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Information and documentation — Records management —

Part 1: Concepts and principles

*Information et documentation — Gestion des documents d'activité —
Partie 1: Concepts et principes*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 46, *Information and documentation*, Subcommittee SC 11, *Archives/records management*.

This second edition cancels and replaces the first edition (ISO 15489-1:2001), which has been technically revised.

ISO 15489 consists of the following parts, under the general title *Information and documentation — Records management*:

- *Part 1: Concepts and principles*
- *Part 2: Guidelines* [Technical Report]

Introduction

This part of ISO 15489 establishes the core concepts and principles for the creation, capture and management of records. It sits at the heart of a number of International Standards and Technical Reports that provide further guidance and instruction on the concepts, techniques and practices for creating, capturing and managing records.

About records and managing records

Records are both evidence of business activity and information assets. They can be distinguished from other information assets by their role as evidence in the transaction of business and by their reliance on metadata. Metadata for records is used to indicate and preserve context and apply appropriate rules for managing records.

Managing records encompasses the following:

- a) creating and capturing records to meet requirements for evidence of business activity;
- b) taking appropriate action to protect their authenticity, reliability, integrity and useability as their business context and requirements for their management change over time.

NOTE 1 Reference to “business activity” or “business activities” in this part of ISO 15489 is interpreted broadly to mean those activities that support the purposes of the organization’s existence. Functions, activities, transactions and work processes are representations of particular forms of “business activity” and are defined in [Clause 3](#).

Increasingly, records are made and kept in digital environments, offering a range of opportunities for new kinds of use and reuse. Digital environments also allow greater flexibility in the implementation of records controls, within and between systems that manage records.

Changing models of business are extending responsibilities for records beyond traditional organizational and jurisdictional boundaries. This requires records professionals to understand and meet a diverse range of internal and external stakeholder needs. These can include increased expectations of transparency of decision-making from business and government, the general public, customers, users of services, records’ subjects, and others with an interest in how records are created, captured and managed.

NOTE 2 In this International Standard (all parts), the phrase “creation, capture and management” is used to summarize the management of records as a whole. It is inclusive of the act of receipt of a record and of the range of records processes described in this part of ISO 15489.

With these environmental factors in mind, this part of ISO 15489 has been developed with an acknowledgement of the following:

- a) the roles of records as enablers of business activity and information assets;
- b) increased opportunities for records use and reuse in the digital environment;
- c) systems and rules for the creation, capture and management of records that need to extend beyond traditional organizational boundaries, such as in collaborative and multi-jurisdictional work environments;
- d) records controls that can be independent of other components of records systems;
- e) the importance of recurrent analysis of business activity and context to identify what records need to be created and captured, and how they should be managed over time;
- f) the importance of risk management in devising strategies for managing records and the management of records as a risk management strategy in itself.

While the concepts and principles of this part of ISO 15489 apply across varied business and technological environments, these environments can require different approaches to the

implementation of records controls, processes and systems. This part of ISO 15489 is not intended to provide detailed implementation advice for specific environments in which records are created, captured and managed. Rather, it defines key concepts and establishes high-level principles from which records controls, processes and systems for managing records in any environment may be developed. Advice on the design and implementation of controls, processes and systems for managing records in these different environments is addressed in subsequent part(s) and in other International Standards and Technical Reports.

Benefits

Approaches to the creation, capture and management of records based on the concepts and principles in this part of ISO 15489 ensure that authoritative evidence of business is created, captured, managed and made accessible to those who need it, for as long as it is required. This enables the following:

- a) improved transparency and accountability;
- b) effective policy formation;
- c) informed decision-making;
- d) management of business risks;
- e) continuity in the event of disaster;
- f) the protection of rights and obligations of organizations and individuals;
- g) protection and support in litigation;
- h) compliance with legislation and regulations;
- i) improved ability to demonstrate corporate responsibility, including meeting sustainability goals;
- j) reduction of costs through greater business efficiency;
- k) protection of intellectual property;
- l) evidence-based research and development activities;
- m) the formation of business, personal and cultural identity;
- n) the protection of corporate, personal and collective memory.

Policies, assigned responsibilities and procedures for the creation, capture and management of records support organizational information governance programs.

Relationship to other standards

This part of ISO 15489 is designed as a self-contained resource. However, it is also part of a family of International Standards and Technical Reports on a range of aspects of the creation, capture and management of records. These are listed in the Bibliography and may be consulted for more detailed advice on particular aspects of managing records.

The management of records in line with this International Standard (all parts) is fundamental to a successful Management System for Records (MSR), the management system defined by the ISO 30300 series of International Standards. An MSR links the management of records to organizational success and accountability by establishing a framework comprising policy, objectives and directives for records. It establishes requirements for the following:

- a) defined roles and responsibilities;
- b) systematic processes;
- c) monitoring and evaluation;

d) review and improvement.

Managers and others seeking to implement, operate and improve an MSR are advised to use this part of ISO 15489 in conjunction with the ISO 30300 series of International Standards.

Information and documentation — Records management —

Part 1: Concepts and principles

1 Scope

This part of ISO 15489 defines the concepts and principles from which approaches to the creation, capture and management of records are developed. This part of ISO 15489 describes concepts and principles relating to the following:

- a) records, metadata for records and records systems;
- b) policies, assigned responsibilities, monitoring and training supporting the effective management of records;
- c) recurrent analysis of business context and the identification of records requirements;
- d) records controls;
- e) processes for creating, capturing and managing records.

This part of ISO 15489 applies to the creation, capture and management of records regardless of structure or form, in all types of business and technological environments, over time.

2 Normative references

There are no normative references.

NOTE This part of ISO 15489 is designed as a self-contained resource, meaning there are no documents which are indispensable for its application.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

access

right, opportunity, means of finding, using or retrieving information

3.2

activity

major task performed by a business entity as part of a *function* (3.11)

3.3

agent

individual, workgroup or organization responsible for, or involved in, record creation, capture and/or records management processes

[SOURCE: ISO 23081-1:2006, 3.1]

Note 1 to entry: Technological tools such as software applications can be considered agents if they routinely perform records processes.

3.4

business classification scheme

tool for linking records to the context of their creation

3.5

classification

systematic identification and/or arrangement of business activities and/or records into categories according to logically structured conventions, methods, and procedural rules

3.6

conversion

process of changing records from one format to another

3.7

destruction

process of eliminating or deleting a record, beyond any possible reconstruction

3.8

disposition

range of processes associated with implementing records retention, *destruction* (3.7) or transfer decisions which are documented in *disposition authorities* (3.9) or other instruments

3.9

disposition authority

instrument that defines the *disposition* (3.8) actions that are authorized for specified records

3.10

evidence

documentation of a *transaction* (3.18)

[SOURCE: ISO 30300:2011, 3.1.5]

Note 1 to entry: This is proof of a business transaction which can be shown to have been created in the normal course of business activity and which is inviolate and complete. It is not limited to the legal sense of the term.

3.11

function

group of activities that fulfils the major responsibilities for achieving the strategic goals of a business entity

3.12

metadata for records

structured or semi-structured information, which enables the creation, management, and use of records through time and within and across domains

[SOURCE: ISO 23081-2:2007, 3.7]

3.13

migration

process of moving records from one hardware or software configuration to another without changing the format

[SOURCE: ISO 30300:2011, 3.3.8]

3.14

record(s)

information created, received and maintained as *evidence* (3.10) and as an asset by an organization or person, in pursuit of legal obligations or in the *transaction* (3.18) of business

3.15**records management**

field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and *disposition* (3.8) of records, including processes for capturing and maintaining *evidence* (3.10) of and information about business activities and *transactions* (3.18) in the form of records

3.16**records system**

information system which captures, manages and provides *access* (3.1) to records over time

Note 1 to entry: A records system can consist of technical elements such as software, which may be designed specifically for managing records or for some other business purpose, and non-technical elements including policy, procedures, people and other agents, and assigned responsibilities.

3.17**schema**

logical plan showing the relationships between metadata elements, normally through establishing rules for the use and management of metadata specifically as regards the semantics, the syntax and the optionality (obligation level) of values

[SOURCE: ISO 23081-1:2006, 3.3]

3.18**transaction**

smallest unit of a *work process* (3.19) consisting of an exchange between two or more participants or systems

[SOURCE: ISO/TR 26122:2012, 3.5]

3.19**work process**

one or more sequences of actions required to produce an outcome that complies with governing rules

[SOURCE: ISO/TR 26122:2012, 3.6]

4 Principles for managing records

Managing records is based on the following principles:

- a) the creation, capture and management of records are integral parts of conducting business, in any context (see 5.1);
- b) records, regardless of form or structure, are authoritative evidence of business when they possess the characteristics of authenticity, reliability, integrity and useability (see 5.2.2);
- c) records consist of content and metadata, which describes the context, content and structure of the records, as well as their management through time (see 5.2.3);
- d) decisions regarding the creation, capture and management of records are based on the analysis and risk assessment of business activities, in their business, legal, regulatory and societal contexts (see Clause 7);
- e) systems for managing records, regardless of their degree of automation, enable the application of records controls and the execution of processes for creating, capturing and managing records (see 5.3). They depend on defined policies, responsibilities, monitoring and evaluation, and training in order to meet identified records requirements (see Clause 6).

These principles are expanded on in the concepts, controls and processes for managing records that are described in the following sections of this part of ISO 15489.

5 Records and records systems

5.1 General

Records are both evidence of business activity and information assets. Any set of information, regardless of its structure or form, can be managed as a record. This includes information in the form of a document, a collection of data or other types of digital or analogue information which are created, captured and managed in the course of business.

Managing records encompasses the following:

- a) creating and capturing records to meet requirements for evidence of business activity;
- b) taking appropriate action to protect their authenticity, reliability, integrity and useability as their business context and requirements for their management change over time.

In the management of records, metadata is data describing the context, content and structure of records, as well as their management over time. Metadata is an essential component of any record (see [5.2.3](#)).

The management of records is supported by records systems (see [5.3](#)).

5.2 Records

5.2.1 General

Records document individual events or transactions, or may form aggregations that have been designed to document work processes, activities or functions.

Records, regardless of form or structure, should possess the characteristics of authenticity, reliability, integrity and useability (see [5.2.2](#)) to be considered authoritative evidence of business events or transactions and to fully meet the requirements of the business.

5.2.2 Characteristics of authoritative records

5.2.2.1 Authenticity

An authentic record is one that can be proven to:

- a) be what it purports to be;
- b) have been created or sent by the agent purported to have created or sent it; and
- c) have been created or sent when purported.

Business rules, processes, policies and procedures which control the creation, capture and management of records (see [6.2](#)) should be implemented and documented to ensure the authenticity of records. Records creators should be authorized and identified (see [6.3](#)).

5.2.2.2 Reliability

A reliable record is one:

- a) whose contents can be trusted as a full and accurate representation of the transactions, activities or facts to which they attest; and
- b) which can be depended upon in the course of subsequent transactions or activities.

Records should be created at the time of the event to which they relate, or soon afterwards, by individuals who have direct knowledge of the facts, or by systems routinely used to conduct the transaction.

5.2.2.3 Integrity

A record that has integrity is one that is complete and unaltered.

A record should be protected against unauthorized alteration. Policies and procedures for managing records should specify what additions or annotations may be made to a record after it is created, under what circumstances such additions or annotations may be authorized, and who is authorized to make them (see [6.2](#)). Any authorized annotation, addition or deletion to a record should be explicitly indicated and traceable.

5.2.2.4 Useability

A useable record is one that can be located, retrieved, presented and interpreted within a time period deemed reasonable by stakeholders.

A useable record should be connected to the business process or transaction that produced it. Linkages between records that document related business transactions should be maintained.

Metadata for records should support useability by providing information that may be needed to retrieve and present them, such as identifiers, format or storage information (see [5.2.3](#)).

5.2.3 Metadata for records

Metadata for records should depict the following:

- a) business context;
- b) dependencies and relationships among records and records systems;
- c) relationships to legal and social contexts;
- d) relationships to agents who create, manage and use records.

Some of a record's metadata is derived or attributed at the time the record is created or captured and does not change. This is point of capture metadata for records.

Metadata about actions on the record and other events in the record's existence, including the participating agents, continues to accrue over time as the record is used and managed. This is process metadata for records.

As metadata accumulates over time, it collectively documents, amongst other things, a record's provenance.

The metadata of a record itself should be managed as a record, in that it should be protected from loss or unauthorized deletion, and retained or destroyed (see [9.9](#)) in accordance with requirements identified in appraisal (see [Clause 7](#)). Access to metadata should be controlled using authorized access and permissions rules (see [8.4](#)).

A record's content and its associated metadata may be managed either in multiple coexistent locations and systems, or in a single location and system. Logical relationships, or linkages, between a record's content and its associated metadata should be created and maintained using automated or manual processes.

Metadata for records should consist of information recording the following:

- a) a description of the content of the record;
- b) the structure of the record (e.g. its form, format and the relationships between the components comprising the record);
- c) the business context in which the record was created or received and used;

- d) relationships with other records and other metadata;
- e) identifiers and other information needed to retrieve and present the record, such as format or storage information;
- f) the business actions and events involving the record throughout its existence (including date and time of the actions, changes to the metadata and the agents undertaking the actions).

Records that do not possess such metadata lack the characteristics of authoritative records (see [5.2.2](#)).

Additional metadata may be required depending on jurisdictional and industry standards as well as the specific requirements of the business as determined during appraisal (see [Clause 7](#)).

Metadata for records should be described and documented in metadata schemas (see [8.2](#)). The development of metadata schemas should be informed by the results of appraisal for the area(s) of business to which they apply (see [Clause 7](#)).

5.3 Records systems

5.3.1 General

Records systems comprise a number of elements that are combined so that identified records requirements (see [7.4](#)) can be met within a given business environment. Records systems should:

- a) apply records controls (see [Clause 8](#));
- b) carry out processes for creating, capturing and managing records (see [Clause 9](#)); and
- c) support the creation and maintenance of logical relationships between records content and metadata for records (see [5.2.3](#)).

The design and implementation of records systems should take account of the business context (see [7.3](#)) and identified records requirements (see [7.4](#)), and should be carried out with the following objectives:

- a) conformance with the characteristics of records systems listed in [5.3.2](#);
- b) interoperability to support interaction with other systems and a flexible approach to the use of records controls;
- c) ease of records use and reuse;
- d) readiness for technological or business change, such as system upgrades or administrative restructuring;
- e) readiness for business interruptions and business continuity in the event of unexpected disruptions.

Records systems may be designed specifically to manage records, or may be systems designed for other business processes that are adapted so that they also support the creation, capture and management of records.

The authoritativeness of records is supported by their being managed by records systems that are reliable, secure, compliant, comprehensive and systematic (see [5.3.2](#)).

5.3.2 Characteristics of records systems

5.3.2.1 Reliable

Records systems should be capable of continuous and regular operation in accordance with authorized policy and procedures. Records systems should:

- a) routinely capture records within the scope of the business activity they support;

- b) routinely function as the primary source of authoritative information about actions documented in the records;
- c) enable the participation of any authorized agents;
- d) present records in useable form;
- e) support timely access to records;
- f) protect records from unauthorized use, alteration, concealment or destruction;
- g) store records for as long as they are needed;
- h) provide mechanisms, where necessary, for importing (or otherwise incorporating) records and metadata for records into the system or exporting them from one system to another; and
- i) allow for disposition actions to be carried out on records.

The reliability of records systems should be documented by creating and maintaining records of their operational, procedural and, where applicable, technological routines. Process metadata for records (see [5.2.3](#)) should also demonstrate the reliability of system(s) in which they have been managed.

5.3.2.2 Secure

Measures such as access controls, monitoring, agent validation and authorized destruction should be implemented to prevent unauthorized access, alteration, concealment or destruction of records. Information about the controls that were applied to a record and when they were applied should be recorded in the record's process metadata (see [5.2.3](#)).

Depending on the risk associated with the business documented by records, any security incidents affecting records should be documented as process metadata.

Organizational information security and business continuity measures should include measures for records systems.

5.3.2.3 Compliant

Records systems should be managed in compliance with requirements arising from business, community or societal expectations and the legal and regulatory environment (see [7.4](#)). Records systems' compliance with such requirements should be regularly assessed (see [6.4](#)). The records of these assessments should be retained.

5.3.2.4 Comprehensive

Records systems should be capable of managing all required records of the range of business activities to which they relate (see [7.4](#)).

Records systems should be capable of managing records created using the range of technologies used in the area of business activity to which they relate.

5.3.2.5 Systematic

The creation, capture and management of records should be systematized through the design and routine operation of records systems (see [5.3](#)), and by adherence to authorized policies and procedures (see [Clause 6](#)).

6 Policies and responsibilities

6.1 General

Policies and responsibilities should support the fulfilment of requirements for the creation, capture and management of records and the design, use and management of records systems.

In order to ensure that records systems meet identified records requirements (see [7.4](#)), policies and responsibilities should specify responsibilities and authorizations for the following:

- a) records creators;
- b) those involved in the management of the records;
- c) other users of records systems.

Policies should be supported by procedures that provide more specific instructions on the creation, capture and management of records.

Monitoring and evaluation measures should be put in place to determine whether or not identified records requirements are being met, and, if not, where corrective action is required (see [6.4](#)).

Policies, procedures and the operation of records systems should be supported by training (see [6.5](#)).

6.2 Policies

Policies on the management of records should be developed, documented and implemented. Policies should be derived from business objectives and supported by business rules or procedures for managing records.

The development of policies should be informed by an understanding of business context (see [7.3](#)), as well as requirements for records relevant to the scope of the policy (see [7.4](#)).

The objective in issuing and implementing policies on managing records should be the creation, capture and management of authentic, reliable and useable records that possess integrity and support and enable business activity for as long as they are required.

Policies should include a statement about scope, such as which aspect(s) of managing records they cover, applicable standards and auditing requirements, and should also indicate the business activities to which the policy pertains.

Policies should address required actions in the event of the termination of business processes. These may include decommissioning of records systems and allocation of resources to enable migration (see [9.8](#)) and disposition of records (see [9.9](#)) as appropriate.

Policies should define where legislation, regulations, standards, other mandates and best practices affect the creation, capture or management of records.

Policies should be authorized and endorsed at an appropriate decision-making level and should be promulgated internally and externally as appropriate. Responsibility for policies and for ensuring compliance with policies should be assigned (see [6.3](#)).

Policies should be regularly reviewed to ensure they reflect current business needs. Policies should state the interval at which they should be reviewed, and who is responsible for the review. Superseded policies are records and should be retained and managed as such.

6.3 Responsibilities

Responsibilities and authorizations for the creation, capture and management of records should be defined, assigned and promulgated.

Decisions about creating, capturing and managing records are business decisions informed by identified records requirements and an assessment of risk (see [Clause 7](#)). Decisions should be authorized by the relevant business manager and documented.

Responsibilities should be designated to all personnel who create and use records as part of their work, and be reflected in job descriptions and similar statements, where appropriate.

Designation of the responsible individuals may be assigned by law. Specific leadership responsibility for the management of records should be assigned to a person with appropriate authority, such as a senior manager.

Designations of responsibilities may include the following:

- a) records professionals are wholly or partly responsible for aspects of managing records including the design, implementation and maintenance of records systems and their operations, and for training users on their responsibilities and records systems operations as they affect individual practices;
- b) records professionals or others responsible for managing records are responsible for developing, implementing and maintaining metadata schemas and other controls, in association with other personnel, such as information technology professionals, business managers and legal professionals;
- c) senior managers are responsible for ensuring support for the development and implementation of policies on the management of records;
- d) managers are responsible for ensuring that requirements for records of work processes conducted in their business areas are met;
- e) systems administrators are responsible for ensuring continuous and reliable operation of records systems under their control and for ensuring that all systems documentation is complete and up to date;
- f) all personnel are responsible and accountable for creating and keeping accurate and complete records of their business activities.

6.4 Monitoring and evaluation

Criteria should be established to monitor and evaluate records policies, systems, procedures and processes.

The creation, capture and management of records should be regularly monitored and evaluated with the involvement and support of records professionals, information technology professionals, legal professionals, auditors, business managers and senior managers as appropriate.

Monitoring and evaluation should be designed to ensure that:

- a) records systems and processes are implemented according to authorized policies and business requirements;
- b) records systems and processes operate as defined and designed;
- c) changes to records requirements are met; and
- d) there is continuous improvement in the management of records.

Systems and processes provided by third party providers should also be monitored and evaluated, using contractual requirements relating to the management of records as evaluation criteria.

The design of a monitoring and evaluation program should:

- a) assign responsibility for monitoring and evaluation activities;

- b) determine what needs to be monitored and evaluated;
- c) define methods for measuring, monitoring, analysis and evaluation to ensure valid results;
- d) determine when monitoring and evaluation should be performed;
- e) determine when monitoring results should be analysed and evaluated; and
- f) assign responsibilities for devising appropriate corrective actions.

Monitoring and evaluation of the creation, capture and management of records may be integrated into existing monitoring cycles or carried out separately. Monitoring and evaluation may be undertaken, wholly or in part, by external bodies.

Modifications to records policies, systems and processes should be made if these are found to be unsuitable or ineffective.

Records of monitoring and evaluation activities should be created, captured and managed.

6.5 Competence and training

People with assigned responsibilities relating to the creation, capture and management of records should be competent to perform these tasks. Competence should be regularly evaluated and training programs to develop and improve such competencies and skills should be designed and implemented where required.

The training program should be ongoing and include training on requirements, policies, practices, roles and responsibilities for managing records, and should be addressed to all members of management and personnel, as well as any other individuals responsible for any part of business activity involving the creation, capture and management of records.

To maintain necessary competence of records professionals and others responsible for managing records, there should be training and other professional development on the core competencies for managing records.

Training on the creation, capture and management of records should be built into existing training programs where possible.

The training program should include contractors, volunteers and personnel of other organizations where relevant.

The training program should be supported and promoted by senior managers.

7 Appraisal

7.1 General

Appraisal is the process of evaluating business activities to determine which records need to be created and captured and how long the records need to be kept.

NOTE This International Standard (all parts) expands traditional usages for the term “appraisal” to include analysis of business context, business activities and risk to enable decision making on what records to create and capture, and how to ensure the appropriate management of records over time.

Appraisal combines an understanding of business context with the identification of requirements for evidence of business that should be met through records. This involves the following:

- a) developing an understanding of the nature of the business and its legal, resourcing and technological setting;

- b) using risk assessment to determine what records should be created and how they should be managed to meet the range of applicable requirements. This involves assessing
 - 1) the risks affecting the business generally, and
 - 2) risks that can be managed through the creation, capture and management of records.

Appraisal should be carried out in cooperation with internal stakeholders and, where required, external stakeholders.

Appraisal should be documented. This includes keeping records of the following:

- a) any sources consulted in conducting the analysis, including documentary sources and interviews with stakeholders;
- b) the results of risk assessments;
- c) the appraisal decisions.

Where required, appraisal decisions should be authorized by a senior manager.

The results of appraisal may be used for a range of purposes, including the design and implementation of records systems (see 5.3), the development of policy and procedures (see Clause 6), the definition of metadata requirements (see 5.2.3) and/or the development of records controls such as disposition authorities (see 8.5) or access and permissions rules (see 8.4).

Appraisal should be repeated as the circumstances of the business activity and risk factors change.

7.2 Scope of appraisal

The scope of appraisal should be determined by considering the reason(s) for conducting it. Reasons for conducting appraisal may include the following:

- a) establishment of a new organization;
- b) losing or gaining functions or activities;
- c) changing business practices or needs;
- d) changes to the regulatory environment;
- e) the introduction of new systems or system upgrades;
- f) changing perceptions of risk or priorities.

The scope of appraisal should also be determined by identifying the functions, activities or work processes affected by the reason for conducting appraisal.

7.3 Understanding the business

Appraisal requires an understanding of the organization and its business activities, including but not limited to the following:

- a) internal and external factors affecting the organization's operations, behavior and strategic direction;
- b) operational, legal and other requirements;
- c) resourcing and use of technologies;
- d) internal and external stakeholder requirements;
- e) risks to be managed;

- f) an understanding of the business activity's internal and external contexts;
- g) an analysis of functions undertaken and work processes carried out, using the techniques of functional and/or sequential analysis;
- h) identification of the internal and external agents involved in the business activity.

Understanding the organization responsible for the business should include identifying whether it comprises a number of organizations working collaboratively or independently in more than one industry, sector, jurisdiction and/or geographical region.

7.4 Determining records requirements

Records requirements are requirements for evidence of business activity.

Records requirements are based on an analysis of business activity and its context (see [7.3](#)), and are derived from the following:

- a) business needs;
- b) legal and regulatory requirements;
- c) community or societal expectations.

Records requirements can pertain to any records process (see [Clause 9](#)). They can include requirements concerning content and metadata, linkages with other records, and/or form or structure.

Records requirements may apply to whole functions, industries or jurisdictions, or they may apply only to specific functions, activities, work processes or transactions.

Records requirements are context-dependent, meaning that similar or identical work processes may have different records requirements depending on the nature of the business they document.

Identified requirements should be linked to particular functions, activities or work processes, appropriate to the scope of the appraisal (see [7.2](#)).

7.5 Implementing records requirements

Records requirements may be implemented through records systems, records controls, policies on managing records and procedures, or a combination of these. Implementation should be supported by assigning roles and responsibilities, training, monitoring of the operation of systems and monitoring compliance with policies and procedures (see [Clause 6](#)).

Methods for implementing records requirements should be determined with reference to the business setting, and by taking into particular account organizational capacity in terms of resources and skills, and the nature of the information and records systems in use.

Decisions about implementing identified records requirements should be based on an assessment of risks balanced against resource implications. Requirements with more significant risks should be addressed with a greater investment of resources and additional monitoring and evaluation measures.

Monitoring and evaluation (see [6.4](#)) should test whether records requirements are being met, and if they are not, the evaluation should state the appropriate corrective action(s) to ensure that they are met in the future.

Records requirements and decisions on how to fulfil them should be documented. Decisions not to comply with identified requirements should be authorized by a senior manager of the organization.

Records requirements should be regularly reviewed as part of the recurrent process of appraisal.

8 Records controls

8.1 General

Records controls should be developed to assist in meeting records requirements (see [7.5](#)). Records controls include the following:

- a) metadata schemas for records;
- b) business classification schemes;
- c) access and permissions rules;
- d) disposition authorities.

Records controls may be designed and implemented in a variety of forms, depending on the technological and business environment. Their design and implementation should take account of the nature of the records systems with which they need to interact.

The results of appraisal should be used in the development and review of records controls (see [Clause 7](#)).

Processes for creating, capturing and managing records (see [Clause 9](#)) rely on up to date records controls. Therefore, records controls should be regularly reviewed.

Versions of records controls that have been superseded should be retained and managed as records in accordance with requirements identified from appraisal (see [Clause 7](#)).

8.2 Metadata schemas for records

Metadata schemas should be developed to define the metadata used to identify, describe and manage records. In order for records to possess the characteristics of authoritative records (see [5.2.2](#)), their associated metadata should be based on an authorized metadata schema.

Metadata schemas can relate to different entities. Key entities for managing records are the following:

- a) Records – including all levels of aggregation;
- b) Agents – including persons, business units, technologies or business and records systems;
- c) Business (or Function) – business functions, activities and transactions or work processes;
- d) Mandates – laws and other requirements governing the conduct of business and record creation or management;
- e) Relationships – between entities and layers of aggregation.

Implementing metadata schemas for records may involve metadata being specified for all of these entities, or just one, such as “Records”. The degree of complexity in the implementation should reflect the identified records requirements and the business context, including risks (see [Clause 7](#)).

Metadata schemas for records should support the creation of point of capture metadata and process metadata (see [5.2.3](#)).

Business-specific metadata should be identified when determining records requirements (see [7.4](#)).

Metadata should be defined to:

- a) enable the identification and retrieval of records;
- b) associate records with changing business rules, policies and mandates;
- c) associate records with agents, and their authorizations and rights with regard to the records;

- d) associate records with business activities; and
- e) track processes carried out on records, such as changing access rules or migrating records into new systems.

Six broad classes of metadata may be used in the management of records. They may be applied to all entities (see above), or fewer, depending on the complexity of the implementation. The six classes are the following:

- a) Identity – information to identify the entity;
- b) Description – information to determine the nature of the entity;
- c) Use – information that facilitates immediate and longer-term use of the entity;
- d) Event plan – information used to manage the entity, such as disposition information;
- e) Event history – information recording past events on both the entity and its metadata;
- f) Relation – information describing the relationship between the entity and other entities.

Metadata schemas for records should be expressed in formats that enable interoperability across systems, information sharing, and migration (see [9.8](#)) and transfer processes (see [9.9](#)).

Metadata schemas for records should be utilized in the design and implementation of records systems (see [5.3](#)) and processes for creating, capturing and managing records (see [Clause 9](#)).

Metadata schemas for records should reference other valid records controls, such as disposition information captured from a current and authorized disposition authority (see [8.5](#)), access and permissions rules (see [8.4](#)), or business classification schemes (see [8.3](#)),

In some jurisdictions, pre-existing, authorized metadata schemas for the jurisdiction should be adhered to or adapted.

8.3 Business classification schemes

Business classification schemes are tools for linking records to the context of their creation. By linking records requirements (see [7.4](#)) to a business classification scheme, processes for the appropriate management of records may be carried out.

The act of linking a record to its business context is the process of classification, (see [9.4](#)), which supports the following:

- a) the application of access and permissions rules (see [9.5](#));
- b) the execution of appropriate disposition rules (see [9.9](#));
- c) the migration of records of a particular business function or activity to a new environment as a result of organizational restructure (see [9.8](#)).

Development of business classification schemes that are applicable to records should be based on an analysis of functions, activities and work processes (see [7.3](#)).

In order to remain resilient to organizational change, business classification schemes should be based on functions and activities rather than on organizational structures.

Business classification schemes may be hierarchical or relational, and may consist of various levels of relationships, depending on what best represents the business. The nature and degree of classification control required should be based on an understanding of records requirements (see [7.4](#)) and the nature of records systems in use (see [5.3](#)).

Business classification schemes may be supported by vocabulary controls such as thesauri, used for the titling of records to aid retrieval.

8.4 Access and permissions rules

A set of rules identifying rights of access and the regime of permissions and restrictions applicable to records should be developed.

Categories of access and permissions rules that are applicable to records should be based on the results of appraisal, in particular on the identification of agents (see [7.3](#)) and the determination of records requirements (see [7.4](#)).

Access and permissions rules are associated with the following:

- a) agents;
- b) business activities;
- c) records.

Levels of access or permissions may be assigned to each of these entities, however, they should be applied to at least the record and agent entities.

Records systems should be designed to allow ongoing review of access rights and permissions rules, and should allow further linking of this information to records, either individually or in aggregation.

Rights and permissions may change over time, as the legal/regulatory environment, business activities and societal expectations change. Therefore, access and permissions rules should be monitored and updated routinely, and restrictions should be reduced or removed where appropriate.

8.5 Disposition authorities

Disposition authorities should be developed to regulate the disposition of records. Responsibility for the development of disposition authorities should be identified by law, regulation or policy.

Development of disposition authorities should be based on the results of appraisal (see [Clause 7](#)), carried out with the purpose of establishing rules for records retention and disposition. These rules should be applied through the design of records systems (see [5.3](#)) and the operation of records processes (see [Clause 9](#)).

Disposition authorities should identify groups or classes of records that share retention periods and disposition actions. Classes should be linked to their business context and should consist of the following:

- a) identifier(s) for the class;
- b) description of the class (for example, a description of a function or activity);
- c) disposition action (for example destruction, migration or transfer of control);
- d) retention period;
- e) trigger events (from which to calculate the retention period).

Disposition classes may be derived from a functional or sequential analysis (see [7.3](#)). In this case, the disposition authority should include information describing the relevant functions, activities and/or work processes.

Disposition authorities may also contain instructions on when records should be transferred from one storage environment to another or for continued retention of the records by the responsible organisation.

Disposition authorities should be authorized, dated, implemented and regularly reviewed to take account of changing requirements. In some jurisdictions, this should involve authorization from an external authority or regulator.

Implementation of disposition authorities should be monitored and documented (see [9.9](#)), and should be regularly reviewed for any new requirements affecting the business activity documented in the records, identified as a result of appraisal (see [Clause 7](#)).

9 Processes for creating, capturing and managing records

9.1 General

Processes for creating, capturing and managing records should be integrated into procedures and applicable systems, including records systems, and should involve the use of records controls, where appropriate (see [Clause 8](#)). They should be supported by policy, designated responsibilities, procedures and training (see [Clause 6](#)). These processes include the following:

- a) creating records;
- b) capturing records;
- c) classification and indexing;
- d) access control;
- e) storing records;
- f) use and reuse;
- g) migration or conversion;
- h) disposition.

Decisions about the design and implementation of records processes should reflect an understanding of existing records processes and of the records systems in use.

When processes are carried out by third party providers, service level agreements or contracts should specify requirements for the processes, and incorporate relevant monitoring and evaluation measures (see [6.4](#)). Services should be routinely monitored against contractual requirements.

9.2 Creating records

Records are created or received and captured in order to conduct business activity. Business, legal and other requirements for records are identified through appraisal (see [Clause 7](#)). These requirements are used to specify records creation when work processes and records systems are designed or redesigned.

The creation of records should involve the creation of content and metadata that document the circumstances of their creation.

9.3 Capturing records

When appraisal indicates that it is necessary to keep and manage certain records over time to meet identified requirements, this should be done by capturing them in a records system. Capture should involve, at a minimum, the following:

- a) assignment of a unique identifier (either machine-generated and readable, or human readable);
- b) capture or generation of metadata about the record at the point of capture;
- c) creation of relationships between the record and other records, agents or business.

The metadata generated, added or acquired in a records capture event should conform to the authorized metadata schema and should be persistently linked with the records.

At the point of capture, the metadata documenting a record's context should be fixed and kept as evidence of the transaction. Unique identifiers should be persistent over time.

A record may be captured many times in different records systems over time, for example in the event of the amalgamation of business entities. Each event should be recorded as process metadata. Once a record has been captured into a records system, metadata about events effected on, or using the record, should accrue on an on-going basis.

9.4 Records classification and indexing

Classification links records to their business context by associating them with categories in a business classification scheme (see [8.3](#)).

Records classification includes the following:

- a) linking the record to the business being documented, at an appropriate level (for example to a function, activity or work process);
- b) providing linkages between individual records and aggregations, to provide a continuous record of business activity.

Records classification can be applied to individual records, or at any level of aggregation.

A record may be classified more than once, at different times in its existence. In cases of re-classification, any superseded classification metadata should be retained.

Indexing metadata may also be used to make records more retrievable for agents who are authorized to access them. Indexing metadata such as subjects, location or personal names can be linked with records at the point of capture, and may be added as required throughout their existence.

9.5 Access control

Access to records should be managed using authorized processes.

Records systems should be designed to support the provision and restriction of access to records for agents, individually or in aggregate. Mechanisms in records systems for access to records (whether technical or non-technical) should be implemented using up to date and authorized access and permissions rules (see [8.4](#)). Access rules may require the use of tools for delivery of records, of metadata for records or of redacted records, to authorised users.

The application of access rules should be recorded as part of process metadata for records at the appropriate level (ranging from the individual record to all levels of aggregation). Changes to these rules, including the authority for and the date of the change, should also be recorded as process metadata.

Instances of access to records may need to be recorded, depending on the records requirements identified for the business activity and the risk associated with the business activity.

9.6 Storing records

Records, regardless of format or media, should be stored in a way that protects them from unauthorized access, change, loss or destruction, including theft and disaster. This means that measures should be put in place to ensure the following:

- a) appropriate storage environment(s) and media;
- b) the use of protective materials and special handling procedures where necessary;
- c) routine protection and monitoring of physical and information security;

- d) the development and testing of authorized disaster planning and recovery procedures and the training of relevant personnel in these.

Metadata for records should include storage information. This can be derived from organizational records systems or from the systems of external providers. This information should be adequate for locating and monitoring the security of the records.

Records storage, including environment and media, protective materials, handling procedures and storage systems should be routinely monitored and evaluated in order to identify any risks to the records' accessibility or integrity.

9.7 Use and reuse

Records should be useable for as long as they are retained. Records systems should be designed to support easy use of records (see 5.3). Measures for ensuring continued useability may include the following:

- a) applying and maintaining appropriate metadata about a record's technical dependencies;
- b) creating additional copies of records or converting them into alternative formats;
- c) migrating records;
- d) preparing a plan to ensure continued access and useability of records in the event of a disaster affecting records systems or storage areas;
- e) establishing routine monitoring of storage conditions.

Metadata about processes undertaken to enhance records' useability, such as conversion (see 9.8), should be recorded in process metadata.

Decisions made about record formats at creation, migration or conversion should take account of the benefits to be derived from the useability of the record.

Reuse of a record's content as part of a business transaction (in other internal or external work processes) creates a new record in a new context, with independent metadata about its point of capture and management processes.

9.8 Migrating and converting records

The process of migration and conversion between business and/or records systems, including the decommissioning of the system(s), or from analogue to digital formats (digitization), should be planned, documented and communicated to internal and external stakeholders.

The disposition of source records following a migration or conversion process should be authorized.

During migration or conversion, all record content and its associated metadata in the originating system or format should be retained until the process is finished and the integrity and reliability of the destination system or format have been controlled and secured.

Migration or conversion processes may need to be audited, authorized or certified by an external authority.

9.9 Disposition

Disposition processes should be carried out in conformance with rules in authorized and current disposition authorities (see 8.5). Records systems should be designed to support the execution of disposition actions (see 5.3).

Records and metadata should be retained for the time periods specified in disposition authorities. Disposition actions specified in disposition authorities should be implemented. These may include the following:

- a) destruction of records and metadata;
- b) transfer of control of records and metadata to an organization that has assumed responsibility for the business activity through restructure, sale, privatization or other business change;
- c) transfer of control of records and metadata to an institutional or external archive for permanent retention.

Disposition actions should be reviewed prior to implementation to ensure requirements for the records (see [7.4](#)) have not changed.

Some metadata for records will be required to be retained beyond the minimum retention period for the record with which it is associated. Disposition processes should support these requirements.

The following principles should govern the destruction of records:

- a) destruction should always be authorized;
- b) records pertaining to pending or actual litigation or legal action or investigation should not be destroyed while that action is underway or anticipated to arise;
- c) records destruction should be carried out in a way that ensures complete destruction and which complies with any security or access restrictions on the record;
- d) destruction, like any disposition action, should be documented.

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