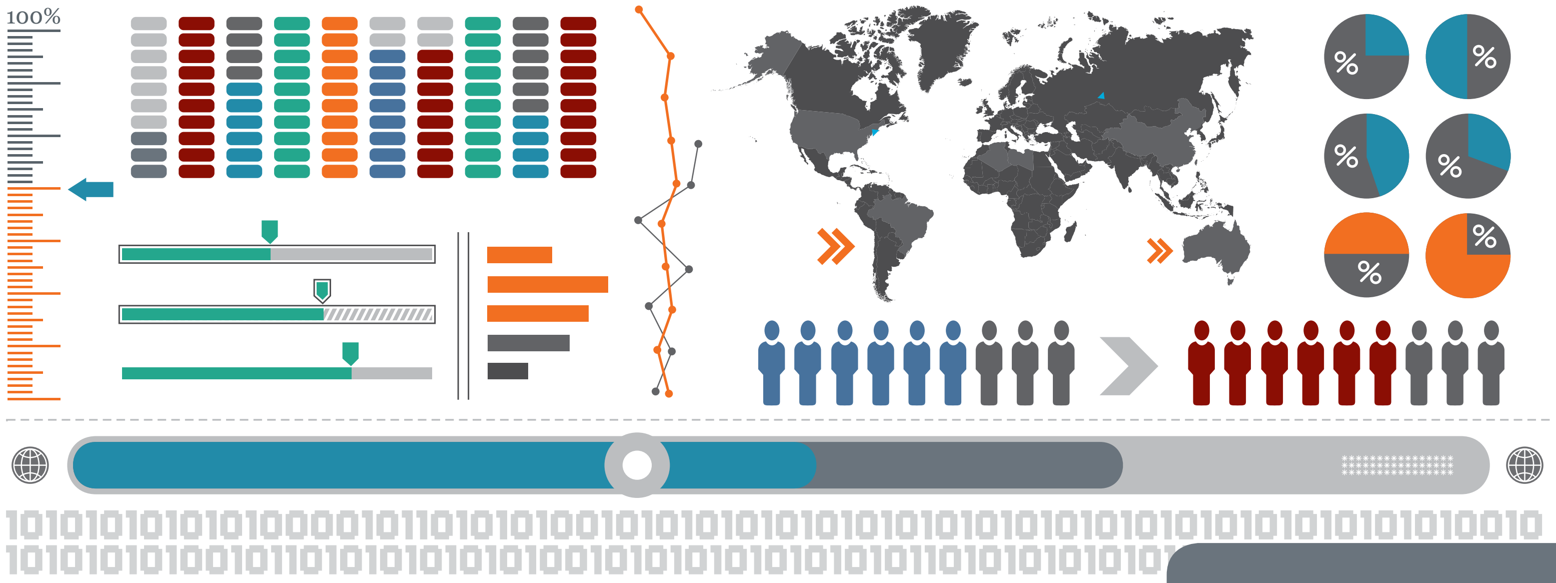
Information Economics Process Assessment Kit



CGOC

“Companies should securely dispose of or de-identify personal data once they no longer need it, unless they are under a legal obligation to do otherwise.”

— The White House, Consumer Privacy Bill of Rights, Feb. 23, 2012

About CGOC

CGOC (Compliance, Governance and Oversight Council) is a forum of over 2200 legal, IT, records and information management professionals from corporations and government agencies. CGOC publishes reference guides and articles and conducts primary research; its Benchmark Reports have been cited in numerous legal opinions and briefs and its ILG Leaders Guide widely referenced and adopted by organizations. CGOC members convene in small working groups, regional meetings and its annual strategy summit to discuss information governance and economics, eDiscovery, data disposal, retention, and privacy. CGOC has been advancing governance practices and driving thought leadership since 2004. For more information go to www.cgoc.com.

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Information Economics Process Assessment Kit

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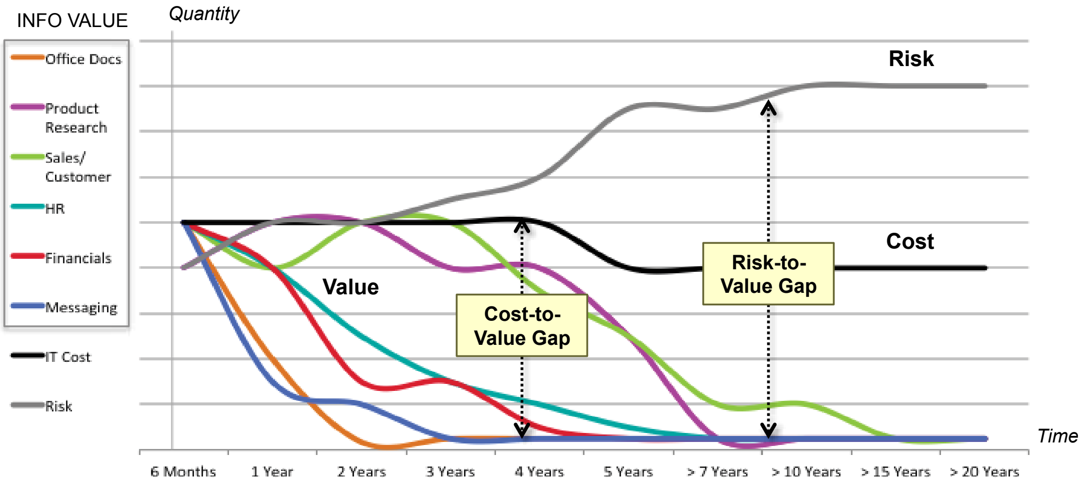
Improving Information Economics and Defensible Disposal of Unnecessary Data

Improving information economics is an imperative for most organizations. As information volume rises rapidly, business users face greater challenges to extract value, IT costs for basic infrastructure rise beyond budgets, and legal risks and cost increase as well. To make way for new and more useful information, ensure businesses get value from data, control IT and legal costs, and lower risk and exposure, companies should dispose of unnecessary data debris.



BUSINESS

Information volume doubles every 18-24 months in most organizations

90% of the world's information was created in the last 2 years[1]

LEGAL

It costs $18,000 to do e-discovery on 1 gigabyte[2]

e-discovery consumes as much as half of litigation budget

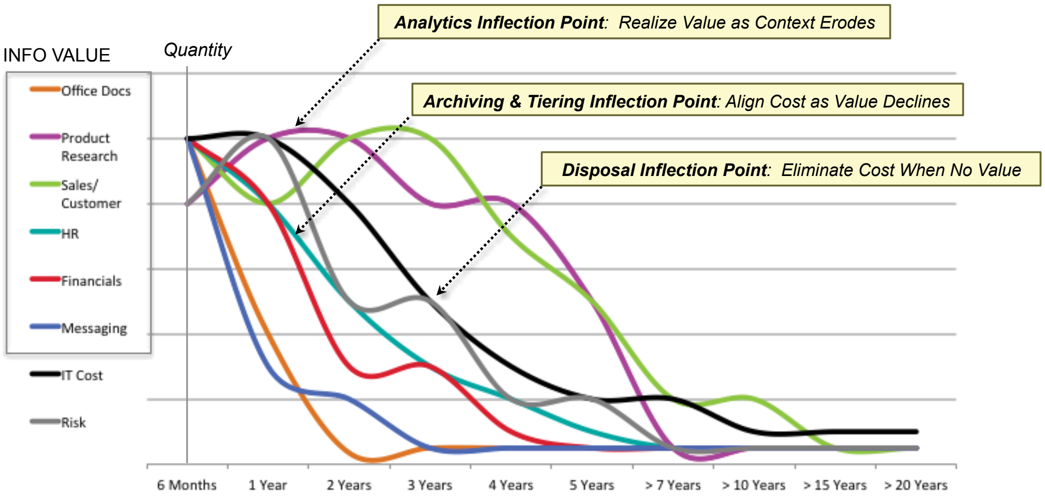
IT

$4M to store 1PB and app cost materially adds to run rate

Data storage consumes growing share of budget; sunsetting too slow

As information ages, its value declines with time. Unfortunately, the cost to manage it is relatively constant and ediscovery costs and risks rise with time. When information is no longer needed, information "supply" exceeds information "demand". This creates a widening gap between the value the information provides an organization and its cost and risk. Closing these gaps is important to legal, IT, security, privacy and business stakeholders. When processes and stakeholders are silo'ed and operate without a high degree of interlock and transparency, it is very difficult to tie actual need for information (demand) with information assets (supply).

[1] Source: Big data: The next frontier for innovation, competition, and productivity McKinsey & Company, 2011 Study
[2] Gartner e-discovery Report



***Analytics Inflection Point**: Realize Value as Context Erodes*

***Archiving & Tiering Inflection Point**: Align Cost as Value Declines*

***Disposal Inflection Point**: Eliminate Cost When No Value*

Three critical inflection points in information lifecycle drive value, cost and risk:

1. Analytics to maximize value as context erodes
2. Archiving and tiering to ensure cost declines as value declines
3. Disposal to ensure that when need is gone, there is no remaining cost

Information lifecycle governance improves information economics for legal, business & IT

BUSINESS

Leverage information for better decisions

Don't waste budget on unnecessary IT or legal services

LEGAL

Meet e-discovery obligations cost effectively and efficiently for the enterprise

Manage conflicting privacy and regulatory duties

IT

Minimize "run the shop" costs to increase investment in "grow the firm" activities

Cut total costs even as total volume rises

To improve information economics and enable defensible disposal of data debris, organizations need to understand and optimize eighteen processes that determine information value, cost and risk. An organization's process capabilities and maturity determine its ability to understand and extract information value, align cost to value over time, minimize information and legal risk and lower total IT and legal costs.

This CGOC practitioners' tool helps organizations understand and assess their process capabilities and current process risks; tools like the ILG Leaders Guide provide a roadmap to optimizing processes to improve information economics.

Processes Capability and Maturity

A clear understanding of process maturity levels and your organization's current process capabilities and practices will help frame the work effort and change management required to improve information economics and achieve defensible disposal. The eighteen information economics processes incorporate the way an organization defines demand (what information is needed, why and for how long) and how it manages supply (what is provisioned, managed, decommissioned, and disposed).

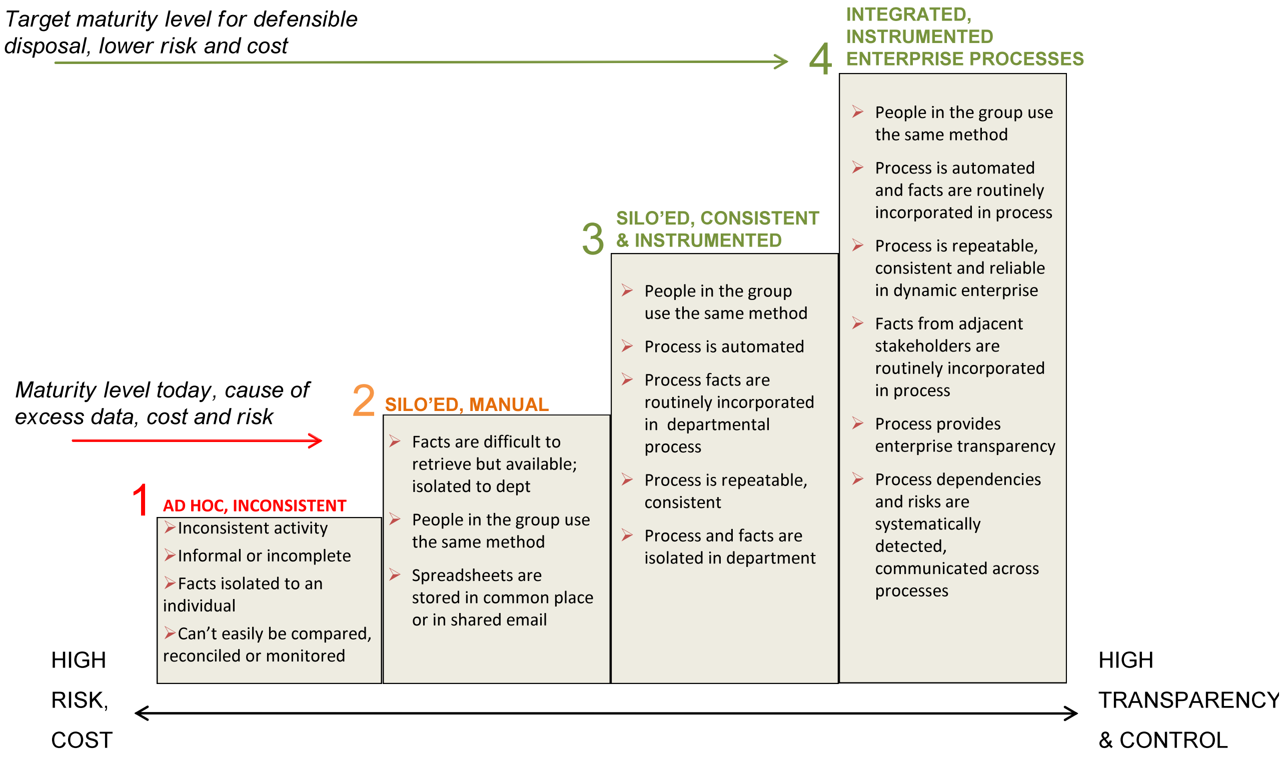
At the highest level of maturity and capability, there is a closed loop between supply and demand, information cost is aligned with its value over time, and risk is limited or removed. More precise and rigorous legal holds and retention as well as consistent, defensible disposal is designed into processes at maturity level 4.

Level 1 is an ad hoc, manual and unstructured process performed differently by each practitioner; only the individual practitioner has access to the process facts or results. These processes are highly unreliable and difficult to audit.

Level 2 is a manual process with some consistency in how it is performed across practitioners within a particular function or department; only the department has access to the process facts and results, and often these are embedded in multiple spreadsheets and seldom accessed. These processes can be more reliable, but still very difficult to audit.

Level 3 is a semi-automated process performed consistently within a department with process facts and results readily accessible to departmental stakeholders. Stakeholders beyond the department who participate in or are dependent upon the process are not integrated. These interdepartmental processes are more consistent and can readily be audited; however audit results may reflect their lack of intradepartmental collaboration.

Level 4 is an automated and cross-functional process that is performed consistently with inclusion of dependent stakeholders across multiple departments. Process facts and results are readily available across organizations. These processes have the lowest risk, highest reliability and are readily and successfully audited.


Target maturity level for defensible disposal, lower risk and cost
4
INTEGRATED, INSTRUMENTED ENTERPRISE PROCESSES
People in the group use the same method
Process is automated and facts are routinely incorporated in process
Process is repeatable, consistent and reliable in dynamic enterprise
Facts from adjacent stakeholders are routinely incorporated in process
Process provides enterprise transparency
Process dependencies and risks are systematically detected, communicated across processes
3
SILO'ED, CONSISTENT & INSTRUMENTED
People in the group use the same method
Process is automated
Process facts are routinely incorporated in departmental process
Process is repeatable, consistent
Process and facts are isolated in department
Maturity level today, cause of excess data, cost and risk
2
SILO'ED, MANUAL
Facts are difficult to retrieve but available; isolated to dept
People in the group use the same method
Spreadsheets are stored in common place or in shared email
1
AD HOC, INCONSISTENT
Inconsistent activity
Informal or incomplete
Facts isolated to an individual
Can't easily be compared, reconciled or monitored
HIGH RISK, COST
HIGH TRANSPARENCY & CONTROL

	Process		Brief Description	Process Risk or Immaturity Consequences	Level 1: Ad Hoc, Manual, Unstructured
LEGAL	A	**Employees on Legal Holds**	Determining employees with information potentially relevant to an actual or anticipated lawsuit or government investigation.	Custodians are not identified and potentially relevant information is inadvertently modified or deleted.	Multiple custodian spreadsheets managed by the individual paralegal or attorney.
	B	**Data on Legal Hold**	Determining information, records and data sources that are potentially relevant to an actual or anticipated lawsuit or government investigation.	Actual, rogue or IT managed data sources missed in hold execution, potentially relevant information is inadvertently modified or deleted.	Limited collection from data sources, custodian rather than information based; spreadsheet tracking/lists.
	C	**Hold publication**	Communicating, syndicating and executing legal holds to people, systems and data sources for execution and compliance.	IT or employees migrate, retire or modify data because they lacked hold visibility.	Manual notices, confirmations, no escalations Description of information hold requires interpretation and manual effort to comply.
	D	**Evidence Collection**	Fact finding and inquiry with employees with knowledge of a matter in dispute to determine potentially relevant information and its whereabouts and sources. Collecting potential evidence in response to an agreed-upon request with an adversary or government agency.	Dynamic, diverse information facts not considered in preservation and collection planning, data is overlooked; no follow through on information identified in custodian interviews. Collection failure from overlooked source, departing employee, incomplete prior collection inventory, communication and tracking errors.	Duplicate spreadsheets of custodians and information in IT and Legal; multiple copies of collected data.
	E	**Evidence Analysis & Cost Controls**	Assessing information to understand dispute and potential information sources and for determining, controlling and communicating the costs of outside review of relevant information.	Material issues in dispute are poorly understood until after strategy established and expenses incurred. Excessive data causes litigation costs to exceed dispute value.	Over-collect from custodians, over scope custodians. No culling of clearly irrelevant information before sending to vendor or outside counsel. Don't assess costs prior to collection and review; no cost baseline available.
	F	**Legal Record**	Documenting the custodians and data sources identified, the legal hold and collection activities over multi-year matter lifecycle.	Unable to readily assemble, understand or defend preservation and discovery record. Failures in custodian and data source management. Preservation, collection detected long after occurrence and cause unnecessary remediation cost and risk.	Each attorney tracks their own matters, status.

Level 2: Manual, Structured	Level 3: Semi-Automated Within Silo	Level 4: Automated and Fully Integrated Across Functions	Your Level
Custodian lists are kept in Word or Excel in a shared location or in a shared mailbox. Questionnaire mailed to custodians, responses compiled manually for collection / counsel follow up.	Systematic scope and selection by organization, people from current and historical organization data. Systematically track all custodians in all holds including multiple holds per custodian. Scope terminated/ transferred employees involved. Interviews are systematically done, responses compiled and responses are automatically flagged and escalated as appropriate.	Real-time update of custodian roles, transitions, responsibilities, automatic employee transition/transition alerts by attorney and matter; copy or cross reference custodian lists across similar matters. Scope is revisited and refined at least quarterly to release or include custodians. Individual responses to interview questions are propagated to hold scope and interview results shared with outside counsel to interview by exception. Level 3 capabilities.	
Identify data sources by organization; understand back up procedures. Questionnaire mailed to custodians, responses compiled manually for collection /counsel follow up.	Have linked legacy tapes and data sources to organizations and open holds/collections.	Automatically scope people, systems, production and back up data, information and records in holds; scope terminated employee data and legacy data/tapes where applicable. Scope is revisited and refined at least quarterly to release or include data. Can scope directly from a data source catalog shared with business liaisons, IT, Info Sec, and other data quality stakeholders with reliability. IT interviews are done both periodically and in matter context and responses are aggregated for individual matters and across the legal team.	
Centralize reply email box for confirmations, Process well communicated, all holds on intranet.	Systematically send notices and reminders, require and track confirmations, ability to manage exceptions, employees can look up their holds at any time. Communications tailored to recipient role (IT, RIM, employee).	Publish to system, propagate hold, automate hold enforcement. IT Staff have continuous visibility to current discovery duties, holds during routine data management activities; automatically flag records in appropriate systems. Holds are timely released and release syndication is done with same rigor as hold syndication. Level 3 capabilities.	
Centralized, version controlled spreadsheets of custodians and information; evidence server organized by matter folder but no inventory by custodian and data.	System log of collection requests by matter, issuer and collector. Collection logging is done by discovery staff in a shared system. An inventory of evidence is well managed and not overlooked in scoping other matters. Interview results and insights are used to inform the collection activity.	Interview results are automatically incorporated into custodian or data source specific collection instructions without rekeying. IT or collection staff can efficiently and automatically collect by custodian and content without re-logging the request or recollecting the same data. Collection data and chain of custody is automatically logged. IT and legal share complete transparency on collections and legal can monitor progress and process while IT can process work by custodian or data source efficiently. From their browsers, legal staff can collect directly from custodians and systems with precision. Evidence is not duplicated in multiple locations and it is timely disposed. Level 3 capabilities.	
High quantity of data for review. Some basic processes for culling of irrelevant information by basic means such as date ranges used in some cases. Estimate costs on the "big matters" in spreadsheets or by outside counsel.	Quantity of data reviewed from tightly scoped custodians, leveraging prior scoping histories. Consistent & enforced culling performed by preferred vendors utilizing objective criteria such as keywords, date ranges, file types, domain names & data sources. Discovery cost forecasts available as the hold is scoped, costs are calculated continuously.	Consistently limit scope of collection and review; early case assessment performed before collection for earliest/optimized matter resolution, advanced culling techniques employed leveraging visual analytics; defined & repeatable process for providing outside counsel early case assessment before processing, manage cost at portfolio level. Level 3 capabilities.	
Formal, but manual reporting of open holds; no summary reporting on interviews, collections, response.	Automated reminders and escalations, online audit trail, management reporting on discovery status, visibility within legal department across custodians, collected inventory, and matters.	Appropriate visibility across IT, Legal and Business; self-service dashboards for legal obligations, tasks, risk and cost reduction opportunities. Level 3 capabilities.	

	Process		Brief Description	Process Risk or Immaturity Consequences	Level 1: Ad Hoc, Manual, Unstructured
RIM	G	**Master Retention Schedule & Taxonomy**	Defining an information classification schema that reflects the organization structure; cataloging, updating, and mapping the laws that apply to each class in the countries in which the organization operates to determine regulatory record keeping obligations; establishing and managing a network of records liaisons to help establish what records may exist where. Potential separate process for **Records Management:** Managing physical and electronic records including their identification, retention, and timely disposition.	Company is unable to comply or demonstrate compliance with its regulatory record keeping obligations. Disparate nomenclatures for records make application of retention schedules/procedures difficult to apply and audit.	Define retention periods only for physical records. Rely on aggregations of similar laws and longest retention period to determine record keeping requirements.
BUSINESS	H	**Departmental Information Practices**	Using an enterprise information taxonomy, cataloging which information each business organization values, generates or stores by class, where they store it and how long it has utility to them; results in retention schedules for information and enables data source-specific retention schedules that reflect both business value and regulatory requirements	IT 'saves everything' which increases discoverable mass, complexity and legal risk; IT disposes of information of business value undermining enterprise operation. Procedures for retention/disposal difficult to articulate and defend and unapplied by LoB.	Departmental information management needs and habits for electronic and physical information are not visible to records management, IT or legal stakeholders (who have no knowledge of actual procedures, information, location, use, or value).
	I	**Realize Information Value**	Gaining timely access to and ability to apply information in the course of their work, including the ability to harness information of quality as it ages and the ability to use relevant information with or without author context to maximize the enterprise value of information.	Important business decisions are made on missing information or poor quality information, resulting in poor decisions. Information is not used shortly after its creation because business has forgotten the source or location of information or can't find it, resulting in cost without corresponding value.	Information is difficult to retrieve or search. After creator loses initial context, it is forgotten and no value is realized. Staff must mine, open and view files on their individual drives to find what they need and access to relevant information they didn't create is exchanged via email.
PRIVACY	J	**Secure Information of Value**	Determining a schema for the various levels of information importance and the corresponding security needed; using an enterprise information taxonomy and network of liaisons across the business, cataloging which information each business organization generates or stores and assigning the appropriate security level; communicating these security needs to employees who generate, use, manage, and store information.	Information of value is not properly secured against internal security violations or external security breaches; entities can bypass or contravene security policies, practices, or procedures. Failure in securing information deeply heightens privacy issues if information accessed is not properly protected.	Has no policy for protecting valuable info and high would be has policy, maps security required to data source capabilities and enforces on data.
	K	**Privacy & Data Protection**	Assessing privacy duties by data subject and data location, including overlapping obligations for information and information elements and a means of communicating these requirements to those employees who generate, use, access, and store information.	Access, transport and use limitations are not understood by employees with information custody or collections responsibility and customers or employees rights are impacted.	Each country and business keeps a list of applicable privacy rules. Implementation is done locally and informally.

Level 2: Manual, Structured	Level 3: Semi-Automated Within Silo	Level 4: Automated and Fully Integrated Across Functions	Your Level
Retention schedule updated to reflect physical and electronic records. Country schedules share a common taxonomy.	Established retention period for regulated information and information important from a policy perspective. The specific or actual laws that dictate retention periods are known and on clearly mapped to each record class so law changes can be easily traced and decisions readily defended on law. Electronic and physical records are sequestered and are both retained and disposed against the schedule.	Retention schedules reflect regulatory, policy and business value and encompass all information enabling them to be executed on records repositories, application and archived data, and physical records; legal holds can be applied by record class and suspend automated disposal. There is a shared library of country protocols for ediscovery, privacy, and retention to form a comprehensive view. Schedules align with and are systematically used to dispose of production and back up data whether structured, unstructured, electronic, physical, record or business information. Level 3 capabilities.	
Inventories of departmental information management practices and source information are used to develop retentions schedules and coordinate physical records (via a network of records coordinators focused on physical records management).	Departmental liaisons work with their line of business to identify information of value, its duration of value and where it is managed; this informs more comprehensive retention schedules for all information (regulated, unregulated, electronic, physical). Business is able to request changes to master schedule and department/country schedules at the rate of business change.	Retention schedules are automatically executed across the information environment. Cost and benefit are weighed in determining retention periods and the enterprise impact is considered. Schedule changes are syndicated to IT and directly to systems for execution of both retention and disposition. When business objectives or laws change, schedules are updated and stakeholders notified. Legal and IT have transparency to what information each line of business has where and for how long to inform ediscovery and data management. Level 3 capabilities.	
Information for a group is organized in shared drives and collaboration sites. Employees must search multiple drives and collaboration sources to find what they need; relevant information is extracted by opening multiple files, emails, documents, or reports; structured and unstructured data must be harvested separately and manually correlated.	Application data and business process data can be searched by departmental staff in the course of their work from within the system.	Search and analytics enable employees to realize value and to apply information to decision making in real time even as context erodes across information sources and types; assertions on value and sources of information made in processes H and I are used to ensure availability and accessibility of information the business defined as valuable. The cost of information to the enterprise is consistent and appropriate over its lifecycle.	
Each business unit defines their own information categories and assigns security level and attributes. Individual employees are responsible for understanding and applying security levels manually.	A common information taxonomy or categories are used across business units as basis for determining security levels and value attributes; this information is maintained in source or system accessible to information security staff. Some data is classified systematically.	Uses a common enterprise information taxonomy with processes H and I, shares liaison network and cataloging efforts, and results in a single view of applicable value and regulatory requirements for stakeholders by business area and information category. Enables security owners and systems owners to identify gaps between security required and data source capabilities to reduce exposure. Information is properly classified automatically and secured appropriately for its value. Execution of retention, privacy and security requirements can be efficiently executed without redundancy or conflicts.	
Privacy and data protection requirements are tracked in the privacy office and corporate policies are published on the intranet; implementation decisions are left to local business and system owners.	There is an accurate catalog of privacy laws and policies by country accessible to privacy. Policy communications are routine and semi-automated to records, business and system stakeholders. Critical systems are provisioned with some privacy controls.	Systems are provisioned with access, masking, and controls to protect privacy; information stakeholders in business, legal and IT have access to privacy constraints in real time; litigation has access to current privacy law and protocol and factors law into evidence collection/analysis plan; process is audited. Level 3 capabilities.	

	Process		Brief Description	Process Risk or Immaturity Consequences	Level 1: Ad Hoc, Manual, Unstructured
IT	L	**Data Source Catalog & Stewardship**	Establishing a common definition and object model for information and the people and systems with custody of it for use in determining, defining, communicating, understanding and executing governance procedures.	The type and nature of data in a system or process is poorly understood, leading to incomplete or inaccurate application of retention, preservation, privacy, and collection and disposition policy.	No common definition of data sources and data elements exists across IT, legal, business and records. No linkage of asset to the specific applicable business value or legal duties.
	M	**System Provisioning**	Provisioning new servers and applications, including associated storage , with capabilities for systematically placing holds, enforcing retention schedules, disposing, collecting evidence, and protecting data elements subject to privacy rights.	Systems are unable to comply with or execute defined procedures for retaining, preserving, collecting, protecting and disposing of information, exposing the company to significantly higher costs and risks.	Retention, preservation, collection and/or disposition are not considered prior to provisioning.
	N	**Active Data Management**	Differentiating high value actively used data by the business from aging data of value to regulators only or less frequently accessed data; results in increased accessibility, security, privacy; aligns and enables data value with storage tiering by value.	New, valuable, aging, and useless data are commingled within the data source, its back up and its non-production instances. Business users waste their time sifting through debris to find what they need without success. IT costs soar. Organization is exposed to privacy, security and legal risks.	Data is managed over time as the system was provisioned and new, valuable, aging, and useless data are co-mingled within the data source, its back up and its non-production instances.
	O	**Disposal & Decommissioning**	Disposing data and fully decommissioning applications at the end of their business utility and after legal duties have elapsed.	IT is unable to dispose of data and decommission systems causing significant unnecessary cost and risk; IT improperly disposes of data causing unnecessary risk and legal or business expense.	IT 'keeps everything' because it has no systematic way to determine obligations or value.

Level 2: Manual, Structured	Level 3: Semi-Automated Within Silo	Level 4: Automated and Fully Integrated Across Functions	Your Level
IT has an asset tracking system. IT does not have visibility to holds or retention schedules for any given asset.	IT maintains an asset database for its use; IT manually enters legal holds, business liaison and retention rules for each asset/system. Legal maintains its own data map for ediscovery purposes.	Shared data source catalog across IT, legal, records and business stakeholders which is used to express information assets and relevant business needs and legal obligations. Catalog as source of truth for provisioning and back up retention/disposition requirements and all back up, archiving and provisioning procedures and decisions are transparent in the catalog. Common definitions are used to describe duties, needs, stewards, employees, laws and lawsuits across ILM&G stakeholders.	
Some systems are manually configured with capabilities to retain and collect, but policy and capability to dispose or preserve are lacking.	Some systems are configured to retain, dispose, preserve and collect data but schedules and instructions are manually applied and configured. Instructions from legal, records and the business on duties and values are communicated in disparate tools and techniques and must be reconciled within IT.	Systems are provisioned with protocol and technical capability to retain/dispose and hold/collect, including a properly authorized retention schedule and business value inventory. Systems are provisioned with the capability to archive data to lower cost storage at the earliest point in time, archive procedures are well defined and archives execute retention/disposition of approved schedules. Back up is used for disaster recovery only and does not function as long-term archive. Retention schedules, legal holds and collection requests are systematically propagated from their respective initiators; data source catalog is updated to reflect the provisioning, archiving and back up mechanisms.	
End user employees perform hygiene and clean up actions on file shares and systems to ensure function and access. IT performs basic back up and availability functions.	Some archiving is performed to batch off aging data and provide business users with faster access to more frequently used data. Archive approach varies by data source and business unit. Policies for retention, privacy and security are manually applied, if at all.	Data of high value actively used by the business is differentiated from aging data of value to regulators only or less frequently accessed data. Business users have ready access to high value data and spend no time sifting through debris to find it. Data is secured and retained based on its business value. Aging data with declining value is archived or moved to lower cost locations over time; unnecessary data is routinely disposed. Private data is masked based on policy. Back up data complies with the retention schedule and is not used as long-term archive alternative.	
Some systems are manually configured with capabilities to retain, hold, collect or dispose of data. Changes in legal requirements must be manually configured.	IT de-duplicates files and disposes of log files under its control. IT responds to business requests to decommission applications and works with legal on a manual review process to determine if any open legal matters may apply before decommissioning.	Data is automatically deleted at the end of its retention period when no legal hold has been specified; back up data is routinely and systematically overwritten. IT routinely analyzes the data source catalog to identify systems with low business value to proactively determine savings opportunities; IT can easily determine duplicative systems from the business value and taxonomy map for instance consolidation. IT performs routine disposal with transparent, reliable facts on preservation and retention obligations; looks up any asset or employee to determine value, current legal requirements.	

	Process		Brief Description	Process Risk or Immaturity Consequences	Level 1: Ad Hoc, Manual, Unstructured
IT	P	**Legacy Data Management**	Processes, technology and methodologies by which data is disposed and applications fully decommissioned at the end of their utility and after legal duties have elapsed.	IT is unable to associate data with business stakeholders or ensure legal duties are met, leading to oversight in collecting evidence and unnecessary legal and operating costs.	No hold release notification, no lookup ability.
	Q	**Storage Alignment**	The process of determining and aligning storage capacity and allocation to information business value and retention requirements, including optimizing utilization targets, storage reclamation and re-allocation after data is deleted to link storage cost to business need for data stored.	Storage is over-allocated, misaligned with business needs and consumes unnecessary capital; IT is unable to reclaim storage and eliminate cost after data is deleted causing unnecessary cost.	No reliable means of determining storage requirements and inability to allocate/reclaim based on retention needs. Each DBA determines capacity and capacity is not revisited.
I/A	R	**Audit**	Testing to assess the effectiveness of other processes, in this instance the processes for determining, communicating, and executing processes and procedures for managing information based on its value and legal duties and disposing of unnecessary data.	Unable to demonstrate reasonable efforts to establish and follow governance policies and procedures increases sanctions risks, penalties and judgments and erodes customer trust.	Do not audit retention, holds, disposal processes.

Level 2: Manual, Structured	Level 3: Semi-Automated Within Silo	Level 4: Automated and Fully Integrated Across Functions	Your Level
eMail hold release communication from Legal to IT.	IT initiates a process with legal to “reverse engineers” legacy data holds to dispose of unstructured data or back up data.	Legacy data on disk and tape is dispositioned using legal hold inventory enriched with custodian and data sets subject to hold, data subject to ongoing regulatory or legal requirement is isolated and “surrounding” data is disposed; no additional legacy data is accumulated.	
Intensive manual effort to achieve an accurate picture of storage capacity and cost; difficulty assessing and reconciling need, allocation and utilization. Charge backs are used but not reflective of cost facts or cost accounting.	Automated storage utilization reporting and charge back mechanism and transparency to refresh cycles across the inventory. Charge back reporting by tier and organization is reliable and fact based.	Storage is provisioned for new systems commensurate with retention schedules and archive protocols; refresh accounts for capacity availability from continuous deletion and decommissioning activity. Storage cost is weighed in retention schedule approval process and archive decision making; unit cost is available in data source catalog. Current and forecasted storage capacity and costs are transparent and align to business value and data retention schedules. Optimization practice captures benefit of deletion and decomm to avoid continuous capacity addition. Accurate charge back reporting by business unit and source and gap analysis to retention schedule, business value and information cost to inform business decision making on the costs/benefits of storing data over time.	
Verifies that the global retention schedule is published and visible to IT and LOB.	Audits publication of records, privacy, disaster recovery, application lifecycle, and legal hold policies. Does not test execution of the policy.	Establishes and conducts testing procedures for records management, business value inventories, data sources, privacy requirements and legal holds such that information assets are properly defined and retained until their value expires and it is timely disposed when there is no longer a business need or legal duty. Sample tests of organizations and record class for retention and timely disposition. Establishes and conducts testing procedures for legal matters to ensure preservation duties are properly communicated and executed and holds are timely released. Tests data source catalog, back up data, and system provisioning to ensure ability to comply and actual policy adherence. Audits storage provisioning and procurement against retention/disposition/decom schedules.	

Roles and Responsibilities

As a part of the process maturity and improvement effort, responsibilities for each process owner should be defined to reflect the level of maturity, integrity and reliability required to achieve the cost and risk reduction goals. Each work stream will likely include policy revisions, process and practice improvements and technology to sustain better practices and ensure transparency and integration across stakeholder processes.

LEGAL

To support the business objectives of the ILG Program, the Legal organization will:

- Maintain an accurate inventory of legal obligations for information by case and scope of obligation including individuals involved, information scope (dates, terms, elements), and relevant records. The inventory should indicate whether the duties have been satisfied fully or partially and how.
- Precisely and timely define and clearly communicate specific requirements to preserve potential evidence to IT, records and business stakeholders for each matter including the individual employees, records and ranges of data that must be preserved as potential evidence.
- Provide real-time, continuous transparency to current legal obligations for information that can be readily understood and acted upon by stakeholders in IT, records and business units.
- Affirmatively communicate to and receive confirmation of compliance from employees, records managers or IT staff are relied upon to preserve information in their custody.
- Notify IT, records and business stakeholders when evidence for a particular matter no longer needs to be preserved.
- Ensure the defensibility of its process through complete, accurate, timely record keeping and closed loop communications with custodians, IT and records staff.
- Enable defensible disposal of information through precise, consistent and timely communication of obligations to individuals, IT and records staff when the duty arises and as it changes over the course of a matter.
- Work with Internal Audit to assess enterprise preservation procedures.

To support the business objectives of the ILG Program, the Records organization will:

RIM

- Author and distribute a records management policy and provide training materials to employees or contribute content to corporate ethics training program.
- Provide an information taxonomy that can be reliably used across business, IT and legal stakeholders to define and characterize business information and information required for regulatory obligations.
- Maintain an inventory of regulatory requirements for records updated annually and identify which laws apply to which classes of information by country or jurisdiction and business area.
- Provide actionable retention schedules that can be routinely and automatically applied by IT and business stakeholders on electronic information to ensure proper record keeping.
- Maintain a network of records liaisons across the business to coordinate and communicate policy, taxonomy and schedule needs and changes; provide management visibility on liaison status.
- Safeguard information of value to the business. Perform consistent, documented and precise collection and disposal (or cause to be collected and disposed) of electronic and physical records, regardless of their form, in accordance with the schedule.
- Ensure timely response to regulator inquiry, enable Internal Audit to test records and retention procedures on physical and digital records.

IT

To support the business objectives of the ILG Program, the IT organization will:

- Retain and preserve information based on its value to the business and legal obligations and according to procedures/ instructions provided by legal, RM and business, including aligning technique and technology to value.
- Dispose of information no longer needed to lower information costs and related risks.
- Author and follow backup and disaster recovery policies that limit the retention of backup media to the shortest necessary period to effectively recover from a disaster or failure.
- Maintain an inventory of systems with current business value retention, record requirements and legal hold obligations for data contained in said systems or stores and ensure that staff involved in provisioning and decommissioning have access to this inventory in the course of their work.
- Establish and provide a common data dictionary for organization and department, data source, employee, information classification, system classification, law, lawsuit for use by legal, records, business and IT in the governance program execution.
- Provision new systems, servers and storage with automated or manual processes for imposing retention, preservation and disposition of information in the ordinary course of operation (revise SLDC policies, procedures).
- Align systems and stores with the value of information contained in them, including security, privacy, confidentiality, regulatory, business, and litigation requirements.
- Develop protocols for disposal of data and protocols for storage and disposal of customer data and PII (in concert with information security and privacy stakeholders).
- Enable Internal Audit to test retention/disposition, preservation/collection and privacy procedures.

BUSINESS

To support the business objectives of the ILG Program, the Lines of Business will:

- Ensure a business liaison for governance is able to participate in the Program and its processes.
- Using online tools and taxonomy provided, participate in a bi-annual value inventory to articulate what information is generated by business teams or departments and the duration of its value to enable IT, records and legal stakeholders to manage accordingly.
- Work in concert with IT to optimize the archiving and storage of information based on its utility and management cost in the interest of shareholders, regardless of charge back procedures.
- As business processes and practices change, proactively initiate changes to the taxonomy, records and value procedures to reflect business practices and needs.
- Enable timely disposal of information without value and active participation in the governance program via business leader transparency and accountability for the total unit cost of information (its storage, management, and ediscovery).
- Participate in Internal Audit on business value inventory procedures.

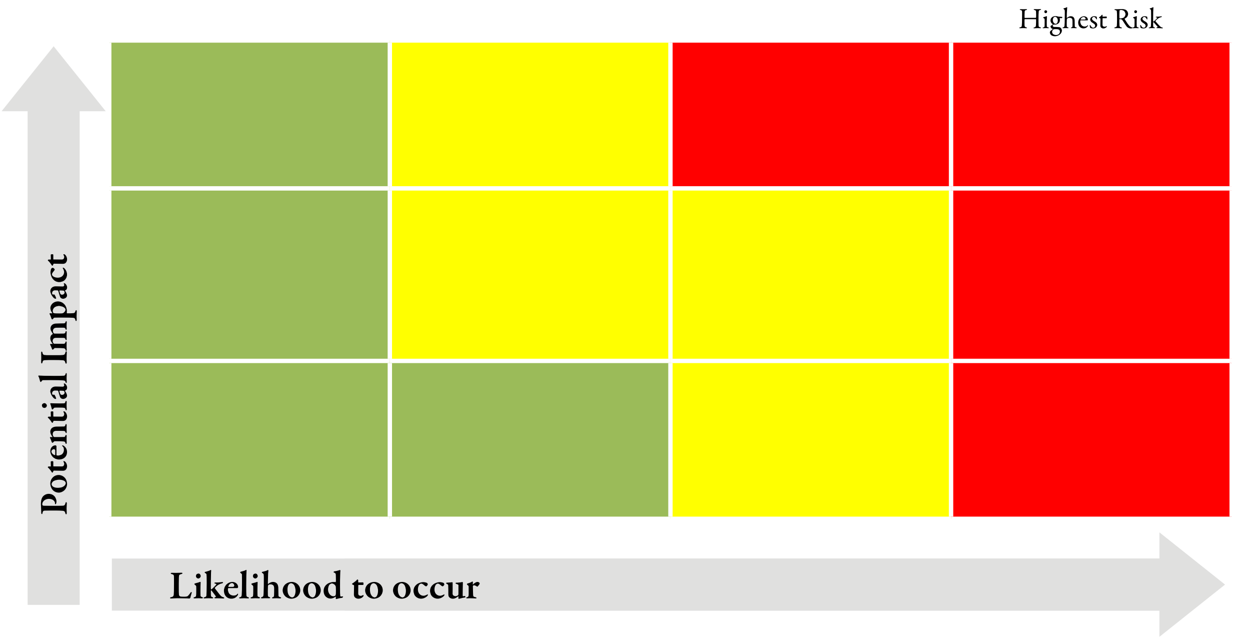
PRIVACY

To support the business objectives of the ILG Program, the Privacy organization will:

- Establish a catalog of privacy laws and policies that is accessible to litigation, records and IT staff.
- Align with RM to associate privacy requirements during retention of records and business information.
- Coordinate with litigation in advance of data preservation and collection to ensure that appropriate measures are used for data subjects and jurisdictions.
- Provide education and training to litigation, records, IT and line of business staff on current and emerging privacy obligations in the US and rest of world on a periodic basis.
- Enable Internal Audit to effectively test privacy procedures.

Risk Heat Map

1. Using the 18 processes and their risks, consider your facts.
2. Plot the current process risks on the graph by placing the letter for each process on the grid where it belongs.
3. Plot the risk level if your organization had level 3 and level 4 capabilities



PROCESS	
A	Employees on Legal Holds
B	Data on Legal Hold
C	Hold publication
D	Evidence Collection
E	Evidence Analysis & Cost Controls
F	Legal Record
G	Master Retention Schedule & Taxonomy
H	Departmental Information Practices
I	Realize Information Value
J	Secure Information of Value
K	Privacy & Data Protection
L	Data Source Catalog & Stewardship
M	System Provisioning
N	Active Data Management
O	Disposal & Decommissioning
P	Legacy Data Management
Q	Storage Alignment
R	Audit

🟥 **High risk requires constant monitoring and review, immediate escalation on failure or impending failure. 50% likelihood**

🟨 **Moderate risk requires frequent monitoring to prevent and detect; costly to correct or mitigate. Between 10% -50% likelihood**

🟩 **Low risk does not require constant monitoring and is easy to prevent, detect, correct, defend. Less than 10% likelihood**

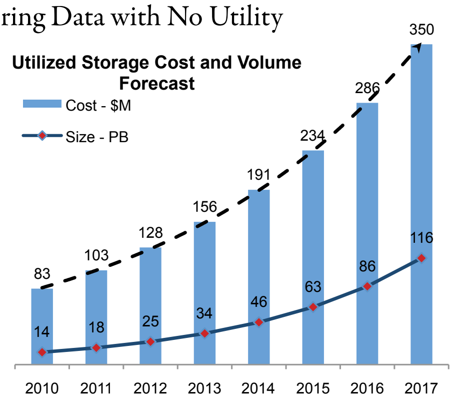
Cost Levers

Process Drivers

Scorecard

1

Storage Infrastructure:
Storing Data with No Utility

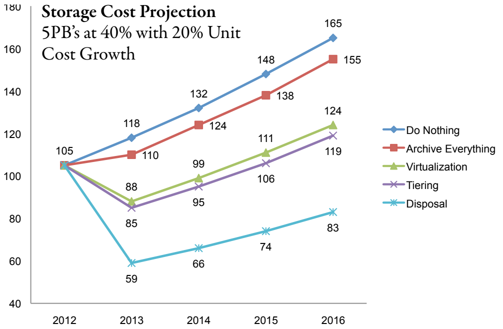


Excess storage cost (processes N and Q) resulting from over-accumulation and/or inability to delete data for lack of certainty on legal holds, regulatory requirements or business value. Costs correlate to capabilities in process A) scoping people on hold, B) scoping data on hold, C) publishing holds, G) master retention schedule, and H) departmental information practices.

	1	2	3	4
N	🟥	🟧	🟨	🟩
Q	🟥	🟧	🟨	🟩
A	🟥	🟧	🟨	🟩
B	🟥	🟧	🟨	🟩
C	🟥	🟧	🟨	🟩
G	🟥	🟧	🟨	🟩
H	🟥	🟧	🟨	🟩

2

Storage Infrastructure:
Storing Data at Cost Higher than Value

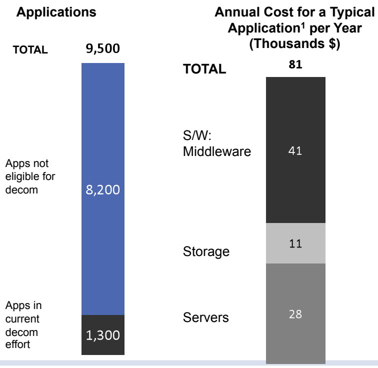


Excess storage and infrastructure cost resulting from managing and storing data on storage tiers and price points in excess of information value, particularly aging data, non-production instances, and back ups. Costs correlates to capabilities in process H) master retention schedule, I) departmental information practices, M) system provisioning, and Q) storage alignment.

	1	2	3	4
H	🟥	🟧	🟨	🟩
I	🟥	🟧	🟨	🟩
M	🟥	🟧	🟨	🟩
Q	🟥	🟧	🟨	🟩

3

Applications:
Instances without Business Value

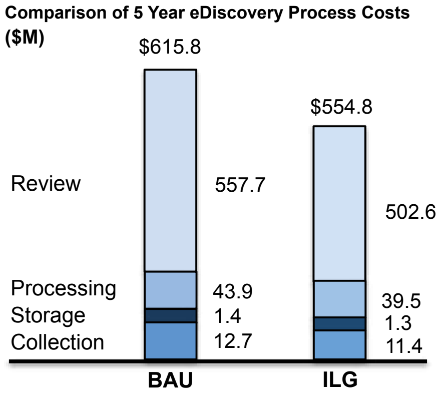


Delayed or partial application decommissioning (process M and O) from inability to discern which data is required by legal, regulators and business. Cycle time delays lead to excess run rate. Costs correlates to capabilities in process A) scoping people on hold, B) scoping data on hold, C) publishing holds, G) master retention schedule, and H) departmental information practices.

	1	2	3	4
M	🟥	🟧	🟨	🟩
O	🟥	🟧	🟨	🟩
A	🟥	🟧	🟨	🟩
B	🟥	🟧	🟨	🟩
C	🟥	🟧	🟨	🟩
G	🟥	🟧	🟨	🟩
H	🟥	🟧	🟨	🟩

4

eDiscovery:
Costs of Collection and Review



Excess ediscovery and outside counsel fees from over collection of data from lack of visibility to what data exists, inability to collect with precision, excess data across the information environment, and late case resolution with excess run rate legal costs or excessive ediscovery cost relative to case merits. Costs correlates to capabilities in process L) data source catalog, N) active data management, O) disposal, P) legacy data management, H) departmental information practices, G) master retention schedule as well as D) evidence collection and E) evidence analysis and cost controls.

	1	2	3	4
L	🟥	🟧	🟨	🟩
N	🟥	🟧	🟨	🟩
O	🟥	🟧	🟨	🟩
P	🟥	🟧	🟨	🟩
G	🟥	🟧	🟨	🟩
H	🟥	🟧	🟨	🟩
D	🟥	🟧	🟨	🟩
E	🟥	🟧	🟨	🟩

Process Score Card

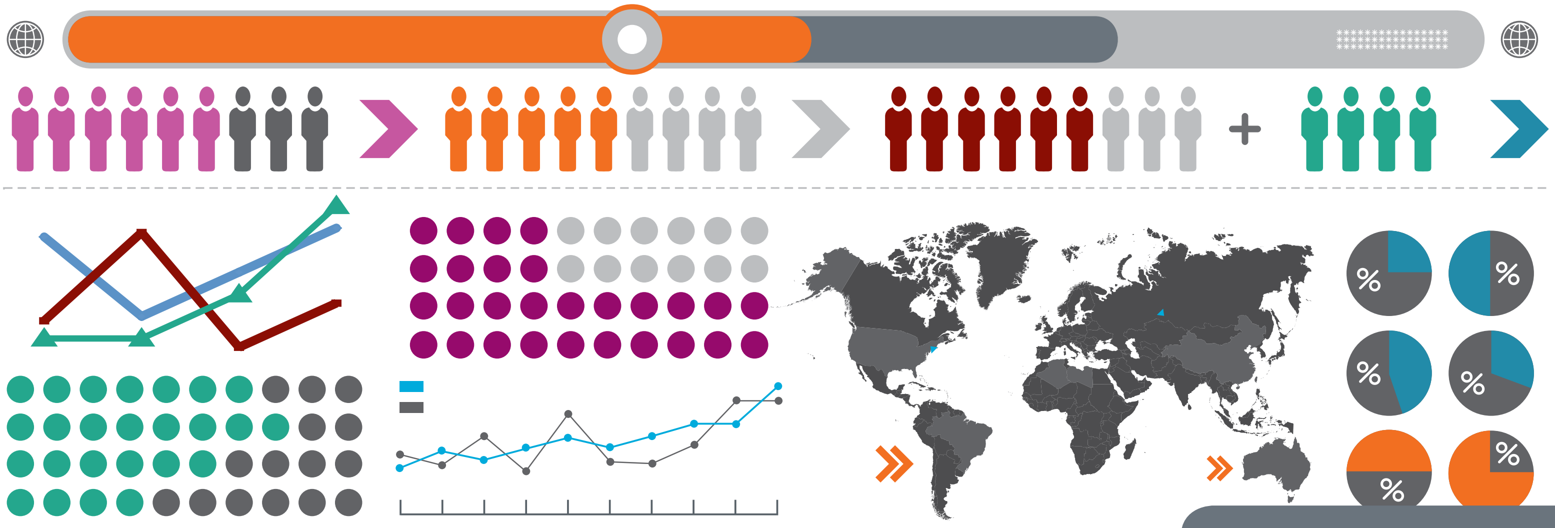
Level 1: Facts known only to individual practitioner
Level 2: Facts accessible with difficulty by others within same practice

	ILG Process		Brief Description
LEGAL	A	**Employees on Legal Holds**	Determining employees with information potentially relevant to an actual or anticipated lawsuit or government investigation
	B	**Data on Legal Hold**	Determining information, records and data sources that are potentially relevant to an actual or anticipated lawsuit or government investigation
	C	**Hold publication**	Communicating, syndicating and executing legal holds to people, systems and data sources for execution and compliance
	D	**Evidence Collection**	Fact finding and inquiry with employees with knowledge of a matter in dispute to determine potentially relevant information and its whereabouts and sources. Collecting potential evidence in response to an agreed-upon request with an adversary or government agency
	E	**Evidence Analysis & Cost Controls**	Assessing information to understand dispute and potential information sources and for determining, controlling and communicating the costs of outside review of relevant information
	F	**Legal Record**	Documenting the custodians and data sources identified, the legal hold and collection activities over multi-year matter lifecycle
RIM	G	**Master Retention Schedule & Taxonomy**	Defining an information classification schema that reflects the organization structure; cataloging, updating, and mapping the laws that apply to each class in the countries in which the organization operates to determine regulatory record keeping obligations; establishing and managing a network of records liaisons to help establish what records may exist where.
BUSINESS	H	**Departmental Information Practices**	Using an enterprise information taxonomy, cataloging which information each business organization values, generates or stores by class, where they store it and how long it has utility to them; results in retention schedules for information and enables data source-specific retention schedules that reflect both business value and regulatory requirements
	I	**Realize Information Value**	Gaining timely access to and ability to apply information in the course of their work, including the ability to harness information of quality as it ages and the ability to use relevant information with or without author context to maximize the enterprise value of information.
PRIVACY	J	**Secure Information of value**	Determining a schema for the various levels of information importance and the corresponding security needed; using an enterprise information taxonomy and network of liaisons across the business, cataloging which information each business organization generates or stores and assigning the appropriate security level; communicating these security needs to employees who generate, use, manage, and store information.
	K	**Privacy & Data Protection**	Assessing privacy duties by data subject and data location, including overlapping obligations for information and information elements and a means of communicating these requirements to those employees who generate, use, access, and store information
IT	L	**Data Source Catalog & Stewardship**	Establishing a common definition and object model for information and the people and systems with custody of it for use in determining, defining, communicating, understanding and executing governance procedures
	M	**System Provisioning**	Provisioning new servers and applications, including associated storage , with capabilities for systematically placing holds, enforcing retention schedules, disposing, collecting evidence, and protecting data elements subject to privacy rights
	N	**Active Data Management**	Differentiating high value actively used data by the business from aging data of value to regulators only or less frequently accessed data; results in increased accessibility, security, privacy; aligns and enables data value with storage tiering by value.
	O	**Disposal & Decommissioning**	Disposing data and fully decommissioning applications at the end of their business utility and after legal duties have elapsed
	P	**Legacy Data Management**	Processes, technology and methodologies by which data is disposed and applications fully decommissioned at the end of their utility and after legal duties have elapsed
	Q	**Storage Alignment**	The process of determining and aligning storage capacity and allocation to information business value and retention requirements, including optimizing utilization targets, storage reclamation and re-allocation after data is deleted to link storage cost to business need for data stored
	R	Audit	Testing to assess the effectiveness of other processes, in this instance the processes for determining, communicating, and executing processes and procedures for managing information based on its value and legal duties and disposing of unnecessary data

Level 3: Facts readily available and frequently used in departmental actions and decisions
Level 4: Facts readily available and fully integrated across related enterprise processes, used by all stakeholders in decision and action.

Risk		
Low	Mod	High

Maturity Scale				Potential Risk of Failure	Potential Impact	Likelihood to Occur
1	2	3	4	Custodians are not identified and potentially relevant information is inadvertently modified or deleted		
				Actual, rogue or IT managed data sources missed in hold execution, potentially relevant information is inadvertently modified or deleted		
				IT or employees migrate, retire or modify data because they lacked hold visibility		
				Dynamic, diverse Information facts not considered in preservation and collection planning, data is overlooked; no follow through on information identified in custodian interviews. Collection failure from overlooked source, departing employee, incomplete prior collection inventory, communication and tracking errors		
				Material issues in dispute are poorly understood until after strategy established and expenses incurred. Excessive data causes litigation costs to exceed dispute value		
				Unable to readily assemble, understand or defend preservation and discovery record. Failures in custodian and data source management. Preservation, collection detected long after occurrence and cause unnecessary remediation cost and risk		
				Company is unable to comply or demonstrate compliance with its regulatory record keeping obligations. Disparate nomenclatures for records make application of retention schedules/procedures difficult to apply and audit		
				IT 'saves everything' which increases discoverable mass, complexity and legal risk; IT disposes of information of business value undermining enterprise operation. Procedures for retention/disposal difficult to articulate and defend and unapplied by LoB		
				Important business decisions are made on missing information or poor quality information, resulting in poor decisions. Information is not used shortly after its creation because business has forgotten the source or location of information or can't find it, resulting in cost without corresponding value.		
				Information of value is not properly secured against internal security violations or external security breaches; entities can bypass or contravene security policies, practices, or procedures. Failure in securing information deeply heightens privacy issues if information accessed is not properly protected.		
				Access, transport and use limitations are not understood by employees with information custody or collections responsibility and customers or employees rights are impacted		
				The type and nature of data in a system or process is poorly understood, leading to incomplete or inaccurate application of retention, preservation, privacy, and collection and disposition policy		
				Systems are unable to comply with or execute defined procedures for retaining, preserving, collecting, protecting and disposing of information, exposing the company to significantly higher costs and risks		
				New, valuable, aging, and useless data are commingled within the data source, its back up and its non-production instances. Business users waste their time sifting through debris to find what they need without success. IT costs soar. Organization is exposed to Privacy, security and legal risks.		
				IT is unable to dispose of data and decommission systems causing significant unnecessary cost and risk; IT improperly disposes of data causing unnecessary risk and legal or business expense		
				IT is unable to associate data with business stakeholders or ensure legal duties are met, leading to oversight in collecting evidence and unnecessary legal and operating costs		
				Storage is over-allocated, misaligned with business needs and consumes unnecessary capital; IT is unable to reclaim storage and eliminate cost after data is deleted causing unnecessary cost		
				Unable to demonstrate reasonable efforts to establish and follow governance policies and procedures increases sanctions risks, penalties and judgments and erodes customer trust		



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