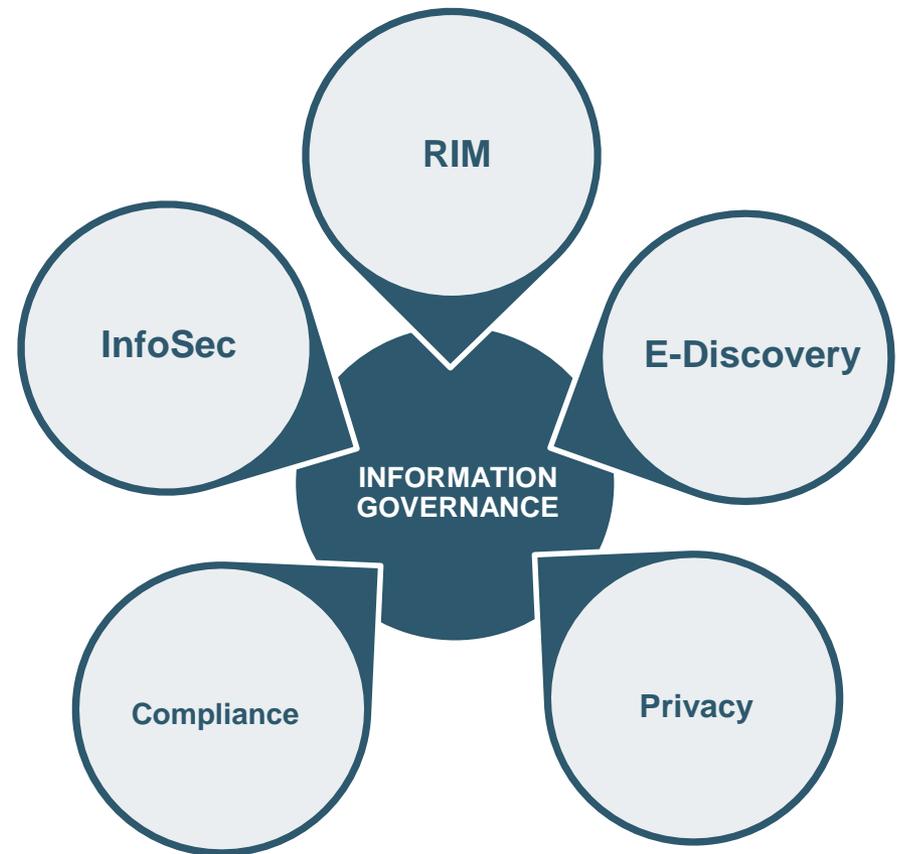
Building the Data Map

What are the Challenges?

Tribal knowledge of ESI

Volume of ESI

Undocumented systems

Lack of litigation savvy technical resources

ESI is scattered across the organization

Inaccessible or in a format that can not be readily produced
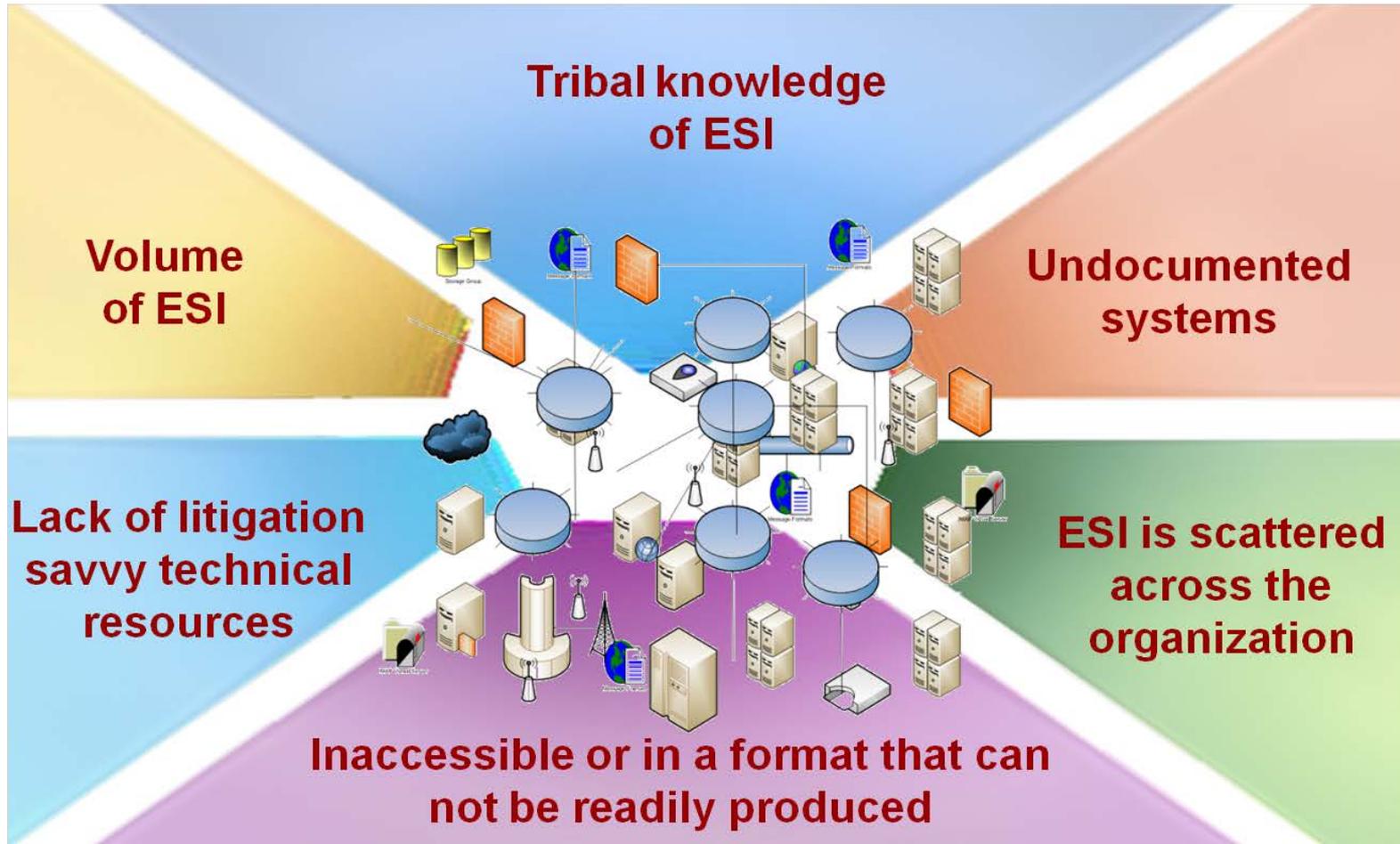
Form a Cross-Functional Team

- Records and information management
- Legal and compliance
- Privacy
- Information technology
  - Application / infrastructure management
  - Information security
  - Network administration

Define Success / Objectives

- Identification of privacy and sensitive information

- Defensible disposition

    - Reduced redundancy / improved efficiency

- Identify needs and reduce workarounds / shadow IT

- Effectively manage IT assets / control operating costs

- Support eDiscovery

Define the Requirements

- Who will the main users of the map? How will they use it?
  - Contemplate all the uses before starting
    - for the business case for moving forward
    - to ensure the design can scale to meet future needs
- Will this be a single purpose map, or a multipurpose map? What fields of information will it need to satisfy the business and legal needs?
- Determine whether this will replace other tools that manage similar information, or act as a supplement to them.
- Scope: Determine what kinds of information and repositories will be included. Is the goal just structured systems, or will it include unstructured data as well? What about paper?

Scope
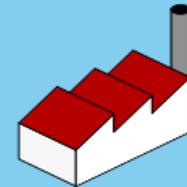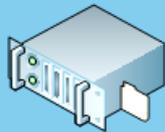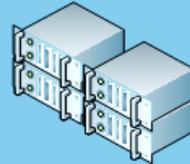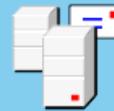
Design and Build the Framework

- Can this be done with a spreadsheet, or do you need a database or third party application?

- Will there be integration with other systems? For example, how will the people responsible for various systems and information be entered and managed?

- How will information be entered into the map? How will it be kept fresh?

- How will users access the map? What are the reporting needs?

- What specific fields must be captured?

Tip: Pick the level of detail and number of fields with care; too much can make it hard to populate and maintain; too little can diminish usefulness.

Potential Fields for the Data Map

- System / application / repository name
- Description
- Status
- Deployment date
- Decommission date
- Cloud / on premises
- System of record
- Backup policy

- System business owner
- System IT support
- System users
- Data format
- Content / information types
- Sensitive data
- Retention / Disposition
- Lifecycle management
- Legal hold capability

Why a Spreadsheet May Not Be Enough

- Most organizations approach this through a series of spreadsheets, to gather and organize their information mapping efforts.
    - Only shows one dimension
    - Can not reach the level of granularity needed to accurate serve multiple purposes.
- Some try to add columns to a retention schedule to cover privacy or repository locations.
- Different audiences will need different views on the information.
- A spreadsheet cannot show the relationships between different kinds of information.

Vendors

Collecting Information and Populating the Map

- Do not reinvent the wheel - start with existing materials, including application maps, retention schedules, etc.

- Consider a mix of surveys, interviews and workshops.
    - Surveys work well for very defined information, such as technical details for repositories, but not as well for contents and use patterns.
    - Interviews provide deeper understanding and reveal pain points.
    - Group interviews and workshops are useful records-rich areas like Finance and HR.

- Consider starting as a pilot to ensure the framework can support the nuances of the enterprise.
    - It can save the need to go back to users a second time.

Potential Roles

- **Data Stewards (DS)** – Person responsible for his / her assigned data sources and ensuring timeliness and quality of the information populated and maintained in the data map. Also a potential SPOC.

- **Single Points of Contact (SPOCS)** – Person most knowledgeable of a specific data source. Familiar with the necessary logistics, resources and context of the information contained in the data source. Ability to determine if that data source meets Legal's request for legal hold, actions to preserve and collect and to engage the appropriate SMEs to produce. Also a potential SME.

- **Subject Matter Experts (SMEs)** – Person intimately familiar with the business and / or technical aspects of the data source and the underlying files, databases and other information contained therein. Also understands how the information resides natively, is used and can be obtained and produced.

Iterate and Extend

- Do you need to map the entire enterprise, or just certain areas to meet your needs?

- Try to show continual short-term value while moving toward a greater long-term goal.

- Look for ways to improve the information collection methods as you gain experience with the various methods.

- Prioritize based on areas of highest risk or greatest business benefit.

Maintenance

- Determine ownership and responsibilities up front
- Develop a plan to keep the information map evergreen
  - Information can become stale in a matter of months
- Documents processes and procedures for the use and maintenance of the information map
- Work with IT and other areas to develop "triggers" so you are notified when new systems come online, or when new privacy-related information collection processes are adopted

Lessons Learned

- Do not try to address all needs at once; take an iterative approach and continually show value to the effort. **Start with high risk areas, and move on from there.**

- Identifying information "owners" is often difficult, but worthwhile in the long run.

- **Do not underestimate the amount of time and level of effort needed**; doing this right takes time.

- Contemplate all the various uses and users at the outset; **getting the framework right at the beginning** will avoid rework and needing to go back to the business multiple times.

- Ensure you have the people and processes to **keep the map fresh**; dated information can undermine confidence and make it more of a burden than a benefit.

- Do not forget cloud and SaaS applications – understanding the flow of information to external vendors is extremely valuable.

Questions / Comments?

Vendor	Data Mapping Solution	Software / Service	Related Offerings	Comments
TrustArc https://www.trustarc.com/	Data Flow Manager	Software Professional Services Training & Certification Partner Networks	https://trustarc.com/products/	Methodology and framework. Offer workshops on implementations, etc.
Spirion https://www.spirioon.com/	Identity Finder / Spirion Console	Software Partner Networks		Free Trial
AvePoint https://www.avepoint.com/	Compliance Guardian	Software Training and Certification Partner Networks	https://www.avepoint.com/products/	Specialized functionality for O365/SharePoint
OneTrust https://www.onetrust.com/	OneTrust Data Inventory & Mapping	Software Training and Certification Partner Networks	https://www.onetrust.com/products/	Free Trial available
Colibra https://www.colibra.com/	Colibra Catalogue	Software Professional Services Training & Certification Partner Networks	https://www.colibra.com/data-governance-solutions/	Also provides Metadata Management Solutions https://www.colibra.com/landing_page/2017-gartner-magic-quadrant-metadata-management-solutions/
Evidon http://www.evidon.com/	Trackermap	Software Professional Services Partner Networks	http://www.evidon.com/solutions/monitoring/	
Trust Hub https://www.trust-hub.com/	Trust-Hub Platform	Software	https://www.trust-hub.com/solution/	Based in United Kingdom