

SMURF (semantically marked up record format) Specification for ERMS

AUTHOR(S)	
Name(s)	Organisation(s)
Tarvo Kärberg	National Archives of Estonia (NAE)
Angela Dappert	DLM Forum Foundation
Andrew Wilson	University of Brighton
Levente Szilágyi	National Archives of Hungary (NAH)
Jože Skofljanec	Slovenian National Archives (SNA)
João Cardoso	Instituto Superior Técnico (IST)
Gregor Zavrsnik	Slovenian National Archives (SNA)

REVIEWER(S)	
Name(s)	Organisation(s)
Kuldar Aas	National Archives of Estonia (NAE)
Alex Thirifays	Danish National Archives (DNA)
Andrew Wilson	University of Brighton

Project co-funded by the European Commission within the ICT Policy Support Programme		
Dissemination Level		
P	Public	X
C	Confidential, only for members of the Consortium and the Commission Services	

REVISION HISTORY AND STATEMENT OF ORIGINALITY

Submitted Revisions History

Revision No.	Date	Authors(s)	Organisation	Description
0.1	22 April 2015	Angela Dappert	DLM	Draft outline.
0.2	28 April 2015	Angela Dappert	DLM	Draft outline slightly updated.
0.3	14 August 2015	Angela Dappert	DLM	Incorporate issues from ERMS meetings.
0.35	16 October 2015	Tarvo Kärberg	NAE	Reorganising, incorporating feedback.
0.4	10 November 2015	Tarvo Kärberg	NAE	Updating the content, incorporating feedback.
0.5	12 November 2015	Andrew Wilson	UPHEC	Updating the content. Adding new information about SIP to AIP transformation.
0.6	16 November 2015	João Cardoso	IST	Updating the content.
0.7	17 November 2015	Levente Szilágyi	NAH	Updating the content. Adding information about metadata tables.
0.71	19 November 2015	Tarvo Kärberg	NAE	Incorporating feedback, cleaning the text, merging the content.
0.8	30 November 2015	Tarvo Kärberg	NAE	Merging the content.
0.9	13 January 2016	Tarvo Kärberg	NAE	Merging the content.
0.91	15 January 2016	Levente Szilágyi	NAH	Updating the content. Adding information about metadata tables.
0.92	19 January 2016	Jože Škofljanec	SNA	Updating the content related to SFSB records.
0.93	21 January 2016	Gregor Zavrsnik	SNA	Updating the content related to geodata.
0.94	22 January 2016	Levente Szilágyi	NAH	Updating the content related to EAD tables.
0.95	26 January 2016	Alex Thirifays	DNA	Quality assurance and proof-reading.
0.96	28 January 2016	Kuldar Aas	NAE	Quality assurance and proof-reading.
0.97	29 January 2016	Andrew Wilson	University of Brighton	Quality assurance and proof-reading.
1.0	29 January 2016	Tarvo Kärberg	NAE	Final version (part of D3.3)
1.1	20 July 2016	Tarvo Kärberg	NAE	Incorporating additional feedback from Andrew Wilson and Advisory Board.

1.2	30 September	Tarvo Kärberg	NAE	Incorporating agreements made in the Common Specification work group.
1.3	18 November	Tarvo Kärberg	NAE	The SMURF specification was split in two. This specification contains information about SMURF ERMS only from this point forward.
1.4	23 November	Tarvo Kärberg	NAE	Updating appendices II and III.
1.5	05 January	Levente Szilágyi	NAH	Adding MoReq2010 based EAD XML.
1.6	09 January	Levente Szilágyi	NAH	Updating aggregation elements.
1.7	12 January 2017	Tarvo Kärberg	NAE	Finalising the document.

Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

TABLE OF CONTENTS

1 Context.....	6
1.1 Purpose and Scope.....	6
1.2 Methodology.....	7
1.3 Limitations.....	8
2 Layered Data Model.....	9
3 Metadata and Mapping.....	10
3.1 Moreq2010 Entities and Metadata for the SMURF ERMS specification	11
3.2 Translating MoReq2010 Class and Aggregation Values	16
3.2.1 Mapping between ERMS and Archive Aggregations	19
3.2.2 Mapping between ERMS and Archive Class Hierarchies	20
3.3 Records and content	22
3.4 The general logic of the mapping and conversion	23
4 Feedback on MoReq2010 Adaptation	29
5 Glossary.....	30
6 Appendices.....	33
6.1 Appendix I: Metadata for MoReq2010 based ERMS Records.....	33
6.2 Appendix II: Metadata example based on NOARK 5.....	49
6.3 Appendix III: Integrated metadata example for MoReq2010	82

LIST OF TABLES

Table 1: Extended EAD metadata for Record.....	33
Table 2: Extended EAD metadata for Aggregation.....	41

LIST OF FIGURES

Figure 1: Data Model Structure.....	9
Figure 2: Components	13
Figure 3: Hierarchical classes.....	17
Figure 4: Non-hierarchical classes	17
Figure 5: Aggregation	18
Figure 6: Inputs to the EAD file.....	23
Figure 7: Multiple records in one EAD file.....	28

1 Context

1.1 Purpose and Scope

The purpose of this document is to describe SMURF (semantically marked up record format) specification for ERMS (electronic records management systems). The aim is not to create a totally new metadata standard for ERMS records extraction, but rather use already available standards in an interoperable way for archiving purposes. The specification is designed to be used for the transfer to archives and not for records exchange between ERMS.

When extracting information from a producer's system one has the choice of two generic options:

1. Extracting data in a relational database structure

Extracting data from a relational database into a long-term database preservation format (SIARD) that preserves the properties of the relational database so that the data can be further imported into a relational database management system (RDBMS) at time of Access. Access can happen through database queries or via a search field.

The main access use cases are:

- a. The producer wishes to retrieve their data for business purposes and/or re-use.
- b. The consumer wishes to consult the data for purposes of research.
- c. The archivist wishes to retrieve the data for professional treatment: to check and, if necessary, perform preservation actions, etc.

More information about this option is available in the SIARD 2.0 Profile Specification.¹

2. Extracting data and metadata as records

Extract the records from the system and normalise them to a standard XML format. This means that the records are semantically marked up using metadata. Being technically valid and complying with this specification makes them directly accessible for validation, data management, indexing and searching. The structured semantic metadata description is explicit rather than hidden inside a RDBS.

The representation of descriptive metadata inside the archive can be in the SMURF AIP format and/or another native archive format. The main advantages over the RDBS representation are that:

- Records from different sources can be merged.
- Search and access is possible across all records from all sources.
- Records can be managed and accessed uniformly.
- The original database / records system software does not need to be licensed and preserved.

It is this particular case (i.e. specifying the semantically marked-up metadata profile) that will be discussed and described in the remainder of this SMURF ERMS specification.

This specification is implemented in tools that:

¹ The SIARD 2.0 specification (<http://www.eark-project.com/resources/specificationdocs/32-specification-for-siard-format-v20/file>) represents the SIP profile for the relational databases content type.

- Extract metadata and data from the native producer systems.
- Create a SIP package from the extracted data and metadata.
- Validate that the metadata and data conform to the specification, are complete and are internally consistent.
- Transfer the SIP to the archive.
- Receive the SIP in the archive.
- Create an archival information package (AIP) from the SIP.
- Validate that the AIP conforms to the specification,² is complete, and internally consistent.
- Ingest the AIP into Archival Storage.
- Manage AIPs within the archive.

1.2 Methodology

The specification is based on the definition by project partners of specific use cases and requirements to be implemented by export tools for electronic records systems.

The work of gathering use cases and requirements involved discussions and feedback from several stakeholders:

- 6 national archives and 2 records' producers to specify the requirements.
- Archival service providers to develop and test the specifications and tools.

The involvement of so many stakeholders allowed us to learn from actual implementations and refine the specification accordingly.

The entities and metadata elements presented in the SMURF ERMS specification were inherited from the Common IP³ and the SIP/AIP specifications, extracted from standards (MoReq 2010,⁴ EAD), and captured from existing implementations in archives.

During the process of developing the specifications, decisions were made about:⁵

- Which metadata elements to support?
- Which additional ones were needed?
- How they are to be implemented?

How did we make decisions about which entities and metadata elements to adopt in the SMURF ERMS specification? Firstly, we adopted metadata standards that were accepted and in frequent use for the required functions in the ERMS and archive communities. Secondly, we did not adopt every entity or metadata element defined in these standards, but only those that were relevant for the ERMS and SFSB scenario in order to meet submission use cases and

- in use in all archives in the E-ARK project or

² E-ARK AIP pilot specification, 2016, <http://eark-project.com/resources/project-deliverables>

³ E-ARK Draft Common Specification for Information Packages in the E-ARK project, version 0.13, <http://eark-project.com/resources/specificationdocs/50-draftcommonspec-1>

⁴ MoReq2010 Specification v1.1, http://www.moreq.info/files/moreq2010_vol1_v1_1_en.pdf

⁵ It is important to note that the MoReq export schema is intended for inter-records-systems exchange rather than for archive deposit. This is a different use case from the ones we are addressing. Because of this, we needed to identify metadata elements in the export schema that were not preservation-relevant and identify preservation-relevant metadata elements that were missing from the MoReq 2010 schema.

- in use in most archives in the E-ARK project or
- required by national regulation and legislation or, to a lesser extent, required by policy decisions within the national archives and related institutions. The former results in mandatory data entities, metadata elements and processes.

This knowledge allowed us to identify which requirements, processes, entities and metadata elements are mandatory for every use of the SMURF ERMS specification.

Rather than adopting any particular metadata standard we agreed to adapt existing ones if and as necessary. For example, we relaxed the mandatory MoReq requirements for metadata elements if they could not be supplied in practice.

We also defined extension points so that other metadata elements can be added to support local needs.

It is important to note that the SMURF ERMS validates correctly with the standard EAD3 XSD schema.⁶

1.3 Limitations

In this document the following are out of scope:

- Proprietary extraction formats, even if they were accompanied by their extraction schema, and functional or records system specification.

These sorts of formats have different:

- Use cases resulting in different metadata needs (for original users who want to use the records again in the same form in which they were submitted; for archive management; for future users with new access patterns and content use),
- Amounts of metadata associated with them,
- Degrees of authenticity,
- Dependencies on knowledge about the functionality of the system in which the record can be used.
- The AIP format (to be covered by a separate document, the E-ARK AIP specification).⁷
- The DIP format (to be covered by a separate document, the E-ARK DIP specification).⁸
- The mapping from MoReq2010 to EAD3 is based on the assumption that it will be used only for the transfer to archives. Therefore, not every entity or metadata element defined in MoReq2010 is adapted to this specification.
- As XSD 1.0 does not support assertions and conditional type assignments then it is not possible to specify and validate more granular business rules without switching to a newer standard XSD 1.1. However, most tools are still using XSD 1.0 validators and as it is not possible to validate an XSD 1.1 using an XSD 1.0 validator then we decided to provide only a valid SMURF ERMS XMLexample instead of an XSD 1.1 schema.

⁶ The EAD3 XSD Schema, <http://www.loc.gov/ead/ead3.xsd>

⁷ E-ARK AIP pilot specification, released January 2016, <http://eark-project.com/resources/project-deliverables/53-d43earkaipspec-1/file>

⁸ E-ARK DIP pilot specification, released April 2016, <http://eark-project.com/resources/project-deliverables/61-d53-pilot-dip-specification/file>

To simplify the analysis, the sections of this document do not discuss optimisations with respect to packaging and storage. The data model and metadata element definitions only discuss what information is needed, not how it is packaged, stored and optimised for handling.

2 Layered Data Model

This chapter introduces the structure of the data model which is based on a layered approach for information package definitions (Figure 1). The Common IP Specification for all information packages (SIP, AIP, DIP) forms the outermost layer. The general SIP, AIP and DIP specifications add, respectively, submission, archiving and dissemination information to the Common IP specification. These two layers are not part of this document. The third layer of the model represents specific content type specifications, such as this SMURF ERMS specification. Additional layers for business specific specifications and local variant implementations of any specification can be added.

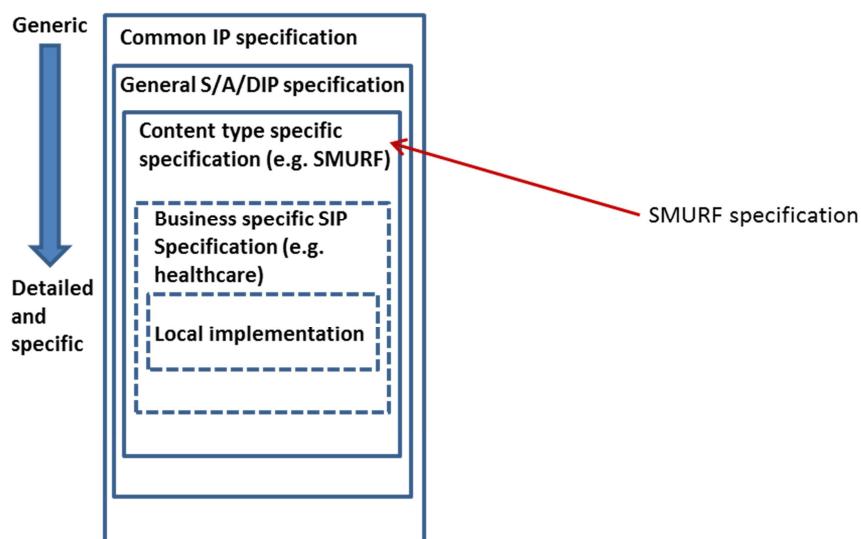


Figure 1: Data Model Structure

The SMURF specification omits all information that is specific to a business area (such as social security) or a specific content-type (such as healthcare).⁹ However, these specific types of information may be needed by users of the SMURF ERMS specification. This need is addressed by providing extension mechanisms in our IP specifications so that local (e.g. national) extensions to accommodate local requirements can be added by users.

Every level inherits metadata entities and elements from the higher levels. In order to increase adoption we will develop flexible schemas that will allow for extension points where the schema in each layer can be extended to accommodate additional information on the next specific layer until, finally, the local implementation can add specific entities or metadata elements to satisfy very specific local needs. Extension points can be implemented using a built-in extension mechanism via:

⁹ SMURF for SFSB specification introduces geodata as an example of more specific content-oriented records type.

- Embedding foreign extension schemas (as supported by METS and PREMIS). These support both increasing the granularity of existing metadata elements by using more detailed data structures as well as adding new types of metadata.
- Single extra metadata elements (as supported by using MoReq contextual metadata elements) without the need to define foreign extension schemas.

The structure allows the addition of more detailed requirements for metadata entities e.g. by:

- Increasing the granularity of metadata elements by using more detailed data structures, or
- Adding local controlled vocabularies.

For consistency purposes we reuse design principles between layers as much as possible.

3 Metadata and Mapping

Metadata for a SIP can be obtained in several ways that are not mutually exclusive: automatically from the source system; extracted from the content; added manually during submission agreement or ingest. Ideally metadata should be created or captured as close to its source as possible where it can be most easily or exclusively obtained.

The balance of manual vs automated creation of metadata, as well as the origin of metadata (producer vs archive) varies to a great extent due to different best-practices and legal environments at the local level. However, in most cases the full SIP metadata is a mixture of metadata created manually and in automated fashion, from both the archive and the producer.

In the case of an ERMS export the SMURF specification builds mainly on the MoReq2010 metadata and export service. However, there are some differences between the MoReq export and an archive transfer service:

- There are entities and metadata elements in the MoReq export schema that are not needed for archive export, since
 - Most existing production systems are not MCRS¹⁰ and may not be in a position to export according to the semantics and syntax described in the MoReq export schema.
 - The archive does not need to support the full functionality for a MCRS, records creation and corresponding workflows, support for original technical access restriction management, managing retention periods.
- There are entities and metadata elements that are needed for archive export but not in the MoReq export, since
 - Archives may have additional functionality. For example, they may wish to merge records from multiple sources. They then need to map the disparate local producer implementations to a normalised archive implementation. Metadata is needed for this.
 - Archives need additional metadata to address long-term preservation, in particular technical and additional provenance metadata.

Therefore we use the MoReq export schema¹¹ as an inspiration for an archive transfer service – we are not adopting the MoReq export schema but adapting it. We have chosen parts of the schema for a partial extraction and enrich it with preservation metadata and other features.

¹⁰ MoReq Compliant Records System (MCRS)

The work group has agreed upon the following principles regarding metadata standards in the E-ARK project:

- We allow for use of multiple metadata standards in a single SIP.
- We allow for the duplication of metadata in different standards if it eases information management or if it keeps related metadata elements together (e.g. all metadata about computer files should be recorded by using only one standard), but we keep duplication to a minimum.
- We use EAD standard for descriptive metadata in the IP. Search in the archive can be based on these elements (plus additional ones in the catalogue).
- Archival metadata regarding classification, aggregation, disposal schedules and disposal holds will be represented using EAD or MoReq2010.¹²
- We use EAD (mapped from MoReq2010) for descriptive metadata in the SIP for ERMS records.
- The metadata for a single record should be presented in EAD or MoReq but not both in parallel.
- We map MoReq2010 aggregations and classes into EAD for AIP aggregations that are used for search.
- Different archive solutions can expose different subsets of the SIP metadata elements for search in the catalogue (i.e. the SIP format does not care/prescribe which metadata elements are going to be exposed for searching).
- All SIP metadata is to be treated as metadata rather than as content so that it can be made accessible to search in the archive. This means that it is submitted in the “metadata” folder rather than the “content” folder (i.e. we define only binary files as data, everything else is metadata).

NB. It is important to note that not all the metadata is a part of the current specification. Only the use of the metadata related to SMURF specification will be explained in the following metadata sections, but some of the metadata is a part of the general SIP specification and the Common Specification for IPs (i.e. METS metadata) as explained on page 9.

3.1 Moreq2010 Entities and Metadata for the SMURF ERMS specification

According to MoReq2010 each core service manages entities belonging to a specified number of entity types¹³ and each entity must belong to one, and only one, of the entity types.

The MoReq2010 core services refer to the following entity types:

- **Aggregations¹⁴**

What is the entity?

Aggregation is a core entity in MoReq 2010 and in all E-ARK partner implementations. MoReq 2010 defines aggregations as "...accumulations of related record entities that,

¹¹ XML Export Schema, <http://www.moreq.info/index.php/specification>

¹² It may be required to keep them in parallel in MoReq and EAD. As an example to keep track of the original (in MoReq) and the archival (in EAD).

¹³ The following entity types appear in the MoReq2010 core services: Aggregations, Classes, Components, Disposal Holds, Disposal Schedules, Entity types, Events, Function Definitions, Groups, Metadata Element Definitions, Records, Roles, Templates and Users [MoReq 2010, Glossary].

¹⁴ Aggregation of individual records or higher level aggregation of aggregations of records [page 249, MoReq 2010 Specification].

when combined, may exist at a level above that of a single record.”. Note that MoReq 2010 does not distinguish between Fonds, Sub-fonds, Series, File and Sub-files. These are all categorised as aggregations at various, specifiable levels. They all can be mapped to the MoReq 2010 aggregation entity.

How are aggregations dealt with in the SMURF specification?

Different institutions use various combinations and patterns of values for this Entity type. Also, some partners are obliged by law to use specific terms for aggregation levels. Therefore, the vocabulary for titles of the aggregation entity is not controlled by the SMURF ERMS, but can be freely chosen by the users. It should be controlled locally in the organisation.¹⁵ We recommend using ISAD-G (as EAD) for contextual descriptions in the archive. See section 3.2 for more details.

- **Class¹⁶**

What is the entity?

Class is a core entity in MoReq 2010 and in all E-ARK partner implementations. Class is defined in MoReq2010 as “A unit of classification that may be associated with an aggregation or a record”¹⁷.

How is class dealt with in the SMURF specification?

The vocabulary for titles of the Class entity is not controlled by this specification, but can be freely chosen by users. More information about mapping MoReq 2010 classes to archive classes can be found in section 3.2.2, and about metadata for classes in Table 3.

- **Component**

What is the entity?

In MoReq2010, a record can have more than one discrete resource making up its content and these different resources may even be stored in different locations. MoReq 2010 defines component as “A part of a record that represents a discrete item of content”.

The association between a record and its content is provided by component entities. Each record can have one or more components. Each referenced component is a single item of content [MoReq 2010, Glossary].

A component can either be electronic (referring to a digital resource such as a datafile) or physical (referring to a real-world object such as paper document or DVD).

How is component dealt with in the SMURF specification?

¹⁵ Aggregations used in agencies / ERMS are not necessarily the same ones as required/wished for by the archive.

¹⁶ Business classification applied to records and aggregations of records [page 250, MoReq 2010 Specification].

¹⁷ In a somewhat circular definition, MoReq 2010 defines classification as “The act of associating a class from a classification scheme to an aggregation or record.”. A unit of classification is not defined.

The metadata for this entity type is presented in appendices as a part of a record. It is also important to note that each component must belong to only one record (Figure 2) as stated in MoReq2010.

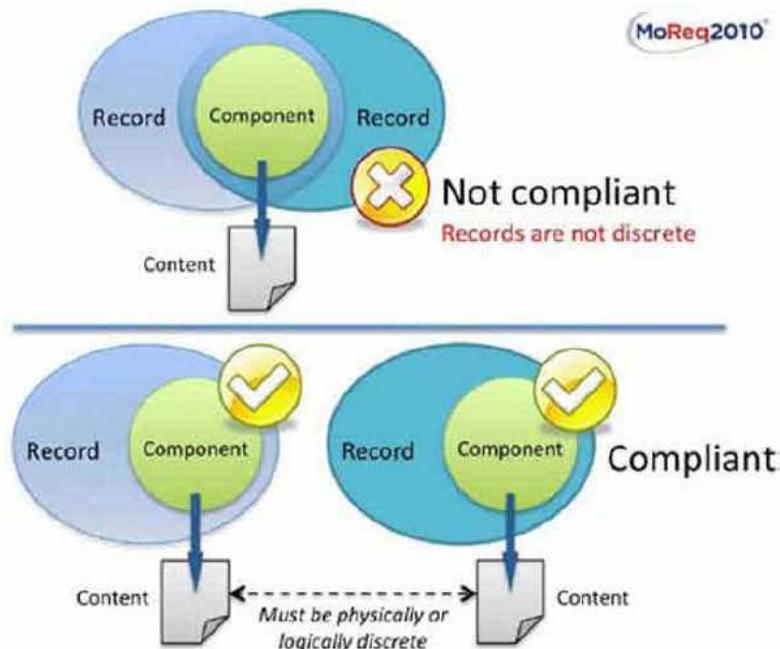


Figure 2: Components

- **Metadata element definitions¹⁸**

What is the entity?

In MoReq 2010 a metadata element definition sets out the semantics of a metadata element with a list of the required properties of the element. MoReq2010 allows for specialised subtypes of this entity type and divides metadata element definitions into:

- system metadata element definitions.
- contextual metadata element definitions.

How are metadata element definitions dealt with in the SMURF specification?

While specialised elements are not within the scope of this SMURF specification they might still be valid for use by archives. Possible use of specialised metadata elements is something every individual archive needs to consider and perhaps describe in Submission Agreements.

- **Disposal holds¹⁹**

What is the entity?

¹⁸ Definition of the properties of a contextual metadata element [page 252, MoReq 2010 Specification].

¹⁹ A disposal hold is a legal or other administrative order that interrupts the normal disposal process and prevents the destruction of some of an organisation's records while the disposal hold is in place [MoReq 2010, Glossary].

MoReq 2010 defines disposal hold as “A legal or other administrative order preventing the destruction of records”. According to MoReq2010 if the disposal hold is associated with an individual record, it prevents the destruction of that record while the disposal hold remains active.

How are disposal holds dealt with in the SMURF?

Since disposal holds can apply to records in archive custody as well then the metadata about disposal holds will be included in the extraction XML.

- **Disposal schedules²⁰**

What is the entity?

According to MoReq2010 disposal schedules are critical to managing records because a record in an MCRS may only be destroyed as part of a disposal process governed by the disposal schedule applicable to that record. A record’s disposal schedule determines how long a record is retained and how it is subsequently disposed of at the end of its retention period.

How are disposal schedules dealt with in the SMURF specification?

Since disposal schedules don’t possess the same importance for the archive’s records preservation activities they will only be archived as metadata and their ERMS functionality is not supported in the archive.

- **Events²¹**

What is the entity?

Events are defined in MoReq 2010 as “An entity that is generated by performing a function”. Events are not independent entities insofar as all entities, except access control lists and events, will have an associated event history in the MCRS, consisting of a description of all the events in which the entity has participated.

How are events dealt with in the SMURF?

To simplify the MoReq2010 model and make it easier to understand when implemented in archives we have decided to store event descriptions with a record entity, instead of as a separate entity.

- **Function definitions²²**

What is the entity?

Function definitions are used to define operational functions and are represented as entities. Function definitions are used for both access control (roles, users, groups) and

²⁰ Disposal schedules are used to manage the life cycles of records in all MCRS solutions [MoReq 2010, Glossary].

²¹ A description of the outcome of a function that was performed previously and is retained to show the history of an entity [page 256, MoReq 2010 Specification].

²² A definition of function that can be performed with an entity by a user [page 257, MoReq 2010 Specification].

in events that are generated by performing functions. When events are generated, the function definition of the function that was performed is included in the event.

How are function definitions dealt with in the SMURF specification?

Functions are described as part of events in another entity description (instead of being a stand-alone entity) as function definitions only define functions which can be performed with an entity by a user in MCRS.

- **Groups,²³ Roles²⁴ and Users²⁵**

What is the entity?

In MoReq 2010 these are separate entity types but for E-ARK purposes we have chosen to describe their use in the SMURF specification together. MoReq 2010 allows for specifying individual users who participated in events, as well as their roles.

Different use cases require keeping different kinds of information about such entities. Role-based event information may suffice for records of archival value. User-level event information is needed if archived materials are used for legal reasons (legal deposit, other legal scenarios such as discovery orders).

How does the SMURF specification deal with these entities?

Groups should be exported by MoReq as individual Users because the Group Entity type as a functional entity is not supported in the archive.

Roles and Users will only be archived as metadata (if they are related to some actions/events), but their functionality is not supported in the archive.

- **Record²⁶**

What is the entity?

A record is a core entity in MoReq 2010 and in all E-ARK partner implementations. It is defined in MoReq 2010 as “Any ‘information created, received and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business’ (ISO 15489-1:2001, 3.15)”.

How is record dealt with in the SMURF specification?

²³ An entity type that usually represents a team or business unit within the organisation and has various user entities as members [MoReq 2010, Glossary].

²⁴ An entity representing a set of function definitions. Granting a role to a user or group in relation to an entity enables that user, or any member of that group, to perform that role on the entity and its descendants. Roles are generally constructed to mirror the tasks of a staff member filling a particular position within the organisation. For example, different roles may be constructed around each of the following usage types: office clerk, local records officer, senior records manager, personnel manager, sales representative, auditor, external contractor, guest or office temp, executive personal assistant, senior executive officer etc.

[MoReq 2010, Glossary].

²⁵ A person or system with an account which enables access to and use of an MCRS. The user does not have to be a human and could be another business system. Users must be authenticated before they can use an MCRS [MoReq 2010, Glossary].

²⁶ Record of a business transaction made up of one or more components that are managed atomically [page 260, MoReq 2010 Specification].

The record entity, being at the heart of MCRS functionality and of archival holdings is described fully by this specification. The metadata for this entity is set out in Table 1.

- **Service²⁷**

What is the entity?

There is an export service sub-type of the MoReq 2010 service entity type that specifies the process of exporting records and metadata from a MoReq compliant records system to another MCRS.

How is service dealt with in the SMURF specification?

We use the export service as a basis for defining the format to be used when exchanging records between the ERMS and the archives.

- **Template**

What is the entity?

According to MoReq 2010 a template is a set of contextual metadata element definitions that can be used to add contextual metadata elements to entities at creation or later.²⁸

How is template dealt with in the SMURF specification?

The SMURF specification does not use the MoReq 2010 metadata templates as such metadata, if it exists in the MCRS, will be recorded by other means.

3.2 Translating MoReq2010 Class and Aggregation Values

As well as general descriptive and administrative metadata, there are two important metadata entities in MoReq2010 which can be successfully incorporated into the SIP and AIP to maintain contextual information needed for provenance and authenticity. MoReq2010 specifies both *class* and *aggregation* as entity types used for managing and accessing records in a MCRS. *Class* is a unit of classification that can be associated with a record or an aggregation, and is used to relate records and aggregations to the business activity (functions, activities, transactions, etc.) which produced the records. Although class values can usually be organised hierarchically (Figure 3), it is not mandatory (and sometimes unnecessary) do to so (Figure 4).

²⁷ A logical subset of the total functionality of an MCRS that focuses on managing only one or a small group of entity types. For example, the disposal scheduling service only manages disposal schedules [MoReq 2010, Glossary].

²⁸ Page 263, MoReq 2010 Specification. Contextual metadata is defined as “Metadata that is not mandated by MoReq2010 but is created within an MCRS in a local context to support the local business needs and operations of an organisation” [Page 203, MoReq 2010 Specification]

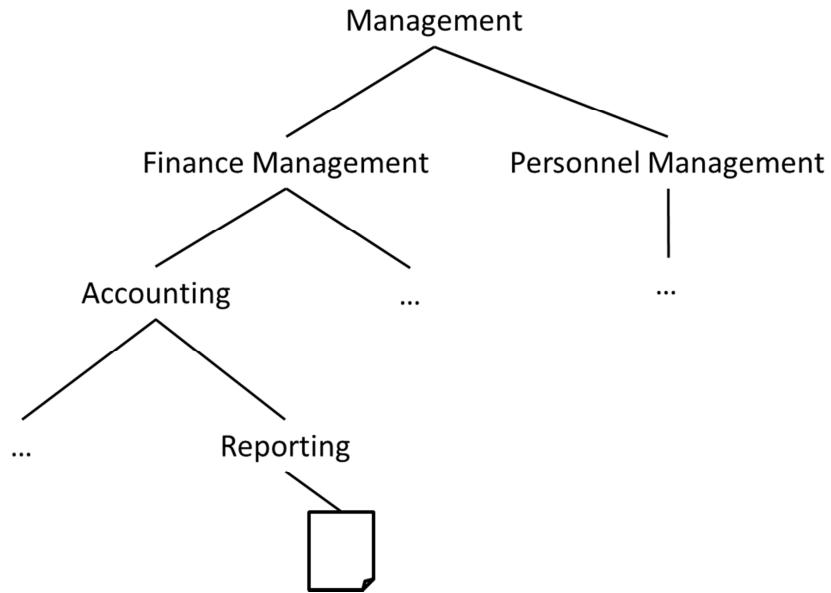


Figure 3: Hierarchical classes

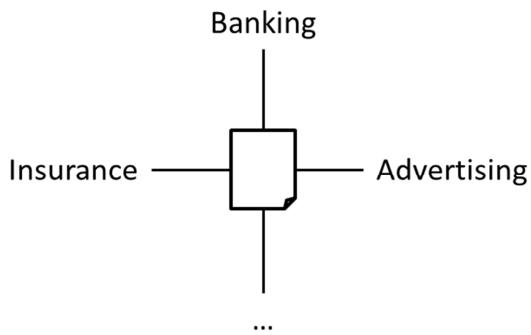
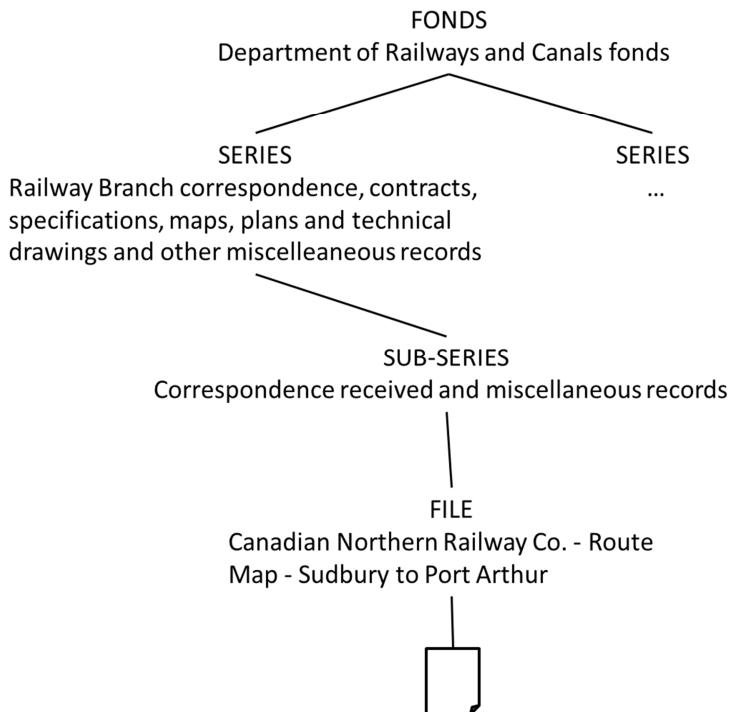


Figure 4: Non-hierarchical classes

An *aggregation* is any accumulation of record entities at a level above the record object (e.g. folder, series, fonds, etc., cf. Figure 5²⁹).

²⁹ The example is based on ISAD(G) General International Standard Archival Description, [http://www.icacds.org.uk/eng/ISAD\(G\).pdf](http://www.icacds.org.uk/eng/ISAD(G).pdf).

**Figure 5: Aggregation**

It is important to keep in mind that classification is not a way of structuring records but is a way of categorising records for management and access purposes. Aggregation on the other hand is explicitly a way of structuring records to place them into the context of their creation and use. Because the records in aggregations arise out of business activities, information about both the aggregation to which a record belongs and the business activity which caused the record to be created is necessary to fully understand the context of a record. Such metadata must accompany the SIP and be incorporated into the systems in use by the receiving archive.

In chapter 3 above we specify that class hierarchies and aggregation structures are to be represented using EAD metadata. This requires translating the MoReq 2010 metadata exported to the SIP from the producer system to the EAD profile used by the receiving archive.

Many of the aspects of the submissions from producers are governed by law or existing constraints. Producers may, for example, not be able to submit complete aggregation information with a record, or may not be able to choose whether they submit a single record or a whole series, or may be obliged to record information from several classification schemes. In this case we may not specify a mandatory requirement for implementing tools in one specific way or specify rigid metadata structures that are mandatory.

It is not possible to anticipate all possible data dependencies between the producer and archive representations and our data model, metadata profile, workflows and requirements therefore cannot implement all possibilities. We are trying to capture the most common ones found in our stakeholder analysis. Instead of specifying a catch-all solution we provide guidelines for the most critical issues and solve some select cases in our pilot implementations. This provides a good starting point to anyone wanting to implement a class and aggregation migration between two systems.

3.2.1 Mapping between ERMS and Archive Aggregations

When producer class and aggregation values are exported into the SIP they can be used by the archive in a number of ways:³⁰

- Incorporated as raw values into the EAD record for the AIP
- Mapped and translated into the archive's EAD profile
- Incorporated into the archive's EAD profile by extending the profile

EAD uses aggregation values as the “level” attribute on the elements <archdesc> and <c>, to specify the aggregation level at which description belongs (Example 1).

Example 1:

```
<archdesc level="fonds">
  ...
  <dsc>
    <c level="series">
      ...
      <c level="file">
        ...
        Records and computer files
        ...
      </c>
    </c>
  </dsc>
</archdesc>
```

The exact names of aggregation levels depend on the agreements between data producers and archives. EAD3 has defined a set of values (class, collection, file, fonds, item, otherlevel, recordgrp, series, subfonds, subgrp, subseries) for that purpose, but it allows using other values as well if they are defined as "otherlevel" (Example 2).

Example 2:

```
<archdesc level="collection">
  ...
  <dsc>
    <c level="series">
      ...
      <c otherlevel="case" > <!--A new aggregation level-->
        ...
        Records and computer files
        ...
      </c>
    </c>
  </dsc>
</archdesc>
```

³⁰ The SMURF specification presents only one way (using EAD metadata) how MCRS aggregation values can be translated to archival aggregation values, but does not restrict of using any other method (i.e. adding all relevant class values as keywords to each individual record).

3.2.2 Mapping between ERMS and Archive Class Hierarchies

EAD has no direct equivalent to the class entity used in MoReq 2010. The only EAD property that is useful for recording MoReq class values drawn from (hierarchical) classification schemes is <fileplan> (see the Example 3 below).

Example 3:³¹

```
<fileplan>
    <head>Classes</head>
    <fileplan>
        <head>AGRICULTURE (AG)</head>
        <list>
            <item>Home Economics</item>
        </list>
    </fileplan>
</fileplan>
```

In the case of translating MoReq2010 to EAD for use in SIPs and AIPs, the class hierarchy in the MoReq2010 could be reproduced under the <fileplan> property by using an EAD ordered list to record each element of the hierarchical value. However, as with aggregation values the SIP profile does not require this translation to be carried out in any prescribed way.

EAD3 allows adding more specific descriptions of classification schemes to the <fileplan> element if required (Example 4).

Example 4:

```
<fileplan id="b5eed134-3b2e-4b16-8527-4b25bb0d0934" locality="original">
    <head>Classification schema</head>
    <fileplan>
        <head>AGRICULTURE (AG)</head>
        <list>
            <item>Home Economics</item>
        </list>
    </fileplan>
</fileplan>
```

In this example the <fileplan> element has been enriched with ID and locality attributes. The ID attribute represents a machine-processable unique identifier for the <fileplan>. The locality="original" attribute informs readers about the type of the <fileplan> as in some cases there may be a need for including more than one classification schemas into the ERMS extraction XML. For example, if the data producer has changed their classification schema at some point and wants to deliver records to the archives then the archives may want to store the old (original) schema as well for historical or other (e.g. legal) purposes. As such, the type of the <fileplan> helps to identify whether the file plan is active or passive, but it can be used for multiple active file plans as well (Example 5).

Example 5:

```
<fileplan id="a7eab134-3b2e-4b16-8527-4b25bb0d0978" locality="archival">
```

³¹ Encoded Archival Description Tag Library, 2002, <http://www.loc.gov/ead/tglib/elements/fileplan.html>.

```

<head>Classification schema</head>
<fileplan>
    <head>AGRICULTURE (AG)</head>
    <list>
        <item>Forestry</item>
    </list>
</fileplan>
</fileplan>

<fileplan id="a3cab234-3b2e-4b16-8529-4b25bb0d4250" locality="original">
    <head>Classification schema</head>
    <fileplan>
        <head>ECONOMICS (EC)</head>
        <list>
            <item>Home Economics</item>
        </list>
    </fileplan>
</fileplan>

```

As the values of the locality attribute are not prefixed then it is up to the implementers what values they exactly need to specify and support in their local tools. If no type is specified then it is expected that the extraction XML contains only one file plan.

EAD3 allows indicating the relations between classes and aggregations (Example 6).

Example 6:

```

<archdesc level="fonds">
    <dsc>
        ...
        <c otherlevel="dossier">
            ...
            <c level="item">
                <did>
                    ...
                    </did>
                    <fileplan>
                        ...
                    </fileplan>
                    ...
                </c>
            </c>
        </dsc>
    </archdesc>

```

As seen above, the record (`<c level="item">`) is hierarchically related with the aggregation (`<c otherlevel="dossier">`) and with classes through the `<fileplan>` element.

Implementers are free to translate MoReq/ERMS class hierarchies as they see fit. It may even be the case that this metadata is not used in an archive's EAD implementation, although the SMURF ERMS does not recommend such a policy.

3.3 Records and content

Records are part of the extraction XML and represented as `<c level="item">`.

The `<did>` element is a wrapper element that encloses information essential for identifying the record.

Example 7:

```

<did>
    <!--Unique identifier for a record that is generated automatically by the system.-->
    <unitid locality="current">ERA.14-4-3-1-1</unitid>
    <!--The identifying name or title of the record.-->
    <unittitle>Final report</unittitle>
    <!--System set date and time when the entity was created. Can be represented as
        unitdatestructured or unitdate.-->
    <unitdate datechar="created">2004-05-25T00:00:00</unitdate>
    <!--The unit used to describe the extent of the record (e.g MB, pages, num of
        files/components)-->
    <physdescstructured coverage="whole" physdescstructuredtype="spaceoccupied">
        <quantity>0.4453</quantity>
        <unittype>MB</unittype>
    </physdescstructured>
    <!--<daoset> allows grouping multiple links to born digital records or digital representations of
        the materials being described. If only one link is present then the <daoset> element can be
        replaced by <dao>.-->
    <daoset label="Digital Objects">
        <dao ... />
        <dao ... />
    </daoset>
</did>

```

The `<dao>` element is a linking element that uses href to connect to born digital records or digital representations of the record (Example 8).

Example 8:

```

<dao id="dad603af-037b-44d5-8993-5754a42b3962" daotype="borndigital" linktitle="Report"
      href="../../representations/rep1/data/Report.doc" />

```

The ID attribute represents a machine-processable unique identifier for the file. The daotype specifies if a file is born digital (borndigital), digitized from physical holdings (derived) or other (otherdaotype). For example, for scanned files we can point out that the files are not "original" (Example 9).

Example 9:

```
<dao id="baa703af-037b-44d5-8993-5754a42b3962" daotype="derived" linktitle="Page10"
      href="..../representations/rep1/data/Page10.tif" />
```

In more complex cases (e.g. files migration) it is recommended to use both attributes (daotype, otherdaotype) as using only one attribute may be not enough for describing the file origin. For example, if a file is a result of a file format conversion from DOCX to PDF/A then we recommend using `daotype="borndigital"` `otherdaotype="migrated"` because the PDF/A is a born-digital and a migrated file in the same time (Example 10).

Example 10:

```
<dao id="dad603af-037b-44d5-8993-5754a42b3962" daotype="borndigital" linktitle="Report"
      href="..../representations/rep1/data/Report.doc" />
```

```
<dao id="aad248bf-037b-34d5-7993-5754b42b3971" daotype="borndigital"
      otherdaotype="migrated" linktitle="Report" href="..../representations/rep2/data/Report.pdf" />
```

3.4 The general logic of the mapping and conversion

The EAD file has 3 main inputs (Figure 6):

- Archival descriptions. Contains main archival descriptions (including metadata about aggregations and classification).
- Content. Contains links to computer files as `<dao>` elements.
- Additional metadata. Specific information that does not fit into the EAD3 standard elements can be saved as `<odd>` elements or locattype attributes in EAD3 elements (Example 11).

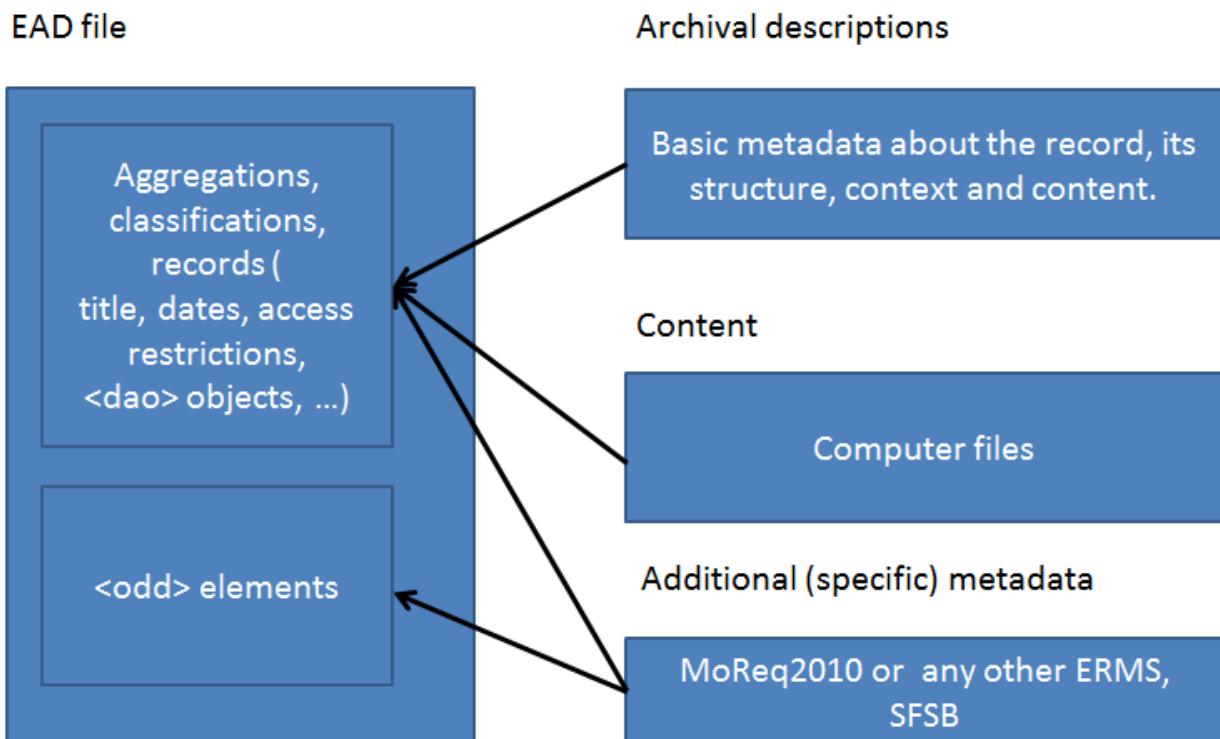


Figure 6: Inputs to the EAD file

Example 11:

```

<c level="item">
<did>
...
<!--System set date and time when the entity was created. "Created" is user-defined value-->
<unitdate datechar="created">2004-05-25T00:00:00</unitdate>
...
<!--Other Descriptive Data. "Keyword" attribute is user-defined-->
<odd localsep="Keyword">
    <list>
        <item>keyword A</item>
        <item>keyword B</item>
        <item>keyword C</item>
    </list>
</odd>

```

If required then the `<odd>` can be treated as a root element for the ERMS-specific metadata as well. In that case all the information required for the basic search and access (e.g. title, dates, access restrictions) will be recorded as EAD3 elements and all other metadata will be placed to the `<odd>` section (Example 12).

Example 12:

```

<?xml version="1.0" encoding="utf-8"?>
<ead xmlns="http://ead3.archivists.org/schema/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://ead3.archivists.org/schema/ ead3.xsd">
    <!--A required child element of <ead> for recording bibliographic and administrative information
    about an EAD instance.-->
    <control>
        <!--Record Identifier. A required child element of <control> that designates a unique
        identifier for the EAD instance.-->
        <recordid>eadc4791-51e9-4e74-b1fa-c18035c17cda</recordid>
        <filedesc>
            <!--Title Statement. A required child element of <filedesc> that binds together
            information about the name of an encoded finding aid and those responsible
            for its content.-->
            <titlestmt>
                <titleproper>Ministry of Justice</titleproper>
            </titlestmt>
            <!--Note Statement. A child element of notestmt, used to provide a general
            note related to the EAD instance.-->
            <notestmt>
                <controlnote>
                    <p>This EAD file is compliant with the E-ARK project SMURF
                    Specification, Version 1.0.</p>
                </controlnote>
            </notestmt>
        </filedesc>
        <!--A required child element of <control> that records the current version status of the
        EAD instance.-->
        <maintenancestatus value="new"/>
        <maintenanceagency>
            <agencynname>The National Archives of Estonia</agencynname>
        </maintenanceagency>
        <maintenancehistory>
            <maintenanceevent>

```

```

<eventtype value="created"/>
<eventdatetime>2016-10-17T10:14:28.8200000</eventdatetime>
<agenttype value="machine"/>
<agent>UAM</agent>
</maintenanceevent>
</maintenancehistory>
</control>
<!--Archival Description. A required child element of &lt;ead&gt; that binds together all of the archival descriptive information in an EAD instance.--&gt;
&lt;archdesc level="fonds"&gt;
  &lt;did&gt;
    &lt;unitid label="current"&gt;ERA.14&lt;/unitid&gt;
    &lt;abstract&gt;This EAD file is compliant with the E-ARK project SMURF Specification, Version 1.0.&lt;/abstract&gt;
    &lt;origination label="Creator"&gt;
      &lt;name&gt;
        &lt;part&gt;Ministry of Justice&lt;/part&gt;
      &lt;/name&gt;
    &lt;/origination&gt;
  &lt;/did&gt;
  &lt;accessrestrict&gt;
    &lt;p&gt;Restricted&lt;/p&gt;
  &lt;/accessrestrict&gt;
  &lt;dsc&gt;
    &lt;c level="series"&gt;
      &lt;did&gt;
        &lt;unitid label="current"&gt;ERA.14-1-18&lt;/unitid&gt;
        &lt;unittitle&gt;Meeting protocols&lt;/unittitle&gt;
      &lt;/did&gt;
      &lt;accessrestrict&gt;
        &lt;p&gt;Restricted&lt;/p&gt;
      &lt;/accessrestrict&gt;
      &lt;c level="file"&gt;
        &lt;did&gt;
          &lt;unitid label="current"&gt;ERA.14-1-18-1&lt;/unitid&gt;
          &lt;unittitle&gt;Meeting 01.05.2016&lt;/unittitle&gt;
        &lt;/did&gt;
        &lt;accessrestrict&gt;
          &lt;p&gt;Restricted&lt;/p&gt;
        &lt;/accessrestrict&gt;
        &lt;!-- A record--&gt;
        &lt;c level="item"&gt;
          &lt;did&gt;
            &lt;!--Universally unique identifier for an entity that is generated automatically by the system and stays with the entity forever--&gt;
            &lt;unitid locality="current"&gt;ERA.14-1-18-1-1&lt;/unitid&gt;
            &lt;!--The identifying name or title of the entity--&gt;
            &lt;unittitle&gt;Protocol No 1/2016&lt;/unittitle&gt;
            &lt;!--System set date and time when the entity was created. Can be represented as unitdatestructured as well.--&gt;
            &lt;unitdate datechar="created"&gt;2004-01-08T00:00:00&lt;/unitdate&gt;
            &lt;abstract&gt;This is a memo from 01.05.2016.&lt;/abstract&gt;
          &lt;/did&gt;
          &lt;accessrestrict&gt;
            &lt;chronlist&gt;
</pre>

```

```
<fromdate>01.05.2016</fromdate>
<todate>02.05.2091</todore>
<!--Type of the restriction (e.g. personal data)-->
<!--Duration of the restriction in years (e.g. 25 years)-->
<!--Source of the restriction (e.g. Public access law AvTS § 7-->
<!--Additional description of the access restriction (e.g. The content can be made public if personal data is removed from the DIP)-->
<chronitem>
  <daterange>
    <event>
      <list>
        <item>DEI</item>
        <item>75 years</item>
        <item>Public access law AvTS § 7</item>
        <item>The content can be made public if personal data is removed from the DIP</item>
      </list>
    </event>
  </chronitem>
</chronlist>
</accessrestrict>
<odd localtype="invited">
  <odd localtype="names">
    <list>
      <item>Person A</item>
      <item>Person B</item>
      <item>Person C</item>
    </list>
  </odd>
</odd>
<odd localtype="participated">
  <odd localtype="names">
    <list>
      <item>Person B</item>
      <item>Person C</item>
    </list>
  </odd>
</odd>
<c>
  <c>
    <dsc>
      <archdesc>
        <!-->
    </archdesc>
  </c>
</c>
</dsc>
</archdesc>
</ead>
```

This approach will enable fast access by using standard EAD tools and more detailed browsing with specialized dedicated tools if required as <odd> elements can be reversed back into the original name form by extracting the values of locattype attributes as element names.

Example 13:Original ERMS metadata:

```
<Record SystemId="00000000-1111-0000-0000-000000000000">
  <Created>2001-12-17T09:30:47Z</Created>
  <Originated>2001-12-17T09:30:47Z</Originated>
  <Title Lang="en-us">a</Title>
  <Description Lang="en-us">a</Description>
</Record>
```

Original ERMS metadata represented as EAD3:

```
<odd localtype="Record" id="00000000-1111-0000-0000-000000000000">
  <odd localtype="Created"><p>2001-12-17T09:30:47Z </p></odd>
  <odd localtype="Originated"><p>2001-12-17T09:30:47Z </p></odd>
  <odd localtype="Title" lang="en-us"><p>a</p></odd>
  <odd localtype="Description" lang="en-us"><p>a</p></odd>
</odd>
```

Furthermore, it would be possible to use original XML Schemas for the validation of the `<odd>` metadata if it is in the original format again.³²

In this way, it is possible to add any kind of metadata about the record as long as it is possible to extract the metadata in a denormalised form and map to the `<odd>` “root” or sub-elements. See for an example Appendix II: Metadata example based on NOARK 5 for a one possible way for the mapping for NOARK 5 standard.

The same approach can be used for MoReq2010 metadata as well if archives do not prefer to use a version where MoReq2010 elements have been mapped to EAD3. The export schema³³ of MoReq2010 lists 3 metadata schemas for MoReq2010 elements. All of them can be included into EAD3 as `<odd>` elements (see Appendix III: Integrated metadata example for MoReq2010).

In case the ERMS is CMIS 1.0 compliant then the mapping and the extraction can be relatively easily performed by using the ERMS Export Module (EEM)³⁴ created by the E-ARK project.

There are two ways for the extraction:

- Scenario I. Every record will end up in a separate EAD file – each EAD file represents one whole record.
- Scenario II. All extracted records will end up in one big EAD file. The EAD file can be splitted further down into separate records during the SIP creation process (Figure 7).

³² This would require including XML schemas for all XML files in the submission information package.

³³ The Export Schema for MoReq2010, <http://www.moreq.info/files/export/export.xsd>

³⁴ The GitHub site for ERMS Export Module, <https://github.com/magenta-aps/erms-export-ui-module>

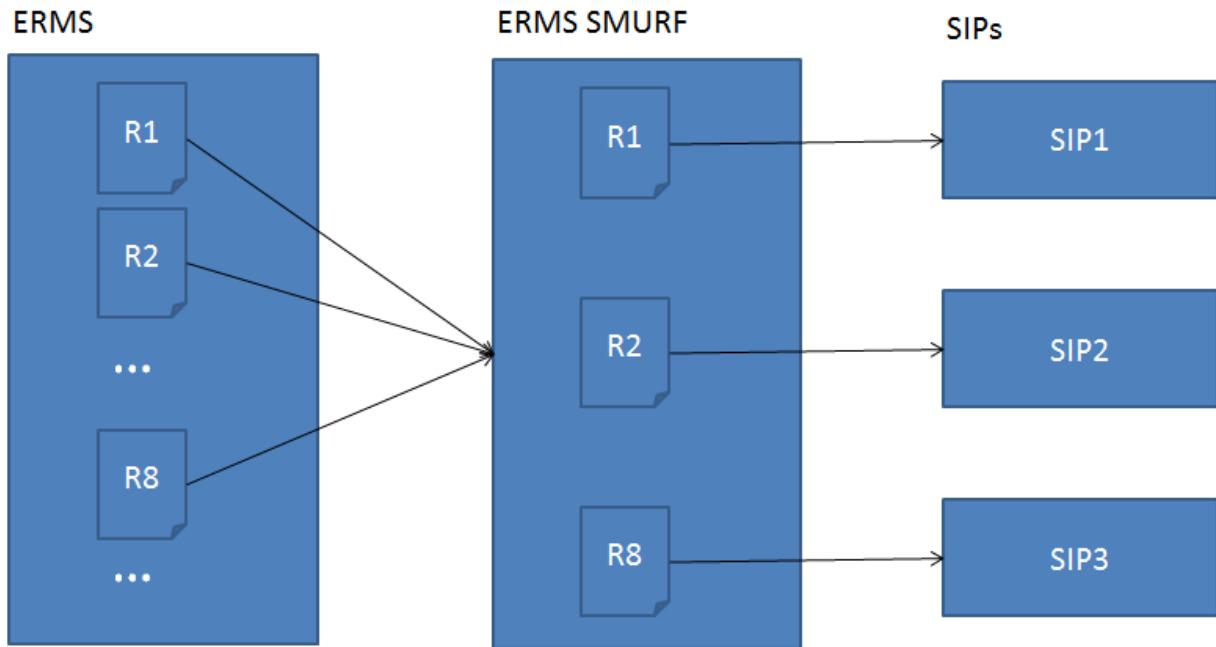


Figure 7: Multiple records in one EAD file

The EEM supports the second scenario. Thus, the EEM creates a pre-SIP and it is up to the archive to decide whether they split it down to smaller parts or archive as a whole. In the E-ARK project we have decided to create record-size SIPs. This will cause some metadata redundancy, but it should be considered as a time-space tradeoff – improving access performance and record integrity (all required metadata is accompanied with the SIP) by the price of requiring more storage capacity.

4 Feedback on MoReq2010 Adaptation

This chapter lists the main recommendations to the DLM Forum for MoReq2010 from an archiving perspective.

The recommendations are:

- Full MoReq2010 metadata should only be used for transfer from one MCRS to another and not for archiving purposes.
- The export schema (for an archiving transfer) should make the cardinality requirements less strict.
- The weakest cardinality requirement between the MoReq XSD and the archival transfer XSD should be adopted.

Rationale:

The list above reflects the need of separating the original MoReq2010 schema and transfer format from the schema and format used for archival transfers. The MoReq2010 export schema is intended for inter-records-systems exchange rather than for archive deposit. This is a different use case from the ones we are addressing.

5 Glossary

Aggregation	Aggregations of records are accumulations of related record entities that, when combined, may exist at a level above that of a single record. Aggregations of records may reflect relationships such as shared characteristics or attributes, or the existence of sequential relationships between related records. [MoReq 2010, v 1.1]
AIP	Archival Information Package
Class	<p>A unit of classification that may be associated with an aggregation or a record.</p> <p>In MoReq2010®, classes always have a default disposal schedule, which is inherited by any record they classify, in accordance with the principle in ISO 15489 that 'Classification of business activities acts as a powerful tool to assist the conduct of business and in many of the processes involved in the management of records including ... determining appropriate retention periods and disposition [i.e. disposal] actions for records' (ISO 15489-1:2001, 9.5.1). [MoReq 2010, v 1.1]</p>
Component	A part of a record that represents a discrete item of content. For completeness, a record, including all its components and their content, must be managed atomically.
Contextual Metadata	Metadata that is not mandated by MoReq2010 but is created within an MCRS in a local context to support the local business needs and operations of an organisation.
Contextual metadata element definition	The contextual metadata element definition is the definition of a contextual metadata element. Contextual metadata element definitions must be exported whenever contextual metadata is exported to ensure that an MCRS that imports the export data can interpret the metadata element and represent it correctly.
DIP	Dissemination Information Package
EAD	Encoded Archival Description. A non-proprietary de facto standard for the encoding of finding aids for use in a networked (online) environment based on ISAD(G). Finding aids are inventories, indexes, or guides that are created by archival and manuscript repositories to provide information about specific collections. While the finding aids may vary somewhat in style, their common purpose is to provide detailed description of the content and intellectual organization of collections of archival materials. EAD allows the standardization of collection information in finding aids within and across

	<p>repositories.</p> <p>http://www.loc.gov/ead/eadabout.html, accessed on 19 November 2015</p>
EAC-CPF	<p>Encoded Archival Context - Corporate bodies, Persons, and Families (EAC-CPF). A non-proprietary de facto standard for encoding the names of creators of archival materials and related information. EAC-CPF is based on ISAAR(CPF). See http://eac.staatsbibliothek-berlin.de/ [accessed on 6 August 2015]</p>
Entity	<p>Entities represent individual and discrete units of information within an information system. In an MCRS, each entity must be of a particular entity type and have some, or all, of the following:</p> <ul style="list-style-type: none"> • system metadata, • contextual metadata, • access control list, • event history. <p>The system metadata, and sometimes the contextual metadata, link the entity to other entities, forming relationships. [MoReq 2010, v 1.1]</p>
ERMS	Electronic Records Management System
IP	Information Package
MCRS	MoReq Compliant Records System
MoReq2010	<p>MoReq 2010: Modular Requirements for Records Systems. http://moreq2010.eu/pdf/moreq2010_vol1_v1_1_en.pdf</p>
Record	<p>Any ‘information created, received and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business (ISO 15489-1:2001, 3.15)’. In MoReq2010®, a record may be further characterised as follows.</p> <ul style="list-style-type: none"> • It has an extensible set of metadata that describe it. • It has one or more components that represent its content. • It is classified with a business classification. • It has a disposal schedule that describes explicitly if, how and when it will be disposed of or destroyed. • It belongs to an aggregation of records. • Access to it is controlled and limited to authorised users. • Its destruction may be prevented by a disposal hold.

	<ul style="list-style-type: none">• It may be exported to another MCRS while retaining all of the characteristics listed above. [MoReq 2010, v 1.1]
SIP	Submission Information Package
SMURF	Semantically marked up records format SMURF = ERMS (MoReq-based records) + SFSB (simple file-system based records)

6 Appendices

6.1 Appendix I: Metadata for MoReq2010 based ERMS Records

The following tables contain elements from the EAD3 and MoReq2010 standards. Further information can be found:

- for EAD elements, in TagLibrary-VersionEAD3.pdf available at <http://www2.archivists.org/sites/all/files/TagLibrary-VersionEAD3.pdf>
- for MoReq2010 elements, in the MoReq2010 specification available at <http://www.moreq.info/index.php/specification>.

If no “MoReq2010 ID” is marked in the tables below then the element is recommended by the E-ARK project as an addition to the ERMS metadata.

If an “EAD element” is marked with “/*” then no exact match with the EAD standard has been identified, and the element name in the first column is the one to be used.

Table 1: Extended EAD metadata for Record

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
Created	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="created"	Date and time the entity was created, set by the system	1..1	M14.4.9
Originated	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="originated"	Date and time of origin of a record or other entity which may vary from the creation date of the entity in the system	0..1	M14.4.61
Title	archdesc/c/did/unittitle		The identifying name or title of the entity	1..1	M14.4.104
Description	archdesc/c/did/abstract archdesc/c/scopecontent		A description of the entity	0..1	M14.4.16
ParentAggregationId	archdesc/c/did/didnote@type="aggregation_id"		Parent aggregation for a child aggregation or record	0..1	M14.4.63
DisposalScheduleId	archdesc/c/appraisal@id		An element for documenting decisions and actions	0..1	M14.4.22

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
			related to assessing the archival value and disposition of the materials being described.		
RetentionStart	archdesc/c/appraisal@locotype="disposal_schedule"/chronlist/chronitem/datarange/fromdate		System generated date calculated from the record's disposal schedule indicating the start of its retention period	0..1	M14.4.93
DisposalAction	archdesc/c/appraisal@locotype="disposal_schedule"/chronlist/chronitem@locotype="disposal_action"/event		Code describing the action to be taken on disposal of the record	0..1	M14.4.18
DisposalActionDue	archdesc/c/appraisal@locotype="disposal_schedule"/chronlist/chronitem@locotype="disposal_action"/datarange/todate		The calculated date that the record is due for disposal	0..1	M14.4.19
LastReviewedComment	archdesc/c/appraisal@locotype="disposal_schedule"/chronlist/chronitem@locotype="last_reviewed"/event		Comment made by the user who last reviewed the record explaining the disposal decision made by that review	0..1	M14.4.49
LastReviewed	archdesc/c/appraisal@locotype="disposal_schedule"/chronlist/chronitem@locotype="last_reviewed"/datesingle		System set date and time indicating when the last review was completed	0..1	M14.4.50
Transferred	archdesc/c/acqinfo/chronlist/chronitem@locotype="transferred"/datesingle archdesc/c/acqinfo/chronlist/chronitem/event		System set date and time indicating when the transfer of the record was confirmed	0..1	M14.4.106
Duplicates	archdesc/c/altformavail/p		Reference to another entity that has been created by duplicating the record, component or event, and is an exact copy up to the event of duplication, with an	0..1	M14.4.23

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
			identical provenance		
TransformationEntry	archdesc/c/processinfo/chronlist		An element for recording an event of a transformed record	0..n	
SystemId	archdesc/c/did/unitid	localtype="system_id"	Universally unique identifier for an entity that is generated automatically by the system and stays with the entity forever	1..1	M14.4.100
Extrайд	archdesc/c/did/unitid	localtype, label	Any external identifier that is used by an ERMS system or is required in a country Use localtype and label attributes for type or name of the ID that is used in this field	0..n	
Notes	archdesc/c/did/didnote		Notes	0..n	
Subject	archdesc/c/did/abstract/subject/part	localtype, relator	Subject of the record Use localtype, relator attributes on subject element to mark keyword source type (free text described by creator or ontology subject related by archivist)	0..n	
Keywords	archdesc/c/index/head="keywords" archdesc/c/index/indexentry/subject		Keywords describing the content.	0..n	
GeographicalLocations	archdesc/c/index/head="location index" archdesc/c/index/indexentry/geogname		List of geographical locations related to the content.	0..n	
FindingAid	archdesc/c/otherfindaid/p		Information about any finding aids that the repository or records creator may have that provide information	0..n	

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
			relating to the context and contents of the unit of description.		
Description Source	control/sources/source/sourceentry		References to publications and other materials used for description	0..n	
Creator	archdesc/c/did/origination/name/part archdesc/c/did/origination/corpname/part archdesc/c/did/origination/famname/part archdesc/c/did/origination/persname/part	label="creator"	An entity primarily responsible for making the content of the resource; an entity primarily responsible for making the resource (comment: Examples of a Creator include a person, an organization, or a service)	0..n	
Owner	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="owner"	Owner of the record	0..n	
Administrator	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="administrator"	Administrator of the record	0..n	
Reader	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="reader"	Everyone who should be able to read the contents of the record (in the source ERMS system)	0..n	
Sender	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part archdesc/c/controlaccess/corpname/part archdesc/c/controlaccess/famname/part	relator="sender"	Sender of the record	0..n	
Editor	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="editor"	Person(s) who could edit the record (including adding) in the source ERMS system	0..n	

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
Recipient	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part archdesc/c/controlaccess/corpname/part archdesc/c/controlaccess/famname/part	relator="recipient"	Recipient of the record	0..n	
Other	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part archdesc/c/controlaccess/corpname/part archdesc/c/controlaccess/famname/part	relator="other"	Other persons/organizations related to the record	0..n	
RecordType	control/filedesc/notestmt/controlnote	localtype="record_type"	Type of the record	0..n	
RecordLevelName	archdesc/c	level="item" OR level="otherlevel" otherlevel="record"	Level in archival hierarchy	0..n	
Language	archdesc/did/langmaterial/language archdesc/did/langmaterial/languageset/language		Language of archived textual content, Examples: "EST", "ENG", "GER"	0..n	
ScriptingSystem	archdesc/c/did/langmaterial/language@script			0..n	
MediumType	archdesc/c/did/physdescstructured/physfacet	physdescstructured@physdesc structuredtype ="materialtype"	Structured statements describing the type of the physical medium of the materials	0..n	
ExtentUnit	archdesc/c/did/physdescstructured/unittype	physdescstructured@physdesc structuredtype ="spaceoccupied"	The unit used to describe the extent of the record (e.g MB, pages, num of files/components)	0..n	

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
ExtentValue	archdesc/c/did/physdescstructured/quantity	physdescstructured@physdesc structuredtype ="spaceoccupied"	The extent of the record expressed in the unit in the previous field	0..n	
RelatedRecord	archdesc/c/relatedmaterial/p	localtype=<type of relation>	Related record and type of relation	0..n	
ArchivalHistory	archdesc/c/custodhist/p		Information on the history of the unit of description that is significant for its authenticity, integrity and interpretation	0..n	
OwnTextElement	archdesc/c/odd	localtype=<Own Element Description>	Any additional metadata	0..n	
MainSignatureDate	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@localtype="main_signature"	Date of main signature	0..1	
MainSigner	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@localtype="main_signature" *name@relator="main_signer"	Name of responsible person who signed the record	0..1	
MainSignerRole	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/occupation	chronitem@localtype="main_signature" *name@relator="main_signer_role"	Main signing person role	0..n	

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
OtherSignatureDate	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@locotype="other_signature"	Date of other signature	0..n	
OtherSigner	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@locotype="other_signature" *name@relator="other_signer"	Other person signing the record	0..n	
OtherSignerRole	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/occupation	chronitem@locotype="other_signature" *name@relator="other_signer_role"	Other signing person role	0..n	
DispatchDate	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@locotype="dispatched"	Date of dispatch of the record	0..1	
Dispatcher	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@locotype="dispatcher" *name@relator="dispatcher"	Person responsible for dispatching the record	0..1	
Addressee	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname	chronitem@locotype="addressee" *name@relator="addressee"	Original addressee of the record	0..n	

DLM Archival Standards Board

E-ARK Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
	archdesc/c/odd/chronlist/chronitem/event/famname				
DispatchMode	archdesc/c/odd/head="record_history" archdesc/c/odd/chronlist/chronitem/event/[text]/*	localtype="dispatched"	Mode of dispatching of the record	0..n	

Table 2: Extended EAD metadata for Aggregation**Note:**

The following table contains guidelines for most common cases. For more specific elements, please consult the EAD3 tag library at <https://www.loc.gov/ead/EAD3taglib/index.html>.

Element name	EAD element (with path if necessary)	Attributes	Description and usage	Proposed cardinality	MoReq2010 ID
Created	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="created"	System set date and time showing when the entity was created	1..1	M14.4.9
Originated	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="originated"	Date and time of origin of a record or other entity which may vary from the creation date of the entity in the system	0..1	M14.4.61
FirstUsed	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="first_used"	System generated date and time indicating when an entity was first used; generally taken as the last time it can be modified or deleted without formally destroying it	0..1	M14.4.32
LastAddition	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="last_addition"	System set date and time indicating when the most recent record or child aggregation was added to the parent aggregation	0..1	M14.4.48
ClassId	archdesc/fileplan/p/ref		An ID of the file plan	0..n	M14.4.4
Title	archdesc/c/did/unittitle		The identifying name or title of the entity	1..1	M14.4.104
Description	archdesc/c/did/abstract archdesc/c/scopecontent		A description of the entity	0..1	M14.4.16
ScopeNotes	archdesc/c/scopecontent		An element that provides information about the nature of and activities reflected in the described	0..1	M14.4.97

DLM Archival Standards Board

			materials		
Closed	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="closed"	System set date and time indicating when the aggregation was closed	0..1	M14.4.5
Destroyed	archdesc/c/did/unitdate archdesc/c/did/unitdatestructured	datechar="destroyed"	System set date and time indicating when the entity was destroyed	0..1	M14.4.17
MaxLevelsOfAggregation	archdesc/c/did/didnote@type="max_aggregation_levels"		The maximum number of levels of aggregation allowed below a root aggregation	0..1	M14.4.52
ParentAggregationId	archdesc/c/did/didnote@type="aggregation_id"		Parent aggregation for a child aggregation	0..1	M14.4.63
SystemId	archdesc/c/did/unitid	localtype="system_id"	Universally unique identifier for an entity that is generated automatically by the system and stays with the entity forever	1..1	M14.4.100
Extrайд	archdesc/c/did/unitid	localtype, label	Any external identifier that is used by an ERMS system or is required in a country Use localtype and label attributes for type or name of the ID that is used in this field	0..n	
Notes	archdesc/c/did/note/p		Notes	0..n	
Subject	archdesc/c/did/abstract/subject/part	localtype, relator	Subject of the record Use localtype, relator attributes on subject element to mark keyword source type (free text described by creator or ontology subject related by archivist)	0..n	
Keywords	archdesc/c/index/head="keywords" archdesc/c/index/indexentry/subject		Keywords	0..n	
GeographicalLocations	archdesc/c/index/head="location_index"		List of related geographical locations	0..n	

DLM Archival Standards Board

	archdesc/c/index/indexentry/geogname				
FindingAid	archdesc/c/otherfindaid/p		Information about any finding aids that the repository or records creator may have that provide information relating to the context and contents of the unit of description.	0..n	
Publication	control/filedesc/publicationstmt/publisher control/filedesc/publicationstmt/address control/filedesc/publicationstmt/date		Publications that are about or are based on the use, study, or analysis of the unit of description	0..n	
Description Source	control/sources/source/sourceentry		References to publications and other materials used for description	0..n	
Creator	archdesc/c/did/origination/name/part archdesc/c/did/origination/corpname/part archdesc/c/did/origination/famname/part archdesc/c/did/origination/persname/part	label="creator"	An entity primarily for making the content or the resource; an entity primarily responsible for making the resource (comment: Examples of a Creator include a person, an organization, or a service)	0..n	
Owner	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="owner"	Responsible person or role	0..n	
Editor	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="editor"	Person(s) who can edit the aggregation (including adding)	0..n	
Administrator	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="administrator"	Administrator of the aggregation	0..n	
Reader	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part	relator="reader"	Everyone who should be able to read the contents of the aggregation	0..n	

DLM Archival Standards Board

Other	archdesc/c/controlaccess/name/part archdesc/c/controlaccess/persname/part archdesc/c/controlaccess/corpname/part archdesc/c/controlaccess/famname/part	relator	Other persons/organizations related to the aggregation	0..n	
AggregationType	archdesc	level, otherlevel	Type of the aggregation (e.g. case file, subfile etc.)	0..n	
Language	archdesc/c/did/langmaterial/language archdesc/c/did/langmaterial/languageset/language		Language of archived textual content, Examples: "EST", "ENG", "GER"	0..n	
MovedRecords	control/maintenancehistory/maintenanceevent/ eventtype value="moved"		Information about records that have been moved to other aggregations	0..n	
DeletedRecords	control/maintenancehistory/maintenanceevent/ eventtype value="deleted"		Explanation of the fact that the record has been deleted by the administrator or has been destroyed due to technical errors.	0..n	
TitleLanguage	control/languagedeclaration/language		Language of the record	0..n	
ScriptingSystem	archdesc/c/did/langmaterial/language/script		Examples: "Latin", "Cyrillic", "Hebrew"	0..n	
AggregationStatus	control/filedesc/notestmt/controlnote	localtype="aggregation_status"	Status of the aggregation	0..n	
Decision	archdesc/c/odd/chronlist/head="decisions"		Decision about the aggregation	0..n	
DecisionDate	archdesc/c/odd/chronlist/head="decisions" archdesc/c/odd/chronlist/chronitem	chronitem@localtype="decision_date"	Date of the decision about the aggregation	0..n	
DecisionDeadline	archdesc/c/odd/chronlist/head="decision" archdesc/c/odd/chronlist/chronitem	chronitem@localtype="decision_deadline"	Deadline of decision about the aggregation	0..1	
ArchivalHistory	archdesc/c/custodhist/p		Information on the history of the unit of description that is significant for its authenticity, integrity and	0..n	

			interpretation		
ReceivedDate	archdesc/c/odd/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@localtype="received"	Date and time when the aggregation was received	0..1	
ClassificationDate	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@localtype="classification"	Date of classification	0..1	
OwnershipStartDate	archdesc/c/acqinfo/chronlist/chronitem/datesingle	chronitem@localtype="ownership_start"	Date when ownership started	0..1	
PhysicalLocation	archdesc/c/did/physloc		Physical or logical placement of the aggregation	0..n	
ExtentUnit	archdesc/c/did/physdescstructured/unittype	physdescstructured@physdescstructuredtype ="spaceoccupied"	The unit used to describe the extent of the aggregation (e.g MB)	0..n	
ExtentValue	archdesc/c/did/physdescstructured/quantity	physdescstructured@physdescstructuredtype ="spaceoccupied"	The extent of the aggregation expressed in the unit in the previous field	0..n	
SystemOfArrangement	archdesc/c/arrangement		Information on the internal structure of the aggregation, the order and/or the system of contents	0..n	
RelatedAggregation	archdesc/c/relatedmaterial	localtype=<type of relation>	ID of a related aggregation	0..n	
OwnTextElement	archdesc/c/odd	localtype=<Own Element Description>	Any additional metadata	0..n	
Security classification	archdesc/c/accessrestrict	localtype="security_classification"	Security classification of the records in the aggregation	0..n	

DLM Archival Standards Board

Access restriction	archdesc/c/accessrestrict/p		Textfield for describing the restriction	0..n	
ExplanatoryText					
Regulation	archdesc/c/legalstatus		An element for indicating the statutorily defined status of the aggregation.	0..n	
RestrictionStartDate	archdesc/c/accessrestrict/chronlist/chronitem/daterange/fromdate	chronitem@localtype="restriction_period"	Start date of the restriction	0..n	
RestrictionEndDate	archdesc/c/accessrestrict/chronlist/chronitem/daterange/todate	chronitem@localtype="restriction_period"	End date of the restriction	0..n	
RestrictionDuration	archdesc/c/accessrestrict/chronlist/chronitem/event/list/item		Duration of the restriction	0..n	
RestrictionType	archdesc/c/accessrestrict/chronlist/chronitem/event	localtype="restriction_type"	Type of the restriction	0..n	
AppraisalDate	archdesc/c/appraisal/chronlist/chronitem/datesingle archdesc/c/appraisal/chronlist/chronitem/daterange		Date of appraisal	0..n	
AppraisalDecision	archdesc/c/appraisal/chronlist/chronitem/event		Appraisal decision	0..n	
AppraisalDescription	archdesc/c/appraisal/p		Appraisal description	0..n	
IPROwner	archdesc/c/userrestrict/p/name archdesc/c/userrestrict/p/persname archdesc/c/userrestrict/p/corpname		Copyright owner	0..n	
Reproduction conditions	archdesc/c/userrestrict/list/item		IPR condition description	0..n	
IPRDURATION	archdesc/c/userrestrict/list/item		Restriction duration	0..n	
IPRTYPE	archdesc/c/userrestrict/list/item		Reference to IPR type according legislative act	0..n	
CopyrightNotice	archdesc/c/userrestrict/list/item		Information about copyrights	0..n	

DLM Archival Standards Board

LoanDate	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/daterange/fromdate	chronitem@localitytype="loan"	Date of loan	0..n	
Borrower	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname archdesc/c/odd/chronlist/chronitem/event/corpname	chronitem@localitytype="loan" *name@relator="borrower"	Borrower	0..n	
AuthorizingPerson	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@localitytype="loan" *name@relator="authorising_person"	Person authorizing the loan	0..n	
TakeBackDate	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/custodhist/chronlist/chronitem/daterange/todate	chronitem@localitytype="loan"	Date of take back	0..n	
ResponsiblePerson	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name	chronitem@localitytype="loan" *name@relator="responsible_person"	Person responsible for taking back after loan	0..n	

DLM Archival Standards Board

	archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname				
ArchiverName	archdesc/c/odd/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@locality="archive_d" *name@relator="archiver"	Person responsible for inhouse archiving	0..n	
ArchivingDate	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@locality="archive_d"	Date of inhouse archiving	0..n	
DisposalDate	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/datesingle	chronitem@locality="dispose_d_of"	Disposal date	0..n	
DisposingPerson	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname archdesc/c/odd/chronlist/chronitem/event/famname	chronitem@locality="dispose_d_of" *name@relator="disposing_person"	Person carrying out the disposal action	0..n	
SupervisingPerson	archdesc/c/odd/chronlist/head="aggregation_history" archdesc/c/odd/chronlist/chronitem/event/name archdesc/c/odd/chronlist/chronitem/event/persname	chronitem@locality="dispose_d_of" *name@relator="supervising_p"	Person supervising the disposal	0..n	

	e archdesc/c/odd/chronlist/chronitem/event/famname	erson"			
TransferDate	archdesc/c/acqinfo/chronlist/chronitem/datesingle	chronitem@localtype="transfer" "	Date of transfer to the archive	0..n	
Deliverer	archdesc/c/acqinfo/chronlist/chronitem/event/name archdesc/c/acqinfo/chronlist/chronitem/event/person archdesc/c/acqinfo/chronlist/chronitem/event/famname	chronitem@localtype="transfer" " *name@relator="delivering_person"	Person responsible for the delivery to the archive	0..n	
Recipient	archdesc/c/acqinfo/chronlist/chronitem/event/name archdesc/c/acqinfo/chronlist/chronitem/event/person archdesc/c/acqinfo/chronlist/chronitem/event/famname	chronitem@localtype="transfer" " *name@relator="receiving_person"	Person responsible for receipt in the archive	0..n	

6.2 Appendix II: Metadata example based on NOARK 5

The following example demonstrates one possible way to use NOARK 5 metadata in SMURF ERMS.

The NOARK 5 delivery package should contain:

- Documentation of the contents of arkivuttrekket (arkivuttrekk.xml)
- Metadata about the documents (arkivstruktur.xml)
- Logging information of changes in metadata (endringslogg.xml)

If delivery package includes archive extraction with journaling mandatory information, it shall also contain the loependeJournal.xml and offentligJournal.xml files. All of these files are represented in the following example.

```
<?xml version="1.0" encoding="utf-8"?>
<ead xmlns="http://ead3.archivists.org/schema/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://ead3.archivists.org/schema/ead3.xsd">
    <!--A required child element of <ead> for recording bibliographic and administrative information about an EAD instance.-->
    <control>
        <!--Record Identifier. A required child element of <control> that designates a unique identifier for the EAD instance.-->
        <recordid>eadc4791-51e9-4e74-b1fa-c18035c17cda</recordid>
        <filedesc>
            <!--Title Statement. A required child element of <filedesc> that binds together information about the name of an encoded finding aid and those responsible for its content.-->
            <titlestmt>
                <titleproper>Ministry of Justice</titleproper>
            </titlestmt>
            <!--Note Statement. A child element of notestmt, used to provide a general note related to the EAD instance.-->
            <notestmt>
                <controlnote>
                    <p>This EAD file is compliant with the E-ARK project SMURF Specification, Version 1.0.</p>
                </controlnote>
            </notestmt>
        </filedesc>
        <!--A required child element of <control> that records the current version status of the EAD instance.-->
        <maintenancestatus value="new"></maintenancestatus>
        <maintenanceagency>
            <agencyname>The National Archives of Estonia</agencyname>
        </maintenanceagency>
        <maintenancehistory>
            <maintenanceevent>
                <eventtype value="created"></eventtype>
                <eventdatetime>2016-10-17T10:14:28.8200000</eventdatetime>
                <agenttype value="machine"></agenttype>
                <agent>UAM</agent>
            </maintenanceevent>
        </maintenancehistory>
    </control>
    <!--Archival Description. A required child element of <ead> that binds together all of the archival descriptive information in an EAD instance.-->
```

```

<archdesc level="fonds">
    <did>
        <unitid label="current">ERA.14</unitid>
        <abstract>This EAD file is compliant with the E-ARK project SMURF Specification, Version 1.0.</abstract>
        <origination label="Creator">
            <name>
                <part>Ministry of Justice</part>
            </name>
        </origination>
    </did>
    <accessrestrict>
        <p>Restricted</p>
    </accessrestrict>
    <dsc>
        <c level="series">
            <did>
                <unitid label="current">ERA.14-1-18</unitid>
                <unittitle>Meeting protocols</unittitle>
            </did>
            <accessrestrict>
                <p>Restricted</p>
            </accessrestrict>
            <c level="file">
                <did>
                    <unitid label="current">ERA.14-1-18-1</unitid>
                    <unittitle>Meeting 01.05.2016</unittitle>
                </did>
                <accessrestrict>
                    <p>Restricted</p>
                </accessrestrict>
                <!-- A record-->
                <c level="item">
                    <did>
                        <!--Universally unique identifier for an entity that is generated automatically by the system and stays with the entity
forever-->
                        <unitid locality="current">ERA.14-1-18-1-1</unitid>
                        <!--The identifying name or title of the entity-->
                        <unittitle>Protocol No 1/2016</unittitle>
                        <!--System set date and time when the entity was created. Can be represented as unitdatestructured as well.-->

```

```

        <unitdate datechar="created">2004-01-08T00:00:00</unitdate>
        <abstract>This is a memo from 01.05.2016.</abstract>
    </did>
    <accessrestrict>
        <chronlist>
            <chronitem>
                <daterange>
                    <fromdate>01.05.2016</fromdate>
                    <todate>02.05.2091</todore>
                </daterange>
                <event>
                    <list>
                        <!--Type of the restriction (e.g. personal data)-->
                        <item>DEI</item>
                        <!--Duration of the restriction in years (e.g. 25 years)-->
                        <item>75 years</item>
                        <!--Source of the restriction (e.g. Public access law AvTS § 7)-->
                        <item>Public access law AvTS § 7</item>
                        <!--additional description of the access restriction (e.g. The content can be made
                            public if personal data is removed from the DIP)-->
                        <item>The content can be made public if personal data is removed from the
                            DIP</item>
                    </list>
                </event>
            </chronitem>
        </chronlist>
    </accessrestrict>

    <!--Metadata based on arkivstruktur.xsd-->
    <odd locality="arkiv">
        <odd locality="systemID"><p></p></odd>
        <odd locality="tittel"><p></p></odd>
        <odd locality="beskrivelse"><p></p></odd>
        <odd locality="arkivstatus"><p></p></odd>
        <odd locality="dokumentmedium"><p></p></odd>
        <odd locality="oppbevaringssted"><p></p></odd>
        <odd locality="opprettetDato"><p></p></odd>
        <odd locality="opprettetAv"><p></p></odd>
        <odd locality="avsluttetDato"><p></p></odd>
    
```

```
<odd locality="avsluttetAv"><p></p></odd>
<odd locality="arkivskaper">
    <odd locality="arkivskaperID"><p></p></odd>
    <odd locality="arkivskaperNavn"><p></p></odd>
    <odd locality="beskrivelse"><p></p></odd>
</odd>
<odd locality="arkiv"><p></p></odd>
<odd locality="arkivdel">
    <odd locality="systemID"><p></p></odd>
    <odd locality="tittel"><p></p></odd>
    <odd locality="beskrivelse"><p></p></odd>
    <odd locality="arkivdelstatus"><p></p></odd>
    <odd locality="dokumentmedium"><p></p></odd>
    <odd locality="oppbevaringssted"><p></p></odd>
    <odd locality="opprettetDato"><p></p></odd>
    <odd locality="opprettetAv"><p></p></odd>
    <odd locality="avsluttetDato"><p></p></odd>
    <odd locality="avsluttetAv"><p></p></odd>
    <odd locality="arkivperiodeStartDato"><p></p></odd>
    <odd locality="arkivperiodeSluttDato"><p></p></odd>
    <odd locality="referanseForlooper"><p></p></odd>
    <odd locality="referanseArvtaker"><p></p></odd>
    <odd locality="kassasjon">
        <odd locality="kassasjonsvedtak"><p></p></odd>
        <odd locality="kassasjonshjemmel"><p></p></odd>
        <odd locality="bevaringstid"><p></p></odd>
        <odd locality="kassasjonsdato"><p></p></odd>
    </odd>
    <odd locality="utfoertKassasjon">
        <odd locality="kassertDato"><p></p></odd>
        <odd locality="kassertAv"><p></p></odd>
    </odd>
    <odd locality="sletting">
        <odd locality="slettingstype"><p></p></odd>
        <odd locality="slettetDato"><p></p></odd>
        <odd locality="slettetAv"><p></p></odd>
    </odd>
    <odd locality="skjerming">
        <odd locality="tilgangsrestriksjon"><p></p></odd>
```

```
<odd localtype="skjermingshjemmel"><p></p></odd>
<odd localtype="skjermingMetadata"><p></p></odd>
<odd localtype="skjermingDokument"><p></p></odd>
<odd localtype="skjermingsvarighet"><p></p></odd>
<odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="klassifikasjonssystem">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="klassifikasjonstype"><p></p></odd>
    <odd localtype="tittel"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
    <odd localtype="opprettetDato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="avsluttetDato"><p></p></odd>
    <odd localtype="avsluttetAv"><p></p></odd>
    <odd localtype="klasse">
        <odd localtype="systemID"><p></p></odd>
        <odd localtype="klasselID"><p></p></odd>
        <odd localtype="tittel"><p></p></odd>
        <odd localtype="beskrivelse"><p></p></odd>
        <odd localtype="noekkelord"><p></p></odd>
        <odd localtype="opprettetDato"><p></p></odd>
        <odd localtype="opprettetAv"><p></p></odd>
        <odd localtype="avsluttetDato"><p></p></odd>
        <odd localtype="avsluttetAv"><p></p></odd>
        <odd localtype="kryssreferanse"><p></p></odd>
        <odd localtype="kassasjon">
            <odd localtype="kassasjonsvedtak"><p></p></odd>
            <odd localtype="kassasjonshjemmel"><p></p></odd>
            <odd localtype="bevaringstid"><p></p></odd>
            <odd localtype="kassasjonsdato"><p></p></odd>
        </odd>
    </odd>
```

```
<odd localtype="skjerming">
  <odd localtype="tilgangsrestriksjon"><p></p></odd>
  <odd localtype="skjermingshjemmel"><p></p></odd>
  <odd localtype="skjermingMetadata"><p></p></odd>
  <odd localtype="skjermingDokument"><p></p></odd>
  <odd localtype="skjermingsvarighet"><p></p></odd>
  <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
  <odd localtype="gradering"><p></p></odd>
  <odd localtype="graderingsdato"><p></p></odd>
  <odd localtype="gradertAv"><p></p></odd>
  <odd localtype="nedgraderingsdato"><p></p></odd>
  <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="klasse"><p></p></odd>
<odd localtype="mappe">
  <odd localtype="systemID"><p></p></odd>
  <odd localtype="mappeID"><p></p></odd>
  <odd localtype="tittel"><p></p></odd>
  <odd localtype="offentligTittel"><p></p></odd>
  <odd localtype="beskrivelse"><p></p></odd>
  <odd localtype="noekkelord"><p></p></odd>
  <odd localtype="dokumentmedium"><p></p></odd>
  <odd localtype="oppbevaringssted"><p></p></odd>
  <odd localtype="opprettetDato"><p></p></odd>
  <odd localtype="opprettetAv"><p></p></odd>
  <odd localtype="avsluttetDato"><p></p></odd>
  <odd localtype="avsluttetAv"><p></p></odd>
  <odd localtype="referanseArkivdel"><p></p></odd>
  <odd localtype="virksomhetsspesifikkeMetadata"><p></p></odd>
  <odd localtype="kryssreferanse">
    <odd localtype="referanseTilKlasse"><p></p></odd>
    <odd localtype="referanseTilMappe"><p></p></odd>
    <odd localtype="referanseTilRegistrering"><p></p></odd>
  </odd>
  <odd localtype="merknad">
    <odd localtype="merknadstekst"><p></p></odd>
    <odd localtype="merknadstype"><p></p></odd>
```

```
<odd locality="merknadsdato"><p></p></odd>
<odd locality="merknadRegistrertAv"><p></p></odd>
</odd>
<odd locality="kassasjon">
    <odd locality="kassasjonsvedtak"><p></p></odd>
    <odd locality="kassasjonshjemmel"><p></p></odd>
    <odd locality="bevaringstid"><p></p></odd>
    <odd locality="kassasjonsdato"><p></p></odd>
</odd>
<odd locality="skjerming">
    <odd locality="tilgangsrestriksjon"><p></p></odd>
    <odd locality="skjermingshjemmel"><p></p></odd>
    <odd locality="skjermingMetadata"><p></p></odd>
    <odd locality="skjermingDokument"><p></p></odd>
    <odd locality="skjermingsvarighet"><p></p></odd>
    <odd locality="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd locality="gradering">
    <odd locality="gradering"><p></p></odd>
    <odd locality="graderingsdato"><p></p></odd>
    <odd locality="gradertAv"><p></p></odd>
    <odd locality="nedgraderingsdato"><p></p></odd>
    <odd locality="nedgradertAv"><p></p></odd>
</odd>
<odd locality="mappe"><p></p></odd>
<odd locality="registrering">
    <odd locality="systemID"><p></p></odd>
    <odd locality="opprettetDato"><p></p></odd>
    <odd locality="opprettetAv"><p></p></odd>
    <odd locality="arkivertDato"><p></p></odd>
    <odd locality="arkivertAv"><p></p></odd>
    <odd locality="referanseArkivdel"><p></p></odd>
    <odd locality="kassasjon">
        <odd locality="kassasjonsvedtak"><p></p></odd>
        <odd locality="kassasjonshjemmel"><p></p></odd>
        <odd locality="bevaringstid"><p></p></odd>
        <odd locality="kassasjonsdato"><p></p></odd>
    </odd>
    <odd locality="skjerming">
```

```
<odd localtype="tilgangsrestriksjon"><p></p></odd>
<odd localtype="skjermingshjemmel"><p></p></odd>
<odd localtype="skjermingMetadata"><p></p></odd>
<odd localtype="skjermingDokument"><p></p></odd>
<odd localtype="skjermingsvarighet"><p></p></odd>
<odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>

<odd localtype="dokumentbeskrivelse">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="dokumenttype"><p></p></odd>
    <odd localtype="dokumentstatus"><p></p></odd>
    <odd localtype="titel"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
    <odd localtype="forfatter"><p></p></odd>
    <odd localtype="opprettetDato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="dokumentmedium"><p></p></odd>
    <odd localtype="oppbevaringssted"><p></p></odd>
    <odd localtype="referanseArkivdel"><p></p></odd>
    <odd localtype="tilknyttetRegistreringSom"><p></p></odd>
    <odd localtype="dokumentnummer"><p></p></odd>
    <odd localtype="tilknyttetDato"><p></p></odd>
    <odd localtype="tilknyttetAv"><p></p></odd>
    <odd localtype="merknad">
        <odd localtype="merknadstekst"><p></p></odd>
        <odd localtype="merknadstype"><p></p></odd>
        <odd localtype="merknadsdato"><p></p></odd>
        <odd localtype="merknadRegistrertAv"><p></p></odd>
    </odd>
    <odd localtype="kassasjon">
        <odd localtype="kassasjonsvedtak"><p></p></odd>
```

```
<odd localtype="kassasjonshjemmel"><p></p></odd>
<odd localtype="bevaringstid"><p></p></odd>
<odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="utfoertKassasjon">
  <odd localtype="kassertDato"><p></p></odd>
  <odd localtype="kassertAv"><p></p></odd>
</odd>
<odd localtype="sletting">
  <odd localtype="slettingstype"><p></p></odd>
  <odd localtype="slettetDato"><p></p></odd>
  <odd localtype="slettetAv"><p></p></odd>
</odd>
<odd localtype="skjerming">
  <odd localtype="tilgangsrestriksjon"><p></p></odd>
  <odd localtype="skjermingshjemmel"><p></p></odd>
  <odd localtype="skjermingMetadata"><p></p></odd>
  <odd localtype="skjermingDokument"><p></p></odd>
  <odd localtype="skjermingsvarighet"><p></p></odd>
  <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
  <odd localtype="gradering"><p></p></odd>
  <odd localtype="graderingsdato"><p></p></odd>
  <odd localtype="gradertAv"><p></p></odd>
  <odd localtype="hedgraderingsdato"><p></p></odd>
  <odd localtype="hedgradertAv"><p></p></odd>
</odd>
<odd localtype="elektroniskSignatur">
  <odd
    <odd
      <odd localtype="verifisertDato"><p></p></odd>
      <odd localtype="verifisertAv"><p></p></odd>
    </odd>
    <odd localtype="dokumentobjekt">
      <odd localtype="versjonsnummer"><p></p></odd>
      <odd localtype="variantformat"><p></p></odd>
    </odd>
  </odd>
</odd>
localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>
```

```
<odd localtype="format"><p></p></odd>
<odd localtype="formatDetaljer"><p></p></odd>
<odd localtype="opprettetdato"><p></p></odd>
<odd localtype="opprettetAv"><p></p></odd>
<odd localtype="referanseDokumentfil"><p></p></odd>
<odd localtype="sjekksum"><p></p></odd>
<odd localtype="sjekksumAlgoritme"><p></p></odd>
<odd localtype="filstørrelse"><p></p></odd>
<odd localtype="elektroniskSignatur">
    <odd
        <odd
            <odd localtype="verifisertdato"><p></p></odd>
            <odd localtype="verifisertAv"><p></p></odd>
        </odd>
        <odd localtype="konvertering">
            <odd localtype="konvertertdato"><p></p></odd>
            <odd localtype="konvertertAv"><p></p></odd>
        <odd
            <odd
                <odd localtype="konvertertFraFormat"><p></p></odd>
                <odd localtype="konvertertTilFormat"><p></p></odd>
                <odd localtype="konverteringsverktøy"><p></p></odd>
                <odd localtype="konverteringskommentar"><p></p></odd>
                    <odd
                        <odd
                            <odd localtype="dokumentobjekt">
                                <odd localtype="versjonsnummer"><p></p></odd>
                                <odd localtype="variantformat"><p></p></odd>
                                <odd localtype="format"><p></p></odd>
                                <odd localtype="formatDetaljer"><p></p></odd>
                                <odd localtype="opprettetdato"><p></p></odd>
                                <odd localtype="opprettetAv"><p></p></odd>
                                <odd localtype="referanseDokumentfil"><p></p></odd>
```

```
<odd localtype="sjekksum"><p></p></odd>
<odd localtype="sjekksumAlgoritme"><p></p></odd>
<odd localtype="filstørrelse"><p></p></odd>
<odd localtype="elektroniskSignatur">
    <odd
        localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
    <odd localtype="elektroniskSignaturVerifisert"><p></p></odd>
        <odd localtype="verifisertdato"><p></p></odd>
        <odd localtype="verifisertAv"><p></p></odd>
    </odd>
    <odd localtype="konvertering">
        <odd localtype="konvertertdato"><p></p></odd>
        <odd localtype="konvertertav"><p></p></odd>
        <odd localtype="konvertertfraformat"><p></p></odd>
        <odd localtype="konverterttilformat"><p></p></odd>
        <odd localtype="konverteringsverktøy"><p></p></odd>
        <odd localtype="konverteringskommentar"><p></p></odd>
    </odd>
    </odd>
</odd>
<odd localtype="registrering">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="opprettetdato"><p></p></odd>
    <odd localtype="opprettetav"><p></p></odd>
    <odd localtype="arkivertdato"><p></p></odd>
    <odd localtype="arkivertav"><p></p></odd>
    <odd localtype="referanseArkivdel"><p></p></odd>
    <odd localtype="kassasjon">
        <odd localtype="kassasjonsvedtak"><p></p></odd>
        <odd localtype="kassasjonsjemmel"><p></p></odd>
        <odd localtype="bevaringstid"><p></p></odd>
        <odd localtype="kassasjonsdato"><p></p></odd>
    </odd>
    <odd localtype="skjerming">
        <odd localtype="tilgangsrestriksjon"><p></p></odd>
```

```
<odd localtype="skjermingshjemmel"><p></p></odd>
<odd localtype="skjermingMetadata"><p></p></odd>
<odd localtype="skjermingDokument"><p></p></odd>
<odd localtype="skjermingsvarighet"><p></p></odd>
<odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
  <odd localtype="gradering"><p></p></odd>
  <odd localtype="graderingsdato"><p></p></odd>
  <odd localtype="gradertAv"><p></p></odd>
  <odd localtype="nedgraderingsdato"><p></p></odd>
  <odd localtype="nedgradertAv"><p></p></odd>
</odd>

<odd localtype="dokumentbeskrivelse">
  <odd localtype="systemID"><p></p></odd>
  <odd localtype="dokumenttype"><p></p></odd>
  <odd localtype="dokumentstatus"><p></p></odd>
  <odd localtype="tittel"><p></p></odd>
  <odd localtype="beskrivelse"><p></p></odd>
  <odd localtype="forfatter"><p></p></odd>
  <odd localtype="opprettetDato"><p></p></odd>
  <odd localtype="opprettetAv"><p></p></odd>
  <odd localtype="dokumentmedium"><p></p></odd>
  <odd localtype="oppbevaringssted"><p></p></odd>
  <odd localtype="referanseArkivdel"><p></p></odd>
  <odd localtype="tilknyttetRegistreringSom"><p></p></odd>
  <odd localtype="dokumentnummer"><p></p></odd>
  <odd localtype="tilknyttetDato"><p></p></odd>
  <odd localtype="tilknyttetAv"><p></p></odd>
  <odd localtype="merknad">
    <odd localtype="merknadstekst"><p></p></odd>
    <odd localtype="merknadstype"><p></p></odd>
    <odd localtype="merknadsdato"><p></p></odd>
    <odd localtype="merknadRegistrertAv"><p></p></odd>
  </odd>
  <odd localtype="kassasjon">
    <odd localtype="kassasjonsvedtak"><p></p></odd>
    <odd localtype="kassasjonshjemmel"><p></p></odd>
```

```
localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>
<odd localtype="bevaringstid"><p></p></odd>
<odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="utfoertKassasjon">
    <odd localtype="kassertdato"><p></p></odd>
    <odd localtype="kassertAv"><p></p></odd>
</odd>
<odd localtype="sletting">
    <odd localtype="slettingstype"><p></p></odd>
    <odd localtype="slettetdato"><p></p></odd>
    <odd localtype="slettetAv"><p></p></odd>
</odd>
<odd localtype="skjerming">
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="skjermingshjemmel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="skjermingDokument"><p></p></odd>
    <odd localtype="skjermingsvarighet"><p></p></odd>
    <odd localtype="skjermingOpphoererData"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="elektroniskSignatur">
    <odd
        <odd
            <odd
                <odd localtype="verifisertdato"><p></p></odd>
                <odd localtype="verifisertAv"><p></p></odd>
            </odd>
            <odd localtype="dokumentobjekt">
                <odd localtype="versjonsnummer"><p></p></odd>
                <odd localtype="variantformat"><p></p></odd>
                <odd localtype="format"><p></p></odd>
            </odd>
        </odd>
    </odd>
</odd>
```

```
<odd localsection="formatDetaljer"><p></p></odd>
<odd localsection="opprettetdato"><p></p></odd>
<odd localsection="opprettetav"><p></p></odd>
<odd localsection="referanseDokumentfil"><p></p></odd>
<odd localsection="sjekksum"><p></p></odd>
<odd localsection="sjekksumAlgoritme"><p></p></odd>
<odd localsection="filstørrelse"><p></p></odd>
<odd localsection="elektroniskSignatur">
    <odd
        <odd
            <odd localsection="verifisertdato"><p></p></odd>
            <odd localsection="verifisertav"><p></p></odd>
        </odd>
        <odd localsection="konvertering">
            <odd localsection="konvertertdato"><p></p></odd>
            <odd localsection="konvertertav"><p></p></odd>
        </odd>
        <odd
            <odd
                <odd localsection="konvertertfracformat"><p></p></odd>
                <odd localsection="konverterttilformat"><p></p></odd>
                <odd localsection="konverteringsverktøy"><p></p></odd>
                <odd localsection="konverteringskommentar"><p></p></odd>
                    </odd>
                    </odd>
                </odd>
            </odd>
            <odd localsection="dokumentobjekt">
                <odd localsection="versjonsnummer"><p></p></odd>
                <odd localsection="variantformat"><p></p></odd>
                <odd localsection="format"><p></p></odd>
                <odd localsection="formatDetaljer"><p></p></odd>
                <odd localsection="opprettetdato"><p></p></odd>
                <odd localsection="opprettetav"><p></p></odd>
                <odd localsection="referanseDokumentfil"><p></p></odd>
                <odd localsection="sjekksum"><p></p></odd>
            </odd>
        </odd>
    </odd>
</odd>
```

```
localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>
<odd localtype="sjekksumAlgoritme"><p></p></odd>
<odd localtype="filstoerrelse"><p></p></odd>
<odd localtype="elektroniskSignatur">
    <odd
        <odd
            <odd localtype="verifisertdato"><p></p></odd>
            <odd localtype="verifisertAv"><p></p></odd>
        </odd>
        <odd localtype="konvertering">
            <odd localtype="konvertertData"><p></p></odd>
            <odd localtype="konvertertAv"><p></p></odd>
            <odd localtype="konvertertFraFormat"><p></p></odd>
            <odd localtype="konvertertTilFormat"><p></p></odd>
            <odd localtype="konverteringsverktøy"><p></p></odd>
            <odd localtype="konverteringskommentar"><p></p></odd>
        </odd>
    </odd>
</odd>
</odd>

</odd>

<odd localtype="mappe">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="mappeID"><p></p></odd>
    <odd localtype="tittel"><p></p></odd>
    <odd localtype="offentligTittel"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
    <odd localtype="noekkelord"><p></p></odd>
    <odd localtype="dokumentmedium"><p></p></odd>
    <odd localtype="oppbevaringssted"><p></p></odd>
    <odd localtype="opprettetdato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="avsluttetdato"><p></p></odd>
    <odd localtype="avsluttetAv"><p></p></odd>
    <odd localtype="referanseArkivdel"><p></p></odd>
```

```
<odd localtype="virksomhetsspesifikkeMetadata"><p></p></odd>
<odd localtype="kryssreferanse">
    <odd localtype="referanseTilKlasse"><p></p></odd>
    <odd localtype="referanseTilMappe"><p></p></odd>
    <odd localtype="referanseTilRegistrering"><p></p></odd>
</odd>
<odd localtype="merknad">
    <odd localtype="merknadstekst"><p></p></odd>
    <odd localtype="merknadstype"><p></p></odd>
    <odd localtype="merknadsdato"><p></p></odd>
    <odd localtype="merknadRegistrertAv"><p></p></odd>
</odd>
<odd localtype="kassasjon">
    <odd localtype="kassasjonsvedtak"><p></p></odd>
    <odd localtype="kassasjonshjemmel"><p></p></odd>
    <odd localtype="bevaringstid"><p></p></odd>
    <odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="skjerming">
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="skjermingshjemmel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="skjermingDokument"><p></p></odd>
    <odd localtype="skjermingsvarighet"><p></p></odd>
    <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="mappe"><p></p></odd>
<odd localtype="registrering">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="opprettetDato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="arkivertDato"><p></p></odd>
```

```
<odd localtype="arkivertAv"><p></p></odd>
<odd localtype="referanseArkivdel"><p></p></odd>
<odd localtype="kassasjon">
    <odd localtype="kassasjonsvedtak"><p></p></odd>
    <odd localtype="kassasjonsjimmel"><p></p></odd>
    <odd localtype="bevaringstid"><p></p></odd>
    <odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="skjerming">
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="skjermingsjimmel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="skjermingDokument"><p></p></odd>
    <odd localtype="skjermingsvarighet"><p></p></odd>
    <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="dokumentbeskrivelse">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="dokumenttype"><p></p></odd>
    <odd localtype="dokumentstatus"><p></p></odd>
    <odd localtype="tittel"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
    <odd localtype="forfatter"><p></p></odd>
    <odd localtype="opprettetDato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="dokumentmedium"><p></p></odd>
    <odd localtype="oppbevaringssted"><p></p></odd>
    <odd localtype="referanseArkivdel"><p></p></odd>
    <odd localtype="tilknyttetRegistreringSom"><p></p></odd>
    <odd localtype="dokumentnummer"><p></p></odd>
    <odd localtype="tilknyttetDato"><p></p></odd>
```

```
<odd locality="tilknyttetAv"><p></p></odd>
<odd locality="merknad">
    <odd locality="merknadstekst"><p></p></odd>
    <odd locality="merknadstype"><p></p></odd>
    <odd locality="merknadsdato"><p></p></odd>
    <odd locality="merknadRegistrertAv"><p></p></odd>
</odd>
<odd locality="kassasjon">
    <odd locality="kassasjonsvedtak"><p></p></odd>
    <odd locality="kassasjonshjemmel"><p></p></odd>
    <odd locality="bevaringstid"><p></p></odd>
    <odd locality="kassasjonsdato"><p></p></odd>
</odd>
<odd locality="utfoertKassasjon">
    <odd locality="kassertdato"><p></p></odd>
    <odd locality="kassertav"><p></p></odd>
</odd>
<odd locality="sletting">
    <odd locality="slettingstype"><p></p></odd>
    <odd locality="slettetdato"><p></p></odd>
    <odd locality="slettetav"><p></p></odd>
</odd>
<odd locality="skjerming">
    <odd locality="tilgangsrestriksjon"><p></p></odd>
    <odd locality="skjermingshjemmel"><p></p></odd>
    <odd locality="skjermingMetadata"><p></p></odd>
    <odd locality="skjermingDokument"><p></p></odd>
    <odd locality="skjermingsvarighet"><p></p></odd>
    <odd locality="skjermingOpphoererData"><p></p></odd>
</odd>
<odd locality="gradering">
    <odd locality="gradering"><p></p></odd>
    <odd locality="graderingsdato"><p></p></odd>
    <odd locality="gradertav"><p></p></odd>
    <odd locality="nedgraderingsdato"><p></p></odd>
    <odd locality="nedgradertav"><p></p></odd>
</odd>
<odd locality="elektroniskSignatur">
```

```

localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>

localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>

localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
localtype="elektroniskSignaturVerifisert"><p></p></odd>

localtype="konvertertFraFormat"><p></p></odd>
localtype="konvertertTilFormat"><p></p></odd>
localtype="konverteringsverktøy"><p></p></odd>
localtype="konverteringskommentar"><p></p></odd>

localtype="dokumentobjekt">
  <odd localtype="versjonsnummer"><p></p></odd>
  <odd localtype="variantformat"><p></p></odd>
  <odd localtype="format"><p></p></odd>
  <odd localtype="formatDetaljer"><p></p></odd>
  <odd localtype="opprettetdato"><p></p></odd>
  <odd localtype="opprettetAv"><p></p></odd>
  <odd localtype="referanseDokumentfil"><p></p></odd>
  <odd localtype="sjekksum"><p></p></odd>
  <odd localtype="sjekksumAlgoritme"><p></p></odd>
  <odd localtype="filstørrelse"><p></p></odd>
  <odd localtype="elektroniskSignatur">
    <odd
      <odd localtype="verifisertdato"><p></p></odd>
      <odd localtype="verifisertAv"><p></p></odd>
    </odd>
    <odd localtype="konvertering">
      <odd localtype="konvertertdato"><p></p></odd>
      <odd localtype="konvertertAv"><p></p></odd>
    </odd>
  </odd>
</odd>

```

```
</odd>

<odd localtype="dokumentobjekt">
    <odd localtype="versjonsnummer"><p></p></odd>
    <odd localtype="variantformat"><p></p></odd>
    <odd localtype="format"><p></p></odd>
    <odd localtype="formatDetaljer"><p></p></odd>
    <odd localtype="opprettetdato"><p></p></odd>
    <odd localtype="opprettetav"><p></p></odd>
    <odd localtype="referanseDokumentfil"><p></p></odd>
    <odd localtype="sjekksum"><p></p></odd>
    <odd localtype="sjekksumAlgoritme"><p></p></odd>
    <odd localtype="filstørrelse"><p></p></odd>
    <odd localtype="elektroniskSignatur">
        <odd
            <odd
                <odd localtype="verifisertdato"><p></p></odd>
                <odd localtype="verifisertav"><p></p></odd>
            </odd>
            <odd localtype="konvertering">
                <odd localtype="konvertertdato"><p></p></odd>
                <odd localtype="konvertertav"><p></p></odd>
                <odd localtype="konvertertFraFormat"><p></p></odd>
                <odd localtype="konvertertTilFormat"><p></p></odd>
                <odd localtype="konverteringsverktøy"><p></p></odd>
                <odd localtype="konverteringskommentar"><p></p></odd>
            </odd>
        </odd>
    </odd>
</odd>

<odd localtype="registrering">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="opprettetdato"><p></p></odd>
    <odd localtype="opprettetav"><p></p></odd>
    <odd localtype="arkivertdato"><p></p></odd>
    <odd localtype="arkivertav"><p></p></odd>

```

```
<odd localtype="referanseArkivdel"><p></p></odd>
<odd localtype="kassasjon">
    <odd localtype="kassasjonsvedtak"><p></p></odd>
    <odd localtype="kassasjonshjemmel"><p></p></odd>
    <odd localtype="bevaringstid"><p></p></odd>
    <odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="skjerming">
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="skjermingshjemmel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="skjermingDokument"><p></p></odd>
    <odd localtype="skjermingsvarighet"><p></p></odd>
    <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="dokumentbeskrivelse">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="dokumenttype"><p></p></odd>
    <odd localtype="dokumentstatus"><p></p></odd>
    <odd localtype="titel"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
    <odd localtype="forfatter"><p></p></odd>
    <odd localtype="opprettetDato"><p></p></odd>
    <odd localtype="opprettetAv"><p></p></odd>
    <odd localtype="dokumentmedium"><p></p></odd>
    <odd localtype="oppbevaringssted"><p></p></odd>
    <odd localtype="referanseArkivdel"><p></p></odd>
    <odd localtype="tilknyttetRegistreringSom"><p></p></odd>
    <odd localtype="dokumentnummer"><p></p></odd>
    <odd localtype="tilknyttetDato"><p></p></odd>
    <odd localtype="tilknyttetAv"><p></p></odd>
```

```
<odd localtype="merknad">
    <odd localtype="merknadstekst"><p></p></odd>
    <odd localtype="merknadstype"><p></p></odd>
    <odd localtype="merknadsdato"><p></p></odd>
    <odd localtype="merknadRegistrertAv"><p></p></odd>
</odd>
<odd localtype="kassasjon">
    <odd localtype="kassasjonsvedtak"><p></p></odd>
    <odd localtype="kassasjonshjemmel"><p></p></odd>
    <odd localtype="bevaringstid"><p></p></odd>
    <odd localtype="kassasjonsdato"><p></p></odd>
</odd>
<odd localtype="utfoertKassasjon">
    <odd localtype="kassertDato"><p></p></odd>
    <odd localtype="kassertAv"><p></p></odd>
</odd>
<odd localtype="sletting">
    <odd localtype="slettingstype"><p></p></odd>
    <odd localtype="slettetDato"><p></p></odd>
    <odd localtype="slettetAv"><p></p></odd>
</odd>
<odd localtype="skjerming">
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="skjermingshjemmel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="skjermingDokument"><p></p></odd>
    <odd localtype="skjermingsvarighet"><p></p></odd>
    <odd localtype="skjermingOpphoererDato"><p></p></odd>
</odd>
<odd localtype="gradering">
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="graderingsdato"><p></p></odd>
    <odd localtype="gradertAv"><p></p></odd>
    <odd localtype="nedgraderingsdato"><p></p></odd>
    <odd localtype="nedgradertAv"><p></p></odd>
</odd>
<odd localtype="elektroniskSignatur">
    <odd localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
```

```
localtype="elektroniskSignaturVerifisert"><p></p></odd>  
  
localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>  
  
localtype="elektroniskSignaturVerifisert"><p></p></odd>  
  
localtype="konvertertFraFormat"><p></p></odd>  
  
localtype="konvertertTilFormat"><p></p></odd>  
  
localtype="konverteringsverktoey"><p></p></odd>  
  
localtype="konverteringskommentar"><p></p></odd>
```

```
<odd  
<odd localtype="verifisertdato"><p></p></odd>  
<odd localtype="verifisertAv"><p></p></odd>  
</odd>  
<odd localtype="dokumentobjekt">  
<odd localtype="versjonsnummer"><p></p></odd>  
<odd localtype="variantformat"><p></p></odd>  
<odd localtype="format"><p></p></odd>  
<odd localtype="formatDetaljer"><p></p></odd>  
<odd localtype="opprettetdato"><p></p></odd>  
<odd localtype="opprettetAv"><p></p></odd>  
<odd localtype="referanseDokumentfil"><p></p></odd>  
<odd localtype="sjekksum"><p></p></odd>  
<odd localtype="sjekksumAlgoritme"><p></p></odd>  
<odd localtype="filstørrelse"><p></p></odd>  
<odd localtype="elektroniskSignatur">  
<odd  
<odd  
<odd localtype="verifisertdato"><p></p></odd>  
<odd localtype="verifisertAv"><p></p></odd>  
</odd>  
<odd localtype="konvertering">  
<odd localtype="konvertertdato"><p></p></odd>  
<odd localtype="konvertertAv"><p></p></odd>  
<odd  
<odd  
<odd  
<odd  
</odd>  
</odd>
```

```
<odd localtype="dokumentobjekt">
  <odd localtype="versjonsnummer"><p></p></odd>
  <odd localtype="variantformat"><p></p></odd>
  <odd localtype="format"><p></p></odd>
  <odd localtype="formatDetaljer"><p></p></odd>
  <odd localtype="opprettetdato"><p></p></odd>
  <odd localtype="opprettetAv"><p></p></odd>
  <odd localtype="referanseDokumentfil"><p></p></odd>
  <odd localtype="sjekksum"><p></p></odd>
  <odd localtype="sjekksumAlgoritme"><p></p></odd>
  <odd localtype="filstørrelse"><p></p></odd>
  <odd localtype="elektroniskSignatur">
    <odd
      <odd
        <odd localtype="verifisertdato"><p></p></odd>
        <odd localtype="verifisertAv"><p></p></odd>
      </odd>
      <odd localtype="konvertering">
        <odd localtype="konvertertdato"><p></p></odd>
        <odd localtype="konvertertAv"><p></p></odd>
        <odd localtype="konvertertFraFormat"><p></p></odd>
        <odd localtype="konvertertTilFormat"><p></p></odd>
        <odd localtype="konverteringsverktoey"><p></p></odd>
        <odd localtype="konverteringskommentar"><p></p></odd>
      </odd>
    </odd>
  </odd>
</odd>

</odd>

<!--Metadata based on endringslogg.xsd-->
```

```
<!-- Rotelementet -->
<odd localtype="endringslogg">
    <odd localtype="endring">
        <odd localtype="referanseArkivenhet"><p></p></odd>
        <odd localtype="referanseMetadata"><p></p></odd>
        <odd localtype="endretDato"><p></p></odd>
        <odd localtype="endretAv"><p></p></odd>
        <odd localtype="tidligereVerdi"><p></p></odd>
        <odd localtype="nyVerdi"><p></p></odd>
    </odd>
</odd>

<!--Metadata based on loependeJournal.xsd-->
<!-- Rotelementet -->
<odd localtype="loependeJournal">
    <odd localtype="journalhode">
        <odd localtype="journalStartdato"><p></p></odd>
        <odd localtype="journalSluttdato"><p></p></odd>
        <odd localtype="seleksjon"><p></p></odd>
        <odd localtype="antallJournalposter"><p></p></odd>
        <odd localtype="arkivskaper">
            <odd localtype="arkivskaperID"><p></p></odd>
            <odd localtype="arkivskaperNavn"><p></p></odd>
            <odd localtype="beskrivelse"><p></p></odd>
        </odd>
    </odd>
    <odd localtype="journalregistrering">
        <odd localtype="klasse">
            <odd localtype="klasseID"><p></p></odd>
            <odd localtype="tittel"><p></p></odd>
            <odd localtype="skjermingMetadata"><p></p></odd>
        </odd>
        <odd localtype="saksmappe">
            <odd localtype="saksaar"><p></p></odd>
            <odd localtype="sakssekvensnummer"><p></p></odd>
            <odd localtype="tittel"><p></p></odd>
            <odd localtype="offentligTittel"><p></p></odd>
            <odd localtype="skjermingMetadata"><p></p></odd>
        </odd>
    </odd>

```

```
<odd localtype="journalpost">
  <odd localtype="systemID"><p></p></odd>
  <odd localtype="journalaar"><p></p></odd>
  <odd localtype="journalsekvensnummer"><p></p></odd>
  <odd localtype="journalpostnummer"><p></p></odd>
  <odd localtype="tittel"><p></p></odd>
  <odd localtype="offentligTittel"><p></p></odd>
  <odd localtype="skjermingMetadata"><p></p></odd>
  <odd localtype="journaldato"><p></p></odd>
  <odd localtype="dokumentetsDato"><p></p></odd>
  <odd localtype="avskrivningsdato"><p></p></odd>
  <odd localtype="avskrivningsmaate"><p></p></odd>
  <odd localtype="referanseAvskrivesAvJournalpost"><p></p></odd>
  <odd localtype="tilgangsrestriksjon"><p></p></odd>
  <odd localtype="gradering"><p></p></odd>
  <odd localtype="skjermingshjemmel"><p></p></odd>
  <odd localtype="korrespondansepert">
    <odd localtype="korrespondanseperttype"><p></p></odd>
    <odd localtype="korrespondansepertNavn"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
  </odd>
</odd>
</odd>
<!--Metadata based on offentligJournal.xsd-->
<!-- Rotelementet -->
<odd localtype="offentligJournal">
<odd localtype="journalhode">
  <odd localtype="journalStartDato"><p></p></odd>
  <odd localtype="journalSluttDato"><p></p></odd>
  <odd localtype="seleksjon"><p></p></odd>
  <odd localtype="antallJournalposter"><p></p></odd>
  <odd localtype="arkivskaper">
    <odd localtype="arkivskaperID"><p></p></odd>
    <odd localtype="arkivskaperNavn"><p></p></odd>
    <odd localtype="beskrivelse"><p></p></odd>
  </odd>
</odd>
```

```
<odd localtype="journalregistrering">
  <odd localtype="klasse">
    <odd localtype="klasselID"><p></p></odd>
    <odd localtype="tittel"><p></p></odd>
  </odd>
  <odd localtype="saksmappe">
    <odd localtype="saksaar"><p></p></odd>
    <odd localtype="sakssekvensnummer"><p></p></odd>
    <odd localtype="offentligTittel"><p></p></odd>
  </odd>
  <odd localtype="journalpost">
    <odd localtype="systemID"><p></p></odd>
    <odd localtype="journalaar"><p></p></odd>
    <odd localtype="journalssekvensnummer"><p></p></odd>
    <odd localtype="journalpostnummer"><p></p></odd>
    <odd localtype="offentligTittel"><p></p></odd>
    <odd localtype="skjermingMetadata"><p></p></odd>
    <odd localtype="journaldato"><p></p></odd>
    <odd localtype="dokumentetsDato"><p></p></odd>
    <odd localtype="avskrivningsdato"><p></p></odd>
    <odd localtype="avskrivningsmaate"><p></p></odd>
    <odd localtype="referanseAvskrivesAvJournalpost"><p></p></odd>
    <odd localtype="tilgangsrestriksjon"><p></p></odd>
    <odd localtype="gradering"><p></p></odd>
    <odd localtype="skjermingshjemmel"><p></p></odd>
    <odd localtype="korrespondansepart">
      <odd localtype="korrespondanseparttype"><p></p></odd>
      <odd localtype="korrespondansepartNavn"><p></p></odd>
    </odd>
  </odd>
</odd>
</odd>



<odd localtype="systemID"><p></p></odd>
<odd localtype="klasselID"><p></p></odd>
<odd localtype="mappelID"><p></p></odd>
<odd localtype="registreringsID"><p></p></odd>
```

```
<odd localtype="versjonsnummer"><p></p></odd>
<odd localtype="arkivskaperID"><p></p></odd>
<odd localtype="dokumentnummer"><p></p></odd>
<odd localtype="moetenummer"><p></p></odd>
<odd localtype="sakspartID"><p></p></odd>
<odd localtype="saksaar"><p></p></odd>
<odd localtype="sakssekvensnummer"><p></p></odd>
<odd localtype="jurnalaar"><p></p></odd>
<odd localtype="journalsekvensnummer"><p></p></odd>
<odd localtype="journalpostnummer"><p></p></odd>

<!-- M020-M049: Kjernemetadata (jf. Dublin Core) -->
<odd localtype="tittel"><p></p></odd>
<odd localtype="beskrivelse"><p></p></odd>
<odd localtype="noekkelord"><p></p></odd>
<odd localtype="arkivskaperNavn"><p></p></odd>
<odd localtype="forfatter"><p></p></odd>
<odd localtype="offentligTittel"><p></p></odd>

<!-- M050-M079: Status -->
<odd localtype="arkivstatus"><p></p></odd>
<odd localtype="arkivdelstatus"><p></p></odd>
<odd localtype="saksstatus"><p></p></odd>
<odd localtype="jurnalstatus"><p></p></odd>
<odd localtype="dokumentstatus"><p></p></odd>
<odd localtype="moeteregistreringsstatus"><p></p></odd>
<odd localtype="presedensstatus"><p></p></odd>

<!-- M080-M099:      Typer -->
<odd localtype="journalposttype"><p></p></odd>
<odd localtype="dokumenttype"><p></p></odd>
<odd localtype="merknadstype"><p></p></odd>
<odd localtype="moeteregistreringstype"><p></p></odd>
<odd localtype="klassifikasjonstype"><p></p></odd>
<odd localtype="korrespondansepartype"><p></p></odd>
<odd localtype="moetesakstype"><p></p></odd>
<odd localtype="slettingstype"><p></p></odd>

<!-- M100-M199:      Datoer -->
```

```
<odd localtype="saksdato"><p></p></odd>
<odd localtype="journaldato"><p></p></odd>
<odd localtype="moetedato"><p></p></odd>
<odd localtype="dokumentetsDato"><p></p></odd>
<odd localtype="mottattDato"><p></p></odd>
<odd localtype="sendtDato"><p></p></odd>
<odd localtype="utlaantDato"><p></p></odd>
<odd localtype="arkivperiodeStartDato"><p></p></odd>
<odd localtype="arkivperiodeSluttDato"><p></p></odd>
<odd localtype="forfallsdato"><p></p></odd>
<odd localtype="offentlighetsvurderDato"><p></p></odd>
<odd localtype="presedensDato"><p></p></odd>
<odd localtype="journalStartDato"><p></p></odd>
<odd localtype="journalSluttDato"><p></p></odd>

<!-- M200-M299: Referanser -->
<odd localtype="referanseForlooper"><p></p></odd>
<odd localtype="referanseArvtaker"><p></p></odd>
<odd localtype="referanseArkivdel"><p></p></odd>
<odd localtype="referanseSekundaerKlassifikasjon"><p></p></odd>
<odd localtype="referanseTilMappe"><p></p></odd>
<odd localtype="referanseTilRegistrering"><p></p></odd>
<odd localtype="referanseAvskrivesAvJournalpost"><p></p></odd>
<odd localtype="tilknyttetRegistreringSom"><p></p></odd>
<odd localtype="referanseDokumentfil"><p></p></odd>
<odd localtype="referanseTilKlasse"><p></p></odd>
<odd localtype="referanseForrigeMoete"><p></p></odd>
<odd localtype="referanseNesteMoete"><p></p></odd>
<odd localtype="referanseTilMoeteregistrering"><p></p></odd>
<odd localtype="referanseFraMoeteregistrering"><p></p></odd>

<!-- M300-M369: Arkiv- og saksbehandlingsfunksjonalitet -->
<odd localtype="dokumentmedium"><p></p></odd>
<odd localtype="oppbevaringssted"><p></p></odd>
<odd localtype="sakspartNavn"><p></p></odd>
<odd localtype="sakspartRolle"><p></p></odd>
<odd localtype="antallVedlegg"><p></p></odd>
<odd localtype="administrativEnhet"><p></p></odd>
<odd localtype="saksansvarlig"><p></p></odd>
```

```
<odd localtype="saksbehandler"><p></p></odd>
<odd localtype="jurnalenhet"><p></p></odd>
<odd localtype="utlaantTil"><p></p></odd>
<odd localtype="merknadstekst"><p></p></odd>
<odd localtype="presedensHjemmel"><p></p></odd>
<odd localtype="rettskildefaktor"><p></p></odd>
<odd localtype="seleksjon"><p></p></odd>


<odd localtype="utvalg"><p></p></odd>
<odd localtype="moetestested"><p></p></odd>
<odd localtype="moetedeltakerNavn"><p></p></odd>
<odd localtype="moetedeltakerFunksjon"><p></p></odd>


<odd localtype="korrespondansepPartNavn"><p></p></odd>
<odd localtype="postadresse"><p></p></odd>
<odd localtype="postnummer"><p></p></odd>
<odd localtype="poststed"><p></p></odd>
<odd localtype="land"><p></p></odd>
<odd localtype="epostadresse"><p></p></odd>
<odd localtype="telefonnummer"><p></p></odd>
<odd localtype="kontaktperson"><p></p></odd>


<odd localtype="kassasjonsvedtak"><p></p></odd>
<odd localtype="bevaringstid"><p></p></odd>
<odd localtype="kassasjonsdato"><p></p></odd>
<odd localtype="kassasjonshjemmel"><p></p></odd>


<odd localtype="tilgangsrestriksjon"><p></p></odd>
<odd localtype="skjermingshjemmel"><p></p></odd>
<odd localtype="skjermingMetadata"><p></p></odd>
<odd localtype="skjermingDokument"><p></p></odd>
<odd localtype="skjermingsvarighet"><p></p></odd>
<odd localtype="skjermingOpphoererDato"><p></p></odd>
<odd localtype="gradering"><p></p></odd>
<odd localtype="elektroniskSignaturSikkerhetsnivaa"><p></p></odd>
```

```
<odd localtype="elektroniskSignaturVerifisert"><p></p></odd>

<!-- M580-M599: Brukeradministrasjon og administrativ oppbygning -->
<odd localtype="brukerNavn"><p></p></odd>
<odd localtype="brukerRolle"><p></p></odd>
<odd localtype="brukerstatus"><p></p></odd>
<odd localtype="administrativEnhetNavn"><p></p></odd>
<odd localtype="administrativEnhetsstatus"><p></p></odd>
<odd localtype="referanseOverordnetEnhet"><p></p></odd>

<!-- M600-M659: Logging av hendelser -->
<odd localtype="opprettetdato"><p></p></odd>
<odd localtype="opprettetav"><p></p></odd>
<odd localtype="avsluttetdato"><p></p></odd>
<odd localtype="avsluttetav"><p></p></odd>
<odd localtype="arkivertdato"><p></p></odd>
<odd localtype="arkivertav"><p></p></odd>
<odd localtype="antallJournalposter"><p></p></odd>
<odd localtype="merknadsdato"><p></p></odd>
<odd localtype="merknadRegistrertAv"><p></p></odd>
<odd localtype="slettetdato"><p></p></odd>
<odd localtype="slettetav"><p></p></odd>
<odd localtype="konvertertdato"><p></p></odd>
<odd localtype="konvertertav"><p></p></odd>
<odd localtype="avskrivningsdato"><p></p></odd>
<odd localtype="avskrevetav"><p></p></odd>
<odd localtype="avskrivningsmaate"><p></p></odd>
<odd localtype="tilknyttedato"><p></p></odd>
<odd localtype="tilknyttetav"><p></p></odd>
<odd localtype="verifisertdato"><p></p></odd>
<odd localtype="verifisertav"><p></p></odd>
<odd localtype="graderingsdato"><p></p></odd>
<odd localtype="gradertav"><p></p></odd>
<odd localtype="nedgraderingsdato"><p></p></odd>
<odd localtype="nedgradertav"><p></p></odd>
<odd localtype="presedensGodkjentdato"><p></p></odd>
<odd localtype="presedensGodkjentav"><p></p></odd>
<odd localtype="kassertdato"><p></p></odd>
<odd localtype="kassertav"><p></p></odd>
```

```
<!-- M660-M679: Logging av arbeidsflyt -->
<odd localtype="flytTil"><p></p></odd>
<odd localtype="flytMottattDato"><p></p></odd>
<odd localtype="flytSendtDato"><p></p></odd>
<odd localtype="flytStatus"><p></p></odd>
<odd localtype="flytMerknad"><p></p></odd>
<odd localtype="flytFra"><p></p></odd>

<!-- M680-M699: Logging av endringer -->
<odd localtype="referanseArkivenhet"><p></p></odd>
<odd localtype="referanseMetadata"><p></p></odd>
<odd localtype="endretDato"><p></p></odd>
<odd localtype="endretAv"><p></p></odd>
<odd localtype="tidligereVerdi"><p></p></odd>
<odd localtype="nyVerdi"><p></p></odd>

<!-- M700-M799: Tekniske metadata -->
<odd localtype="variantformat"><p></p></odd>
<odd localtype="format"><p></p></odd>
<odd localtype="formatDetaljer"><p></p></odd>
<odd localtype="sjekksum"><p></p></odd>
<odd localtype="sjekksumAlgoritme"><p></p></odd>
<odd localtype="filstoerrelse"><p></p></odd>
<odd localtype="konvertertFraFormat"><p></p></odd>
<odd localtype="konvertertTilFormat"><p></p></odd>
<odd localtype="konverteringsverktoey"><p></p></odd>
<odd localtype="konverteringskommentar"><p></p></odd>
```

```
</c>
</c>
</dsc>
</archdesc>
</ead>
```

6.3 Appendix III: Integrated metadata example for MoReq2010

The following example demonstrates one possible way to use MoReq2010 metadata in SMURF ERMS.

The MoReq2010 export schema lists 3 XML schemas that are used for export:

- http://moreq.info/files/export/core_services.xsd
- http://moreq.info/files/export/electronic_components.xsd
- http://moreq.info/files/export/hierarchical_classification.xsd

All of these files are represented in the following example. Note that this example contains only a subset of the aggregation elements – more elements can be found in the chapter 6.1.

```
<?xml version="1.0" encoding="utf-8"?>
<ead xmlns="http://ead3.archivists.org/schema/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://ead3.archivists.org/schema/ead3.xsd">
    <!--A required child element of <ead> for recording bibliographic and administrative information about an EAD instance.-->
    <control>
        <!--Record Identifier. A required child element of <control> that designates a unique identifier for the EAD instance.-->
        <recordid>eadc4791-51e9-4e74-b1fa-c18035c17cda</recordid>
        <filedesc>
            <!--Title Statement. A required child element of <filedesc> that binds together information about the name of an encoded finding aid and those responsible for its content.-->
            <titlestmt>
                <!--Title Proper. A required child element of <titlestmt> that contains the title of the finding aid.-->
                <titleproper>SMURF ERMS metadata</titleproper>
            </titlestmt>
            <!--Note Statement. A child element of notestmt, used to provide a general note related to the EAD instance.-->
            <notestmt>
                <controlnote>
                    <!--Text "This EAD file is compliant with the E-ARK project SMURF Specification, Version 1.0" or the type of the record if available.-->
                    <p>memo</p>
                </controlnote>
            </notestmt>
        </filedesc>
        <!--A required child element of <control> that records the current version status of the EAD instance.-->
        <maintenancestatus value="new"></maintenancestatus>
        <maintenanceagency>
```

```
<agencynname>The National Archives of Estonia</agencynname>
</maintenanceagency>
<languagedeclaration>
    <language>Language</language>
    <script>Script</script>
</languagedeclaration>
<maintenancehistory>
    <maintenanceevent>
        <eventtype value="created"></eventtype>
        <eventdatetime>2016-10-17T10:14:28.8200000</eventdatetime>
        <agenttype value="machine"></agenttype>
        <agent>UAM</agent>
    </maintenanceevent>
</maintenancehistory>
<!--References to publications and other materials used for description-->
<sources>
    <source><sourceentry>Source</sourceentry></source>
</sources>
</control>
<!--Archival Description. A required child element of <ead> that binds together all of the archival descriptive information in an EAD instance.-->
<archdesc level="fonds">
    <fileplan id="a3cab234-3b2e-4b16-8529-4b25bb0d4250">
        <head>Classification Schema</head>
        <p>Classification schema of the Ministry of Economics of Genovia
            <date locality="PeriodBegin"> standarddate="1978-02-14">14 February 1978</date>
            <date locality="PeriodEnd"> standarddate="1980-01-13">13 January 1980</date>
        </p>
        <chronlist>
            <chronitem>
                <datesingle standarddate="1978-01-02">02 January 1978 </datesingle>
                <event>Created</event>
            </chronitem>
            <chronitem>
                <datesingle standarddate="1983-01-22">22 January 1983 </datesingle>
                <event>Destroyed</event>
            </chronitem>
        </chronlist>
        <fileplan id="b3cab234-3b2e-4b16-8529-4b25bb0d4250">
            <head>LEGAL</head>
```

<p>Includes records regarding legal affairs
 <date localse="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
 <date localse="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
</p>
<chronlist>
 <chronitem>
 <datesingle standarddate="1978-02-02">02 February 1978 </datesingle>
 <event>Created</event>
 </chronitem>
</chronlist>
<fileplan id="c3cab234-3b2e-4b16-8529-4b25bb0d4250">
 <head>Legislation</head>
 <p>Includes correspondence, discussion papers, legal documents concerning Acts, Regulations, Bills, Judgements and amendments
to them
 <date localse="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
 <date localse="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
</p>
 <chronlist>
 <chronitem>
 <datesingle standarddate="1978-03-22">22 March 1978 </datesingle>
 <event>Created</event>
 </chronitem>
 </chronlist>
</fileplan>
<fileplan id="d3cab234-3b2e-4b16-8529-4b25bb0d4250">
 <head>Contracts and Agreements</head>
 <p>Includes contracts and agreements with external parties
 <date localse="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
 <date localse="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
</p>
 <chronlist>
 <chronitem>
 <datesingle standarddate="1978-01-02">02 January 1978 </datesingle>
 <event>Created</event>
 </chronitem>
 <chronitem>
 <datesingle standarddate="1982-08-14">14 August 1982 </datesingle>
 <event>Destroyed</event>
 </chronitem>
 </chronlist>

```
</chronlist>
</fileplan>
</fileplan>
<fileplan id="e3cab234-3b2e-4b16-8529-4b25bb0d4250">
    <head>OPERATIONS</head>
    <p>Documents related to the general operations of the Ministry
        <date locality="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
        <date locality="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
    </p>
    <chronlist>
        <chronitem>
            <datesingle standarddate="1978-01-02">02 January 1978 </datesingle>
            <event>Created</event>
        </chronitem>
    </chronlist>
    <fileplan id="f3cab234-3b2e-4b16-8529-4b25bb0d4250">
        <head>Equipment Maintenance</head>
        <p>Documents related to equipment maintenance
            <date locality="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
            <date locality="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
        </p>
        <chronlist>
            <chronitem>
                <datesingle standarddate="1978-01-02">02 January 1978 </datesingle>
                <event>Created</event>
            </chronitem>
        </chronlist>
    <fileplan id="g3cab234-3b2e-4b16-8529-4b25bb0d4250">
        <head>Computer Programs/Systems</head>
        <p>Documents related to computer programs/systems
            <date locality="PeriodBegin" standarddate="1978-02-14">14 February 1978</date>
            <date locality="PeriodEnd" standarddate="1980-01-13">13 January 1980</date>
            <subject locality="keywords">
                <part>Licenses</part>
                <part>Bug reports</part>
                <part>History</part>
            </subject>
        </p>
        <chronlist>
```

```
<chronitem>
    <datesingle standarddate="1978-01-02">02 January 1978 </datesingle>
    <event>Created</event>
</chronitem>
</chronlist>
</fileplan>
</fileplan>
</fileplan>
</fileplan>
</did>
<unitid label="current">ERA.14</unitid>
<abstract>This EAD file is compliant with the E-ARK project SMURF Specification, Version 1.0.</abstract>
<origination label="creator">
    <name>
        <part>Ministry of Justice</part>
    </name>
</origination>
</did>
<accessrestrict>
    <p>Restricted</p>
</accessrestrict>
<dsc>
    <c level="series">
        <did>
            <unitid label="current">ERA.14-1-18</unitid>
            <unittitle>Meeting protocols</unittitle>
        </did>
        <accessrestrict>
            <p>Restricted</p>
        </accessrestrict>
        <c level="file">
            <did>
                <unitid label="current">46484944464647</unitid>
                <unittitle>Meeting 01.05.2016</unittitle>
            </did>
            <accessrestrict>
                <p>Restricted</p>
            </accessrestrict>
        </c>
    </dsc>
<!-- A record-->
```

```

<c level="item">
  <did>
    <!--Universally unique identifier for an entity that is generated automatically by the system and stays with the entity
forever-->

  Use locality and label attributes for type or name of the ID that is used in this field-->
    <unitid locality="system_id">ERA.14-1-18-1-1</unitid>
      <!--Any external identifier that is used by an ERMS system or is required in a country
      Use locality and label attributes for type or name of the ID that is used in this field-->
        <unitid locality="extra_id">ERA.14-1-18-1-2</unitid>
          <!--The identifying name or title of the entity. Mandatory.-->
          <unittitle>Protocol No 1/2016</unittitle>
          <!--System set date and time when the entity was created. Can be represented as unitdatestructured as
well.Mandatory.-->
            <unitdate datechar="created">2004-01-08T00:00:00</unitdate>
              <!--Date and time of origin of a record or other entity which may vary from the creation date of the entity in the
system. Not mandatory.-->

              be modified or deleted without formally destroying it.-->
                <unitdate datechar="originated">2004-01-08T00:00:00</unitdate>
                  <!--System generated date and time indicating when an entity was first used; generally taken as the last time it can
be modified or deleted without formally destroying it.-->
                <unitdate datechar="first_used">2004-01-08T00:00:00</unitdate>
                  <!--System set date and time indicating when the most recent record or child aggregation was added to the parent
aggregation.-->
                <unitdate datechar="last_addition">2004-01-08T00:00:00</unitdate>
                  <!--A description of the entity. Not mandatory.-->
                  <abstract>This is a memo from 01.05.2016.</abstract>
                  <abstract><subject>
                    <part>Subject of the record (free text described by creator or ontology subject related by archivist)</part>
                  </subject></abstract>
                  <!--The unit used to describe the extent of the record (e.g MB, pages, num of files/components)-->
                  <physdescstructured coverage="whole" physdescstructuredtype="spaceoccupied">
                    <quantity>number</quantity>
                    <unittype>unit name</unittype>
                    <!--Structured statements describing the type of the physical medium of the materials-->
                    <physfacet>text</physfacet>
                  </physdescstructured>
                  <langmaterial>
                    <language script="script">Language</language>
                  </langmaterial>
                  <!--Parent aggregation for a child aggregation or record. Not mandatory-->
                  <!--<didnote locality="aggregation_id">VALUE</didnote> in record should match unitid of parent c level-->

```

```
<didnote locality="aggregation_id">46484944464647</didnote>
<!--Additional notes.-->
<didnote>Notes</didnote>
<!--An entity primarily responsible for making the content of the resource; an entity primarily responsible for making
the resource (comment: Examples of a Creator include a person, an organization, or a service).-->
<origination label="creator">
    <corpname>
        <part>Name</part>
    </corpname>
</origination>
<dao id="aad603af-037b-44d5-8993-5754a42b3962" daotype="borndigital" linktitle="Report"
    href="../representations/rep1/data/Report.doc" />
</did>

<!--Related record and type of relation.-->
<relatedmaterial>
    <p>related material</p>
</relatedmaterial>
<controlaccess>
    <name relator="owner">
        <part>Name</part>
    </name>
    <name relator="administrator">
        <part>Name</part>
    </name>
    <name relator="reader">
        <part>Name</part>
    </name>
    <name relator="sender">
        <part>Name</part>
    </name>
    <name relator="editor">
        <part>Name</part>
    </name>
    <name relator="recipient">
        <part>Name</part>
    </name>
    <name relator="other">
        <part>Name</part>
    </name>
```

```
</name>
</controlaccess>
<!--Information on the history of the unit of description that is significant for its authenticity, integrity and interpretation-->
<custodhist>
    <p>History</p>
</custodhist>
<!--An element that provides information about the nature of and activities reflected in the described materials.-->
<scopecontent>
    <head>Scope and Content</head>
    <p>This record is a memo from 01.05.2016.</p>
</scopecontent>
<!-- Reference to the classification schema in the top level component of the package -->
<fileplan>
    <p>
        <ptr target="d3cab234-3b2e-4b16-8529-4b25bb0d4250"></ptr>
    </p>
</fileplan>
<appraisal id="DisposalScheduleId" locality="disposal_schedule">
    <chronlist>
        <chronitem locality="disposal_action">
            <daterange>
                <!--RetentionStart. System generated date calculated from the record's disposal schedule
                <fromdate>01.05.2016</fromdate>
                <!--DisposalActionDue. The calculated date that the record is due for disposal.-->
                <todate>02.05.2091</todore>
            </daterange>
            <event>
                <!--Code describing the action to be taken on disposal of the record.-->
            </event>
        </chronitem>

        <chronitem locality="last_reviewed">
            <!--System set date and time indicating when the last review was completed.-->
            <datesingle>01.05.2016</datesingle>
            <event>
                <!--LastReviewedComment. Comment made by the user who last reviewed the record
                </event>
            </event>
        </chronitem>
    </chronlist>
</appraisal>
```

indicating the start of its retention period-->

explaining the disposal decision made by that review.-->

```

        </chronitem>
    </chronlist>
</appraisal>
<acqinfo>
    <chronlist>
        <chronitem localtype="transferred">
            <!--System set date and time indicating when the last review was completed.-->
            <datesingle>01.05.2016</datesingle>
            <event>
                <!--Transferred. System set date and time indicating when the transfer of the record was
confirmed.-->
                </event>
            </chronitem>
        </chronlist>
    </acqinfo>
    <altformavail>
        <!--Reference to another entity that has been created by duplicating the record, component or event, and is an exact
copy up to the event of duplication, with an identical provenance-->
        <p>Reference to another entity that has been created by duplicating the record, component or event, and is an exact
copy up to the event of duplication, with an identical provenance</p>
        </altformavail>
        <processinfo>
            <chronlist>
                <chronitem>
                    <datesingle>09.11.2016</datesingle>
                    <event>
                        <!--An element for recording an event of a transformed record.-->
                    </event>
                </chronitem>
            </chronlist>
        </processinfo>
        <index>
            <head>keywords</head>
            <indexentry>
                <subject>
                    <part>Keywords</part>
                </subject>
            </indexentry>
        </index>
    
```

```
<index>
  <head>location index</head>
  <indexentry>
    <geogname>
      <part>Location</part>
    </geogname>
  </indexentry>
</index>
<!--Information about any finding aids that the repository or records creator may have that provide information relating to the
context and contents of the unit of description.--&gt;
&lt;otherfindaid&gt;
  &lt;p&gt;Finding Aid&lt;/p&gt;
&lt;/otherfindaid&gt;
&lt;accessrestrict&gt;
  &lt;chronlist&gt;
    &lt;chronitem&gt;
      &lt;daterange&gt;
        &lt;fromdate&gt;01.05.2016&lt;/fromdate&gt;
        &lt;todate&gt;02.05.2091&lt;/todore&gt;
      &lt;/daterange&gt;
      &lt;event&gt;
        &lt;list&gt;
          &lt;!--Type of the restriction (e.g. personal data)--&gt;
          &lt;item&gt;DEI&lt;/item&gt;
          &lt;!--Duration of the restriction in years (e.g. 25 years)--&gt;
          &lt;item&gt;75 years&lt;/item&gt;
          &lt;!--Source of the restriction (e.g. Public access law AvTS § 7)--&gt;
          &lt;item&gt;Public access law AvTS § 7&lt;/item&gt;
          &lt;!--additional description of the access restriction (e.g. The content can be made
public if personal data is removed from the DIP)--&gt;
          &lt;item&gt;The content can be made public if personal data is removed from the
DIP&lt;/item&gt;
        &lt;/list&gt;
      &lt;/event&gt;
    &lt;/chronitem&gt;
  &lt;/chronlist&gt;
&lt;/accessrestrict&gt;
<!--Other descriptive metadata--&gt;
&lt;odd&gt;</pre>
```

```
<head>record_history</head>
<chronlist>
    <chronitem locality="dispatched">
        <datesingle>Dispatch Date</datesingle> <!--Date of dispatch of the record-->
        <event>
            Dispatch Mode
            <name relator="dispatcher">
                <part>name</part>
            </name>
            <name relator="addressee">
                <part>name</part>
            </name>
        </event>
    </chronitem>
    <chronitem locality="main_signature">
        <datesingle>MainSignatureDate</datesingle> <!--Date of main signature-->
        <event>
            <name relator="main_signer">
                <part>name</part>
            </name>
            <occupation relator="main_signer_role">
                <part></part>
            </occupation>
        </event>
    </chronitem>
    <chronitem locality="other_signature">
        <datesingle>OtherSignatureDate</datesingle> <!--Date of main signature-->
        <event>
            <name relator="other_signer">
                <part>name</part>
            </name>
            <occupation relator="main_signer_role">
                <part></part>
            </occupation>
        </event>
    </chronitem>
    <chronitem locality="action">
        <datesingle>Time of the action</datesingle> <!--Time of the action-->
        <event>
```

```
<name relator="actor">
  <part>name</part>
</name>
<list>
  <item>Name of the action</item> <!--Description of the action (e.g. opening,
classifying, closing etc.)-->
</list>
</event>
</chronitem>
</chronlist>
</odd>
</c>
</c>
</dsc>
</archdesc>
</ead>
```