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Information technology — Metadata registries (MDR) —

Part 6: **Registration**

Technologies de l'information — Registres de métadonnées (RM) —

Partie 6: Enregistrement

Reference number
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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 11179-6 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange.*

This second edition cancels and replaces the first edition (ISO/IEC 11179-6:1997).

ISO/IEC 11179 consists of the following parts, under the general title *Information technology — Metadata registries (MDR)*:

— *Part 1: Framework*

— *Part 2: Classification*

— *Part 3: Registry metamodel and basic attributes*

— *Part 4: Formulation of data definitions*

— *Part 5: Naming and identification principles*

— *Part 6: Registration*

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Introduction

This part of ISO/IEC 11179 specifies the procedure by which *administered item*s required in various application areas could be registered and assigned an internationally unique identifier. The uniqueness of the identification of a registered *administered item* is determined by a combination of the Registration Authority Identifier (RAI), the unique identifier assigned to a *administered item* within a Registration Authority (RA), and the version under which an *administered item* registration is submitted or updated. The registered *administered item*s are included in Registries of Administered Items, maintained by a Registration Authority, to which the administered items logically and functionally belong. An organization wishing to become a Registration Authority may do so in accordance with the procedure prescribed in Annex A.

This part of ISO/IEC 11179 has been revised to address other types of Administered Items besides data elements: data element concepts, conceptual domains and value domains. Each of these types of Administered Items, including data elements, is represented within a metadata registry by administration records that document the common administration and identification, naming and definition details together with their administered item-specific details.

Within this part of ISO/IEC 11179 the use of “Metadata Registry” denotes an implementation of a metadata registry that is based upon ISO/IEC 11179 and that is managed by a Registration Authority.

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Information technology — Metadata registries (MDR) —

Part 6:
Registration

1 Scope

This part of ISO/IEC 11179 specifies the procedure by which *administered item*s required in various application areas could be registered and assigned an internationally unique identifier. For each Administered Item to be registered, this part of ISO/IEC 11179 defines the type of information that is specified, the conditions that are met, and the procedure(s) that are followed.

The requirements and procedure contained herein apply to all Administered Items specified in ISO/IEC 11179-3. In addition, administration records that document the common administration and identification, naming and definition details as required by, and associated with, any administered item-specific details are also governed by this part of ISO/IEC 11179.

This part of ISO/IEC 11179 only addresses the metadata that is used to specify all types of Administered Items. Others may want to use this part of ISO/IEC 11179 to register and manage locally defined Administered Item types that are not defined in ISO/IEC 11179-3.

This part of ISO/IEC 11179 does not address the metadata that is used to specify particular types of Administered Items such as data elements and value domains. This part of ISO/IEC 11179 does NOT specify the registry's system design, file organization techniques, storage media, programming languages, etc. to be used in its implementation.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11179-1, *Information technology — Metadata registries (MDR) — Part 1: Framework*

ISO/IEC 11179-3, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

ISO/IEC 6523-1, *Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes*

3 Terms and definitions

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

3.1
Administered Item
registry item for which administrative information is recorded in an Administration Record
[ISO/IEC 11179-3:2003, definition 3.3.1]

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3.2
administrative status
designation of the status in the administrative process of a **Registration Authority** for handling **registration** requests
[ISO/IEC 11179-3:2003, definition 3.3.7]

3.3
data identifier
DI
unique identifier for an Administered Item within a **Registration Authority**
[ISO/IEC 11179-3:2003, definition 3.3.52]

3.4
information interchange
process of sending and receiving data in such a manner that the information content, or meaning assigned to the data, is not altered during the transmission

3.5
International Code Designator
ICD
identifier of an organization identification scheme

NOTE Based on ISO/IEC 6523-1:1998, definition 3.8.

3.6
International Code Designator value
ICD value
identifier allocated to a particular organization identification scheme
[ISO/IEC 6523-1:1998, definition 3.9]

3.7
international registration data identifier
IRDI
internationally unique identifier for an **Administered Item** as defined in the framework of ISO/IEC 11179

3.8
item identifier
identifier for an item
[ISO/IEC 11179-3:2003, definition 3.3.76]

3.9
item registration authority identifier
identifier of the **Registration Authority** registering the item
[ISO/IEC 11179-3:2003, definition 3.3.77]

3.10
metadata item
instance of a **metadata object**
[ISO/IEC 11179-3:2003, definition 3.2.19]

NOTE In all parts of ISO/IEC 11179, this term is applied only to instances of metadata objects described by the metamodel in Clause 4 of ISO/IEC 11179-3. Examples include instances of Data Elements, Data Element Concepts, Permissible Values etc.

3.11
metadata object
object type defined by a metamodel
[ISO/IEC 11179-3:2003, definition 3.2.20]

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3.12
metadata register
information store or database maintained by a **Metadata Registry**
[ISO/IEC 11179-3:2003, definition 3.2.21]

3.13
Metadata Registry
MDR
information system for registering metadata
[ISO/IEC 11179-3:2003, definition 3.2.22]

NOTE The associated information store or database is known as a **metadata register**.

3.14
OPI Source Indicator
OPIS
data element used to specify the source for the **organization part identifier**
[ISO/IEC 6523-1:1998, definition 3.12]

3.15
OPIS value
particular value (digit or capital letter) taken by the **OPIS** to designate the source of an **organization part identifier**
[ISO/IEC 6523-1:1998, definition 3.13]

3.16
organization identifier
identifier assigned to an organization within an organization identification scheme, and unique within that scheme
[ISO/IEC 6523-1:1998, definition 3.10]

3.17
organization part identifier
OPI
identifier allocated to a particular organization part
[ISO/IEC 6523-1:1998, definition 3.11]

3.18
registration
assignment of an unambiguous identifier to an **Administered Item** in a way that makes the assignment available to interested parties

NOTE Adapted from definition in Annex E of the ISO/IEC JTC 1 Directives.

3.19
registration acting body
RAB
type of organizations participating in the registration process of **Administered Items**

NOTE Currently, there are three RABs: **Registration Authorities** (RA), **Responsible Organizations** (RO) and **Submitting Organizations** (SO).

3.20
Registration Authority
organization responsible for maintaining a register
[ISO/IEC 11179-3:2003, definition 3.3.121]

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3.21
registration authority identifier
identifier assigned to a **Registration Authority**
[ISO/IEC 11179-3:2003, definition 3.3.122]

3.22
registration status
designation of the status in the registration life-cycle of an **Administered Item**
[ISO/IEC 11179-3:2003, definition 3.3.125]

3.23
registry item
metadata item recorded in a Metadata Registry
[ISO/IEC 11179-3:2003, definition 3.2.29]

3.24
responsible organization
RO
organization or unit within an organization that is the authoritative source for attributes of the **Administered Item**

3.25
submitting organization
SO
organization or unit within an organization that has submitted requests for registry action

3.26
version identifier
VI
identifier assigned to a version of an **Administered Item**

4 Concept of operation

4.1 Administered Items

4.1.1 Administered Item types

A conceptual model of a Metadata Registry for describing data is provided in ISO/IEC 11179-3. ISO/IEC 11179-3 specifies a number of Administered Items. These are: data element, data element concept, value domain, conceptual domain, classification scheme, context (for administered item), derivation rule, object class, property, and representation class. ISO/IEC 11179-1 provides the means for understanding and associating the individual parts and is the foundation for a conceptual understanding of metadata and metadata registries.

This part of the ISO/IEC 11179 standard addresses the specifics that are common to all Administered Items. It is envisioned that an organization may extend its Metadata Registry with additional items that are to be administered. It is also envisioned that the standard may be extended at a later time to administer additional items. Others may want to use this part of ISO/IEC 11179 to register and manage locally defined administered item types that are not defined in ISO/IEC 11179-3.

4.1.2 Identification of Administered Items

Administered Items registered under the provisions of this part of ISO/IEC 11179 are each assigned one International Registration Data Identifier (IRDI). The Registration Authority Identifier (RAI) portion of the International Registration Data Identifier (IRDI), as specified in ISO/IEC 6523, is optional in those registries that do not exchange contents with other registries. This identifier value uniquely identifies the Administered Item within the framework of this part of ISO/IEC 11179. Annex A describes the structure of the International Registration Data Identifier that is used to identify each Administered Item.

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4.1.3 Status categories

4.1.3.1 General

There are two types of status categories. The registration status is a designation of the level of registration or quality of metadata or progression of an Administered Item. The administration status is a designation of the status in the administrative process of a Registration Authority for handling registration requests. Registration status categories shall apply to individual Administered Items that have been entered into the metadata register.

An Administration Status specifies the process that an Administered Item is undergoing within a Registration Status. It identifies the process that is taking place within a registration status.. It is very probable that the permissible administrative status values will be dependent upon the current registration status that an Administered Item possesses. A Registration Authority will establish the focus of the use of administrative status. A Registration Authority determines the allowed values of this attribute. It is the responsibility of the Registration Authority to refine, publish, and implement this administrative feature.

4.1.3.2 Summary of registration status categories

Registration status specifies the state of an Administered Item that is in the metadata register. Registration status categories shall apply to individual Administered Items that have been entered into the metadata register. Administered Item registration status categories are of two types, lifecycle and documentation. The lifecycle registration status categories address improvement and progression towards levels of perfection of the quality of the metadata of the item and of the preferences of usage of the Administered Item. The documentation registration status categories are used to denote positions at which there will be no more progression in quality of metadata or use of the Administered Item. The relationships among these status categories, along with the requirements for an Administered Item to achieve a particular registration status level, are presented in Table 1.

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Table 1 — Registration status levels and criteria

Administered Item registration status category	Status criteria
Lifecycle Statuses	
Preferred Standard	The Registration Authority confirms that the Administered Item is • preferred for use within the community that uses this metadata register.
Standard	The Registration Authority confirms that the Administered Item is • of sufficient quality and • of broad interest for use in the community that uses this metadata register.
Qualified	The Registration Authority has confirmed that • the mandatory metadata attributes are complete and • the mandatory metadata attributes conform to applicable quality requirements.
Recorded	The Registration Authority has confirmed that • all mandatory metadata attributes have been completed.
Candidate	The Administered Item has been proposed for progression through the registration levels.
Incomplete	Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain.
Retired	The Registration Authority has approved the Administered Item as • no longer recommended for use in the community that uses this metadata register and • should no longer be used.
Superseded	The Registration Authority determined that the Administered Item is • no longer recommended for use by the community that uses this metadata register, and • a successor Administered Item is now preferred for use.
Documentation Statuses	
Historical	The Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item that was used in the past.
Application	The Registration Authority wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain that is in an application system and is not specified at the logical level. This item may be very well described.

While the general intent is to progress as many Administered Items as possible from “Incomplete” to the “Preferred Standard” registration status, progression to a status higher than “Recorded” or “Qualified” may not be appropriate. That is, necessary metadata attribute documentation for an Administered Item may not be available to establish required documentation for the “Recorded” status, may not be of the quality necessary for the “Qualified” status, or identification as “Preferred Standard” Administered Item may not be appropriate. Such Administered Items shall be held at their current status level in the metadata register to facilitate understanding of and access to these Administered Items by the community that uses this metadata register.

The status category of an Administered Item entry shall be based upon the completeness of the data entered, its accuracy, and its conformance to the established format and syntax. The registration status category shall be as listed below.

a) Incomplete — An Administered Item with the “Incomplete” status shall indicate that the Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain. An Administered Item in the status of “Incomplete” in the metadata register shall not be maintained under version control. The minimum metadata attribute documentation for the “Incomplete” status in the metadata register shall be as follows:

   1) administered item identifier,

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2) designation,

3) definition,

4) submitter organization name,

5) submitter contact name, and

6) submitter contact information.

The registered Administered Item may not contain all mandatory attribute values.

b) Candidate — An Administered Item with the “Candidate” status shall indicate that it has been proposed for progression through the registration levels. Administered Items in the “Candidate” status are maintained under version control. The minimum metadata attribute documentation for the “Candidate” status is administered item identifier, designation, definition, submitter organization name, submitter contact name, submitter contact information, stewardship organization name, stewardship contact name, and stewardship contact information. The registered Administered Item may not contain all mandatory attribute values.

c) Recorded — An Administered Item with the “Recorded” status shall mean that all mandatory metadata attributes have been completed. An Administered Item in the “Recorded” status implies that the Administered Item may be shared across domains. The contents of the mandatory metadata attributes may not conform to quality requirements. The Submitter may request the retirement of an Administered Item in the registration status of “Recorded” at any time. Administered Items in “Recorded” registration status or higher are maintained under version control.

d) Qualified — An Administered Item with the “Qualified” status shall mean that the Administration Item had a “Recorded” registration status and the Registration Authority has confirmed that the mandatory metadata attributes are complete and conform to applicable quality requirements. In the event that an Administered Item is not approved by the Registration Authority for the “Qualified” registration status level, it shall remain at the “Recorded” registration status level.

e) Standard — An Administered Item with the “Standard” status indicates that the Administration Item had a “Qualified” registration status and the Registration Authority confirms that the Administered Item is of sufficient quality and of broad interest for use in the community that uses this metadata register. There may be more than one “Standard” Administered Item that addresses the same function, concept etc.

f) Preferred Standard — An Administered Item with the “Preferred Standard” status means that the Registration Authority confirms that the Administered Item is preferred for use in the community that uses this metadata register.

g) Retired — An Administered Item with the “Retired” status indicates that the Registration Authority has determined the Administered Item is no longer recommended for use in the community that uses this metadata register. A “Retired” Administered Item should no longer be used. Such Administered Items are retained in the metadata register archival storage facility for historic reference and research purposes. “Retired” Administered Items should include a reference to replacement Administered Items when appropriate. Only editorial edits of “Retired” Administered Items are permitted.

h) Superseded — An Administered Item with the “Superseded” status indicates that the Registration Authority has determined the Administered Item is no longer recommended for use in the community that uses this metadata register. A “Superseded” Administered Item may be used but the successor Administered Item is the preferred for use. Such Administered Items are retained in the metadata register archival storage facility for historic reference purposes. “Superseded” Administered Items should include a reference to replacement Administered Items when appropriate. Only editorial edits of “Superseded” Administered Items are permitted.

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i) Historical — An Administered Item with the “Historical” status shall indicate that the Submitter wishes to make the community that uses this metadata register aware of the existence of an item that was used in the past and has not been used recently. It is important to record so that related items may be given additional perspective through knowledge of this item. A “Historical” Administered Item has not passed through the dynamic registration levels.

j) Application — An Administered Item with the “Application” status shall mean that the Registration Authority wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain that is used by an application system. This item may be very well described. Items with the “Application” status may be from application systems that are in current development.

4.1.3.3 Description of administration status

There should be administrative statuses that denote the pending changes that are important to the community that uses this metadata register. These status levels forewarn the community that uses this metadata register of changes that may have an impact on their area of interest.

4.2 Procedures

The Registration Authority shall establish procedures for necessary activities of the Metadata Registry. Example functional activities that need procedures are:

a) Submission of Administered Items for registration — Submitters shall submit Administered Items for entry into the metadata register. These Administered Items may be recorded as “Incomplete” or “Candidate” registration status, as the Submitter deems appropriate. A registration status of “Incomplete” implies usage restricted to the Submitter's domain while being posted for informational purposes. The “Candidate” status implies that the submitter intends to progress the Administered Item to higher registration status levels. Submitters or Stewards may progress Administered Items in the “Candidate” status to the “Recorded” registration status by completing all mandatory metadata attributes required of that Administered Item.

b) Progression of Administered Items — Submitters shall progress Administered Items to “Recorded” status. Progression of Administered Items to registration status of “Qualified” or higher shall require the sponsorship of a Steward and approval of the Registration Authority.

c) Harmonization of Administered Items — The objective of harmonization is to resolve any potential duplicate or overlapping of Administered Items and to understand the justifiable differences that may exist among the harmonized items. Procedures shall be established to facilitate Administered Item harmonization and reuse.

d) Modification of Administered Items — Procedures shall be established to change Administered Items.

e) Retirement of Administered Items — Procedures shall be established to retire Administered Items.

f) Administrative processing — The Registrar may assign administrative registration statuses in order to track an interim state of an Administered Item.

Functional operating procedures are needed for those that develop, operate, and/or maintain a Metadata Registry. The ISO/IEC 11179:2003 requires organizational participation of certain roles, such as Registration Authority, Registrar, Submission Contact, and Stewardship Contact. Annex C provides a suggested set of roles and responsibilities along with suggested functional operating procedures for the use of the Metadata Registry by role. Annex D provides a suggested concept of operations. Annex E provides suggested procedures to address these functional requirements and the concept of operations. Annex F provides suggested procedures for harmonization of Administered Items.

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5 Metadata Registries of Administered Items

5.1 General

The Metadata Registry is for Administered Items that fall under its purview. The Metadata Registry is a system for registering metadata. A particular Metadata Registry may be used to manage any number of metadata registers, the information stores or databases of metadata. Each metadata register is maintained by one or more Registration Authorities. The number of metadata registers and Registration Authorities for any particular implementation of a Metadata Registry is decision of implementer and/or operator of a particular Metadata Registry.

Each Administered Item in any metadata register is associated with only one Registration Authority through the item identifier of that Administered Item.

The principal participants of Metadata Registries are Registration Authorities, Submitting Organizations, and Responsible Organizations. The Registration Authority has one or more Registrars as its contacts. Submitting Organizations submit provide items for metadata registers. A submitter is a contact for a Submitting Organization for an item a particular Administered Item. A Submitting Organization may utilize any number of submitters. Each Administered Item is associated with only one submitter. Responsible Organizations are authoritative sources for the attributes of Administered items. A steward is a contact for a Responsible Organization for an item a particular Administered Item. A Responsible Organization may utilize any number of stewards. Each Administered Item is associated with only one steward.

5.2 Contents

5.2.1 Metadata Registry Views

In the context of this part of ISO/IEC 11179, the views on the contents of the metadata register may vary based upon of the roles of the participants in the metadata registry and the levels of conformance to which each participant ascribes.

5.2.2 Metadata Registry Contents and Levels of Conformance

Responsible organizations may have an impact on the content of individual attributes of each Administered Item. Responsible organizations do not have the purview on the composition of the registry itself, i.e., what specific metadata attributes to include with each Administered Item. The Registration Authority specifies the requirements. For example, while the Registration Authority determines, in accordance to this Standard, each Administered Item must have a definition, the Responsible Organization ensures that the definition of a metadata item is semantically correct.

A Registration Authority may adopt a stricter or less strict level of conformance, levying corresponding requirements on Submitting Organizations. The contents of a metadata register, therefore, may vary accordingly. ISO/IEC 11179-3:2003 Clause 6 specifies Conformance for Metadata Registries.

5.2.3 Metadata Registry Contents and Types of Administered Items

Not all Metadata Registries will have the need or the means to support all the types of metadata items specified in the metadata model described in ISO/IEC 11179-3. Some Metadata Registries may start with a metadata register of Data Element Concepts; some may start with Conceptual Domain, then, at a later time, implement Data Element and Value Domain. This part of ISO/IEC 11179 refers the reader to ISO/IEC 11179-3 for the registry metadata attributes that are for specific types of Administered Items. This part makes use of the registry metadata attributes that apply to all Administered Items.

A Metadata Registry, however, must not violate the business rules (as specified via relationships and cardinalities) of the Registry Metamodel specified in ISO/IEC 11179-3 for Administered Items that have a registration status of “Recorded”.

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5.3 Language(s)

The language(s) used by the Metadata Registry shall be documented by the Registration Authority.

5.4 Availability of the Metadata Registry of Administered Items

Access to the contents of the metadata register shall be governed in accordance with the procedure prescribed by the appropriate Registration Authority.

6 Conformance

A conforming implementation shall conform to Clause 4, Clause 5, Annex A, and Annex B.

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Annex A
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Administered Item Identifiers

A.1 General

Administered Items registered under the provisions of this part of ISO/IEC 11179 are each assigned an International Registration Data Identifier (IRDI). This identifier value uniquely identifies the Administered Item within the framework of this part of ISO/IEC 11179.

A.2 Components of International Registration Data Identifier (IRDI)

As discussed in the Introduction of this part of ISO/IEC 11179, the uniqueness of a registered Administered Item is determined by the combination of the values of three identifying attributes, as depicted in Figure A.1 and defined in ISO/IEC 11179-3:

a) An identifier assigned to a Registration Authority, hereafter called Registration Authority Identifier (RAI).

b) An identifier assigned to an Administered Item within a Registration Authority, hereafter called Data Identifier (DI).

c) An identifier assigned to a version under which an Administered Item registration is submitted or updated hereafter called version identifier (VI).

NOTE 1 Although the version identifier may not necessarily be required to make an Administered Item unique within a metadata register, the inclusion of the version identifier in the International Registration Data Identifier would provide a unique reference point, should a conflict arise.

NOTE 2 OPI and OPIS are optional per ISO/IEC 6523. ISO/IEC 11179-6 uses the entire structure of ISO/IEC 6523 as a Registration Authority Identifier.

A.3 Assignment of Values to International Registration Data Identifier (IRDI) Components

A.3.1 Assignment

An International Registration Data Identifier will be assigned to an Administered Item submitted for registration. The values of each component of International Registration Data Identifier are assigned as follows.

A.3.2 Assignment of Registration Authority Identifier (RAI)

Every organization wishing to become a Registration Authority shall possess an internationally recognized organization code, assigned in accordance with the procedure prescribed in ISO/IEC 6523. The entire structure for identification of organizations, as described in Clause 4 of ISO/IEC 6523-1:1998, shall be the internationally unique Registration Authority Identifier for the purpose specified in this part of ISO/IEC 11179.

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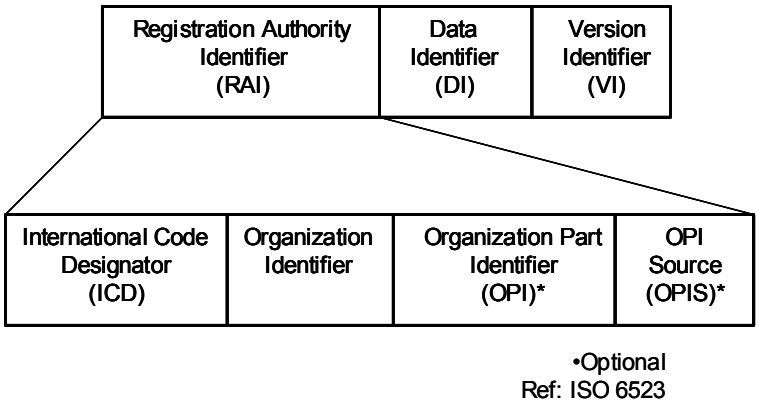

Figure A.1 — Structure of International registration Data Identifier (IRDI)

A.3.3 Assignment of Data Identifier (DI)

Each new Administered Item accepted into the metadata register shall be assigned a new Data Identifier. A new Data Identifier shall also be assigned to an existing Administered Item when it is modified in such a way as to change the meaning of the Administered Item or the representation form of the potential values of the Administered Item. For example, changes to the mandatory attributes, Definition and/or Form of Representation would require the assignment of a new Data Identifier. Editorial changes to the definition, however, would not cause generation of a new Administered Item, as long as the essential meaning expressed by the definition remains the same. For example, the value of the administrative attributes listed in Annex B may change without causing generation of a new Data Identifier.

Based on the requirements of the subject matter included in its metadata register, each Registration Authority shall establish and publish as appropriate, specific guidelines for any additional conditions requiring assignment of a new Data Identifier (i.e., generation of a new Administered Item), due to changes in the values of mandatory attributes established for its metadata register.

Each Registration Authority shall establish and publish specific guidelines on the format, presentation, and generation of Data Identifiers that are used within the metadata register.

A.3.4 Assignment of Version Identifier (VI)

In general, a new Version Identifier may be generated when any attribute value (other than one requiring a new Data Identifier) changes. Each Administered Item, however, may require a different versioning treatment. For example, a change in Permissible Data Element Values for an Employee Name may not require a new version identifier, while a change of Permissible Values for Account Type will likely require a version identifier change. Each Registration Authority shall establish specific guidelines for the subject matters in which it specializes and for which it is responsible.

Each Registration Authority shall establish and publish specific guidelines on the format, presentation, and generation of version identifiers that are used within the metadata register.

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A.4 Using ISO/IEC 6523 Organization Codes as Registration Authority Identifier

A.4.1 Organization Code Structure

The following excerpts from ISO/IEC 6523-1 are included here for convenience, since this ready reference can facilitate the understanding of the code structure.

> "The structure for the identification of organizations and organization parts consists of the following four components:
>
> a) the International Code Designator (ICD);
>
> b) the identification of an organization within an identification scheme: a data element containing an organization identifier;
>
> c) the identification of an organization part: a data element containing an organization part identifier (OPI);
>
> d) the OPI source indicator (OPIS): a data element containing a code value indicating the source of the OPI.
>
> The third component, identification of an organization part, is optional. It is used when and only when one wants to designate a specific part within an organization.
>
> The fourth component, the OPI source indicator (OPIS), shall not be used if the third component is not used; it is optional when the OPI is used.
>
> The format of these data elements is the following:
>
> - ICD: integer, variable length, up to 4 digits;
> - Identification of an organization: variable length, up to 35 characters;
> - OPI: variable length, up to 35 characters;
> - OPIS: 1 character.
>
> No particular sequence of the four components is specified in this International Standard."

The structure is illustrated below:

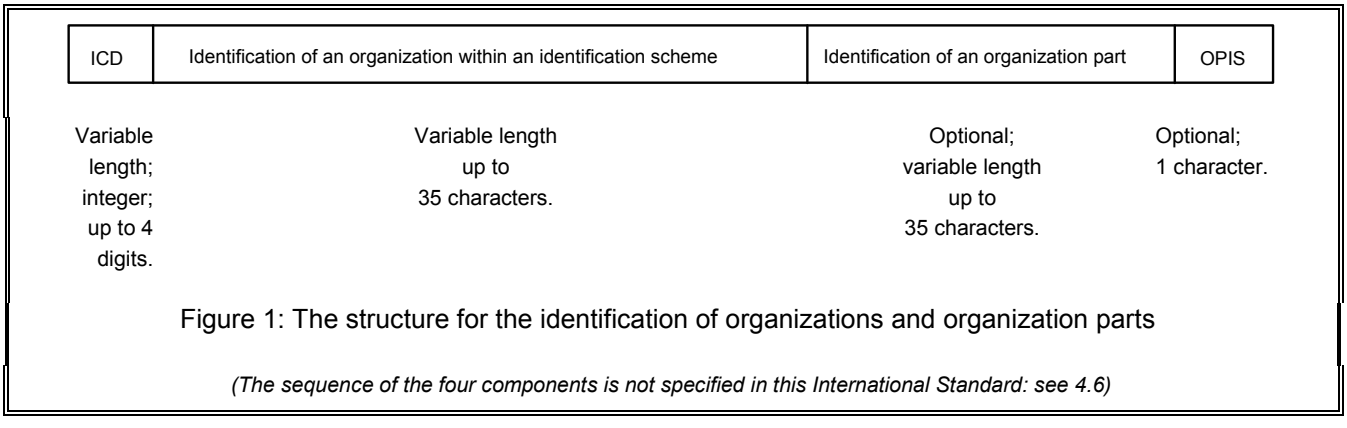

Figure 1: The structure for the identification of organizations and organization parts

(The sequence of the four components is not specified in this International Standard: see 4.6)

Source: ISO/IEC 6523-1:1998

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A.4.2 Registration Authority for International Code Designators of ISO/IEC 6523 Registry

The registration authority (RA) for the above registry, at the date of publication of this standard:

British Standards Institution – DISC
389 Chiswick High Rd
London W4 4AL
United Kingdom

Tel : +44 020 8996 7448
Fax : +44 020 8996 7412

The British Standards Institution's (BSI) web site is http://www.bsi-global.com

The current contact persons are Ms. Nicola Harrison and Simone Seeds. The email address is Telecoms@bsi-global.com.

Obtaining an RAI without obtaining an ICD: The Registration Authority of ISO/IEC 6523 maintains only ICDs. An organization that wants to obtain an organization code might not have to obtain an ICD. It can contact an organization/trade association such as DUNS or SIRENE, which already have their ICDs, and request an organization code under their respective ICDs. The concatenation of ICD and Organization code assigned by the ICD owner will constitute the organization code of the requester.

Example: Most organizations already have their international organization codes without realizing that fact. For example, most organizations have a DUNS code that can be concatenated with DUNS's ICD (0060) to form their own organization codes. The organization codes for subscribers of DUNS, under DUNS ICD will have the DUNS format and are assigned by Dun and Bradstreet. Below is the detail of DUNS entry in the "Numerical list of all ICDs that have been issued" maintained by BSI.

Table A-1 — DUNS Entry from the ISO/IEC 6523 Registry

ICD	**0060**
Name of coding system	Data Universal Numbering System (D-U-N-S Number)
Name & address of issuing organisation	Dun and Bradstreet Ltd Holmers Farm Way High Wycombe Bucks HP12 4UL United Kingdom
Structure of code	1) Eight identification digits and a check digit. A two-digit prefix will be added in the future but it will not be used to calculate the check digit. 2) The Organization name is not part of the D-U-N-S number
Display Requirements	IIIIIIIIC where all characters are the digits 0 to 9, I = an identification digit and C = the check digit. When the prefix (P) is added the display requirement will be eleven digits, PPIIIIIIIIC.
Description of organizations covered by the coding system	It is the objective of Dun and Bradstreet to allocate a D-U-N-S number to all businesses and institutions engaged in a specific business activity.
Notes on use of the code	The D-U-N-S Number originated to facilitate the compilation of financial status reports on those involved in business transactions but it is now widely used for other purposes also. The number has world wide recognition as a means of identifying businesses and institutions.
Sponsoring authority	BSI/DISC
Date of issue of ICD	JUNE 1993
Additional comments	A full specification of scheme has been deposited with the Registration Authority

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Annex B
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Contents of the Metadata Registry: Metadata attributes required for Administered Items

B.1 Introduction

This annex presents tables that delineate the requirements for inclusion of metadata attributes in a metadata registry for each Administered Item. These do not specify any of the metadata attributes that are applicable to specific types of Administered Items but only those metadata attributes that are applicable to all Administered Items.

In all tables each row is an elementary attribute or a composite metadata attribute.

B.2 Metadata attributes in ISO/IEC 11179-3:2003

This clause provides a summary of the attributes from in ISO/IEC 11179-3:2003 that used for any Administered Item. Table B-1 provides the summary. The first column is the metadata attribute name. The indentation of the metadata attribute name denotes the sublevel of the attribute. Elementary metadata attributes that are mandatory are identified in the first column with an "*" in the far left side of the column. The second column is the definition of the metadata attribute from ISO/IEC 11179-3. The third column identifies the clause in ISO/IEC 11179-3 where the metadata attribute is defined. The fifth column identifies the maximum number of occurrences for the metadata attribute within its composite metadata attribute. The sixth column specifies the datatype of the elementary metadata attributes.

The fourth column specifies the obligation and conditionality for the metadata attribute. The following codes are used in column 4:

— "M" = mandatory. Mandatory metadata attributes are required for the Administered Item, without exception.

— "O" = optional. Optional metadata attributes may be used if desired by the steward of the Administered Item to provide additional documentation about the Administered Item.

— "C" = contingent. Contingent metadata attributes are those that depend upon the implementation of an optional metadata attribute. They are required when the optional metadata attribute upon which they depend is implemented.

— "I" = indicative. Indicative metadata attributes depend upon an "if" condition that is independent of any other metadata attribute. If the "if" condition is applicable, then the "I" coded metadata attribute is mandatory; otherwise it is optional.

The constraints on minimum occurrences are to be enforced when the registration status for the metadata item is "Recorded" or higher. In other words, a registration status of "Recorded" indicates that all mandatory attributes have been documented.

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Table B-1 — Metadata attributes for Administered Items

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
Administered Item	a registry item for which administrative information is recorded in an Administration Record	3.3.1			
Administration_Record	a collection of administrative information for an Administered Item	3.3.5	**M**	**one**	
administered_item_identifier	an identifier for an administered item	3.3.4	**M**	one	
item_registration_authority_identifier	the identifier of the Registration Authority registering the item	3.3.77	**M**	one	
* International_Code_Designator	the identifier of an organization identification scheme	3.3.75	**M**	one	string
* organization_identifier	the identifier assigned to an Organization within an organization identification scheme, and unique within that scheme	3.3.92	**M**	one	string
OPI_source	the source for the organization part identifier	3.3.97	C / If organization_part_identifier is used	one	string
organization_part_identifier	an identifier allocated to a particular organization part	3.3.96	O	one	string
* data_identifier	the unique identifier for an Administered Item within a Registration Authority	3.3.52	**M**	one	string
* version	the unique version identifier of the Administered Item	3.3.156	**M**	one	string
* registration_status	a designation of the status in the registration life-cycle of an Administered Item.	3.3.125	**M**	one	string

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	Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
*	administrative_status	a designation of the status in the administrative process of a Registration Authority for handling registration requests	3.3.7	**M**	one	string
*	creation_date	the date the Administered Item was created	3.3.35	**M**	one	Date
	effective_date	the date an administered item became/becomes available to registry users	3.3.70	O	one	Date
	last_change_date	the date the Administered Item was last changed	3.3.82	O	one	Date
	until_date	the date an Administered Item is no longer effective in the registry	3.3.138	O	one	Date
	administrative_note	any general note about the Administered Item	3.3.6	O	one	string
	change_description	the description of what has changed in the Administered Item since the prior version of the Administered Item	3.3.8	O	one	string
	explanatory_comment	descriptive comments about the Administered Item	3.3.74	O	one	string
	origin	[Administered item] the source (document, project, discipline or model) for the Administered Item	3.3.98	O	one	string
	unresolved_issue	any problem that remains unresolved regarding proper documentation of the Administered Item	3.3.137	O	one	string
Registration_Authority		an Organization responsible for maintaining a register	3.3.121	**M**	one	
	Registration_Authority_Identifier	an identifier assigned to a Registration Authority	3.3.123	**M**	one	
*	International_Code_Designator	the identifier of an organization identification scheme	3.3.75	**M**	one	string

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Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
* organization_identifier	the identifier assigned to an Organization within an organization identification scheme, and unique within that scheme	3.3.92	**M**	one	string
organization_part_identifier	an identifier allocated to a particular organization part	3.3.96	O	one	string
OPI source	the source for the organization part identifier	3.3.97	C / If organization_part_identifier is used	one	string
Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	**M**		
* organization_name	a designation for the Organization	3.3.94	**M**	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
Registrar	a representative of a Registration Authority	3.3.117	**M**	one	
* registrar_identifier	an identifier for the Registrar.	3.3.119	**M**	one	string
registrar contact	the contact information associated with a Registrar	3.3.118	**M**	one	
* contact name	the name of the Contact	3.3.28	**M**	one	string
* contact information	information to enable a Contact to be located or communicated with	3.3.27	**M**	one	string
contact title	the name of the position held by the Contact	3.3.29	O	one	string
documentation_language_identifier	the identifier of the language used for documentation by the Registration Authority	3.3.69	**M**	many	

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Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
* language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	**M**	one	string
country_identifier	[*Language Identification*] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
Submission (of Administered Item)	the relationship of an Administered Item, a Contact, and an Organization involved in a submission of metadata	3.3.131	**M**	one	
Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	**M**		
* organization_name	a designation for the Organization	3.3.94	**M**	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
submission_contact	the contact information associated with a Submission	3.3.132	**M**	one	
* contact name	the name of the Contact	3.3.28	**M**	one	string
* contact information	information to enable a Contact to be located or communicated with	3.3.27	**M**	one	string
contact title	the name of the position held by the Contact	3.3.29	O	one	string

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	Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
	Stewardship (of Administered Item)	the relationship of an Administered Item, a Contact, and an Organization involved in the stewardship of the metadata	3.3.129	**M**		
	Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	**M**		
*	organization_name	a designation for the Organization	3.3.94	**M**	one	string
	organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
	stewardship contact	the contact information associated with a Stewardship	3.3.130	**M**	one	
*	contact name	the name of the Contact	3.3.28	**M**	one	string
*	contact information	information to enable a Contact to be located or communicated with	3.3.27	**M**	one	string
	contact title	the name of the position held by the Contact	3.3.29	O	one	string
	Context (for administered item)	a universe of discourse in which a name or definition is used	3.3.30	**M**	many	
	context_administration_record	the Administration Record for a Context	3.3.31	**M**	one	
*	context_description	the textual description of the Context	3.3.32	**M**	one	string
	context_description_language_identifier	the identifier of the language used in the context description	3.3.33	O	one	
	language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string

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Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
country_identifier	[*Language Identification*] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
Terminological Entry	an entry containing information on terminological units for a specific Administered Item within a Context (subject field)	3.3.133	**M**	one	
Language Section	the part of a Terminological Entry containing information related to one language	3.3.80	**M**	many	
language section language identifier	the identifier of the language used to group a set of Designations and Definitions	3.3.81	**M**	one	
* language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	**M**	one	string
country_identifier	[*Language Identification*] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
Designation (of Administered Item)	the designation of an Administered Item within a Context	3.3.67	**I** / at least one in any Context	many	
* name	[Administered item] a name by which an Administered Item is designated within a specific Context	3.3.83	**M**	one	string
preferred designation	an indicator that the name is a preferred term for an Administered Item within a language	3.3.106	O	one	T/F
Term_definition_pairing			O	one	

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Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
Definition (of Administered Item)	the definition of an Administered Item within a Context	3.3.58	**I** / at least one in any Context	many	
* Definition_text	the text of the Definition	3.3.60	**M**	one	string
preferred definition	an indicator that the definition text is a preferred definition for an Administered Item within a language	3.3.105	O	one	T/F
definition source reference {0..1]	a reference to the source from which the Definition is taken	3.3.59	O	one	
reference_document_identifier	an identifier for the Reference Document	3.3.112	C	one	string
reference organization	the relationship between a Reference Document and an Organization	3.3.116	C	one	
organization_name	a designation for the Organization	3.3.94	C	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
reference_document_language_identifier	the identifier of the natural or special language used in the Reference Document	3.3.93	O	many	
language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string
country_identifier	[*Language Identification*] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
reference_document_title	the title of the Reference Document.	3.3.114	O	one	string

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Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
reference_document_type_description	a description of the type of Reference Document	3.3.115	O	one	string
Reference_Document	a document that provides pertinent details for consultation about a subject	3.3.111	O	many	
reference_document_identifier	an identifier for the Reference Document	3.3.112	C	one	string
reference organization	the relationship between a Reference Document and an Organization	3.3.116	C	many	
organization_name	a designation for the Organization	3.3.94	C	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
reference_document_language_identifier	the identifier of the natural or special language used in the Reference Document	3.3.113	O	many	
language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string
country_identifier	[*Language Identification*] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
reference_document_title	the title of the Reference Document.	3.3.114	O	one	string
reference_document_type_description	a description of the type of Reference Document	3.3.115	O	one	string

NOTE 1
***** - A mandatory elementary metadata attribute

NOTE 2
M – mandatory
O – optional
C – contingent
I – indicative

NOTE 3
In this table, items denoted by "C" are contingent upon the preceding optional item in the table unless otherwise specified.

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B.3 Metadata attribute requirements at each registration status

This clause associates the attributes from in ISO/IEC 11179-3:2003 that used for any Administered Item with the registration status values.

Table B-2 provides the requirements for each metadata attribute based upon the registration status values. The first column is the metadata attribute name. The indentation of the metadata attribute name denotes the sublevel of the attribute. The second column specifies the obligation and conditionality for the metadata attribute from ISO/IEC 11179-3:2003. The third through fourteenth columns specifies the obligation and conditionality for the metadata attribute metadata attributes at the respective registration statuses.

Tables B-3 through B-13 provide a list of metadata attributes that required for each registration status.

Table B-2 — Required elementary metadata attributes at each registration status

		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
Administered Item													
Administration_Record	**M**												
administered_item_identifier	**M**												
item_registration_authority_identifier	**M**												
* International_Code_Designator	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* organization_identifier	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
organization_part_identifier	O	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**		**O**	**O**	
OPI_source	C / If organization_part_identifier is used	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**		**C**	**C**	
* data_identifier	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* version	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* registration_status	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* administrative_status	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* creation_date	**M**	**D**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
effective_date	O				**M**	**M**	**M**				**M**		
last_change_date	O												

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		Lifecycle Status									Documentation Status		
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
until_date	O				I	I	I	M	M		M		
administrative_note	O												
change_description	O												
explanatory_comment	O										M		
origin	O												
unresolved_issue	O												
Registration_Authority	**M**												
Registration_Authority_Identifier	**M**												
* International_Code_Designator	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**D**	
* organization_identifier	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**D**	
organization_part_identifier	O	**D**	**D**	**O**	**O**	**O**	**O**	**O**	**O**		**O**	**D**	
organization part identifier source	C / If organization_part_identifier is used	**D**	**D**	**C**	**C**	**C**	**C**	**C**	**C**		**C**	**D**	
Organization	**M**												
* organization_name	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**D**	**D**	
organization_mail_address	O												
Registrar	**M**												
* registrar_identifier	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**D**	**D**	
registrar contact	**M**												
* contact name	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**D**	**D**	
* contact information	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**D**	**D**	
contact title	O												
documentation_language_identifier	**M**												

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		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
* language_identifier	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**D**	**D**	
country_identifier	O												
organization_mail_address	O												
Submission (of Administered Item)	**M**												
Organization	**M**												
* organization_name	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
organization_mail_address	O												
submission_contact	**M**												
* contact name	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
* contact information	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
contact title	O												
Stewardship (of Administered Item)	**M**												
Organization	**M**												
* organization_name	**M**		**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**		
organization_mail_address	O												
stewardship contact	**M**												
* contact name	**M**		**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**		
* contact information	**M**		**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**		
contact title	O												
Context (for administered item)	**M**												
context_administration_record	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**D**	
* context_description	**M**	**D**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**D**	
context_description_language_identifier	O												
language_identifier	C												

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		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
country_identifier	O												
Terminological Entry	**M**												
Language Section	**M**												
language section language identifier	**M**												
* language_identifier	**M**	**D**	**D**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**D**	
country_identifier	O												
Designation (of Administered Item)	**I** / at least one in any Context												
* name	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
preferred designation	O												
Term_definition_pairing	O												
Definition (of Administered Item)	**I** / at least one in any Context												
* Definition_text	**M**		**M**	**M**	**M**	**M**	**M**	**M**	**M**		**M**	**M**	
preferred definition	O												
definition source reference {0..1]	O				**I**	**I**	**I**						
reference_document_identifier	C				**C**	**C**	**C**						
reference organization	C												
organization_name	C												
organization_mail_address	O												
reference_document_language_identifier	O												
language_identifier	C												
country_identifier	O												

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		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	**Metamodel Obligation / Condition**	**Incomplete**	**Candidate**	**Recorded**	**Qualified**	**Standard**	**Preferred Standard**	**Retired**	**Superseded**		**Historical**	**Application**	
reference_document_title	O												
reference_document_type_description	O												
Reference_Document	O				**I**	**I**	**I**						
reference_document_identifier	C				**C**	**C**	**C**						
reference organization	C												
organization_name	C												
organization_mail_address	O												
reference_document_language_identifier	O				**C**	**C**	**C**						
language_identifier	C				**C**	**C**	**C**						
country_identifier	O				**C**	**C**	**C**						
reference_document_title	O												
reference_document_type_description	O												

NOTE 1
***** - A mandatory elementary metadata attribute

NOTE 2
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 3
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Table B-3 — "Incomplete Status" — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Incomplete
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Incomplete"**
administrative_status	administrative_status	**D**
creation_date	creation_date	**D**
Registration_Authority	Registration_Authority_Identifier	**D**
Organization	organization_name	**D**
Registrar	registrar_identifier	**D**
registrar contact	contact name	**D**
	contact information	**D**
documentation_language_identifier	language_identifier	**D**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	**D**
	context_description	**D**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**D**
Designation (of Administered Item)	name	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-4 — "Candidate" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Candidate
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Candidate"**
administrative_status	administrative_status	**D**
creation_date	creation_date	**M**
Registration_Authority	Registration_Authority_Identifier	**D**
Organization	organization_name	**D**
Registrar	registrar_identifier	**D**
registrar contact	contact name	**D**
	contact information	**D**
documentation_language_identifier	language_identifier	**D**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	**D**
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**D**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-5 — "Recorded" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Recorded
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Recorded"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
Registration_Authority	Registration_Authority_Identifier	**M**
Organization	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	**M**
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-6 — "Qualified" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Qualified
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Qualified"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
effective_date	effective_date	**M**
until_date	until_date	**I**
Registration_Authority	Registration_Authority_Identifier	**M**
Organization	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**
definition source reference	reference_document_identifier	**I**
Reference_Document	reference_document_identifier	**I**
reference_document_language_identifier	language_identifier	**I**
	country_identifier	**I**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-7 — "Standard" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Standard
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Standard"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
effective_date	effective_date	**M**
until_date	until_date	**I**
Registration_Authority	Registration_Authority_Identifier	**M**
Organization	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**
definition source reference	reference_document_identifier	**I**
Reference_Document	reference_document_identifier	**I**
reference_document_language_identifier	language_identifier	**I**
	country_identifier	**I**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
In this table, items denoted by "C" are contingent upon the preceding optional item in the table unless otherwise specified.

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Table B-8 — "Preferred Standard" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Preferred Standard
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Preferred Standard"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
effective_date	effective_date	**M**
until_date	until_date	**I**
Registration_Authority	Registration_Authority_Identifier	**M**
Organization	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**
definition source reference	reference_document_identifier	**I**
Reference_Document	reference_document_identifier	**I**
reference_document_language_identifier	language_identifier	**I**
	country_identifier	**I**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-9 — "Retired" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Retired
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Retired"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
until_date	until_date	**M**
Registration_Authority	Registration_Authority_Identifier	**M**
	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	**M**
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-10 — "Superseded" Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Superseded
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	**M**
	organization_identifier	**M**
	organization_part_identifier	**O**
	OPI_source	**C**
data_identifier	data_identifier	**M**
version	version	**M**
registration_status	registration_status	**"Superseded"**
administrative_status	administrative_status	**M**
creation_date	creation_date	**M**
until_date	until_date	**M**
Registration_Authority	Registration_Authority_Identifier	**M**
	organization_name	**M**
Registrar	registrar_identifier	**M**
registrar contact	contact name	**M**
	contact information	**M**
documentation_language_identifier	language_identifier	**M**
Submission (of Administered Item)		
Organization	organization_name	**M**
submission_contact	contact name	**M**
	contact information	**M**
Stewardship (of Administered Item)		
Organization	organization_name	**M**
stewardship contact	contact name	**M**
	contact information	**M**
Context (for administered item)	context_administration_record	**M**
	context_description	**M**
Terminological Entry		
Language Section		
language section language identifier	language_identifier	**M**
Designation (of Administered Item)	name	**M**
Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-11 — "Application" Status — Required Metadata Attributes

	Metadata Attribute Structure	Elementary Metadata Attribute	Application
	Administration_Record		
	administered_item_identifier		
	item_registration_authority_identifier	International_Code_Designator	**M**
		organization_identifier	**M**
		organization_part_identifier	**O**
		OPI_source	**C**
*	data_identifier	data_identifier	**M**
	version	version	**M**
	registration_status	registration_status	**"Application"**
	administrative_status	administrative_status	**M**
	creation_date	creation_date	**M**
	Registration_Authority	Registration_Authority_Identifier	**USE DEFAULT**
	Organization	organization_name	**USE DEFAULT**
	Registrar	registrar_identifier	**USE DEFAULT**
	registrar_identifier		**USE DEFAULT**
	registrar contact	contact name	**USE DEFAULT**
		contact information	**USE DEFAULT**
	documentation_language_identifier	language_identifier	**USE DEFAULT**
	Submission (of Administered Item)		
	Organization	organization_name	**M**
	submission_contact	contact name	**M**
		contact information	**M**
	Context (for administered item)	context_administration_record	**USE DEFAULT**
		context_description	**USE DEFAULT**
	Terminological Entry		
	Language Section		
	language section language identifier	language_identifier	**USE DEFAULT**
	Designation (of Administered Item)	name	**M**
	Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
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Table B-12 — "Historical" Status — Required Metadata Attributes

	Metadata Attribute Structure	Elementary Metadata Attribute	Historical
	administered_item_identifier		
	item_registration_authority_identifier	International_Code_Designator	**M**
		organization_identifier	**M**
		organization_part_identifier	**O**
		OPI_source	**C**
*	data_identifier	data_identifier	**M**
*	version	version	**M**
*	registration_status	registration_status	**"Historical"**
*	administrative_status	administrative_status	**M**
*	creation_date	creation_date	**M**
	effective_date	effective_date	**M**
	until_date	until_date	**M**
	explanatory_comment	explanatory_comment	**M**
	Registration_Authority	Registration_Authority_Identifier	**M**
	Organization	organization_name	**D**
	Registrar	registrar_identifier	**D**
	registrar contact	contact name	**D**
		contact information	**D**
	documentation_language_identifier	language_identifier	**D**
	Submission (of Administered Item)		
	Organization	organization_name	**M**
	submission_contact	contact name	**M**
		contact information	**M**
	Stewardship (of Administered Item)		
	Organization	organization_name	**M**
	stewardship contact	contact name	**M**
		contact information	**M**
	Context (for administered item)	context_administration_record	**M**
		context_description	**M**
	Terminological Entry		
	Language Section		
	language section language identifier	language_identifier	**M**
	Designation (of Administered Item)	name	**M**
	Definition (of Administered Item)	Definition_text	**M**

NOTE 1
M – mandatory
O – optional
C – contingent
I – indicative
D – mandatory but using Metadata Registry default

NOTE 2
In this table, items denoted by "C" are contingent upon the preceding optional item in the table unless otherwise specified.

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Annex C
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Suggested functional operating procedures — Roles and Responsibilities

C.1 Introduction

The ISO/IEC 11179 Metadata Registry family of standards and technical reports provides the specifications for establishing systems that support the dissemination and harmonization of Administered Items (e.g. data elements, data element concepts, value domains) from different stakeholder groups. Most often a stakeholder community is large and diverse. The definition of key data elements and data element concepts as well as other Administered Items will arise from numerous sources. Moreover different groups will have an interest in the definition of the same Administered Item, which could lead to the prospect of duplicate or similar definitions being developed.

This Annex identifies suggested roles and responsibilities and provides suggested functional operating procedures for the use of the Metadata Registry by role. These procedures support documentation, standardization, and harmonization processes that facilitate different working groups sharing Administered Items. Annex D details suggested procedures for organizational roles and responsibilities (and their relationships), and suggested procedures for registration status levels.

Organizational roles associated with the Administered Item registration process should be established. The organizational roles should include the, Registration Authority, Registrar, Stewards, Submitters, and Read-only users. A summary of each role is provided in this Annex. Annex D provides a description of the purpose, specific responsibilities, and membership or selection criteria for each role.

Figure C-1 provides a high level view of how these organizational roles are related within the context of a Metadata Registry.

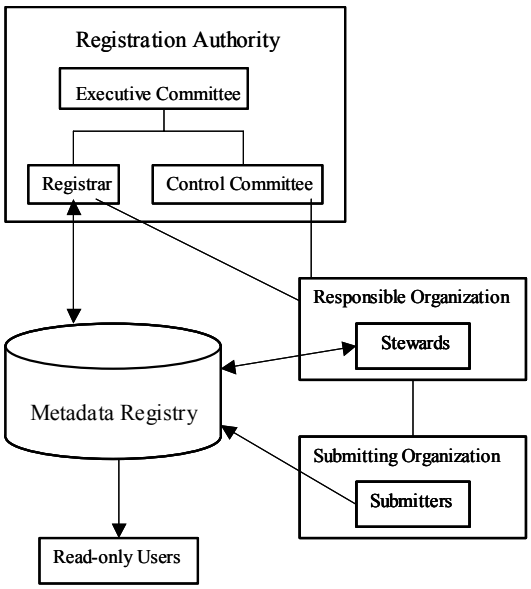

Figure C-1 — Organizational roles to the Metadata Registry and their relationships

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C.2 Roles associated with the Metadata Registry

C.2.1 General

There are three types of Registration Acting Bodies (RAB) in the framework of this part of ISO/IEC 11179: Registration Authorities, Submitting Organizations, and Responsible Organizations. Each type of Registration Acting Body should meet the criteria, fulfil the roles, and assume the responsibilities prescribed in the following clauses of this part of ISO/IEC 11179.

C.2.2 Role of Registration Authorities (RA)

C.2.2.1 Overall Registration Authority

The Metadata Registry Registration Authority should be an organizational unit that desires to operate and manage a Metadata Registry based upon the ISO/IEC 11179 Metadata Registry standard. It is envisioned that any organization wishing to become a Registration Authority and establish a Metadata Registry for the purpose of registering Administered Items may do so.

A Registration Authority should establish and publish procedures for the operation of its Metadata Registry. A Registration Authority should receive and process proposals from Submitting Organizations for registration of Administered Items falling within its registration domain. A Registration Authority is responsible for maintaining the metadata register of Administered Items and issuing of international registration data identifiers (IRDIs).

C.2.2.2 Registrar

The Registrar should be an organizational unit within the Registration Authority, expert in registration processes, responsible for facilitating the registration of Administered Items and making those Administered Items widely accessible and available to the community. The Registrar may be viewed as the contact for the Registration Authority. The Registration Authority should appoint the Registrar.

C.2.2.3 Executive Committee

The Executive Committee should be an organizational unit established by the Registration Authority. It should be responsible for administering responsibilities and authority delegated by the Registration Authority. Responsibilities of the Executive Committee should include overall metadata registration policies and business direction of the Metadata Registry.

C.2.2.4 Control Committee

The Control Committee should be the organizational unit of the Registration Authority that is constituted to provide technical direction and harmonization of Administered Items for the metadata register. The structure, staffing, procedures, and membership of the Control Committee are determined by the Registration Authority. The membership of the Control Committee may include Registrars and Stewards.

C.2.3 Role of Responsible Organizations (RO)

C.2.3.1 Overall Responsible Organization

Responsible Organizations are usually designated by an organizational unit to insure consistence of related Administered Items managed by its Submitting Organizations. In the absence of a designated Responsible Organization, a Submitting Organization should act as a Responsible Organization.

A Responsible Organization is the organization, or part thereof, that is responsible for the integrity and accuracy of the attributes values of the Administered Item; e.g., the semantics of Administered Items maintained and controlled by a Registration Authority. The Responsible Organization is the subject matter expert for the Administered Item.

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The Responsible Organization, at the Registration Authority's request, should review proposals from Submitting Organizations on relevant attributes, e.g., name, definition, and permissible values for the Administered Item's attributes. The Responsible Organization should inform the Registration Authority of any essential modifications in the specification of the assigned Administered Items.

C.2.3.2 Steward

A Steward shall be an organizational unit of the Metadata Registry community. Stewards should be responsible for the accuracy, reliability, and currency of descriptive metadata for Administered Items at a registration status level of “Qualified” or above within an assigned area. A process defined by the Registration Authority approves stewards. Stewards should be responsible for metadata within specific areas and may have responsibilities that cut across multiple areas (e.g., value domains such as date, time, location, codes of the Countries of the World). The Steward can be viewed as a contact for the Responsible Organization.

C.2.4 Role of Submitting Organizations (SO)

C.2.4.1 Overall Submitting Organization

All Submitting Organizations wishing to register Administered Items should be able to do so in accordance with the procedures prescribed in this part of ISO/IEC 11179 and the procedures established by the Registration Authority. Each Registration Authority may establish its own criteria for registration eligibility.

A Submitting Organization wishing to register an Administered Item should follow the procedures and requirements prescribed in this part of ISO/IEC 11179 and in and the procedures established by the Registration Authority for submission to the appropriate Registration Authority.

C.2.4.2 Submitter

A Submitter should be an organizational unit approved by a process defined by the Registration Authority. A Submitter is authorized to identify and report Administered Items suitable for registration. The Submitter can be viewed as a contact for the Submitting Organization.

C.2.5 Role of Others

C.2.5.1 All others

A Registration Authority may establish guidelines on the use of their Metadata Registry by other users. The general goal should be to provide an open area that anyone may use to obtain and explore the metadata that is managed within the Metadata Registry.

C.2.5.2 Read-only user

A Read-only User should be an organizational unit or individual that is approved to review the contents of the metadata register. A read-only user has access to the contents in the metadata register, but is not permitted to submit, alter, or delete contents.

C.3 Responsibilities of Registration Acting Bodies (RAB)

C.3.1 Responsibilities of Registration Authorities (RA)

In order to establish itself as a Registration Authority, an organization should complete the following:

- Secure a Registration Authority Identifier in accordance with Clause A.3.1.

- Prescribe, amend, and interpret the procedures to be followed for the registration of Administered Items in accordance with this part of ISO/IEC 11179.

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- Determine any additional conditions specifically required by its domain of registration within its Metadata Registry.

- Specify the format for each attribute listed in Annex B of this part of ISO/IEC 11179 and for any additional attributes that the Registration Authority may deem necessary, and specify the media by which an Administered Item may be submitted for registration. The registration form and accompanying procedure should be made available to requesting Submitting Organizations.

- Determine the format and media in which items for administration should be submitted. The Registration Authority should also provide Submitting Organizations with guidance on the submission of items for administration.

- Establish and publish the rules by which its metadata register should be made available. The Registration Authority shall specify the allowable users, the accessible contents, the frequency of availability, and the language(s), media, and format in which the information is provided for the Metadata Registry.

Regarding applications for registering Administered Items, a Registration Authority should fulfil the following responsibilities:

- Receive and process applications for the registration of Administered Items, assign international registration data identifier values, and maintain a metadata register in accordance with the following provisions.

    - Consult the appropriate Responsible Organizations when requests affect the mandatory attributes of the Administered Items being registered.

    - Handle all aspects of the registration process in accordance with good business practice and, in particular, take all reasonable precautions to safeguard the metadata register. Specifically, the responsibilities of a Registration Authority are as follows:

        - Receive applications for the registration of Administered Items from its Submitting Organizations.

        - Review and facilitate the progression of the applications through the registration cycle.

        - Assign appropriate Registration Status.

        - Notify Submitting Organizations of its decisions according to the procedure specified in it rules.

C.3.2 Responsibilities of Responsible Organizations (RO)

A Responsible Organization should:

- At the Registration Authority's request, advise on the semantics, name, and permissible values for the Administered Item's attribute values submitted for registration.

- Notify the Registration Authority of any amendments to the Administered Items assigned to the Responsible Organization.

- Decide, in case of confusion and/or conflict, on the attribute values of the assigned Administered Items.

C.3.3 Responsibilities of Submitting Organizations (SO)

A Submitting Organization is responsible for the following activities:

- Providing the information specified in Annex B in the form required by the Registration Authority.

- Providing any additional information that may reasonably be required by the Registration Authority to enable it to perform its responsibilities.

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- Ensuring that when an Administered Item has been registered, specification of the attribute values of the Administered Item is not changed without first advising the Registration Authority.

C.4 Responsibilities of Organizations within Registration Acting Bodies

C.4.1 Registrar

The Registrar provides a single individual point-of-contact responsible for managing and maintaining information about data in the metadata register, under the authority of the Registration Authority. The Registrar should be responsible for:

a) Monitoring and managing the Metadata Registry contents, i.e. the metadata register (Note: The Metadata Registry is established, operated, and maintained by the Registration Authority).

b) Enforcing policies, procedures, and formats for populating and using the Metadata Registry.

c) Proposing procedures and standard formats for the Metadata Registry to the Control Committee for consideration.

d) Recording current registration status for Administered Items in the metadata register.

e) Ensuring access for authorized users to contents in the Metadata Registry.

f) Assisting in the progression of Administered Items through the registration status levels.

g) Assisting in the identification and resolution of duplicate or overlapping semantics of Administered Items in the metadata register.

h) Acting on direction from the Registration Authority.

i) Effecting registration of Administered Items in external metadata registers or dictionaries.

j) Enforcing data registration procedures for submitting Administered Items to the Metadata Registry, e.g.,

   - How to prepare, submit, and process submissions of Administered Items.
   - How the Metadata Registry is used to avoid duplicate Administered Items submissions to the metadata register.
   - How the Metadata Registry is used to effect harmonization of data across metadata registers of participating organizations.
   - How external metadata registers are used as a source of Administered Items for reuse in the metadata register.

k) Maintaining a separate document recording the appropriate contact information for all members of the Control Committee and the Executive Committee.

l) Adding new users or organizational entities that may become authorized to access the metadata register.

m) Maintaining other controlled word lists of the Metadata Registry.

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C.4.2 Stewards

Stewards provide specific expert points of contact responsible for coordinating the identification, organization, and establishment of registered data for use throughout the enterprise within an assigned functional area.

Stewards should be responsible for:

a) Co-ordinating the identification and documentation of Administered Items within their assigned functional area.

b) Ensuring that appropriate Administered Items in their assigned functional area are properly registered.

c) Co-ordinating with other Stewards to attempt to prevent or resolve duplicated efforts in defining Administered Items.

d) Reviewing all Administered Items once they are in the “Recorded” status to identify and attempt to resolve conflicts among Administered Items with other Stewards' assigned functional areas.

e) Ensuring the quality of metadata attribute values for Administered Items they propose for the “Qualified” registration status level, reusing standardized data from external metadata registrers where applicable.

f) Proposing “Standard” registration status level Administered Items in their assigned functional area.

g) Proposing “Preferred Standard” registration status level Administered Items in their assigned functional area.

h) Ensuring that data registration procedures and formats are followed within their assigned functional area.

i) Recommending Submitters to the Registration Authority.

C.4.3 Submitters

Submitters are organization elements that are familiar with or engaged in development and operational environments. Submitters maintain current Administered Items and are engaged to describe and submit new Administered Items following the registration requirements.

A Submitter should be responsible for:

a) Identifying himself to the Registrar.

b) Identifying and documenting Administered Items appropriate for registration in the metadata register.

c) Submitting Administered Items to the metadata register.

d) Ensuring the completeness of mandatory metadata attributes for Administered Items proposed for the “Recorded” registration status level.

C.4.4 Read-only users

A Read-only User is an organizational unit approved by the Registrar to review the contents of the metadata register. Read-only Users may not add to, delete from, or otherwise modify the contents of the metadata register.

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C.4.5 Control Committee

The Control Committee provides overall technical direction of, and resolution of technical issues associated with, the Metadata Registry, its contents and its technical operations.

The Control Committee should be responsible for:

g) Overall conduct of registration operations.

h) Promoting the reuse and sharing of data in the metadata register within and across functional-areas, and among external interested parties to the enterprise.

i) Progressing Administered Items through “Qualified”, “Standard”, and “Preferred Standard” registration status levels.

j) Resolving semantical issues associated with registered Administered Items, e.g., overlap, duplication, etc.

k) Approving updates to Administered Items previously placed in the metadata register with the “Qualified”, “Standard”, or “Preferred Standard” registration status levels.

l) Proposing Metadata Registry policies to the Executive Committee for approval.

m) Approving authorized Submitters, Read-only Users, and types of users, of the Metadata Registry.

n) Approving Metadata Registry content, procedures, and formats.

o) Submitting management-related recommendations and issues to the Executive Committee.

p) Acting on directions from the Executive Committee.

q) Meeting periodically in face-to-face meetings, with additional meetings and teleconferences held as needed.

The Control Committee will normally fulfil its responsibilities via consensus building in accordance with an established procedure. Intractable issues may be resolved by an established procedure.

C.4.6 Executive Committee (ExCom)

The Executive Committee should be responsible for overall policy and business direction for the Metadata Registry, to include:

a) Establishing overall Metadata Registry policies.

b) Resolution of all business management issues pertaining to the Metadata Registry, e.g., copyrights, stewardship, Executive Committee membership, etc.

c) Ensuring the long-term success and performance of the Metadata Registry.

d) Establishing and updating the Metadata Registry charter and strategic plans.

e) Meeting periodically in face-to-face meetings, with additional meetings and/or teleconferences held as needed.

The Executive Committee will normally fulfil its responsibilities via consensus building. Intractable issues may be resolved by an established procedure.

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Annex D
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Suggested functional operating procedures — Concept of operations

D.1 Registration concept of operations

This Annex defines the suggested overall concept of operations for the Metadata Registry. It shows suggested roles and responsibilities and shows suggested functional operating procedures for the use of the Metadata Registry. The suggested operational procedures for the Metadata Registry are summarized in this annex. These procedures describe registration and harmonization practices for the Metadata Registry. See Annex C for organizational roles and responsibilities (and their relationships), and Clause 4.1.3.2 for registration status level definitions. This annex describes the registration activities associated with Submitters, Stewards, and the registrar and roles of the Control Committee. Figure D-1 summarizes these functional activities.

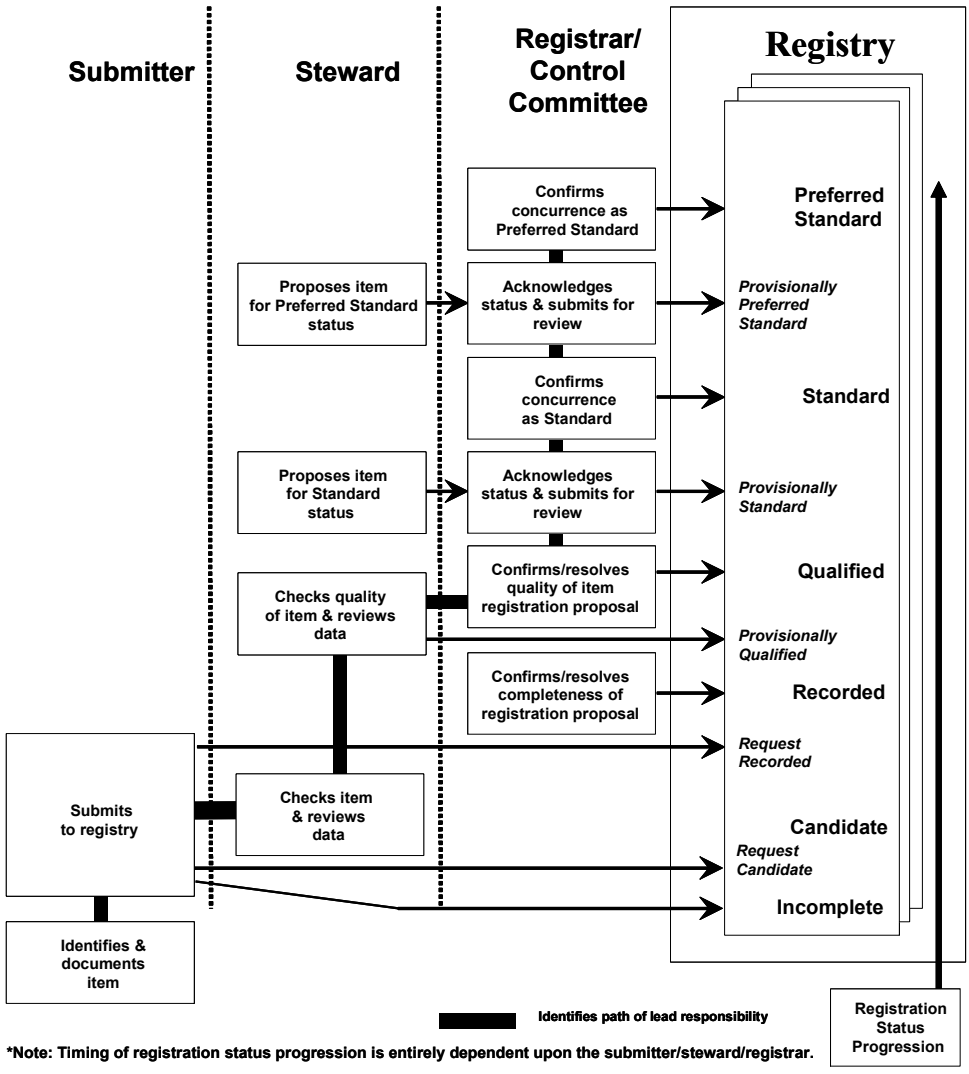

Figure D.1 — Registration functional activities

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D.2 Registration initiation

All Submitters accomplish the Submitter registration activities in the same way in accordance with these functional operation procedures so that Administered Items are consistently and accurately registered. The responsibility of the Submitter is to propose and document Administered Items for registration with the registration status of “Incomplete”; and, if desired, propose Administered Items for the registration status of “Candidate” then “Recorded”. A Submitter acquires an understanding of Administered Items, their context and sources, and their significance in the course of accomplishing normal operational, design, development, or management activities.

D.3 Quality review

The responsibility of the Steward, for Administered Items in an assigned functional area, is to ensure that quality registration candidates are passed to the Registrar for presentation to the Control Committee. Presented candidates are evaluated to see if they meet the criteria for “Qualified” registration status. Stewards also may recommend Administered Items for “Standard” and “Preferred Standard” registration status.

D.4 Metadata Registry administration

The responsibility of the Registrar is to coordinate the Metadata Registry environment and manage the Metadata Registry, making its contents as widely accessible as feasible. Administrative levels may be established to track the progression of an Administered Item in the transition from one status level to the next. Some potential examples are:

a) Provisionally Qualified — An Administered Item with the “Provisionally Qualified” status means that a Steward has confirmed that the mandatory metadata attributes are complete and conform to applicable metadata attribute quality requirements. The Steward is authorized to promote Administered Items at the “Recorded” status to the administrative status of “Provisionally Qualified” at such time as the Steward believes that all quality requirements have been achieved.

b) Provisionally Standard — An Administered Item with the “Provisionally Standard” status means that a Steward proposes the Administered Item as “Standard” for general use in the registry community; however, certification of “Standard” status of the Administered Item by the Control Committee is not yet complete. The Steward is authorized to promote Administered Items from the “Qualified” level to the “Provisionally Standard” at such time as the Steward believes the Administered Item should be a “Standard” Administered Item.

c) Provisionally Preferred — An Administered Item with the “Provisionally Preferred” status means that a Steward proposes the Administered Item as “Preferred Standard" for preferred use in the registry community; however, certification of “Preferred Standard” status of the Administered Item by the Control Committee is not yet complete. The Steward is authorized to promote Administered Items from the “Standard” level to the “Provisionally Preferred” at such time as the Steward believes the Administered Item should be a “Preferred Standard” Administered Item.

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Annex E
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Suggested functional operating procedures — Procedures

E.1 General procedures

E.1.1 Review and Response

Submissions shall be reviewed according to the following steps:

1. Preliminary review to verify completeness of the submission
2. Applicant's review to authenticate the applicant's identity and supporting organizational and contact information.
3. Technical review of the submission, if any.
4. Processing the submission in the registry (e.g., making the additions, changes, deletions).
5. Responding to the applicant in writing and/or E-mail.
6. Publishing updates, if applicable.

E.1.2 Rejection Criteria

The submission may be rejected for any of the following reasons:

1. If the submission does not provide the required (mandatory) information
2. If the submission provides false or misleading information.
3. If the applicant does not respond to questions about clarifications or ambiguities within the submission.
4. If the submission is inconsistent with the requirements of the registration.
5. If the registration requires a technical review and the submission fails the technical review.

In all cases, the applicant has Metadata Registry specific period of time to respond and remedy the issue before the submission is formally rejected.

E.1.3 Revision and review procedures

Once registered, an Administered Item may be revised and/or reviewed, or in special cases possibly withdrawn.

E.1.4 Revision procedures

E.1.4.1 General

Unless specified otherwise, the following revision procedures apply to all Administered Items.

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E.1.4.2 Changing registrant contact information

Submitters and Stewards may update their contact information. Updating only contacting information (1) shall not require a technical review, and (2) is not considered a revision or review for the purposes of the systematic review cycle.

E.1.4.3 Update procedures

Submitters and Stewards may update information about their Administered Items, as permitted by the Metadata Registry procedures.

Using the current procedures, if an initially an Administered Item would require a technical review, then a technical review shall be performed on an updated registration.

Note: In other words, the requirement for technical reviews is the same for initial registrations as it is for updated registrations.

E.1.4.4 Registrant transfer procedures

A Submitter may reassign a registered item to another Submitter.

A Steward may reassign a registered item to another Steward.

Using the current procedures, if an initially registered item would require a technical review, then a technical review shall be performed on transferred registration.

Note: In other words, the requirement for technical reviews is the same for initial registrations as it is for transferred registrations.

E.1.5 Review procedures

E.1.5.1 General

Unless specified otherwise, the following review procedures apply to all Administered Items.

Note: One purpose for reviewing Administered Items is to update any information associated with the Administered Item; another purpose is to confirm that the existing registered information is still current and valid.

E.1.5.2 Registrant-initiated review procedures

A registrant may have its Administered Item reviewed.

E.1.5.3 Period of validity

The Registration Authority should establish and publish a period of validity for items that are to be maintained within the metadata register.

E.1.5.4 Systematic review procedures

All Administered Items should be reviewed on a regular basis. After the initial registration or the last registration update, Administered Items shall be reviewed within the period of validity.

The Registration Authority should establish and publish the procedures for systematic review. These procedures should include:

1. The time before that a notification of an anticipated registration review shall be sent to the Steward prior to the review date.

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2. The time before that a reminder notice shall be sent again prior to the review date.

3. The means by which reviews are conducted and recorded by the Stewards.

4. The process for handling items that were to be reviewed but were not reviewed.

Note: Changing contact information is not considered a registration update.

E.1.6 Dispute resolution

The Registration Authority should establish and publish procedures for dispute resolution.

If there is a dispute between an applicant, Submitter and/or Steward, and the Registration Authority, the Registration Authority should make reasonable efforts to resolve the dispute.

The applicant should (1) identify the problem in writing, (2) identify potential solutions for a favourable outcome, (3) provide additional contact information (e.g., mobile phone), as necessary, and (4) communicate the dispute to the Registration Authority.

Upon receipt of the dispute, the Registration Authority should contact the applicant within a time frame specified in the Metadata Registry procedures with a potential resolution or a proposed timeline for resolution.

If the applicant and the registration authority are unable to resolve the dispute, the applicant may appeal according to the established procedures for dispute resolution.

E.2 Progression through registration status categories

E.2.1 General

Administered Items shall have a registration status. For each registration status, the steps for progression are:

E.2.2 “Incomplete” status Administered Items

Step 1. Submitter identifies Administered Items appropriate for this status level in the course of normal activities. Submitter prepares a registration proposal documenting as many metadata attributes as possible described in the standard. Submitter validates the definitions. Submitter initiates this status for Administered Items they submit to the metadata register.

Step 2. Submitter reviews Administered Items to determine whether the Administered Item should be progressed from an “Incomplete” registration status. If the Administered Item is not to be progressed, it is held in the metadata register in its current status level.

Step 3. Steward also reviews Administered Items to determine, in co-ordination with an appropriate Submitter whether an Administered Item should be progressed from an “Incomplete” registration status. If the Administered Item is not to be progressed, it is held in the metadata register in its current status level.

Step 4. Registrar also reviews Administered Items to determine, in co-ordination with the appropriate Submitter and Steward whether an Administered Item should be progressed from an “Incomplete” registration status. An Administered Item may be progressed into the “lifecycle” registration status categories towards standardization. The Administered Item may be placed in a “documentation” registration status category of “Application” or “Historical”. The Registrar, Submitter, and Steward may determine that the item is not appropriate for the metadata register and have it removed from the metadata register. If the Administered Item is not to be progressed or removed, it is held in the metadata register in its current status level.

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Possible progression from "Incomplete" status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Candidate
- Historical
- Application

E.2.3 "Candidate" status Administered Items

Step 1. Submitter determines that an Administered Item should be progressed from "Candidate" registration status. The Submitter confirms that mandatory metadata attributes are complete, updating the metadata attributes as necessary. The Submitter then requests "Recorded" or another status for the Administered Item.

Step 2. The Steward with the Submitter reviews Administered Items to determine whether the Administered Item has all the required and desirable metadata attributes and therefore should be progressed from a "Candidate" registration status.

Step 3. Steward determines that an Administered Item should be progressed to "Recorded" registration status. For such Administered Items, the Steward confirms that mandatory metadata attributes are complete, updating the metadata attributes as necessary. The Steward then requests "Recorded" or another status for the Administered Item. If the Administered Item is not to be progressed, it is held in the metadata register in its current status level.

Step 4. Upon request for "Recorded" registration status from the Submitter and Steward, the Metadata Registry system checks that the mandatory metadata attributes of the Administered Item are present and requests a change of the registration status to "Recorded" for Administered Items with entries containing all mandatory metadata attributes. If any mandatory metadata attribute is missing an entry, the Metadata Registry notifies the requester of the missing metadata attribute(s).

Step 5. Registrar also reviews Administered Items to determine, in co-ordination with the appropriate Submitter and Steward whether an Administered Item should be progressed from a "Candidate" registration status. The Registrar, Submitter, and Steward may determine that the item is not appropriate for the metadata register and have it removed from the metadata register. If the Administered Item is not to be progressed, it is held in the metadata register in its current status level.

Possible progression from "Candidate" status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Recorded
- Historical
- Application

E.2.4 "Recorded" status Administered Items

Step 1. Stewards will review "Recorded" registration status level Administered Items periodically with the view of possibly progressing an Administered Item to the registration status level of "Qualified". The Steward reviews the metadata attributes for conformance to quality requirements of this International Standard and any other requirements as may be agreed to by the Control Committee as published as a registry management policy. If the metadata attributes do not meet these quality requirements, the Steward assists the Submitter in achieving the quality requirements by referring the Submitter to appropriate policies, procedures, and guidelines.

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Step 2. The Steward checks pertinent external registries or other external data dictionaries to determine if an Administered Item has already identified in another domain, outside of this community, that fulfils the needs of the this community and is satisfactory to the original Submitter. The extent of this check of external sources of Administered Items depends upon the Steward's knowledge of potential appropriate external sources. The Steward may consult with the Registrar, who could maintain and publish lists of external registries that have been found useful to the community.

NOTE When Administered Items from foreign registers are reused in the metadata register, they may go in as "Candidate" and be progressed in their native form (provided minimum metadata attributes for external Administered Items are completed). Alternatively, they may be progressed to "Recorded" registration status with local changes (provided minimum metadata attributes for external Administered Items are completed).

If an external Administered Item is so identified, that external Administered Item may be put forward and reused in lieu of the specific Administered Item proposed by the Submitter.

Step 3. The Registrar reviews all "Provisionally Qualified" status Administered Items periodically to re-verify completeness of mandatory metadata attributes and to confirm quality requirements of the metadata attributes for the Administered Item(s), including uniqueness of its identifier, quality of its definition(s).

If quality requirements are met, the registrar shall progress the Administered Item to the "Qualified" status.

If quality requirements are not met, the registrar supports the Steward and the Submitter in taking any actions necessary to bring the metadata attributes of the Administered Item to quality standards, if possible. If not, the Administered Item is retained on hold at the "Recorded" registration status level. Once such quality standards are achieved for appropriate metadata attributes, the Registrar submits a listing of such Administered Items proposed for "Qualified" registration status, together with all supporting metadata attributes, to the Control Committee periodically for the Control Committee for approval as Qualified Administered Items. If Administered Items are not approved by the Control Committee to the "Qualified" registration status level, they are reverted to the "Recorded" registration status.

Final resolution as to "Qualified" registration status level may result in confirmation of the item as a new "Qualified" Administered Item, a new version of a previously "Qualified" Administered Item, or recognition of the item as already established in the "Qualified" status. In this case, or if the registered Administered Item has been previously established as a "Qualified" Administered Item in the metadata register, the Steward and Submitter, as well as associated systems developers, will reuse such Administered Items in their application development efforts. This resolution may also re-assign responsibility for the registered Administered Item to another Steward.

Possible progression from Recorded status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Qualified
- Retired
- Superseded

E.2.5 "Qualified" status Administered Items

Step 1. Stewards and Registrar will review "Qualified" registration status level Administered Items periodically with the view of possibly progressing an Administered Item to the registration status level of "Standard". For any Administered Items so identified, the Registrar updates the status level to "Provisionally Standard" and the Steward provides the Registrar with a short statement as to why such Administered Items should be progressed to the "Standard" registration status level.

Step 2. The Registrar reviews all Administered Items in the "Provisionally Standard" status periodically to confirm it as a viable "Standard" Administered Item. The Registrar submits a listing of all Administered Items proposed for the "Standard" registration status, together with their metadata attributes and the Steward's statement, periodically to the Control Committee for approval as "Standard" data. A key focus of review by the

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Registrar and the Control Committee is the identification and resolution of overlapping or redundant Administered Items among the Stewards. The Registrar then changes the registration status level of approved Administered Items to “Standard”. If Administered Items are not approved by the Control Committee to the “Standard” registration status level, they revert to the “Qualified” registration status. If quality requirements are met, the registrar shall progress the Administered Item m to the “Standard” status.

Step 3. Stewards and Registrar will review “Qualified” registration status level Administered Items periodically with the view of possibly progressing an Administered Item to the registration status level of “Retired”. For any Administered Items so identified, the Registrar updates the status level to “Provisionally Retired” and the Steward provides the Registrar with a short statement as to why such Administered Items should be progressed to the “Retired” registration status level. If “Provisionally Retired” Administered Items are not approved by the Control Committee to the Retired registration status level, they revert to the “Qualified” registration status.

Possible progression from “Qualified” status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Standard
- Retired
- Superseded

E.2.6 “Standard” status Administered Items

Step 1. Stewards will review “Standard” registration status level Administered Items periodically with the view of possibly progressing an Administered Item to the registration status level of “Preferred Standard”. For any Administered Items so identified, the Steward may update the administration status level to something like “Provisionally Preferred” and provides the Registrar with a short statement as to why such Administered Items should be progressed to the “Preferred Standard" registration status level.

Step 2. The Registrar reviews all Administered Items in the “Provisionally Preferred” registration status periodically to confirm it as a viable “Preferred Standard” Administered Item. The Registrar submits a listing of all Administered Items proposed for the "Preferred Standard” registration status, together with their metadata attributes and the Steward's statement, to the Control Committee periodically at the Control Committee for approval as “Preferred Standard” Administered Item. A key focus of review by the Registrar and the Control Committee is the identification and resolution of whether an Administered Item is to be preferred for use within this Metadata Registry community. The Registrar then changes the registration status level of approved Administered Items to “Preferred Standard”. If Administered Items are not approved by the Control Committee to the “Preferred Standard” registration status level, they retain the “Standard” registration status. If quality requirements are met, the registrar shall progress the Administered Item to the “Preferred Standard” status.

Possible progression from “Standard” status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Preferred Standard
- Retired
- Superseded

E.2.7 “Preferred Standard” status Administered Items

Step 1. Stewards will review “Preferred Standard” registration status level Administered Items periodically with the view of insuring that an Administered Item is still to remain at the registration status level of “Preferred Standard”.

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Step 2. The Registrar submits a listing of all Administered Items proposed for downgrading to the “Standard” registration status, together with their metadata attributes and the Steward's statement, to the Control Committee meetings for approval as “Standard” data. A key focus of review by the Registrar and the Control Committee is the change in the Metadata Registry community's preference for the Administered Item.

Possible progression from “Preferred Standard” status. The Administered Item may be left in the current status or progressed to one the following registration statuses.

- Standard
- Retired
- Superseded

E.2.8 “Retired” status Administered Items

Possible progression from “Retired” status. Administered Items in this registration status should not change status.

- There is no progression for this registration status

E.2.9 “Superseded” status Administered Items

Step 1. Registrars and Stewards will review “Superseded” registration status level Administered Items periodically with the view of possibly progressing an Administered Item to the registration status level of “Retired”. For any Administered Items so identified, the Registrar may update the administrative status level to something like “Provisionally Retired” and the Steward provides the Registrar with a short statement as to why such Administered Items should be progressed to the “Retired” registration status level. If “Provisionally Retired” Administered Items are not approved by the Control Committee to the “Retired” registration status level, they retain the “Superseded” registration status.

Possible progression from “Superseded” status. The Administered Item may be left in the current status or progressed to the following registration status.

- Retired

E.2.10 “Historical” status Administered Items

Possible progression from “Historical” status. Administered Items in this registration status should not change status.

- There is no progression for this registration status

E.2.11 “Application” status Administered Items

Possible progression from “Application” status. Administered Items in this registration status will probably not change status. However, there may be circumstances where this may be progressed to the “Candidate” status.

- Candidate

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E.3 Change management procedures

E.3.1 Change procedures for Administered Items in the metadata register

Procedures for proposing changes to an Administered Item in the metadata register are the same as for new proposals, except that the Steward should involve the original Submitter of the Administered Item in the event a Submitter other than the original Submitter is proposing changes. Only the original Submitter of an Administered Item or responsible Steward for Administered Items at registration status of "Qualified" or higher should edit an Administered Item. The Metadata Registry should automatically notify Stewards recorded in the Relevant Groups metadata attribute of any changes to Administered Items in a Registration Status of "Recorded". Changes to Administered Items in a Registration Status of "Qualified" or higher should not be made without Control Committee approval. The Steward mediates any conflicts between Submitters associated with a proposed change. Similarly, when the proposal is forwarded to the Registrar, other relevant Stewards should be involved in review of the proposal and the Registrar will mediate any conflicts between the Stewards. The Registrar reports Administered Item change proposals for Administered Item at "Qualified" and above to the Control Committee with appropriate change of version or a new Administered Item due to substantive change in semantics or representational form of the Administered Item. Mere refinement of semantics, change to administrative metadata attributes, or change of registration status do not result in version changes. Stewards should determine whether or not the semantics of an Administered Item have changed significantly enough to warrant a version change. Stewards also have to determine whether changes warrant a new ID, not just a new version. Additions to codeset values may or may not result in version changes as specified in the Metadata Registry procedures.

E.3.2 Retirement procedures for Administered Items in the metadata register

In the event an Administered Item in the metadata register is proposed for retirement, generally the same procedures are followed as for Administered Item registration change proposals. "Retired" Administered Items are not to be used as compared to superseded Administered Items which maybe used.

An Administered Item in the metadata register might be proposed for retirement for a number of reasons, for example it might be replaced by entirely new Administered Item in the metadata register or it might have been inappropriately placed in the metadata register. "Retired" Administered Items should be linked to the superseding Administered Item, if any, by the Submitter or Steward in such a way that the effective date of superseding data is recorded (with Last Change Date) and a mapping of the old and new Administered Item in the metadata register is preserved.

The status of an Administered Item proposed for retirement is changed to "Retired" by the registrar for Administered Items in the "Qualified" registration status or higher after presentation to the Control Committee. The Submitter may change the registration status of Administered Items at the "Recorded" levels to "Retired" at any time, without review by the Control Committee.

E.3.3 Superseding procedures for Administered Items in the metadata register

In the event an Administered Item in the metadata register is proposed to be superseded, generally the same procedures are followed as for Administered Item registration change proposals. Superseded Administered Items may be used as compared to retired Administered Items which should not be used.

An Administered Item in the metadata register might be proposed to be superseded for a number of reasons, for example it might be superseded by a new Administered Item, it might be replaced by entirely new Administered Item in the metadata register, or it might have been inappropriately placed in the metadata register. "Superseded" Administered Items should be linked to the superseding Administered Item, if any, by the Submitter or Steward in such a way that the effective date of superseding data is recorded (with Last Change Date) and a mapping of the old and new Administered Item in the metadata register is preserved.

The status of an Administered Item proposed for to be superseded is changed to "Superseded" by the registrar for Administered Items in the "Qualified" registration status or higher after presentation to the Control Committee. The Submitter may change the registration status of Administered Items at the Recorded levels to "Superseded" at any time, without review by the Control Committee.

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E.3.4 Change management procedures

E.3.4.1 Applicability

The change management procedures of this section are applicable to the metadata register.

E.3.4.2 Identifying configuration items

The purpose of configuration item identification is to explicitly specify what Administered Items are subject to change management.

Configuration items are Administered Items of the metadata register.

E.3.4.3 Administered Items

Formal change management of Administered Items is accomplished only for managing changes to Administered Items at the “Recorded”, “Qualified”, “Standard”, or “Preferred Standard” registration quality categories. Changes to Administered Items in the registration status levels of the “Retired”, “Superseded”, “Historical” status should not be permitted. Administered Items at the “Incomplete” and “Candidate” registration categories are not normally change managed in terms of Control Committee involvement or approval actions.

Administered Item configuration items are the Administered Items documented in the metadata register. Configuration identification numbers for these configuration items are their Administered Item identifier plus version identifier.

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Annex F
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Suggested functional operating procedures — Harmonization and reuse

F.1 Introduction

These procedures detail how the Control Committee and the Stewards may execute their responsibilities as identified in Clause C.2 regarding identification, reconciliation, and documentation of Administered Item overlaps and duplications across Stewards' cognizant areas (and reuse of Administered Items among Stewards' cognizant areas).

The Stewards and Metadata Registry Manager shall bring to the attention of the Registration Authority instances where it appears that duplications of Administered Items have been proposed.

F.2 Identification and Resolution of Metadata Harmonization Issues

As the metadata register is populated with Administered Items, harmonization of these Administered Items can be addressed.

Identification of potential Administered Item issues may be accomplished by Stewards, the Registrar, or as specifically focused by Control Committee directives, as follows:

Step 0: The Control Committee may further direct the Registrar to focus analysis efforts within particular domain areas (e.g., location reference or incident management) or Administered Item (e.g., value domains).

Step 1: Stewards may review the metadata register contents for potential Administered Item issues.

Step 2: Stewards should report any potential Administered Item issues to the Registrar, specifying the administered item Identifiers of the Administered Items of concern.

Step 3: The Registrar should use the capabilities of the Metadata Registry to identify potential overlapping or redundant semantics of Administered Items. Identification of potential Administered Item issues will result from analysis by the Registrar of names, definitions, and common metadata specifications.

Step 4: The Registrar should prepare a summary listing of potential Administered Item issues together with all documenting metadata attributes for each Administered Item on the summary listing. The listing should contain any new potential Administered Item issues identified since the last check pointed version as well as any open issues from past months-including the latest harmonization status for previously identified issues. The listing should identify the lead Steward that is expected to lead the resolution efforts as well as any Steward(s) associated with the potential issue. Note that there may be occasions wherein there is no “lead Steward” identified, if it proves useful to have a third party take the lead on the issue. Note, also, that the lead Steward may be changed with the consent of all other Stewards involved in the data issue at hand by notification to the Registrar of the agreed upon new lead Steward.

Step 5: The Registrar should post the listing.

Step 6: The Registrar should announce availability of the issues listing to the Stewards and other Control Committee members.

Step 7: Upon receipt of this periodic listing, each lead Steward should analyse the potential Administered Item issues in their listing, consulting with any other Steward(s) associated with the issue (as appropriate), and determine an appropriate resolution of the issue. The first step in this process is for each of the Stewards is to

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understand the semantics of the Administered Items at issue. If the semantics are not equivalent then the Administered Items should remain separate. If they are equivalent or significantly equivalent, then the Stewards may agree to use one of them, modify one of them for joint use, or mutually agree to a new Administered Item to supersede those Administered Items at issue. The intent of this examination is to agree on a mutual solution to these dimensions of the Administered Items at issue.

Resolution may be that one Administered Item is selected and other Administered Items reference the selected Administered Item as superseding, the Administered Items at issue are merged into a new Administered Item and the other Administered Items at issue reference the new Administered Item as superseding, or the Administered Items at issue are kept separate and independent.

Each lead Steward may report to the Registrar the status of Administered Item resolutions as soon as that resolution is determined, including any interim resolution status (such as how the resolution will be determined or inability to achieve resolution). This report should be accomplished by electronically returning only the entries that have been changed in the summary listing to the Registrar with a resolution status note inserted in the Remarks column for each Administered Item. The resolution status note should refer to the administered item identifier of each Administered Item at issue and state the harmonization status associated with that Administered Item. It should also state the effective date of the harmonization status. These notes should be placed in the beginning of the remarks section of the listing for each Administered Item at issue. Each lead Steward should make such a report to the Registrar incrementally as issues are resolved.

Step 8: Before any Control Committee meeting, the Registrar should distribute a summary listing of all Administered Items at potential issue together with the current resolution status for each Administered Item and a complete statement of all metadata attributes for each Administered Item at issue. This listing should be distributed to all Stewards.

Step 9: Stewards may report any issues they have with this listing to the Registrar before the Control Committee meeting in order that a complete packet can be prepared for the Control Committee meeting reflecting the most current status of harmonization issues. The Registrar should forward the master listing and any remarks received from the Stewards to the Control Committee Secretary before the Control Committee meeting

Step 10: The Control Committee Secretary should distribute the harmonization listing to the Control Committee members.

Step 11: The Control Committee should review the harmonization results and issue directions to the Registrar. For those Administered Items at issue for which harmonization has been achieved between the relevant Stewards, the Control Committee should review and approve the Stewards' harmonization status, or require such additional harmonization actions as may be appropriate. The Control Committee should review those Administered Items at issue that the relevant Stewards have not been able to resolve and propose resolutions, if possible. The Registrar should retain each Administered Item at issue, together with its current harmonization status, on the harmonization listing until such time as final resolution is accomplished, appropriate standards committees have approved of the resolution, and the Control Committee has approved the final harmonization status. These Administered Items will be included in the next listing of harmonization issued at Step 4.

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Annex G
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Frequently Asked Questions

G.1 Why don't we have a single international Registration Authority for all Administered Items?

It would be conceptually more attractive to have a single Registration Authority for all Administered Items. Redundancy would be minimized, and data sharing would be easier thanks to a single point of reference. Actually, this part of ISO/IEC 11179 has evolved from a single global Registration Authority to a predetermined hierarchy similar to that prescribed in the previous Clause 18 of ISO/IEC JTC 1 Directives (2003). Although these approaches may be suitable for the registration of a limited number of objects, e.g., Registration of Graphical Items (RE: ISO/IEC 9973), they are, however, neither viable nor practical for the registration of Administered Items. There will be a very large number of Administered Items to be registered, and no single organization will have resources and expertise to review and register Administered Items of varied subject matters.

G.2 Is ISO/IEC 6523 a viable vehicle for assigning identifiers to be used as Registration Authority Identifiers (RAI)?

Several options have been contemplated:

- no required Registration Authority Identifier in the case of a single global Registration Authority;

- use a randomly generated number as Registration Authority Identifier, e.g., Object ID (OID) in IRDS models; and

- use ISO/IEC 6523 Registration Authority as a vehicle for distributing organization codes that will be used as Registration Authority Identifiers.

ISO/IEC 6523 Registration Authority has been able to attract organizations like EAN, Dun & Bradstreet, SWIFT, which have hundreds of thousands of registered members. Also, ISO/IEC 6523 has been adopted by EDIRA (Registration Authority for EDI) as a framework for assigning organization codes for EDI purposes.

We feel that ISO/IEC 6523 currently is a viable vehicle for Registration Authority Identifier assignment in the framework of this part of ISO/IEC 11179.

Identifiers for Organizations for Telecommunications Addressing (IOTA) has ICD “0124”. It is using the ICD system format defined in ISO/IEC 8348. Any organization requiring an identifier for use in constructing telecommunications addresses, e.g. ATM addresses, in accordance with the ISO 6523 ICD Format as specified in ISO/IEC 8348 may register with IOTA. IOTA identifiers may also be used for other purposes including the creation of object identifier component values using the identified-organization as specified in ISO/IEC 8824-1.

G.3 How can a Registration Authority obtain a Registration Authority Identifier?

In general, virtually every organization has already been assigned an organization code that is internationally unique; therefore, by default, they already have a Registration Authority Identifier. Per ISO/IEC 6523, and as illustrated in Figure A-1 of this part of ISO/IEC 11179, the following scenarios will happen:

- Institutions like Dun & Bradstreet or SWIFT have been assigned International Code Designators (ICD) through the maintenance agency of ISO/IEC 6523

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- Subsequently, the above institutions assign Organization Identifiers (RE: Identification of Organization) to their subscribing members

- Their members, subsequently, may assign Organization Part Identifiers (RE: Identification of Organization Part) to their internal organizational units if this is allowed for that particular ICD.

The concatenation of International Code Designator, Organization Identifier, and Organization Part Identifier thus creates an internationally unique Registration Authority Identifier.

G.4 Perhaps an automated maintenance system could be used so organizations, particularly those that participate in EDI, could register on line and obtain verification in a few minutes of the registration acceptance

The standard's [i.e., ISO/IEC 11179-6's) scope is to set the framework by which organizations may establish registration authorities dealing with Administered Items in their domains of interest. Registries/directories set up by those registration authorities may use, in fact are encouraged to take advantage of the available electronic means available to them.

G.5 There is some concern with making Registration Status and Administrative Status two separate pieces of information. “What will happen when a user relies upon an administered item because it is marked “Standard” in the Registration Status, but the user does not notice that it is marked only “draft” in the Administrative Status? I think this information belongs in only Registration Status with the following categories:

incomplete

draft

recorded

certification candidate

provisionally certified

certified

standardization candidate

provisionally standardized

standardized”

Registration Status is reserved for use as a state and quality indicator for the metadata of an Administered Item being maintained in a metadata register. The public users at large, in our opinion, should be able to depend on the Registration Status to automatically take actions related to a certain Administered Items. Administered Items under review, unfortunately, may contain erroneous information and, thus, may not be dependable. *The real issue here is whether those Administered Items that have not passed the administrative and technical reviews should be allowed in the “official” registry at all.*

Let's assume that there is only one metadata register, and that the Administrative Status attribute will be subsumed by the Registration Status attribute as suggested above. Under this scenario, the attributes of all Administered Items applying for registration will be stored in the metadata register and granted a Registration Status, even before the review is complete. Let's further assume that a specific Administered Item is currently registered as “certified,” and there is a new application, with updated information, to upgrade the same Administered Item to “standardized.” *Should the registrar then override the “certified” Administered Item with the updated information* and change the Registration Status to “standardization candidate”? The answer, in

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our opinion, should be negative. Data that have not passed the appropriate reviews should not be allowed to corrupt the “good” data. In other words, any Administered Items that do not meet the criteria for being granted one of the Registration Statuses, as specified in Clause 4.1.3.2 of this standard, should be logically (e.g., through views) or physically (e.g., in separate databases) separated from those that do. Registrars have to resolve this implementation issue based upon their available resources and technical approaches.

Under the scenario of two (logical or physical) metadata registers, one as an “official” metadata register and one as a work-in-process metadata register, there should not be any conflict between the Registration Status and the Administrative Status. If an Administered Item is still under review, it should be under a “work-in-process” metadata register and cannot have any Registration Status. Conversely, an Administered Item that is already assigned a Registration Status shall not have any Administrative Status, since all the administrative steps should have been completed. In real life, information professionals solve similar problems with a good configuration plan, staging the systems from a “development” environment to a “production” environment.

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Bibliography

[1] ISO CD 19135, *Geographic information — Procedures for registration of items of geographic information*, ISO/TC 211 N 1493, 2003-07-03

[2] ANSI IEEE 1489-1999, *Standard for Data Dictionaries for Intelligent Transportation Systems*

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