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Report on the work of CNEDA (2007-2012): toward a conceptual model for archival description in Spain

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Abelardo Santamaría (Chair of CNEDA)

Correo Electrónico

cneda@mecd.es

Secretaría de la Comisión de Normas
Españolas de Descripción Archivística
Archivo General de Indias
Av. de la Constitución, 3
41004 Sevilla
Telf.: (34) 954 501 243
Fax: (34) 954 219 485

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1 Introduction

This report aims to present and explain the work of CNEDA (Comisión de Normas Españolas de Descripción Archivística = Commission on Spanish Standards of Archival Description) **since 2007 until now, mainly the following last result: the document (18-06-2012) entitled "Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions – Part 1: entity types – Part 2: relationships"** (= "Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad – Parte 2: relaciones") , available from: http://www.mcu.es/archivos/docs/NEDA_MCDA_P1_P2_20120618.pdf

This report includes the unofficial translation into English of a summary of this Spanish Conceptual model. This report is for information purposes only and under no circumstances replaces the aforementioned "Modelo conceptual de descripción archivística (...)".

In this report the Spanish expressions that represent important concepts about archival description and/or ER data modeling technique have been translated into English as shown in Appendix 1.

Official information in Spanish about the background, creation, work and outcomes of CNEDA is available through its Web page: http://www.mcu.es/archivos/MC/CNEDA/Presentacion.html

2 The creation of CNEDA and the work carried out between 2007-2012

CNEDA was created by the Spanish Ministry of Culture in May 2007 (Ministerial Order CUL/1524/2007)[1]. Currently this Commission is part of the Spanish Ministry of Education, Culture and Sport.

The aim of CNEDA is to advise the Ministry on standardization of archival description, particularly in developing and updating NEDA (Normas españolas de descripción archivística = Spanish standards of archival description).

After 2007, two orders regulated the composition of the Commission: the Ministerial Order CUL/2173/2009[2] for 2009-2011 and the Ministerial Order CUL/2582/2011 for 2011-2013[3].

CNEDA was established in Madrid on June 26, 2007[4]. On September 17, 2007 the Commission adopted the document (17-09-2007) entitled "NEDA-I Project" (= "Proyecto NEDA-I")[5], which established the essential lines of the first project to be performed by the Commission for a period of approximately five years. This document was published on the Web page of the Commission[6].

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[1] Orden CUL/1524/2007, de 25 de mayo, por la que se crea la Comisión de Normas Españolas de Descripción Archivística. *Boletín Oficial del Estado* [online]. n. 131, 1 de junio de 2007. [Viewed 11 July 2012]. Available from: http://www.boe.es/boe/dias/2007/06/01/pdfs/A23899-23900.pdf. This Ministerial Order established the composition of CNEDA for the period 2007-2009 (nine members). Chair: Abelardo Santamaría Gallo. Vice-Chair: Ramón Martín Suquía. Executive members: Antonia Heredia Herrera, Javier Barbadillo Alonso, Alejandro Delgado Gómez, Juan José Generelo Lanaspa, Pedro López Gómez, María Josefa Villanueva Toledo and Isabel Ceballos Aragón (acting as secretary).

[2] Orden CUL/2173/2009, de 29 de julio, por la que se nombran vocales de la Comisión de Normas Españolas de Descripción Archivística. *Boletín Oficial del Estado* [online]. n. 191, de 8 de agosto de 2009. [Viewed 11 July 2012]. Available from: http://www.boe.es/boe/dias/2009/08/08/pdfs/BOE-A-2009-13187.pdf. This Ministerial Order established the composition of CNEDA for the period 2009-2011 (nine members). Chair: Abelardo Santamaría Gallo. Vice-Chair: Ramón Martín Suquía. Executive members: Antonia Heredia Herrera, Javier Barbadillo Alonso, Alejandro Delgado Gómez, Joaquim Llansó Sanjuán, Pedro López Gómez, Beatriz Franco Espiño and Isabel Ceballos Aragón (acting as secretary).

[3] Orden CUL/2582/2011, de 14 de septiembre, por la que se nombran vocales de la Comisión de Normas Españolas de Descripción Archivística. *Boletín Oficial del Estado* [online]. n. 235, 29 de septiembre de 2011). [Viewed 11 July 2012]. Available from: http://www.boe.es/boe/dias/2011/09/29/pdfs/BOE-A-2011-15286.pdf. This Ministerial Order established the composition of CNEDA for the period 2011-2013 (twelve members). Chair: Abelardo Santamaría Gallo. Vice-Chair: Ramón Martín Suquía. Executive members: Antonia Heredia Herrera, Javier Barbadillo Alonso, María Luisa Conde Villaverde, Julia Rodriguez Barredo, Alejandro Delgado Gómez, Joaquim Llansó Sanjuan, Pedro López Gómez, Elena Rivas Palá, Beatriz Franco Espiño and Isabel Ceballos Aragón (acting as secretary).

[4] In this session of constitution began the discussion of the initial proposal (06-06-2007) of NEDA-I Project, which was presented on May 30, 2007 in Madrid, during a technical seminar on development and creation of new international standards for archival description: SANTAMARÍA GALLO, Abelardo. *Desarrollo de las Normas españolas de descripción archivística (NEDA)* [online]. Madrid: Subdirección General de los Archivos Estatales, 2007. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/JT5_NEDA_text.pdf.

[5] NEDA-I Project (Spanish standards of archival description – Project I: data structure and content standards for descriptions of records, agents and functions) = Proyecto NEDA-I (Normas españolas de descripción archivística – Proyecto I: normas de estructura y contenido de datos para las descripciones de documentos de archivo, agentes y funciones).

[6] In fact the NEDA-I Project (17-09-2007) comprised a main document and two annexes:

- COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Proyecto NEDA-I. Documento de la CNEDA (17-09-2007)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/MC/ProyectoNEDA_I_170907.pdf.
- COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Anexo 1 – Visión general de las normas a desarrollar en el Proyecto NEDA-I. Borrador 3 (17-09-2007)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/MC/ProyectoNEDA_I_Anexo1_170907.pdf.
- COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Anexo 2 – Programación general del Proyecto NEDA-I. Documento de la CNEDA (17-09-2007)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/MC/ProyectoNEDA_I_Anexo2_170907.pdf.

However, the work of CNEDA in this Project, from October 2007 until June 2011, required to perform certain changes in the initial text (mainly in relation to listed entity types, the terminology of the ER data modeling technique, etc.), so that in 2011 approved a new **document (11-11-2011) NEDA-I Project**, also published on the Web page of the Commission[7].

			Descriptions that will be regulated by the standards (NEDA)					
Functions that standards (NEDA) will play with respect to archival descriptive systems			Descriptions of records	Descriptions of agents (1)	Descriptions of business entities (1)	Descriptions of mandates (1)	Descriptions of concepts, objets or events (1)	Descriptions of places (1)
To regulate data input to archival descriptive systems	Data structure	General	Standards that will be developed in NEDA-I Project (data structure and content standards for descriptions of records, agents and functions)			Standards that will be developed in NEDA Program		
		Detailed						
	Data content							
To regulate data output of archival descriptive systems	Data display							
	Data encoding to support data exchange between systems							

Note:
(1) The descriptions (representations) of these entities may be: metadata for records; data relating to a particular entity (authorised form of name, other forms of name, etc.) included in authority records of authority files; data relating to a particular entity (descriptor/preferred term, scope note, non-descriptors/ non-preferred terms, etc.) included in thesauri; simple index terms formulated in accordance with specific rules.

Figure 1. Scope of application of Spanish standards of archival description (NEDA) that will be developed in NEDA-I Project and in NEDA Program: descriptions that will be regulated and functions that will play with respect to archival descriptive systems

NEDA-I Project (included in NEDA Program[8]) **is primarily aimed at developing data structure and content standards for descriptions of records, agents and functions,** which can be separately, but interrelated, in archival descriptive systems (figure 1).

[7] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Proyecto NEDA-I. Documento de la CNEDA (11-11-2011)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/MC/CNEDA/ProyectoNEDA_I_20111111.pdf.

[8] NEDA Program (Spanish standards of archival description) = Programa NEDA (Normas españolas de descripción archivística).

NEDA-I Project states that the **first activity**[9] to be performed (before developing data structure and content standards for descriptions of records, agents and functions) is **preparing a document that includes**:

- An explicit **conceptual model of archival description** (developed with the ER data modeling technique) where are identified the entity types (records; agent; business; mandate; concept, object or event; place), the relationships between entities of these types[10], as well as the attributes of three entity types (records; agent; business) and the attributes of these relationships.
- **Basic data requirements for descriptions of records, agents and functions** (according to that Conceptual model), which constitute a solid basis for regulating the data structure and content of these representations and their interrelationships.

According to NEDA-I Project, **this document** (entitled Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions) **should include four parts**:

- **Part 1: entity types.**
- **Part 2: relationships.**
- **Part 3: attributes.**
- **Part 4: basic data requirements for descriptions of records, agents and functions.**

The priority of developing this explicit Conceptual model is a clear reflection of the transition that has taken place in the last years, from a one-dimensional archival description (focusing almost exclusively on the representations of records), to another multidimensional description, aimed at creating and maintenance of representations of entities of different type (records, agents, business, etc.) and their interrelationships.

In this issue, the Commission has pursued a strategy that has already been applied successfully for years in other standardization efforts, for example: the conceptual model included in ISO 23081, based in the three high-level conceptual models developed in the SPIRT Project (Monash University); the FRBR, FRAD, and FRSAD models (IFLA); the CIDOC Conceptual reference model; etc.

However, it is important to note that **the Conceptual model of archival description and basic data requirements (on the one hand), and NEDA (on the other hand), are located in different dimensions.** If we put these three instruments in connection with the vision of the three worlds (the real world, the conceptual world and the world of representations) could establish the following (figure 2):

- First there is a **real world**, that is, a part of reality that interests us (in our case the archival reality), which we perceive with our senses and integrates “objects” (physical or not).
- Secondly there is a **conceptual world**, that is, a mental world shaped by the knowledge that all of us get from the observation of that archival reality, from which we construct an abstract and conceptual model of this reality. However, the same real world can be seen and modeled in different ways by different observers according to their context. Well, the **Conceptual model of archival description** to develop would be at this conceptual dimension.

[9] Activity 1 (A1). Establishment of a conceptual model of archival description and basic data requirements for descriptions of records, agents and functions.
[10] Mainly the relationships concerning the fundamental perspectives of the context, content and structure of records.

- Thirdly there is a **world of representations** (data), in our case the archival descriptive systems. Well, the **Basic data requirements for descriptions of records, agents and functions, and NEDA** (specifically the standards that will be developed in NEDA-I Project) would be at this dimension of representations (not in the conceptual world), because they are tools that regulate the descriptions that exist in archival description systems.

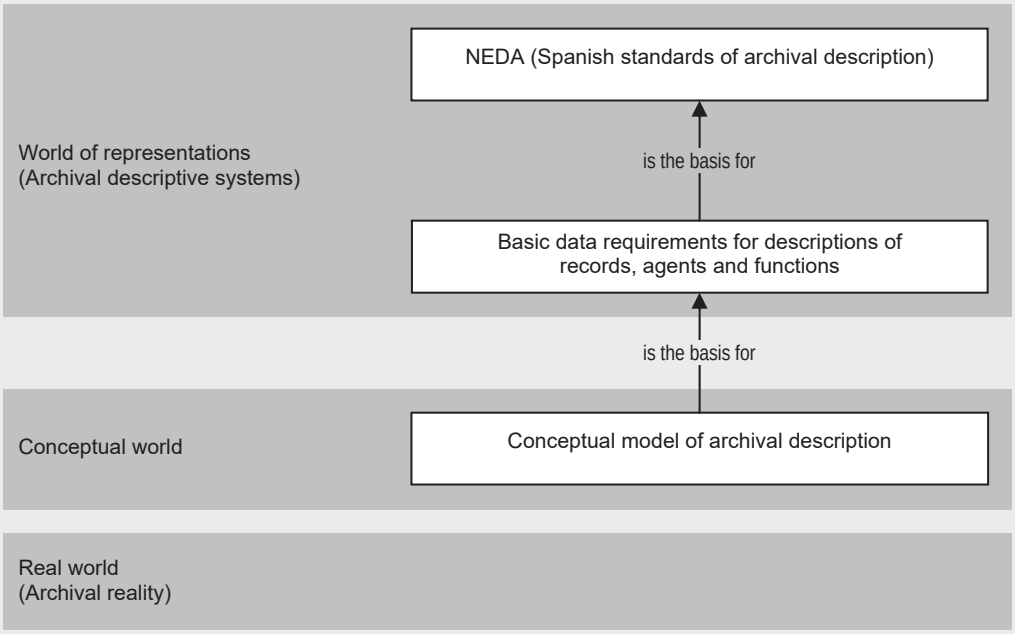

Figure 2. Location of the Conceptual model of archival description, the Basic data requirements for descriptions of records, agents and functions, and NEDA (Spanish standards of archival description) in the vision of the three worlds

In October 2007 CNEDA began the realization of NEDA-I Project. From then until December 2008 the Commission worked in a part of the first activity of the Project, and in the second activity[11], primarily through email, but also in three ordinary sessions held in Madrid on December 3, 2007, April 3-4, 2008 and November 13-14, 2008.

The result of this effort was the final draft (15-12-2008) of the Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions – Part 1: entity types. Although this text was intended only to identify the main entity types of the Model, it also provided information on the main relationship types between entities of these types. This final draft was published in late January 2009 on the Web page of the Commission[12] and CNEDA invited the archival community to submit comments on it.

[11] Activity 2 (A2). Establishment of terminology and definition of technical concepts.
[12] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad. Borrador final de la CNEDA (15-12-2008)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/NEDATiposEntidad_20081215.pdf.

Between late March and early May 2009 the Commission received seven documents with comments on this final draft[13]. A summary of these comments was also published on the Web page of CNEDA[14].

Between January 2009 and June 2011 the Commission continued to work on first and second activities of NEDA-I Project, primarily through email, but also in three ordinary sessions held in Madrid on March 2, 2009, May 25, 2009 and February 21-22, 2011. During this period CNEDA studied and discussed all comments received, arrived at agreements and also completed the preparation of the second part of the Conceptual model, which focusing on a more detailed identification of the relationships types between entities of the different types.

The result of this effort was the final draft (09-06-2011) of the Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions – Part 1: entity types – Part 2: relationships. This final draft was published in early August 2011 on the Web page of the Commission[15] and CNEDA invited the archival community to submit comments on it.

Between late October and 11 November 2011 the Commission received five documents with comments on this final draft[16]. A summary of these comments was also published on the Web page of CNEDA[17].

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[13] These documents were prepared by the following organizations and individuals:
- Archives Service of the Government of Andalucía.
- General Archive of Castile and Leon.
- The following archivists of the National Historical Archive: María Jesús Álvarez-Coca González, María José Arranz Recio, Vanesa Benito Ortega, Eva María Bernal Alonso, Pilar Bravo Lledó, María A. Carmona de los Santos, Ana Isabel Cerrada Jiménez, José Luis Clares Molero, Luis Miguel de la Cruz Herranz, Elvira Fernández del Pozo Merino, Carmen Magán Merchán, Juan Carlos de Miguel Rodríguez, Ignacio Panizo Santos y Ramón Romero Cabot.
- Working Group on Standardization of the Library Cooperation Council.
- Archivists Association of Navarre.
- Rosa Rabanillo Escudero.
- Working Group of Archivists of Galicia.

CNEDA also received a document with comments made by Joaquim Llansó (Section of Records Management and General Archives of the Public University of Navarre), which had been requested by the Commission.

[14] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Resumen de las observaciones recibidas al borrador final (15-12-2008) del "Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad" (11-6-2009)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/NEDA_TiposEntidad_Resumen_Observ_2009_06_11.pdf.

[15] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad – Parte 2: relaciones. Borrador final de la CNEDA (09-06-2011)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/NEDA_MCDA_P1_P2_20110609.pdf.

[16] These documents were prepared by the following organizations and individuals:
- General Archive of the Region of Murcia.
- Service interministériel des Archives de France.
- General Archive of Castile and Leon.
- Archivists Association of Navarre.
- The following archivists of the National Historical Archive: María Jesús Álvarez-Coca González, María José Arranz Recio, Raquel Rojo Medina, Eva María Bernal Alonso, Pilar Bravo Lledó, María A. Carmona de los Santos, José Luis Clares Molero, Luis Miguel de la Cruz Herranz, Ignacio Panizo Santos, Belén Alfonso Alonso-Muñoyerro y Cecilia Martín Moreno.

[17] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Resumen de las observaciones recibidas al borrador final (09-06-201) del "Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad – Parte 2: relaciones" (16-11-2011)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/MC/CNEDA/ResumenObs_20111116.pdf.

Between late October 2011 and June 2012 the Commission continued to work on first and second activities of NEDA-I Project, primarily through email, but also in an ordinary session held in Madrid on October 25-26, 2011. During this period CNEDA studied and discussed all comments received, arrived at agreements, concluded the preparation of the final document with the first and second part of the Conceptual model of archival description, and began the preparation of the third part (attributes).

The result of this effort is the **current document of CNEDA (18-06-2012) Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions – Part 1: entity types – Part 2: relationships**. This document was published in July 2012 on the Web page of the Commission[18].

To develope this Conceptual model **CNEDA has considered several models and standards created in many international, national and regional efforts of standardization of archival description, records management and metadata for records**: the Statement of principles regarding archival description and the family of standards ISAD(G)2, ISAAR(CPF)2, ISDF and ISDIAH (ICA); the draft on relationships in archival descriptive systems[19] and the draft on revision of ICA descriptive standards[20] that ICA/CBPS is preparing for the next International Council on Archives Congress (Brisbane, Australia - August 2012); the model of ICA-AtoM (core entities and their relationships); EAD and EAC-CPF; the archival data model of LOCAH Project (UK); the ISO standards and reports 15489-1, 15489-2, 23081-1, 23081-2, 23081-3, 26122, 30300, 30301, etc.; MoReq2 y MoReq2010; ICA-Req (ISO 16175, 1-3); RKMS (Australia); AGRkMS (Australia); the Spanish legislation on e-Government (Law 11/2007, Royal Decree 1671/2009, Royal Decree 3/2010, Royal Decree 4/2010, Technical standards for developing the National Interoperability Schema, etc.) and especially the Metadata schema for electronic record management[21]; the Metadata vocabulary (Catalonia); the Metadata schema for the implementation of eGovernment in universities (Archivists Conference of Spanish Universities); DACS (USA); RAD (Canada); DAIC (Australia); NOBRADE (Brazil); ODA2 (Portugal); NEDA1 (Spain); MDM2 (Castile and Leon); NODAC (Catalonia); NOGADA (Galicia); ARANOR (Aragon); EDARA (Aragon); etc. Even on certain issues, CNEDA has considered conceptual models of other domains, for example FRBR, FRAD and FRSAD (IFLA).

[18] COMISIÓN DE NORMAS ESPAÑOLAS DE DESCRIPCIÓN ARCHIVÍSTICA. *Modelo conceptual de descripción archivística y requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones – Parte 1: tipos de entidad – Parte 2: relaciones. Documento de la CNEDA (18-06-2012)* [online]. [Viewed 11 July 2012]. Available from: http://www.mcu.es/archivos/docs/NEDA_MCDA_P1_P2_20120618.pdf.

[19] INTERNATIONAL COUNCIL ON ARCHIVES. COMMITTEE ON BEST PRACTICES AND STANDARDS. *Relationships in archival descriptive systems* [Draft]. [November 2011].

[20] INTERNATIONAL COUNCIL ON ARCHIVES. COMMITTEE ON BEST PRACTICES AND STANDARDS. *Progress report for revising and harmonising ICA descriptive standards* [Draft]. [November 2011].

[21] MINISTERIO DE HACIENDA Y ADMINISTRACIONES PÚBLICAS. *Esquema de metadatos para la gestión del documento electrónico (e-EMGDE). Versión 10/02/2012* [online]. [Viewed 11 July 2012]. Available from: http://administracionelectronica.gob.es/recursos/pae_020003294.pdf.

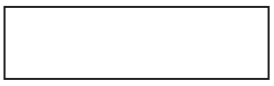
3 Summary of the Conceptual model of archival description and basic data requirements for descriptions of records, agents and functions – Part 1: entity types – Part 2 relationships (18-06-2012)

This document includes several **sections and appendices**:

- The **first section** provides **introductory information** on the creation of CNEDA, its objectives and the work done between 2007-2012 in NEDA-I Project
- The **second section** includes a **glossary** that provides definitions for the main concepts (mostly archival) present in the document.
- The **third section** constitutes the first part of the Conceptual model (Part 1: entity types). It provides information on the **entity types and subtypes** identified in the Model (graphs and diagrams, definitions and explanations of the entity types and subtypes, examples of entities, etc.).
- The **fourth section** constitutes the second part of the Conceptual model (Part 2: relationships). It provides information on the **relationship types** identified in the Model (diagrams, definitions and explanations of the relationship types, examples of relationships, etc.).
- The **appendix 1** provides a **summary of the diagrams of the relationship types** identified in the Conceptual model (explained in the fourth section).
- The **appendix 2** provides a **list of the relationship types** identified in the Conceptual model (explained in the fourth section).
- The **appendix 3** contains several **examples** of entities and relationships prepared by the Municipal Archives of Guadalajara.
- The **appendix 4** includes several **examples** of entities and relationships prepared by the Section of Records Management and General Archives of the Public University of Navarre.

It is important to note that this document explains a **Conceptual model located in the conceptual world** not in the world of representations (archival descriptive systems). Therefore, the information contained in this document is primarily concerned with the entity types and relationship types of archival reality (real world), which we perceive differently (conceptual world). When occasionally it was considered necessary to include certain information about the descriptions (of entities of these types and their relationships) that can be part of archival description systems (world of representations), that information usually appears in footnotes.

This Conceptual model is explicitly formalized with a particular method: the **ER data modeling technique**. **Diagramming conventions** used are as follows:



A rectangle represents an **entity type or an entity subtype**. Inside the rectangle is the name of the entity type (for example, "Records", "Agent", "Business", etc.) or the name of the entity subtype (for example, "Fonds", "Series" , "Documentary unit", etc.).

A line with a single-headed arrow at each end, which connects an entity type or subtype with another entity type or subtype (or the same entity type or subtype), represents a **one-to-one relationship type**. Inside the line are two expressions that explain the relationship type from both sides.

A line with a single-headed arrow at its first end and a double-headed arrow at its second end, which connects an entity type or subtype with another entity type or subtype (or the same entity type or subtype), represents a **one-to-many relationship type**. Inside the line are two expressions (or a single expression) that explain the relationship type from both sides.

A line with a double-headed arrow at each end, which connects an entity type or subtype with another entity type or subtype (or the same entity type or subtype), represents a **many-to-many relationship type**. Inside the line are two expressions (or a single expression) that explain the relationship type from both sides.

A dotted-line rectangle surrounding several entity types or subtypes indicates that a relationship type represented by an arrow contiguous with the dotted line may apply to any and/or all of the entity types or subtypes represented within the rectangle.

Two numbers a and b (in parentheses and separated by commas) located at the first end of a line representing a relationship type indicate the minimum and maximum number of entities that may be associated in that side of the relationship.
Two numbers c and d (in parentheses and separated by commas) located at the second end of a line representing a relationship indicate the minimum and maximum number of entities that may be associated in that side of the relationship.

CNEDA recommends using (in Spain) the Spanish **names of entity types** (for example, "Records", "Agent", "Business", etc.) **and entity subtypes** (for example, "Fonds", "Series" , "Documentary unit", etc.) fixed in the Conceptual model. However, in a specific archival context it is possible to use other names when they appear in a standard applied in that area and designate the same entity type or subtype.

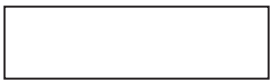
Each **relationship type** identified in the Conceptual model has a **name** (for example, “authorship or contribution to genesis, creation, management, etc.” relationship type, “carrying out” relationship type, “evidence” relationship type, etc.). These names are intended only to identify each relationships type in the Conceptual model. In a specific archival context it is possible to use other names if they designate the same relationships type.

Each line that represents (in a diagram) a **relationship type** identified in the Conceptual model contains two **expressions** (or a single expression) (for example, "have as author or contributor to genesis, creator, manager, etc. / is author or contributor to genesis, creator, manager, etc. of", "performs / is performed by", "are evidence of / is documented in", etc.). These expressions (or a single expression) are intended only to explain the relationship type from both sides. In a specific archival context it is possible to use other expressions if they explain the same relationships type.

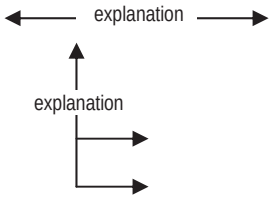
With respect to the **cardinality of the relationship**, most diagrams of relationship types identified in the Conceptual model only indicates the maximum number of entities that may be associated on both sides of the relationship (i.e., indicate that is a one-to-one, one-to-many or many-to-many relationship type). However, in some diagrams has been necessary to indicate precisely the

cardinality of the relationship, i.e., the minimum and maximum number of entities that can be associated on both sides of the relationship.

This document contains many **examples of entities and examples of relationships between entities**, which are also presented graphically:



A rectangle represents an example of an **entity**. Inside the rectangle is a name of the entity and usually other data (name of the entity type or subtype, etc.).



Examples of relationships between entities are presented as diagrams that include: two rectangles (or more) representing entities; a line (or more) with a single-headed arrow at each end, which connects these entities, representing a **relationship** between them. Inside the line are two expressions (or a single expression) that explain the relationship type from both sides.

Examples of entities and relationships have been prepared taking into account different **sources**: archival descriptions accessible via Internet, reports with examples made by Archives, monographs, etc.

It is important to note that each example of entity (rectangle) includes only the data (attributes) that are considered necessary to identify the particular entity, or sometimes to illustrate better an explanation of the text or a diagram of relationships. However, the information contained in the examples of entities (rectangles) is not formalized in accordance with specific content standards applicable to data elements of descriptions or records or controlled vocabularies (authority files, thesauri, etc.).

3.1 Entity types

In this Conceptual model entity types are classes of "objects" of archival reality (real world), perceived as distinct categories (conceptual world), which may be reflected in archival descriptive systems (world of representations) in different ways, and may even be represented in them by separate descriptions but interrelated.

The Conceptual model identifies **six main entity types** (figure 3): **records; agent; business; mandate; concept, object or event; place**.

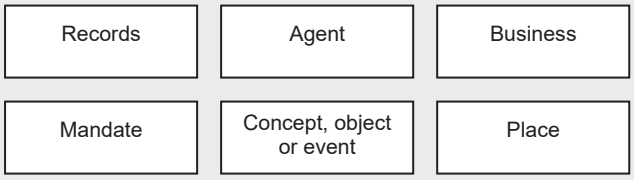


Figure 3. Entity types identified in the Conceptual model

The first entity type (**records**) refers to the object of records and archives management, which is generally the center of attention of the Archival science. In the Conceptual model the records entity type refers both to "records"[22] and to “archives"[23]. Examples of records entities:

Catedrales (Siglos IX-XIX) [Group of fonds][24]

Universidad Pública de Navarra (Siglos XX-XXI) [Fonds][25]

Colección sellos pendientes y de placa (Siglos XII-XX) [Collection][26]

The second entity type (**agent**) applies to the actors (corporate bodies, families and persons) responsible or involved in authorship or contribution to genesis, creation, management, etc. of records. It is important to note that in this Conceptual model the archives and other institutions (libraries, museums, etc.), families and persons which hold records do not form a distinct entity type: all these entities are considered agents. Examples of agent entities:

Universidad Pública de Navarra [Corporate body]

[22] *“record. Definition: n. ~ 1. A written or printed work of a legal or official nature that may be used as evidence or proof; a document.(...)”* (PEARCE-MOSES, Richard. *A glossary of archival and records terminology*, [online]. [Viewed 28 June 2012]. Available from: http://www.archivists.org/glossary/).

[23] *“archives. Definition: (also archive), n. ~ 1. Materials created or received by a person, family, or organization, public or private, in the conduct of their affairs and preserved because of the enduring value contained in the information they contain or as evidence of the functions and responsibilities of their creator, especially those materials maintained using the principles of provenance, original order, and collective control; permanent records. (...)”* (PEARCE-MOSES, Richard. *A glossary of archival and records terminology*, [online]. [Viewed 28 June 2012]. Available from: http://www.archivists.org/glossary/).

[24] Group of fonds held in the National Historical Archive. Source: *Portal de Archivos Españoles (PARES)* [online]. [Viewed 27 April 2012]. Available from: http://pares.mcu.es/.

[25] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

[26] Collection held in the National Historical Archive. Source: National Historical Archive (30 May 2011).

Archivo General de Simancas [Corporate body]

Familia Borbón Parma [Family]

Isabel I (Reina de Castilla) [Person]

The third entity type (**business**) refers to the functions, sub-functions, activities/processes and transactions performed by agents, which are documented in records. Examples of business entities:

Gestión de la investigación [Function][27]

Organización de la investigación [Sub-function][28]

Gestión de datos de grupos de investigación en marcha [Activity/Process][29]

The fourth entity type (**mandate**) applies to the regulations which govern the agents, the business they perform or the records. Examples of mandate entities:

Ordenanzas del Archivo Real de Barcelona (1384)

Constitución Española (27-12-1978)

Ley Orgánica 6/2001 de Universidades (21-12-2001)

The fifth entity type (**concept, object or event**) refers to abstract notions or ideas, material things, actions or ocurrences that are subject of records[30]. Examples of concept, object or event entities:

Matemáticas

Giralda (Sevilla)

Guerra Civil Española (1936-1939)

The sixth entity type (**place**) applies to locations that are subject of records. Examples of place entities:

Europa

Madrid

[27] Function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[28] Sub-function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[29] Activity/Process performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[30] However, this entity type does not include: records (see records entity type); corporate bodies, families and persons responsible or involved in authorship or contribution to genesis, creation, management, etc. of records (see agent entity type); functions, sub-functions, activities/processes and transactions performed by agents, which are documented in records (see business entity type); regulations which govern the agents, the business they perform or the records (see mandate entity type); locations (see place entity type).

Agent, business and mandate entity types are often considered "contextual entity types", because the entities of these types usually provide the context of records (context of agents, functional context and regulatory context) (see section 3.2.1). However, agents, business entities and mandates can also be linked to records entities according to a "subject" relationship type (see section 3.2.3).

Entities belonging to any of the six types identified in the Conceptual model can be represented by separate descriptions, but interrelated, within archival descriptive systems (world of representations). I.e., in an archival descriptive system can be different types of descriptions (representations):

- Descriptions of records. ISAD(G)2 is one of the standards regulating the general data structure of these descriptions.
- Descriptions of agents. ISAAR(CPF)2 and ISDIAH are some of the standards regulating the general data structure of these descriptions.
- Descriptions of business entities. ISDF is one of the standards regulating the general data structure of these descriptions.
- Descriptions of mandates.
- Descriptions of concepts, objects or events.
- Descriptions of places.

CNEDA agreed to designate all those descriptions (not just descriptions of records) with the term "archival descriptions"[31]. However, it must be remembered that the data sets that form representations of agents, business entities, mandates, concepts, objects or events, and places can be:

- Metadata for records.
- Data relating to a particular entity (authorised form of name, other forms of name, etc.) included in authority records of authority files.
- Data relating to a particular entity (descriptor/preferred term, scope note, non-descriptors/ non-preferred terms, etc.) included in thesauri.
- Simple index terms formulated in accordance with specific rules.

The six indicated entity types are required in the Conceptual model because there are always entities of these types in any archival context (real world), regardless of whether there are or not their descriptions (representations) in the archival descriptive system of that environment (world of representations).[32]

[31] *"archival description. Elaboration of representations of records and, where appropriate, representations of other archival entities (agents, business entities, etc.). This term also designates the results of the process."* (*="descripción archivística. Elaboración de representaciones de documentos de archivo y, en su caso, de otras entidades archivísticas (agentes, funciones, etc.). Este término también designa los resultados del proceso."*).

[32] In an archival descriptive system (world of representations) is only required that there is a description of records (for example, a description of a fonds, collection, series, etc.). The existence of separated descriptions of agents, business entities, mandates, concepts, objects, events and/or places is optional.
However, if in an archival descriptive system there is a description of a series occupying the top level of the hierarchy of records (series system), it is also required that it is linked to one or more descriptions of the creating agents of that series.

Furthermore, the Conceptual model also identifies certain **entity subtypes** for three entity types (figure 4).

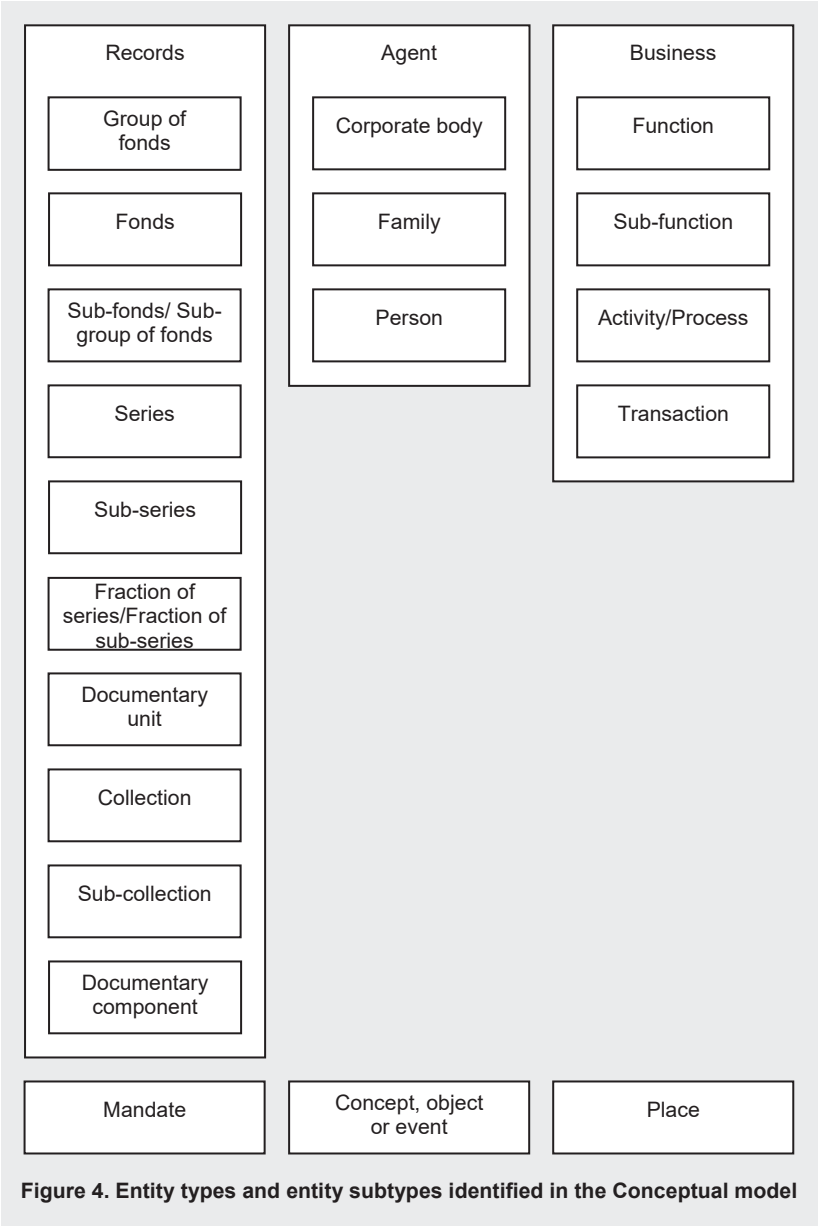


Figure 4. Entity types and entity subtypes identified in the Conceptual model

In the Conceptual model there are ten **entity subtypes for the records entity type**. These subtypes have been established taking into account the Spanish archival practice, so it is necessary to make certain explanations:

- **Group of fonds**. This entity subtype refers mainly to an aggregation of two or more fonds (or an aggregation of two or more fractions of fonds), each created by a different agent (creator of fonds).
- **Fonds**. This entity subtype refers mainly to an aggregation of records created by an agent in the exercise of his functions (creator of fonds).
- **Sub-fonds/Sub-group of fonds**. This entity subtype refers mainly to an aggregation of records of a fonds or group of fonds, grouped by their correspondence with administrative

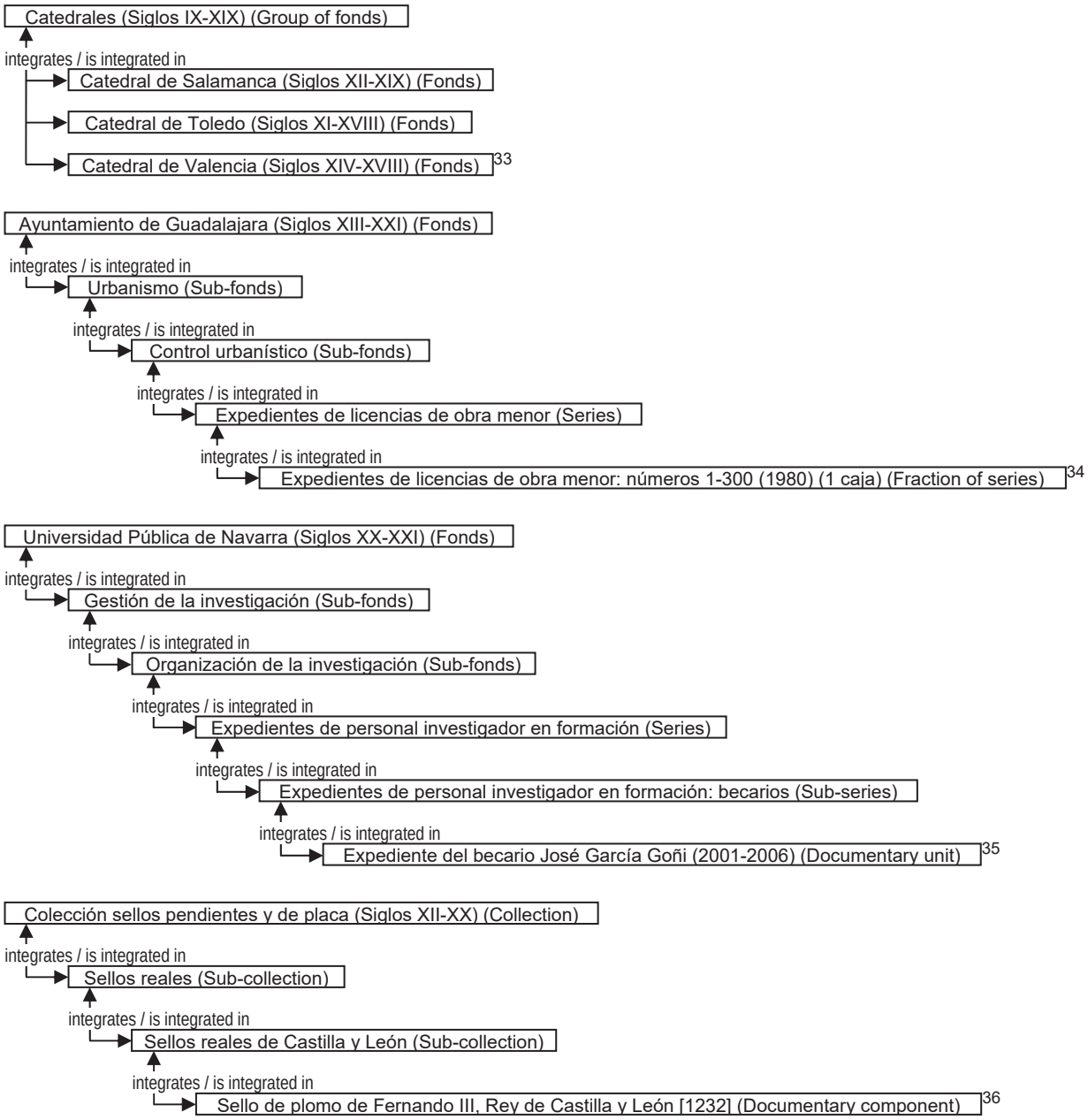
subdivisions of the creating agent (corporate body) or according to geographical, chronological or functional criteria. The Conceptual model allows to consider (instead of this entity subtype) two distinct entitye subtypes: sub-fonds and sub-group of fonds. In fact in some diagrams of the Conceptual model the sub-fonds and the sub-group of fonds appear as distinct entity subtypes.

- **Series**. This entity subtype refers mainly to an aggregation of records created by one or more agents which are evidence of one or more activities or processes.
- **Sub-series**. This entity subtype refers mainly to an aggregation of records of a series, grouped according to classification criteria.
- **Fraction of series/Fraction of sub-series**. This entity subtype refers mainly to an aggregation of records of a series or sub-series, held in a container or housing (box, package, bundle, volume, etc.) (for example, several case files in a box, several letters in a volume, etc.). The Conceptual model allows to consider (instead of this entity subtype) two distinct entity subtypes: fraction of series and fraction of sub-series.
- **Documentary unit**. This entity subtype refers mainly to an item (or single documentary unit) (for example, a letter, application, report, etc.) or to an aggregation of several interrelated items forming a compound documentary unit (for example, a case file). The Conceptual model allows to consider (instead of this entity subtype) two distinct entity subtypes: item (or single documentary unit) and compound documentary unit. In fact in some diagrams of the Conceptual model the item (or single documentary unit) and the compound documentary unit appear as distinct entity subtypes.
- **Collection**. This entity subtype refers mainly to an artificial aggregation of records and/or documentary components, assembled for conservation reasons, for their special interest or any other subjective criteria.
- **Sub-collection**. This entity subtype refers mainly to an aggregation of records and/or documentary components of a collection, grouped according to any criteria.
- **Documentary component**. This entity subtype refers mainly to an element (not an item) of a documentary unit, which may be or not physically separated for conservation reasons or other causes (for example, a pendent seal, a signature, the inserted text of another item, etc.).

The records entities of these ten subtypes are linked by "hierarchical whole/part" relationships (see section 3.2.2). From the perspective of this hierarchical interrelation and of the entity subtypes that may occupy the top level of the hierarchy of records, it is considered that in any archival context may be four non-exclusive cases, which are reflected in the Conceptual model:

- The fonds in the top level of the hierarchy of records (see figure 29 in section 3.2.2).
- The group of fonds in the top level of the hierarchy of records (see figure 30 in section 3.2.2).
- The collection in the top level of the hierarchy of records (see figure 31 in section 3.2.2).
- The series in the top level of the hierarchy of records (see figure 32 in section 3.2.2). The consideration of this case in the Conceptual model enables the optional implementation of the “series system”.

Examples of records entities of these subtypes:



[33] Group of fonds held in the National Historical Archive. Source: *Portal de Archivos Españoles (PARES)* [online]. [Viewed 27 April 2012]. Available from: http://pares.mcu.es/.
[34] Fonds held in the Municipal Archives of Guadalajara. Source: Municipal Archives of Guadalajara (4 May 2011).
[35] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[36] Collection held in the National Historical Archive. Source: National Historical Archive (30 May 2011).

In the Conceptual model there are three **entity subtypes for the agent entity type**: **corporate body**, **family** and **person**. Examples of agent entities of these subtypes:

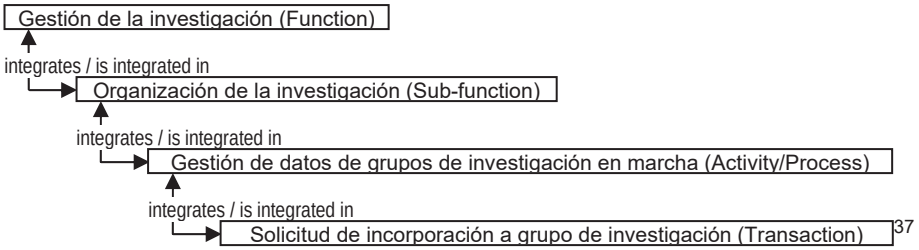
Universidad Pública de Navarra (Corporate body)

Archivo General de Simancas (Corporate body)

Familia Borbón Parma (Family)

Isabel I (Reina de Castilla) (Person)

In the Conceptual model there are four **entity subtypes for the business entity type**: **function**, **sub-function**, **activity/process** and **transaction**. The business entities of these four subtypes are linked by "hierarchical whole/part" relationships (see section 3.2.6). Examples of business entities of these subtypes:



[37]

[37] Function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

3.2 Relationships

In this Conceptual model relationships are associations of any kind between entities (of the six indicated types) of archival reality (real world), perceived as links of different type (conceptual world), which may be reflected in archival descriptive systems (world of representations) in different ways, and may even constitute in them electronic links between digital descriptions. Although in the Conceptual model relationship types are not considered entity types, in practice they work as such: entity types and relationship types have attributes; both entities (of the six types) and relationships (of different type) are susceptible of description.[38]

Theoretically, the Conceptual model may have considered all possible relationship types (many-to-many) between entities of the same or different type (figure 5), i.e., the following relationship types: records ↔ records; records ↔ agent; records ↔ business; records ↔ mandate; records ↔ concept, object o event; records ↔ place; agent ↔ agent; etc.

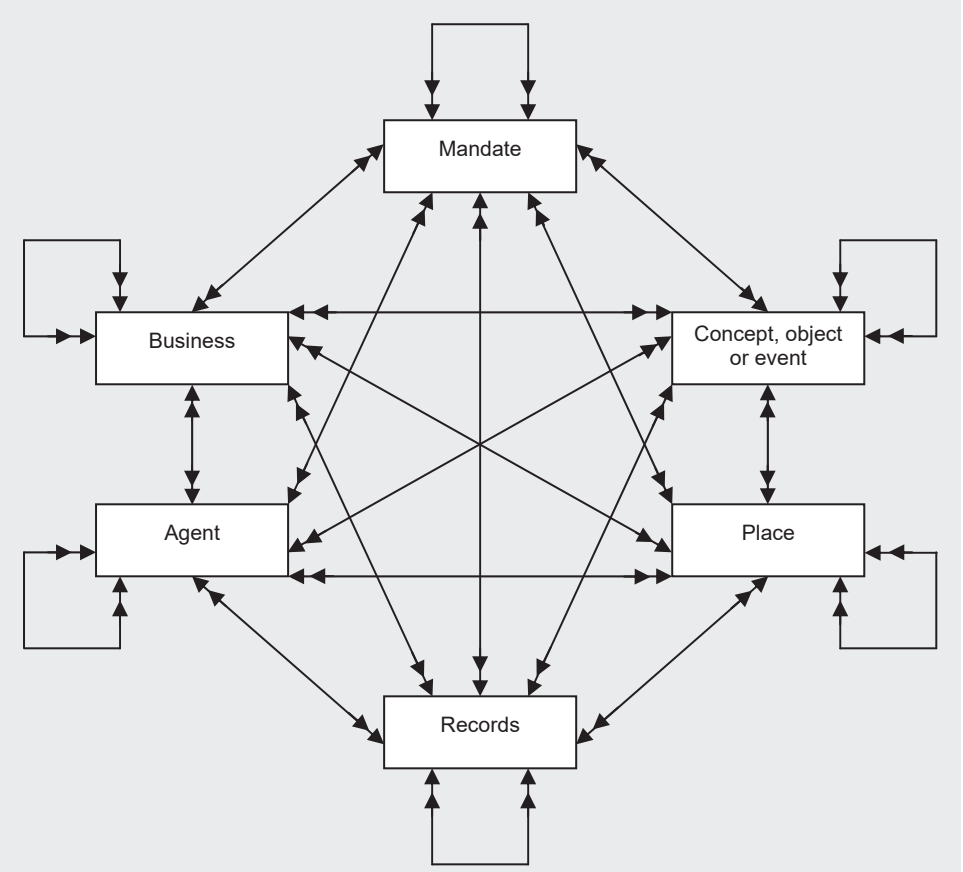


Figure 5. Diagram of possible relationship types

[38] Therefore, according to NEDA-I Project, the Part 4 (attributes) of the Conceptual model must identify not only the attributes of three entity types (records; agent; business) but also the attributes of the relationship types.
Therefore, according to NEDA-I Project, NEDA must include four major sections:

- Part A. Description of records.
- Part B. Description of agents.
- Part C. Description of business entities.
- Part D. Description of relationships.

However, for various reasons, in this Conceptual model is contemplated a lower number of relationship types (many-to-many) (figure 6).

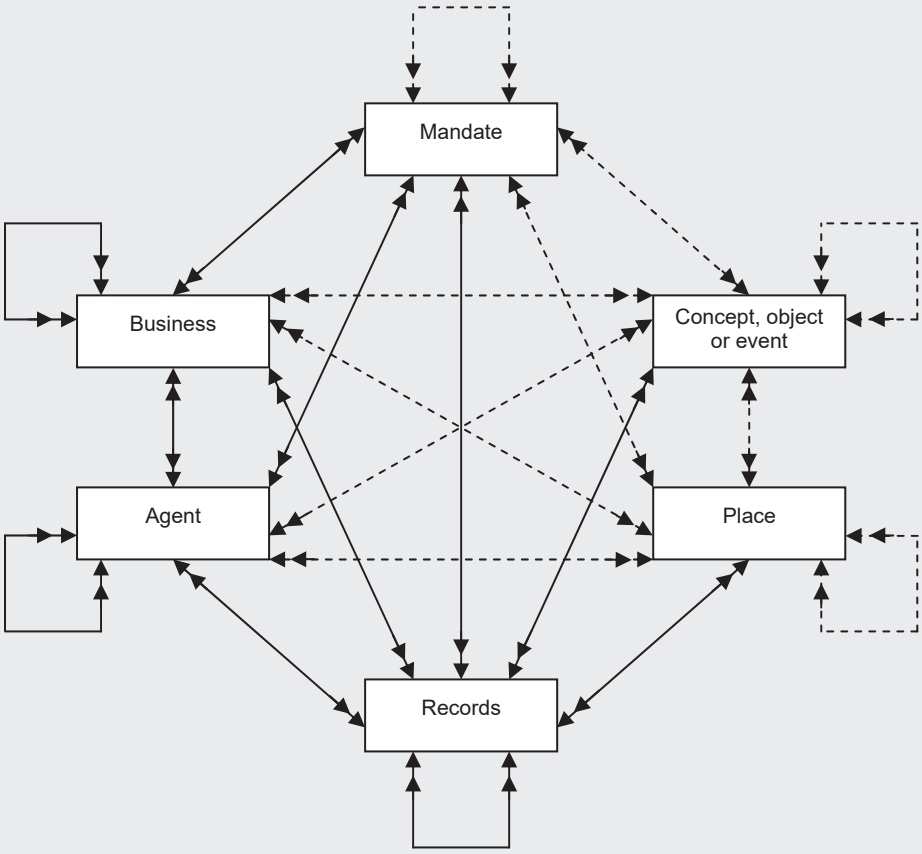


Figure 6. Diagram of relationship types considered in the Conceptual model

Concretely, the Conceptual model identifies ten **relationship types from different perspectives or viewpoints**, which are shown in the table of figure 7. The first six relationship types listed in this table are considered main relationship types in the Conceptual model, because they have been established from the fundamental perspectives of the context, content and structure of records.

Perspective	Relationship type
Context of records and their evidential value.	"Authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ←→ agent)
	"Carrying out" relationship type (many-to-many) (agent ←→ business)
	"Evidence" relationship type (functional provenance) (many-to-many) (records ←→ business)
	"Regulation" relationship type (many-to-many) (mandate ←→ agent, business or records)
Structure of records.	"Hierarchical whole/part" relationship type (one-to-many) (records ←→ records)
Content of records and their informational value.	"Subject" relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records)
Association between records.	"Association" relationship type (many-to-many) (records ←→ records)
Link between agents.	"Link" relationship type (many-to-many) (agent ←→ agent)
Structure of business entities.	"Hierarchical whole/part" relationship type (one-to-many) (business ←→ business)
Association between business entities.	"Association" relationship type (many-to-many) (business ←→ business)

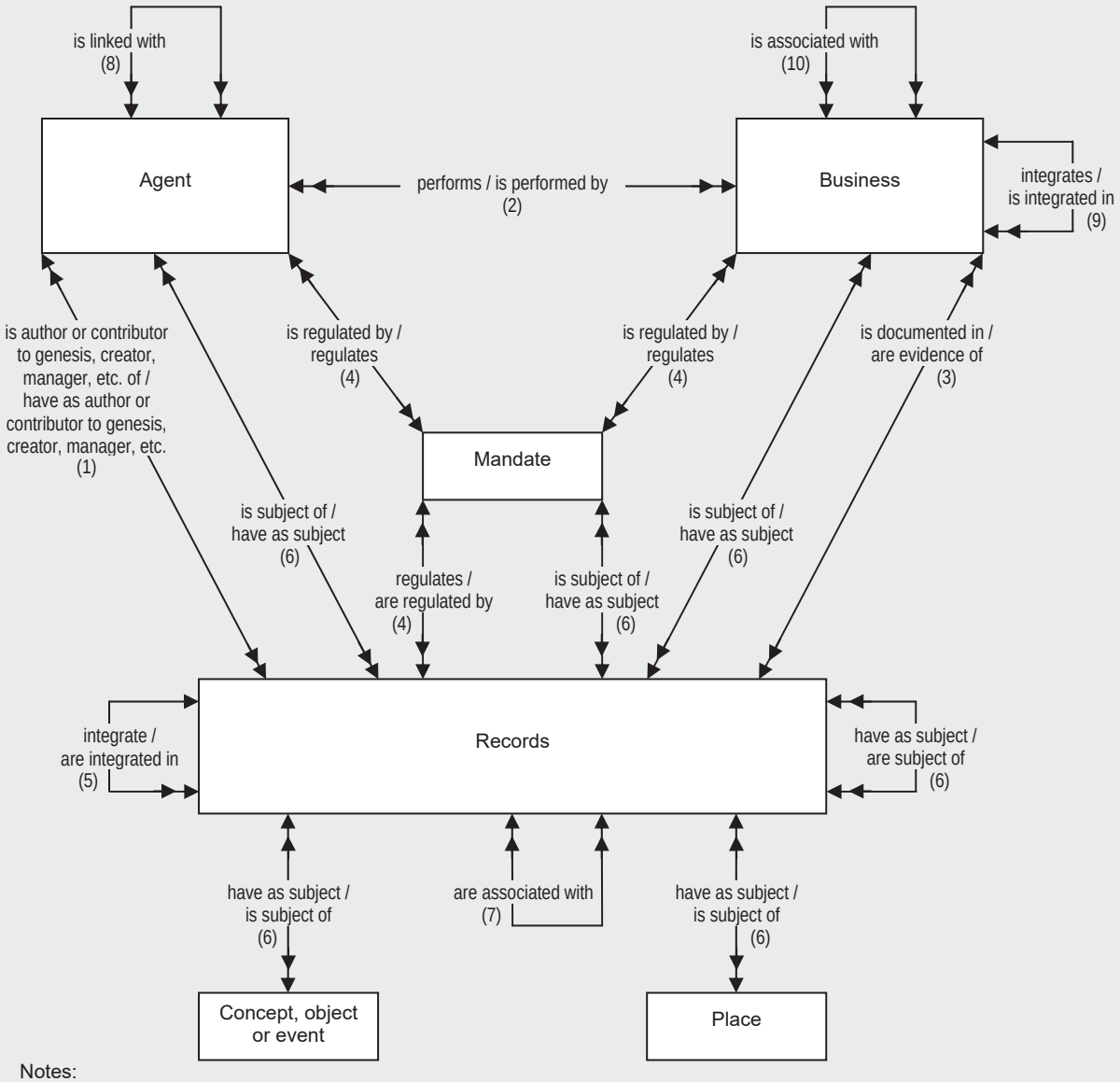
Figure 7. Table of relationship types identified in the Conceptual model from different perspectives

The table in figure 8 shows the ten indicated **relationship types**, grouped according to whether the entities involved in the relationship belong to the same or different type.

Group		Relationship type
Relationship types between entities of different type.		"Authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ←→ agent)
		"Carrying out" relationship type (many-to-many) (agent ←→ business)
		"Evidence" relationship type (functional provenance) (many-to-many) (records ←→ business)
		"Regulation" relationship type (many-to-many) (mandate ←→ agent, business or records)
Relationship types between entities of the same type.	Between records.	"Hierarchical whole/part" relationship type (one-to-many) (records ←→ records)
		"Association" relationship type (many-to-many) (records ←→ records)
	Between agents.	"Link" relationship type (many-to-many) (agent ←→ agent)
	Between business entities.	"Hierarchical whole/part" relationship type (one-to-many) (business ←→ business)
		"Association" relationship type (many-to-many) (business ←→ business)
Relationship type between entities of different or the same type.		"Subject" relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records)

Figure 8. Table of relationship types identified in the Conceptual model, grouped according to whether the entities involved in the relationship belong to the same or different type

Figure 9 shows the general diagram in which are represented the ten indicated **relationship types**.



Notes:

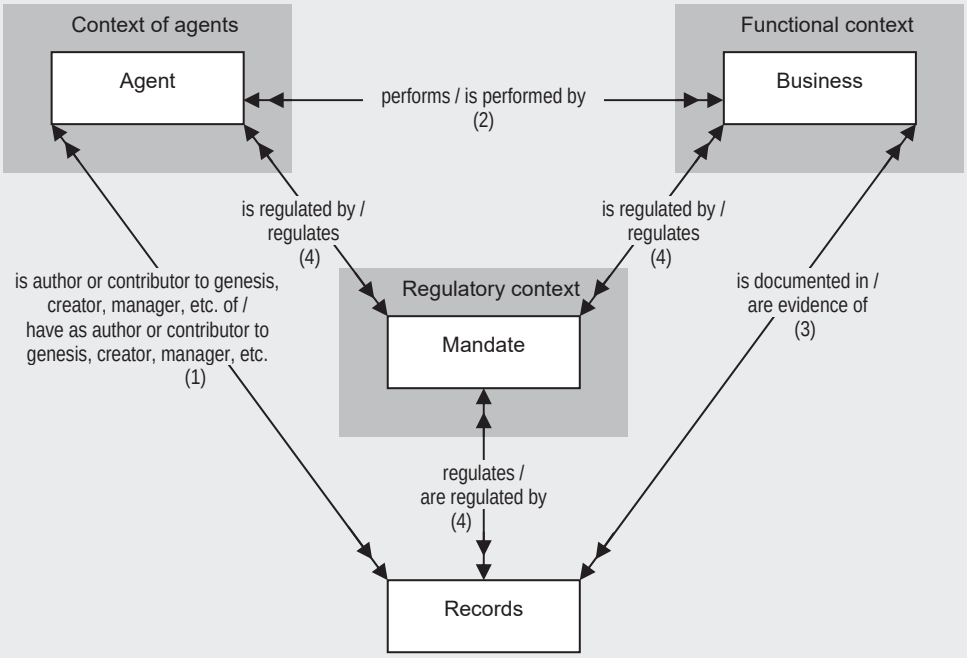
(1) "Authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ←→ agent)
(2) "Carrying out" relationship type (many-to-many) (agent ←→ business)
(3) "Evidence" relationship type (functional provenance) (many-to-many) (records ←→ business)
(4) "Regulation" relationship type (many-to-many) (mandate ←→ agent, business or records)
(5) "Hierarchical whole/part" relationship type (one-to-many) (records ←→ records)
(6) "Subject" relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records)
(7) "Association" relationship type (many-to-many) (records ←→ records)
(8) "Link" relationship type (many-to-many) (agent ←→ agent)
(9) "Hierarchical whole/part" relationship type (one-to-many) (business ←→ business)
(10) "Association" relationship type (many-to-many) (business ←→ business)

Figure 9. General diagram of relationship types identified in the Conceptual model

3.2.1 The perspective of the context of records and their evidential value: relationship types

From the fundamental perspective of the context of records (context of agents, functional context and regulatory context) and their evidential value, the Conceptual model identifies the following main relationship types (figure 10):

- "Authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ←→ agent).
- "Carrying out" relationship type (many-to-many) (agent ←→ business).
- "Evidence" relationship type (functional provenance) (many-to-many) (records ←→ business).
- "Regulation" relationship type (many-to-many) (mandate ←→ agent, business or records).



Notes:
(1) "Authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ←→ agent)
(2) "Carrying out" relationship type (many-to-many) (agent ←→ business)
(3) "Evidence" relationship type (functional provenance) (many-to-many) (records ←→ business)
(4) "Regulation" relationship type (many-to-many) (mandate ←→ agent, business or records)

Figure 10. Diagram of relationship types between records, agent, business and mandate from the perspective of the context of records and their evidential value

[39]

[39] This diagram is based on the three high-level Conceptual models developed in the SPIRT Project (1998-1999) of Monash University (Australia). Source: *Conceptual and relationship models: records in business and socio-legal contexts* [online]. [Viewed 27 April 2012]. Available from: http://www.infotech.monash.edu.au/research/groups/rcrg/projects/spirt/deliverables/conrelmod.html.

3.2.1.1 "Authorship or contribution to genesis, creation, management, etc." relationship type(s) (records ↔ agent)

This relationship type (many-to-many) (figure 11) refers to the link between a records entity and the agent who is its author or contributor to genesis, creator, manager, etc.

In this relationship type the agent plays the generic role of "author or contributor to genesis, creator, manager, etc.". This generic expression refers to the set of more or less specific roles (author, contributor to genesis, creator, collector, records or archives manager, owner, etc.) that the agent can play with respect to records throughout their existence.

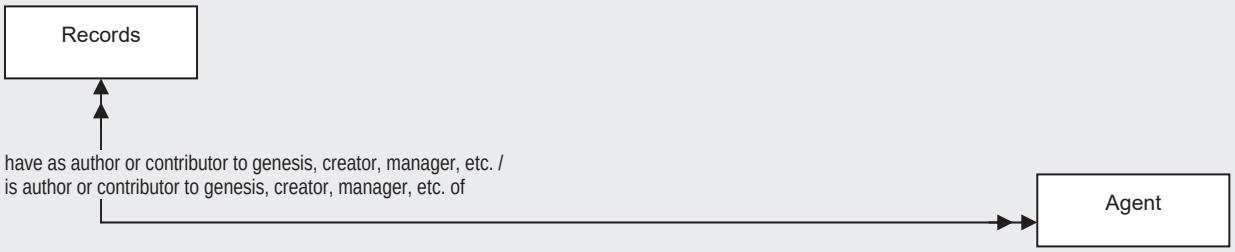


Figure 11. Diagram of "authorship or contribution to genesis, creation, management, etc." relationship type (many-to-many) (records ↔ agent)

Logically, it is possible to consider more specific relationship types based on more concrete perspectives or viewpoints. Among them the "creation" relationship type is considered fundamental in the Conceptual model. Figure 12 shows this relationship type together with other types (indicated as examples) that can also be estimated.

Perspective	Specífic relationship type	Rol of the agent
Authorship or contribution to genesis of an item (before its integration in an aggregation of records by the creator).	“Authorship or contribution to genesis” relationship type (many-to-many) (item ←→ agent)	Autor or contributor to genesis
Destination of a documentary unit (before its integration in an aggregation of records by the creator).	“Destination” relationship type (many-to-many) (documentary unit ←→ agent)	Addressee
Sending of a documentary unit (before its integration in an aggregation of records by the creator).	“Sending” relationship type (many-to-many) (documentary unit ←→ agent)	Sender
Formation of aggregations of records by the creator.	“Creation” relationship type (provenance with respect to agents) (one-to-one, one-to-many, or many-to-many) (group of fonds, fonds, sub-fonds/sub-group of fonds, series, sub-series, fraction of series/fraction of sub-series or documentary unit ←→ agent)	Creator
Formation of collections.	“Collection” relationship type (many-to-many) (collection, sub-collection, documentary unit or documentary component ←→ agent)	Collector
Records or archives management.	“Records or archives management” relationship type (many-to-many) (records ←→ agent)	Records or archives manager
Ownership of records.	“Ownership” relationship type (many-to-many) (records ←→ agent)	Owner
Copyright ownership of works expressed in records.	“Copyright ownership” relationship type (many-to-many) (records ←→ agent)	Copyright owner
(…)	(…)	(…)

Figure 12. Table of examples of specific relationship types records ←→ agent from different perspectives

"Authorship or contribution to genesis" relationship type (item ←→ agent)

This relationship type (many-to-many) (figure 13) refers to the link between an item (or single documentary unit) and the agent who is its author or contributor to genesis.

In this relationship type the agent plays the role of author or contributor to genesis. The author is the agent responsible for the intellectual content of an item. The contributor to genesis is the agent responsible for the articulation of the intellectual content of an item, or involved in its formation as a clerk, witness, printer, engraver, publisher, etc. The author and contributor to genesis not to be confused with the creator (see "Creation relationship type" in this section).

This relationship type occurs before the item involved in the relationship is integrated in an aggregation of records by the creator.

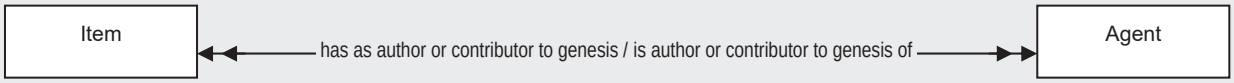
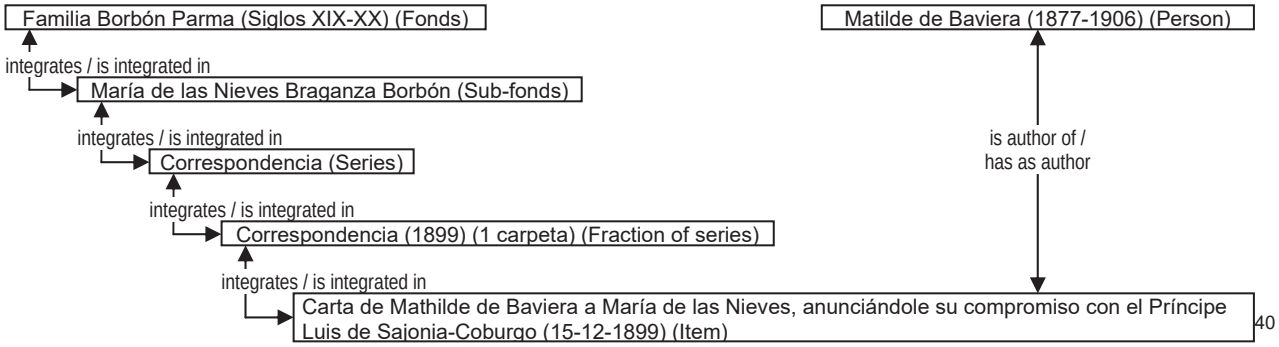


Figure 13. Diagram of "authorship or contribution to genesis" relationship type (many-to-many) (item ←→ agent)

Logically, it is possible to consider more specific relationship types, for example:

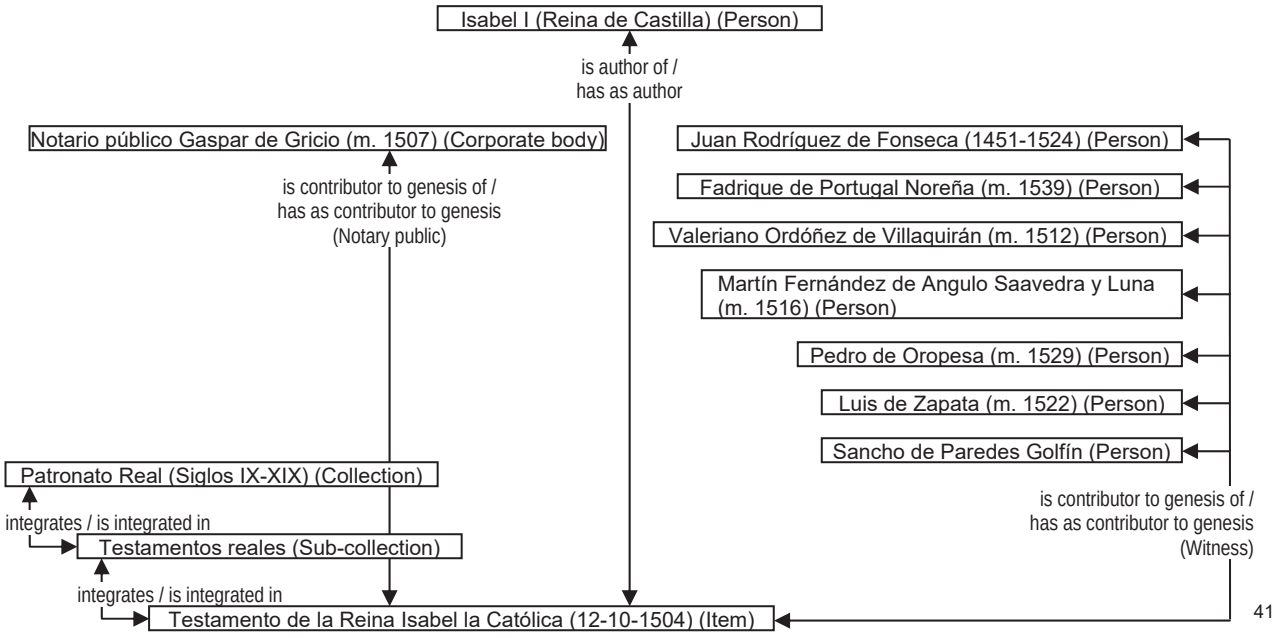
- "authorship" relationship type, in which the agent plays the role of author. May also be considered even more specific relationship types in which the agent plays a more concrete role (for example, applicant, photographer, cartographer, architect, composer, librettist, etc.).
- "contribution to genesis" relationship type, in which the agent plays the role of contributor to genesis. May also be considered even more specific relationship types in which the agent plays a more concrete role (for example, responsible for the articulation of the intellectual content, clerk, witness, printer, engraver, publisher, etc.).

Examples of relationships:



[40]

[40] Fonds held in the National Historical Archive. Source: National Historical Archive (4 May 2011).



[41] Collection held in the General Archive of Simancas. Source: General Archive of Simancas (20 May 2011). Observations: the item (Will) is signed by the the Queen Isabella I of Castile, the Notary public Gaspar de Gricio and seven witnesses (Juan Rodríguez de Fonseca, Fadrique de Portugal, Valeriano Ordóñez de Villaquirán, Martín Fernández de Angulo, Pedro de Oropesa, Luis Zapata y Sancho de Paredes).

"Destination" relationship type (documentary unit ←→ agent)

This relationship type (many-to-many) (figure 14) refers to the link between a documentary unit (item or compound documentary unit) and the agent who is its addressee.

In this relationship type the agent plays the role of addressee (i.e., the agent to whom a documentary unit is addressed). The addressee not to be confused with the creator (see "Creation relationship type" in this section).

This relationship type occurs before the documentary unit involved in the relationship is integrated in an aggregation of records by the creator.

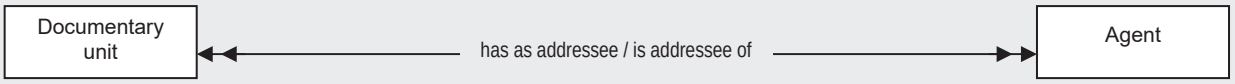
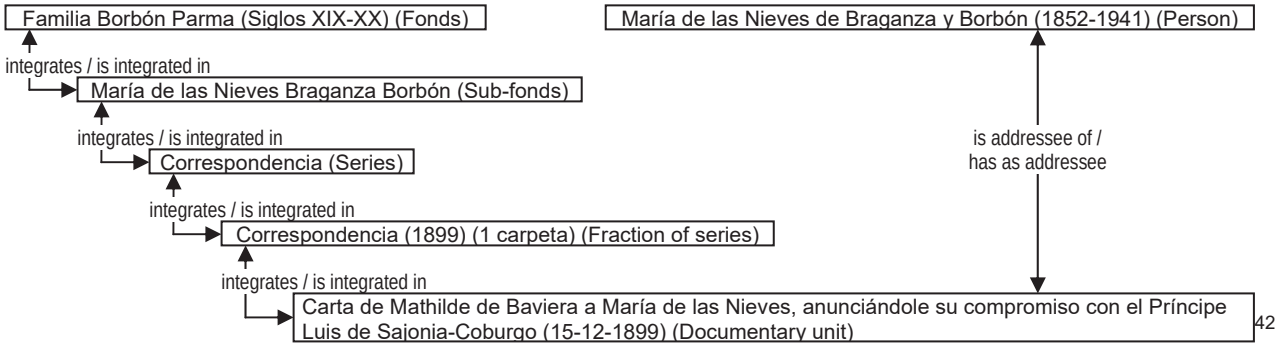


Figure 14. Diagram of "destination" relationship type (many-to-many) (documentary unit ←→ agent)

Example of relationship:



[42]

[42] Fonds held in the National Historical Archive. Source: National Historical Archive (4 May 2011).

"Sending" relationship type (documentary unit ←→ agent)

This relationship type (many-to-many) (figure 15) refers to the link between a documentary unit (item or compound documentary unit) and the agent who is its sender.

In this relationship type the agent plays the role of sender (i.e., the agent responsible for sending a documentary unit).

This relationship type occurs on certain occasions: when an agent sends (by post, email, etc.) to another a documentary unit, before this unit involved in the relationship is integrated in an aggregation of records by the creator.

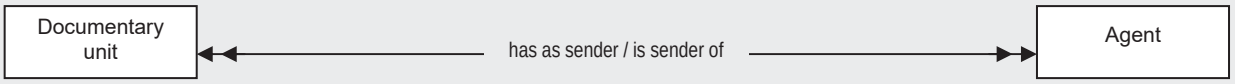
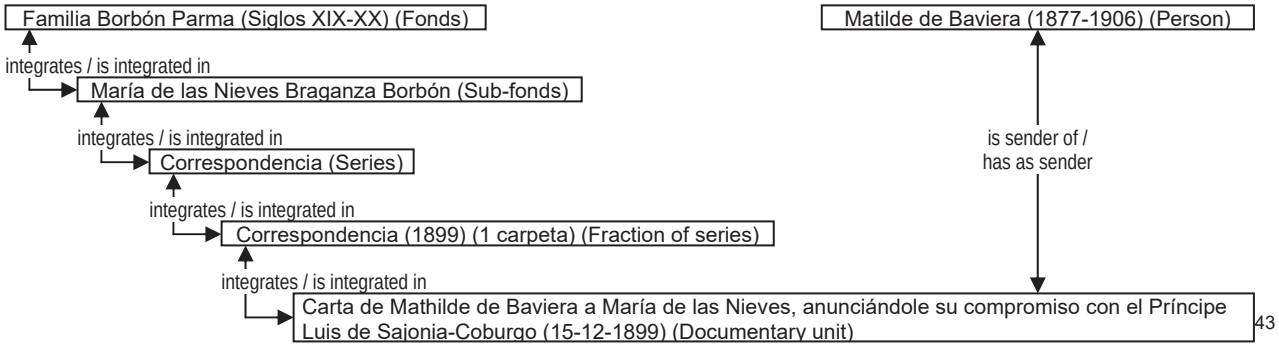


Figure 15. Diagram of "sending" relationship type (many-to-many) (documentary unit ←→ agent)

Example of relationship:



[43]

[43] Fonds held in the National Historical Archive. Source: National Historical Archive (4 May 2011).

"Creation" relationship type (provenance with respect to agents) (group of fonds, fonds, sub-fonds/sub-group of fonds, series, sub-series, fraction of series/fraction of sub-series or documentary unit ←→ agent)

This relationship type refers to the link between a particular records entity (group of fonds, fonds, sub-fonds/sub-group of fonds, series, sub-series, fraction of series/fraction of sub-series or documentary unit) and the agent responsible for its creation (provenance with respect to agents).

In this relationship type the agent plays the role of creator (i.e., the actor who is assigned, in a concrete archival context, the responsibility for creating or receiving records, and accumulate them in the exercise of his functions). The creator not to be confused with the author, contributor to genesis, addressee or collector (see "Authorship or contribution to genesis relationship type", "Destination relationship type" and "Collection relationship type" in this section).

This relationship type is considered fundamental in the Conceptual model, because at the moment in which this relationship is executed marks the temporary instant of birth of an item (or single documentary unit) or an aggregation of records (fonds, series, etc.) (except the collection and sub-collection).

However, it has been necessary to consider in the Conceptual model several different cases for this relationship type:

- "Creation" relationship type (one-to-one) (fonds ←→ agent), when the fonds occupies the top level of the hierarchy of records.
- "Creation" relationship type (one-to-one) (fonds ←→ agent), when the fonds is individualized intellectually in a group of fonds.
- "Creation" relationship type (one-to-many) (group of fonds ←→ agent), when the fonds of the group of fonds are not individualized intellectually.
- "Creation" relationship type (many-to-many) (documentary unit ←→ agent), when the documentary unit is integrated in a collection that occupies the top level of the hierarchy of records.
- "Creation" relationship type (many-to-many) (series ←→ agent), when the series occupies the top level of the hierarchy of records.

Etc.[44]

[44] The Conceptual model also identifies three other cases, but these have not been included in this report for reasons of simplicity:

- "Creation" relationship type (many-to-many) (sub-fonds, series or documentary unit ←→ corporate body), when this corporate body is hierarchically subordinate to the corporate body that created the fonds in wich that records entity is integrated.
- "Creation" relationship type (many-to-many) (sub-fonds, series or documentary unit ←→ person), when this person is member of the family that created the fonds in wich that records entity is integrated.
- "Creation" relationship type (many-to-many) (documentary unit ←→ agent), when this documentary unit has been removed from its original aggregation of records and is integrated as evidence in a compound documentary unit of another fonds or series.

The diagram of figure 16 represents the "creation" relationship type (one-to-one) (fonds ←→ agent), when the fonds occupies the top level of the hierarchy of records.

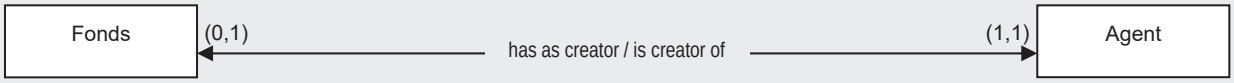
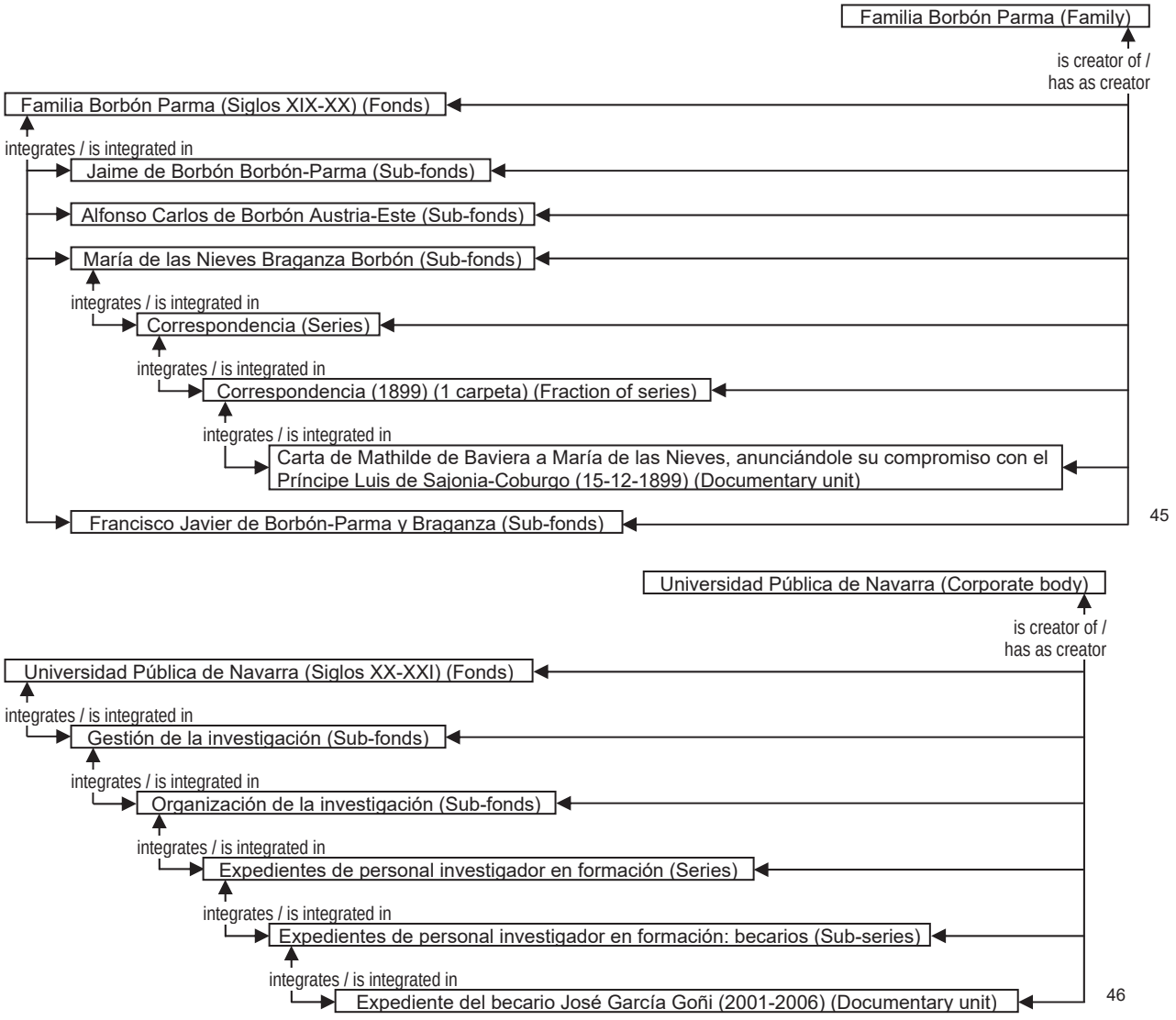


Figure 16. Diagram of "creation" relationship type (provenance with respect to agents) (one-to-one) (fonds ←→ agent), when the fonds occupies the top level of the hierarchy of records

Examples of relationships:



[45] Fonds held in the National Historical Archive. Source: National Historical Archive (4 May 2011).
[46] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

The diagram of figure 17 represents the "creation" relationship type (one-to-one) (fonds ←→ agent), when the fonds is individualized intellectually in a group of fonds.

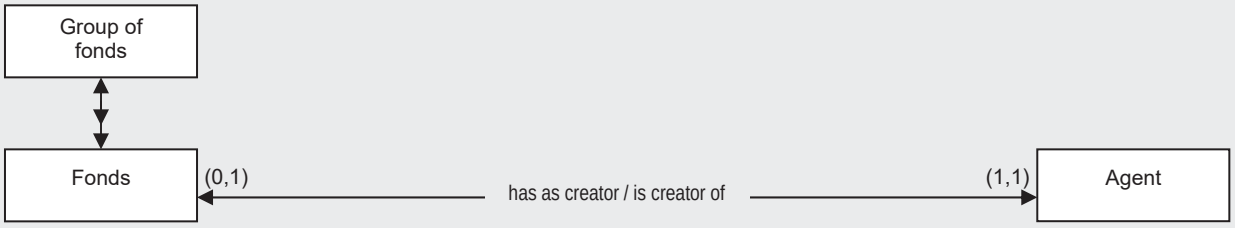
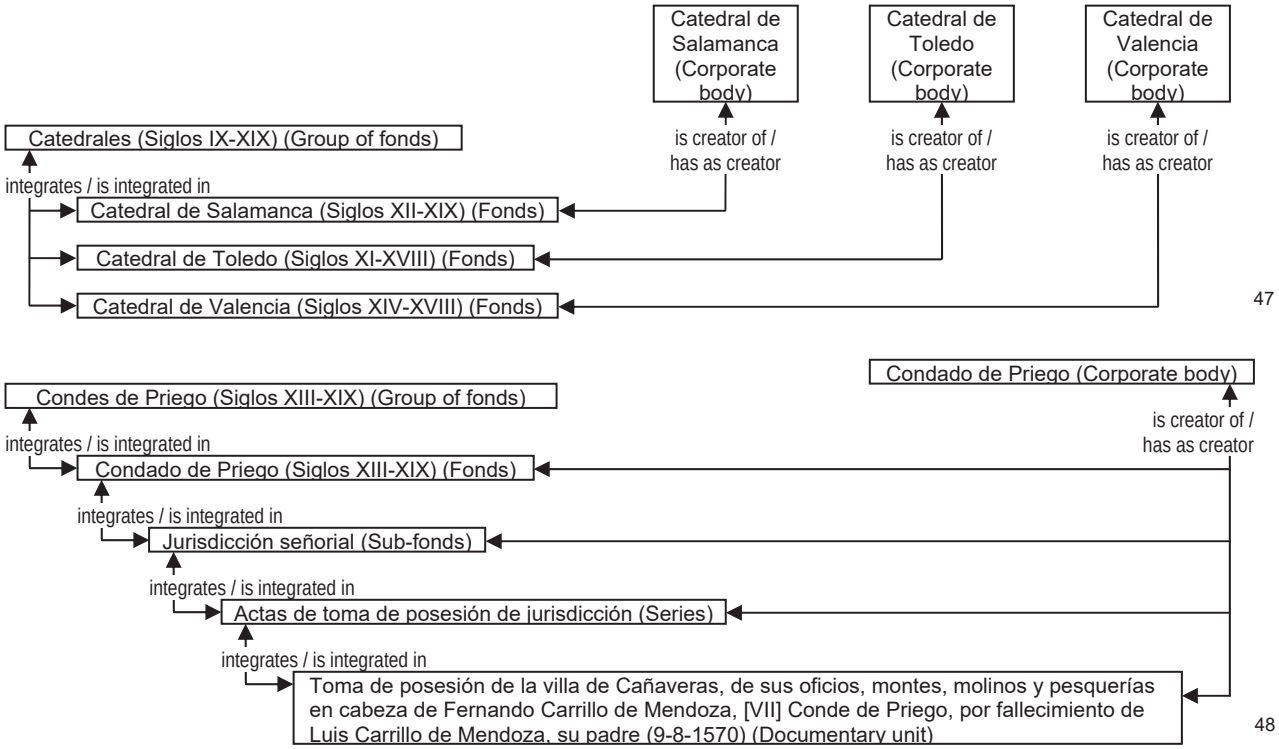


Figure 17. Diagram of "creation" relationship type (provenance with respect to agents) (one-to-one) (fonds ←→ agent), when the fonds is individualized intellectually in a group of fonds

Examples of relationships:



[47] Group of fonds held in the National Historical Archive. Source: *Portal de Archivos Españoles (PARES)* [online]. [Viewed 27 April 2012]. Available from: http://pares.mcu.es/.

[48] Group of fonds held in the National Historical Archive Nobility Section. Sources: GARCÍA ASER, Rosario y LAFUENTE URIÉN, Aránzazu. *Archivos nobiliarios: cuadro de clasificación: Sección Nobleza del Archivo Histórico Nacional.* [Madrid]: Ministerio de Educación, Cultura y Deporte, Centro de Publicaciones, [2000], pp. 30-31; ARCHIVO HISTÓRICO NACIONAL (ESPAÑA). *Inventario del Archivo de los Condes de Priego: Sección Nobleza del Archivo Histórico Nacional.* [Elaborado por Aránzazu Lafuente Urién]. [Madrid]: Ministerio de Educación y Cultura, Centro de Publicaciones, [1999], pp. 16-28 y 48.

The diagram of figure 18 represents the "creation" relationship type (one-to-many) (group of fonds ←→ agent), when the fonds of the group of fonds are not individualized intellectually.

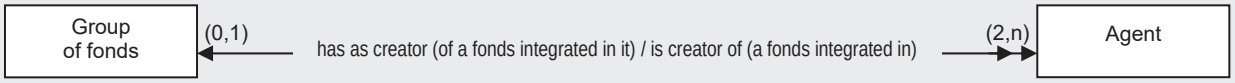
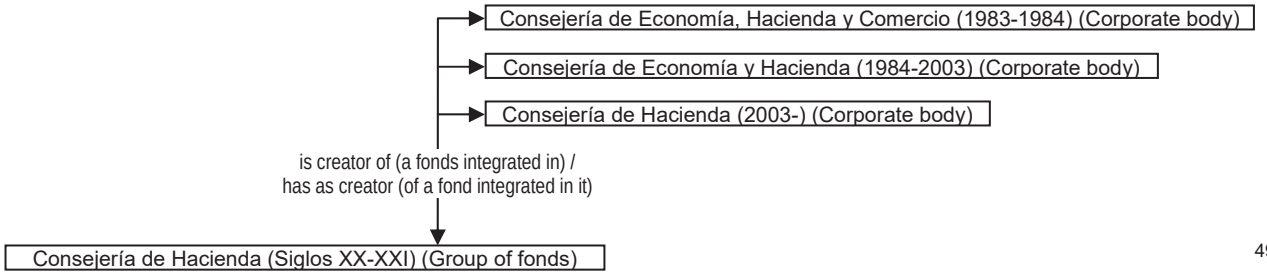


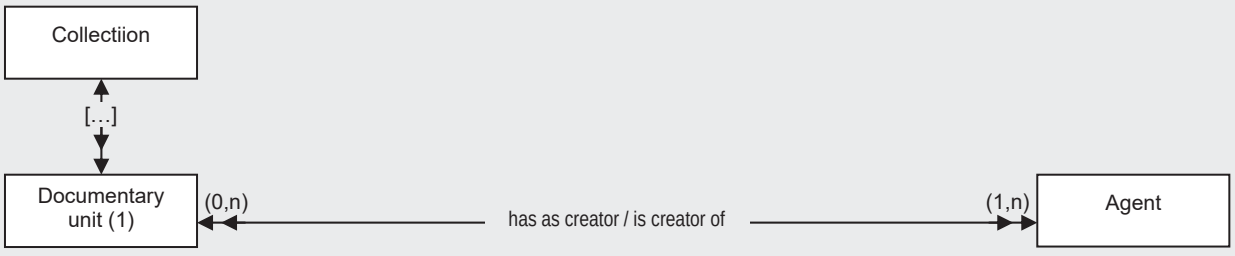
Figure 18. Diagram of "creation" relationship type (provenance with respect to agents) (one-to-many) (group of fonds ←→ agent), when the fonds of the group of fonds are not individualized intellectually

Examples of relationships:



[49]

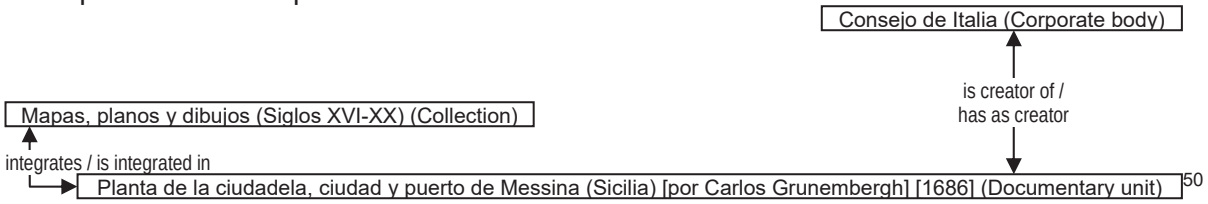
The diagram of figure 19 represents the "creation" relationship type (many-to-many) (documentary unit ←→ agent), when the documentary unit is integrated in a collection that occupies the top level of the hierarchy of records.



Note:
(1) The documentary unit is integrated, immediately or not, in the collection.

Figure 19. Diagram of "creation" relationship type (provenance with respect to agents) (many-to-many) (documentary unit ←→ agent), when the documentary unit is integrated in a collection that occupies the top level of the hierarchy of records

Example of relationship:



[50]

[49] Group of fonds held in the Central Archive of Treasury (Regional Ministry of Treasury of the Government of Castile and Leon). Source: *Portal de Archivos de Castilla y León* [online]. [Viewed 27 April 2012]. Available from: http://www.archivoscastillayleon.jcyl.es/.

[50] Collection held in the General Archive of Simancas. Source: General Archive of Simancas (2 May 2011).

The diagram of figure 20 represents the "creation" relationship type (many-to-many) (series ←→ agent), when the series occupies the top level of the hierarchy of records.

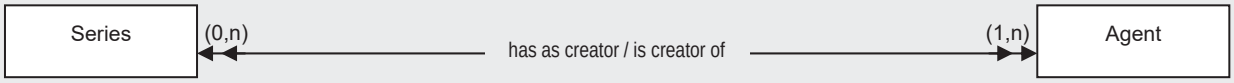
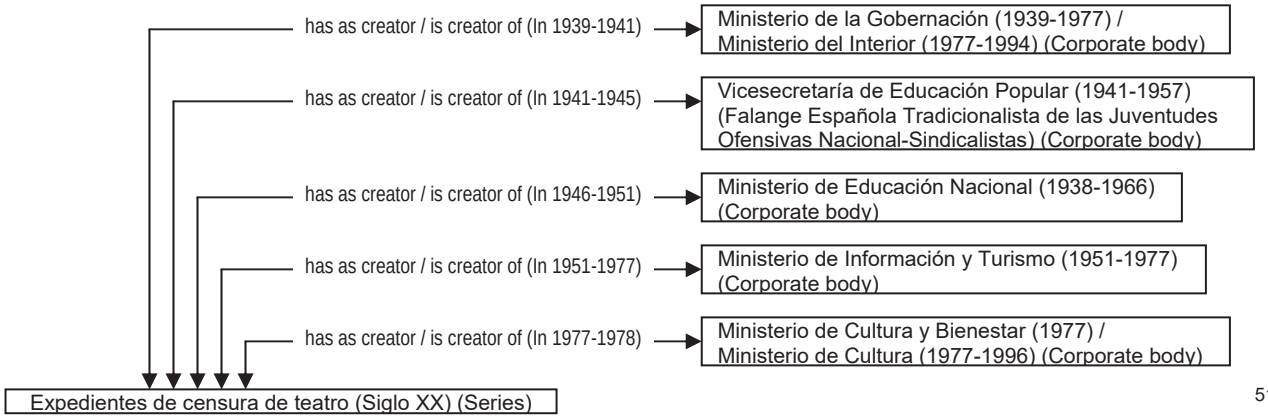


Figure 20. Diagram of "creation" relationship type (provenance with respect to agents) (many-to-many) (series ←→ agent), when the series occupies the top level of the hierarchy of records

Examples of relationships:



[51]

[51] Series held in the General Administration Archive. Source: TORREBLANCA LÓPEZ, Agustín. Fuentes documentales para la historia del control administrativo de la representación de obras teatrales (1939-1985). En: *SIGNO: Revista de historia de la cultura escrita*. Alcalá de Henares: Universidad de Alcalá, 1995, n. 2, pp. 79-80.

"Collection" relationship type (collection, sub-collection, documentary unit or documentary component ←→ agent)

This relationship type (many-to-many) (figure 21) refers to the link between a particular records entity (collection, sub-collection, documentary unit or documentary component) and the agent who is its collector.

In this relationship type the agent plays the role of collector (i.e., the agent that gathers a collection). The collector not to be confused with the creator (see "Creation relationship type" in this section).

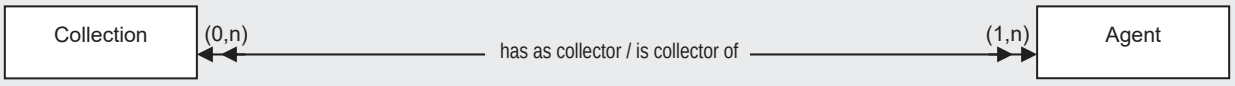
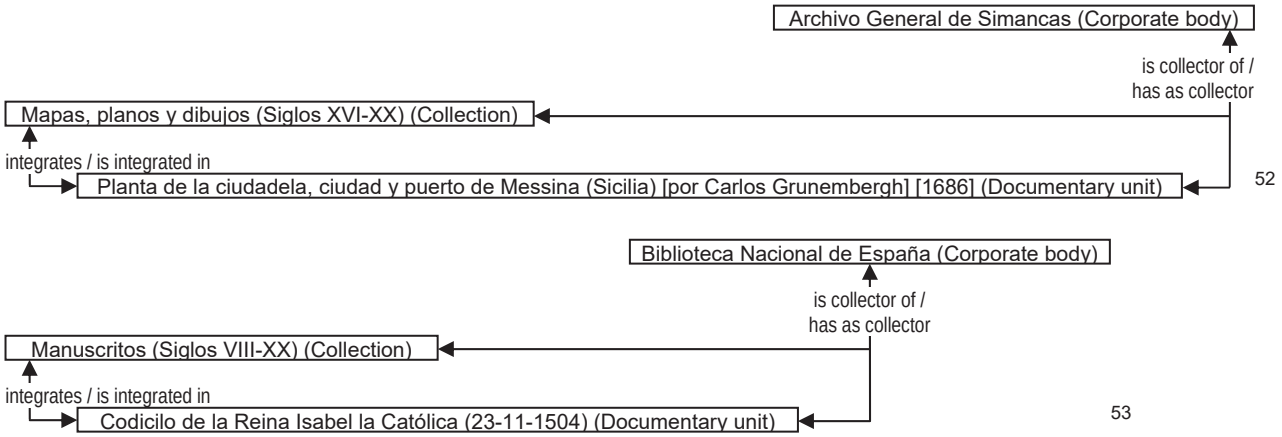


Figure 21. Diagram of "collection" relationship type (many-to-many) (collection ←→ agent)

Examples of relationships:



[52] Collection held in the General Archive of Simancas. Source: General Archive of Simancas (2 May 2011).
[53] Collection held in the National Library of Spain. Sources: *Manuscritos* [online]. [Viewed 27 April 2012]. Available from: http://www.bne.es/es/Colecciones/Manuscritos/index.html; *Catálogo BNE* [online]. [Viewed 27 April 2012]. Available from: http://catalogo.bne.es/uhtbin/webcat.

"Records or archives management" relationship type (records ←→ agent)

This relationship type (many-to-many) (figure 22) refers to the link between a records entity and the agent who is its records or archives manager.

In this relationship type the agent plays the role of records or archives manager (i.e., the agent responsible for or involved in records[54] or archives[55] management).

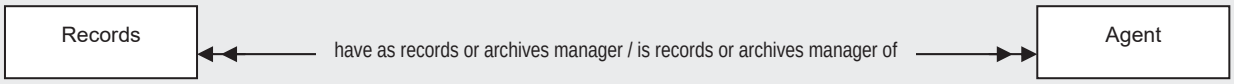
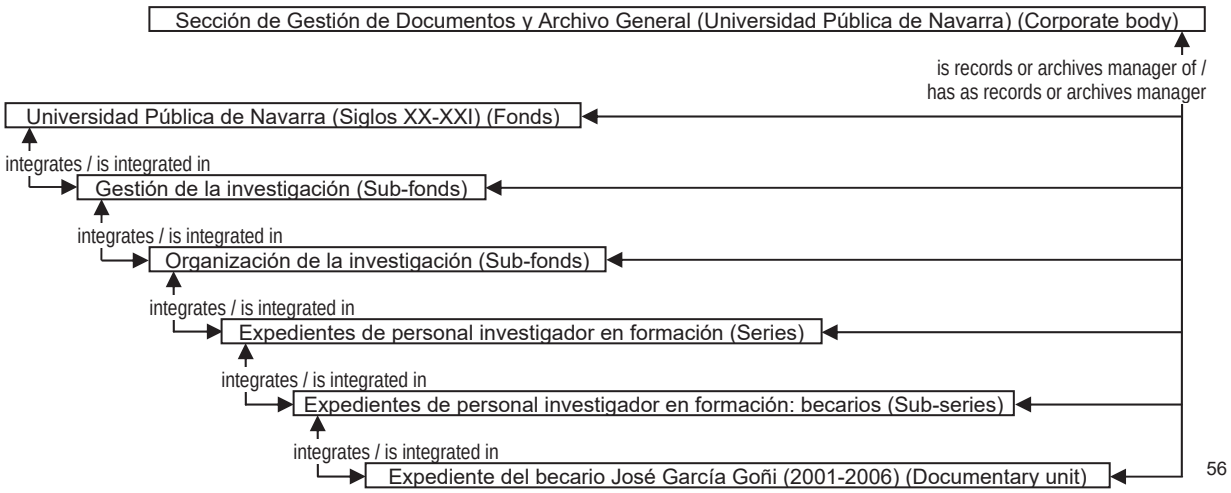


Figure 22. Diagram of "records or archives management" relationship type (many-to-many) (records ←→ agent)

Logically, it is possible to consider more specific relationship types, concerning the activities/processes of records or archives management, for example: "custody" relationship type, "arrangement" relationship type, "description" relationship type, "transfer" relationship type, "destruction" relationship type, etc.

Examples of relationships:



[54] *"records management. Definition: n. ~ The systematic and administrative control of records throughout their life cycle to ensure efficiency and economy in their creation, use, handling, control, maintenance, and disposition."* (PEARCE-MOSES, Richard. *A glossary of archival and records terminology*, [online]. [Viewed 28 June 2012]. Available from: http://www.archivists.org/glossary/).

[55] *"archives management. Definition: (also archives administration), n. ~ The general oversight of a program to appraise, acquire, arrange and describe, preserve, authenticate, and provide access to permanently valuable records."* (PEARCE-MOSES, Richard. *A glossary of archival and records terminology*, [online]. [Viewed 28 June 2012]. Available from: http://www.archivists.org/glossary/).

[56] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

"Ownership" relationship type (records ←→ agent)

This relationship type (many-to-many) (figure 23) refers to the link between a records entity and the agent who is its owner.

In this relationship type the agent plays the role of owner (i.e., the agent who has legal right of possession of records).

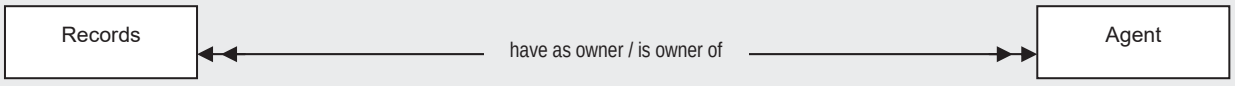
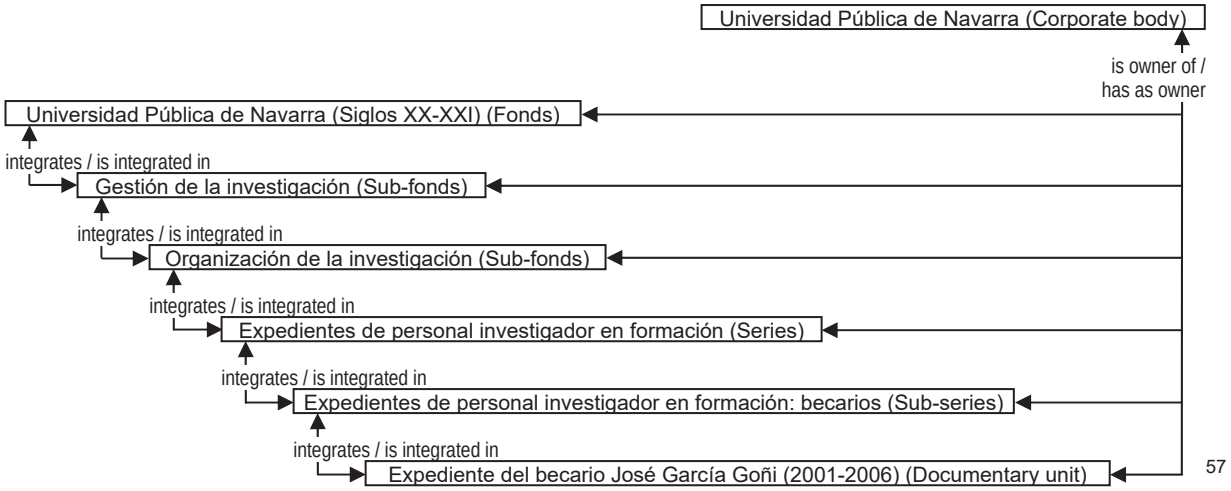


Figure 23. Diagram of "ownership" relationship type (many-to-many) (records ←→ agent)

Examples of relationships:



[57] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

"Copyright ownership" relationship type (records ←→ agent)

This relationship type (many-to-many) (figure 24) refers to the link between a records entity and the agent who is copyright owner of a work expressed in it.

In this relationship type the agent plays the role of copyright owner (i.e., the agent who retains legal control over all or some of the rights granted under copyright legislation) of a work expressed in the records entity.

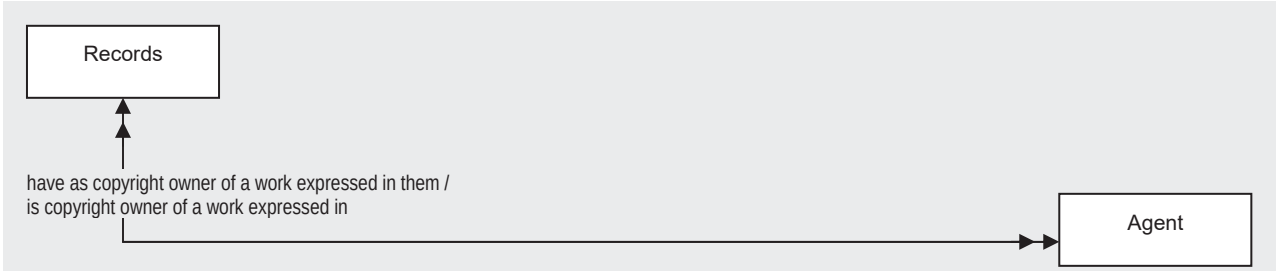
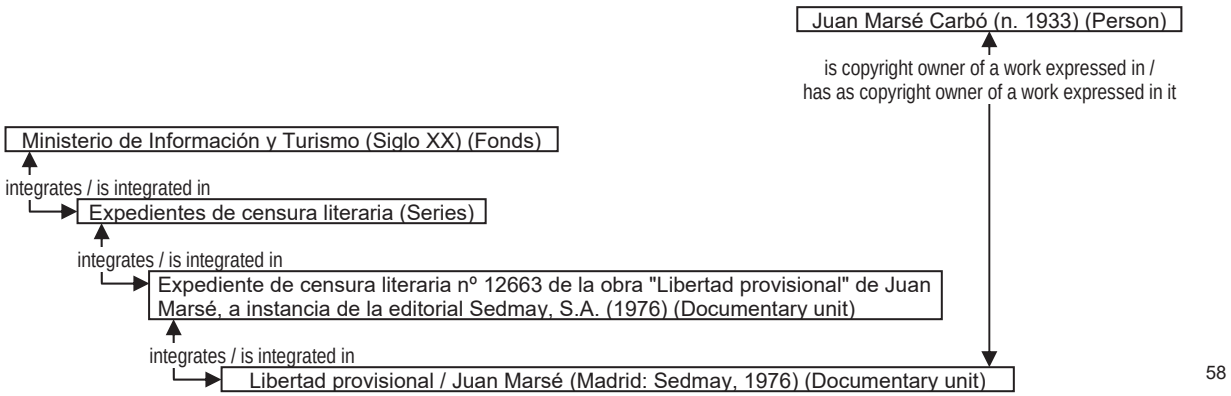


Figure 24. Diagram of "copyright ownership" relationship type (many-to-many) (records ←→ agent)

Logically, it is possible to consider more specific relationship types, for example (according to Spanish law): "moral rights of intellectual property" relationship type and "exploitation rights of intellectual property" relationship type.

Example of relationship:



[58]

[58] Fonds held in the General Administration Archive. Source: General Administration Archive (13 June 2012).

3.2.1.2 "Carrying out" relationship type (agent ←→ business)

This relationship type (many-to-many) (figure 25) refers to the link between an agent and the business entity that performs.

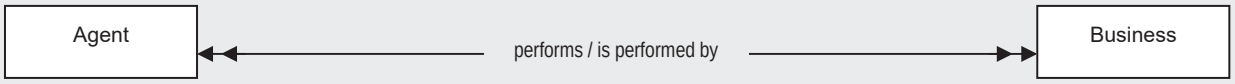
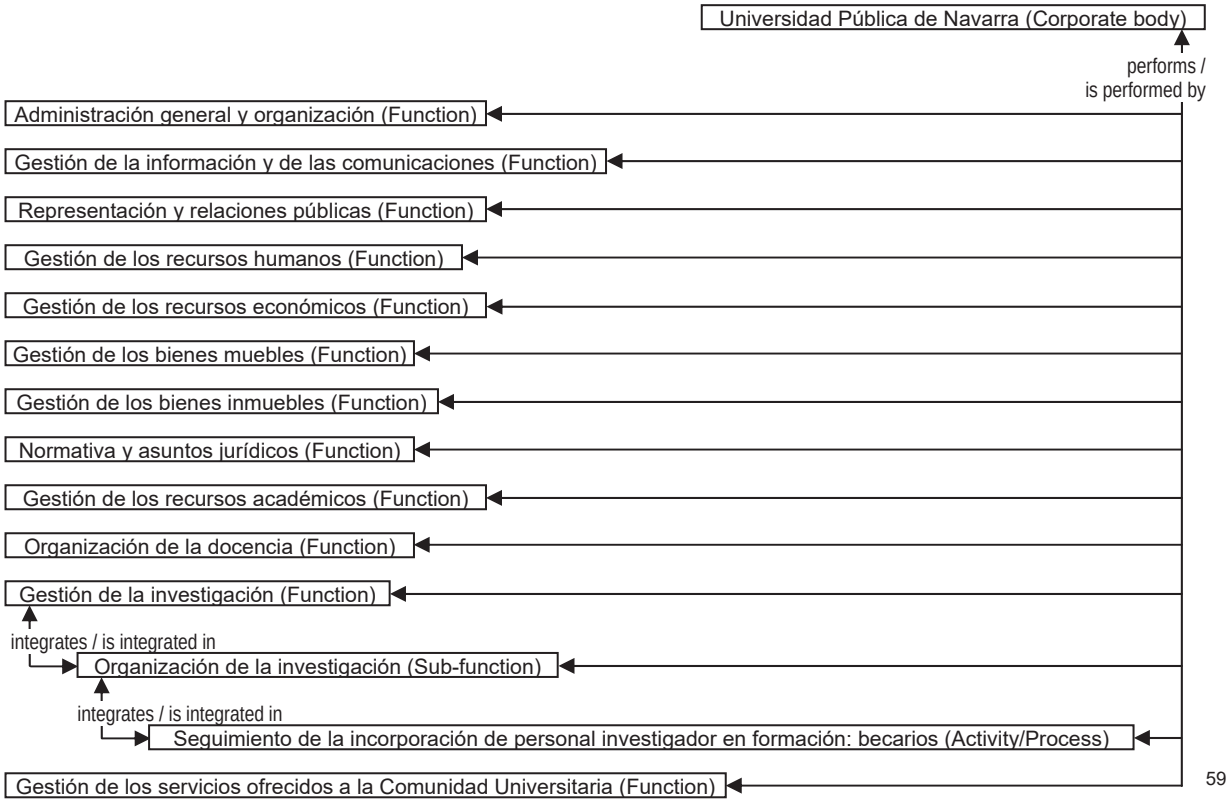


Figure 25. Diagram of "carrying out" relationship type (many-to-many) (agent ←→ business)

Examples of relationships:



[59] Functions performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

3.2.1.3 "Evidence" relationship type (functional provenance) (records ←→ business)

This relationship type (many-to-many) (figure 26) refers to the link between a records entity and the business entity documented in it (functional provenance).

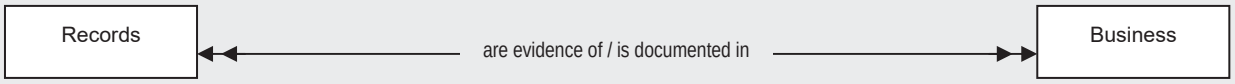
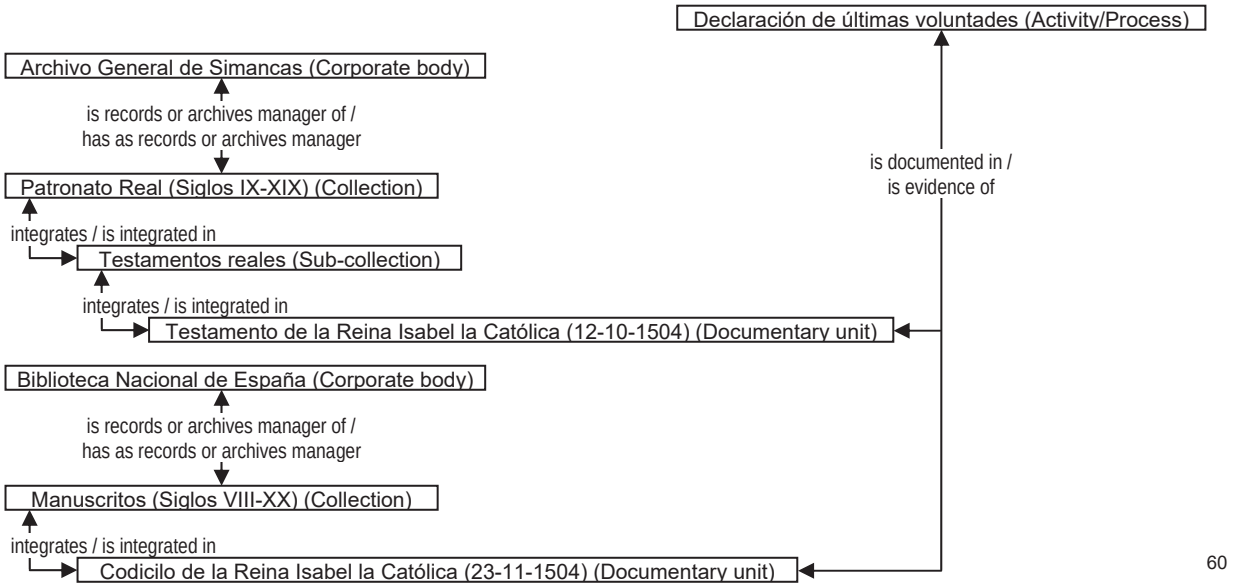


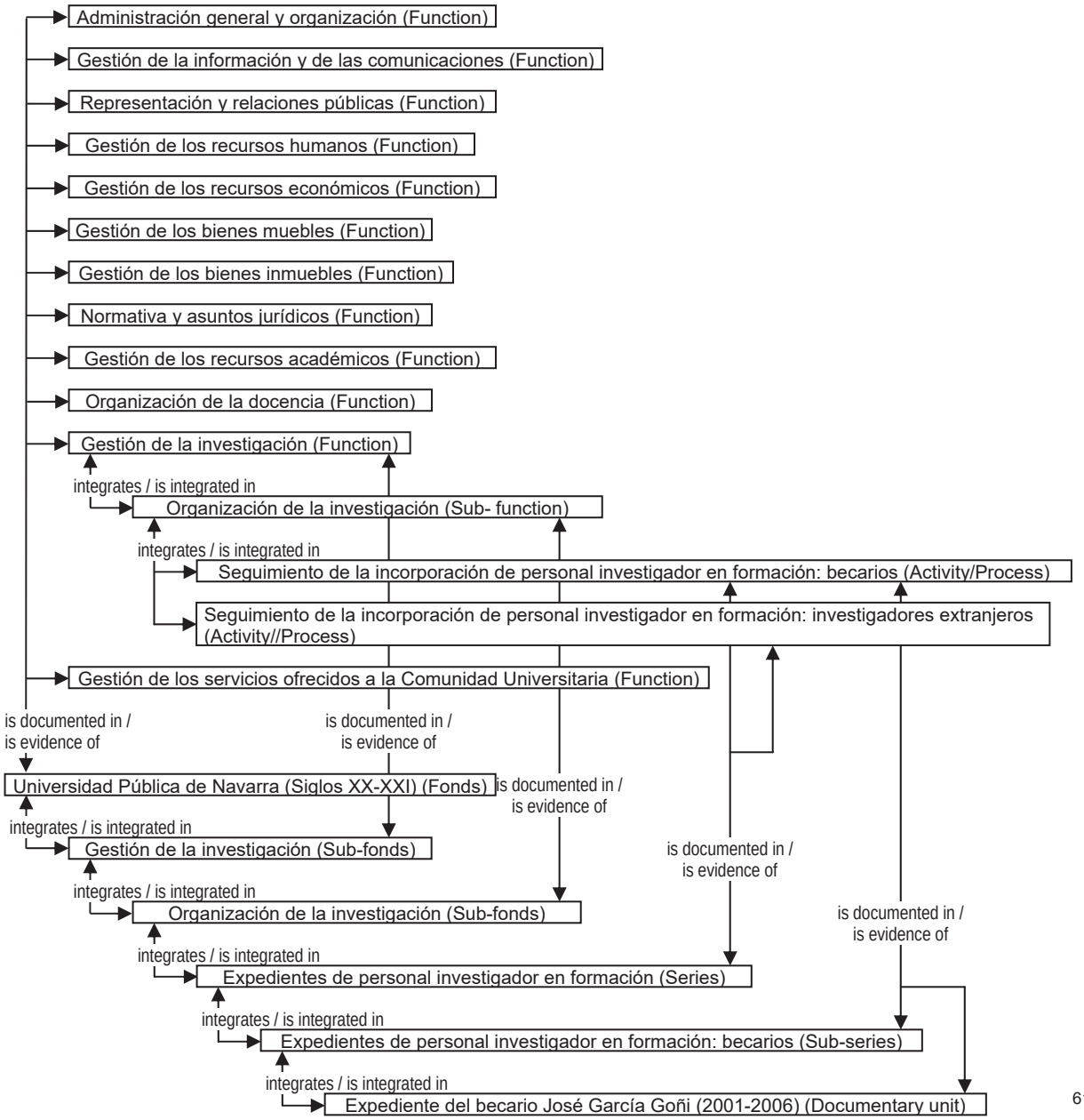
Figure 26. Diagram of "evidence" relationship type (functional provenance) (many-to-many) (records ←→ business)

Examples of relationships:



[60]

[60] Collections held in the General Archive of Simancas and National Library of Spain. Sources: General Archive of Simancas (20 May 2011); *Manuscritos* [online]. [Viewed 27 April 2012]. Available from: http://www.bne.es/es/Colecciones/Manuscritos/index.html; *Catálogo BNE* [online]. [Viewed 27 April 2012]. Available from: http://catalogo.bne.es/uhtbin/webcat.



[61]

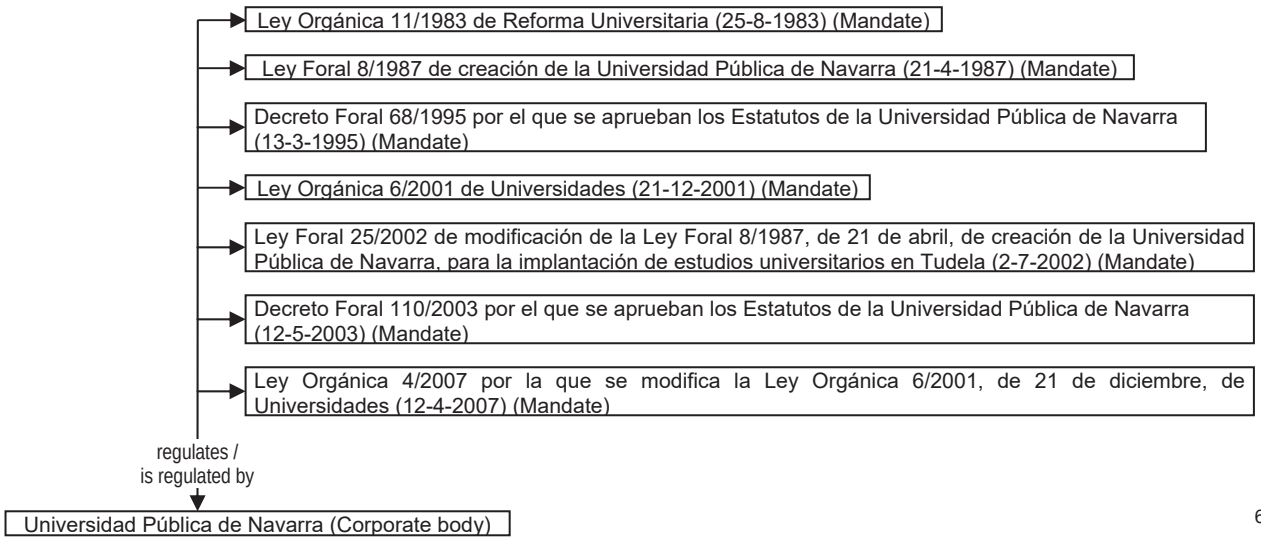
[61] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

3.2.1.4 "Regulation" relationship type (mandate ←→ agent, business or records)

This relationship type (many-to-many) (figure 27) refers to the link between a mandate and the entity (agent, business or records entity) regulated by that.

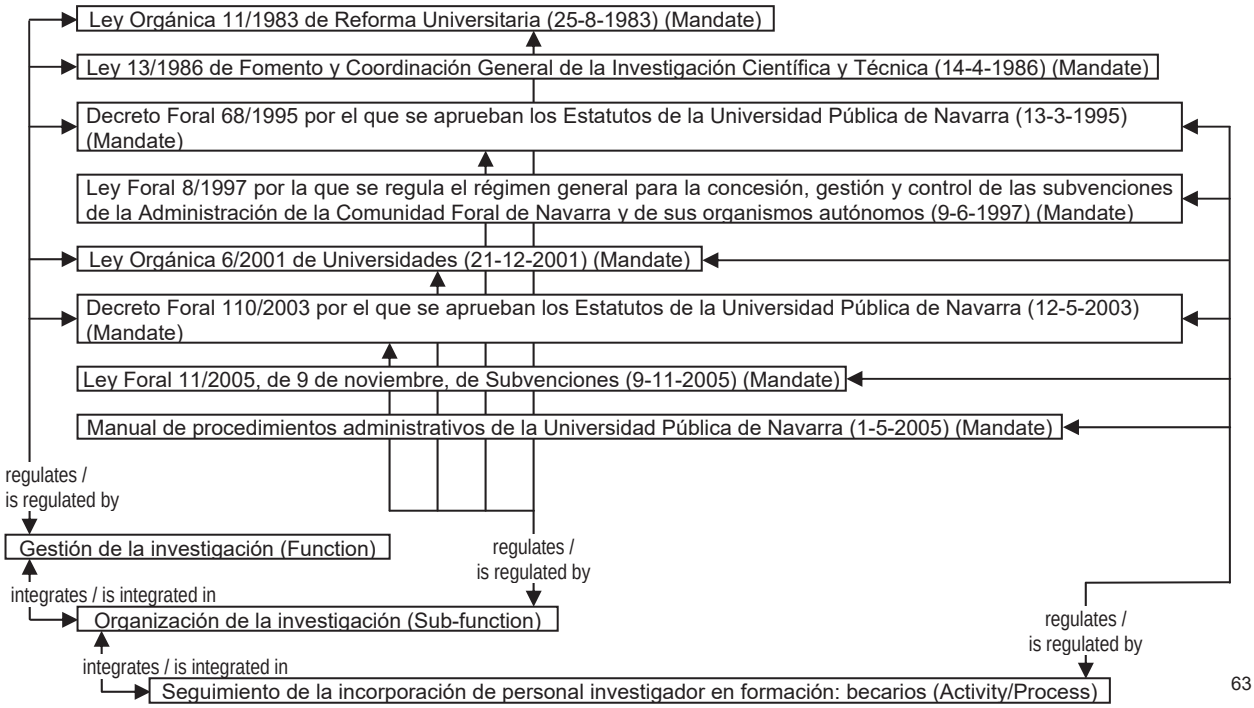
Figure 27. Diagram of "regulation" relationship type (many-to-many) (mandate ←→ agent, business or records)

Examples of relationships:

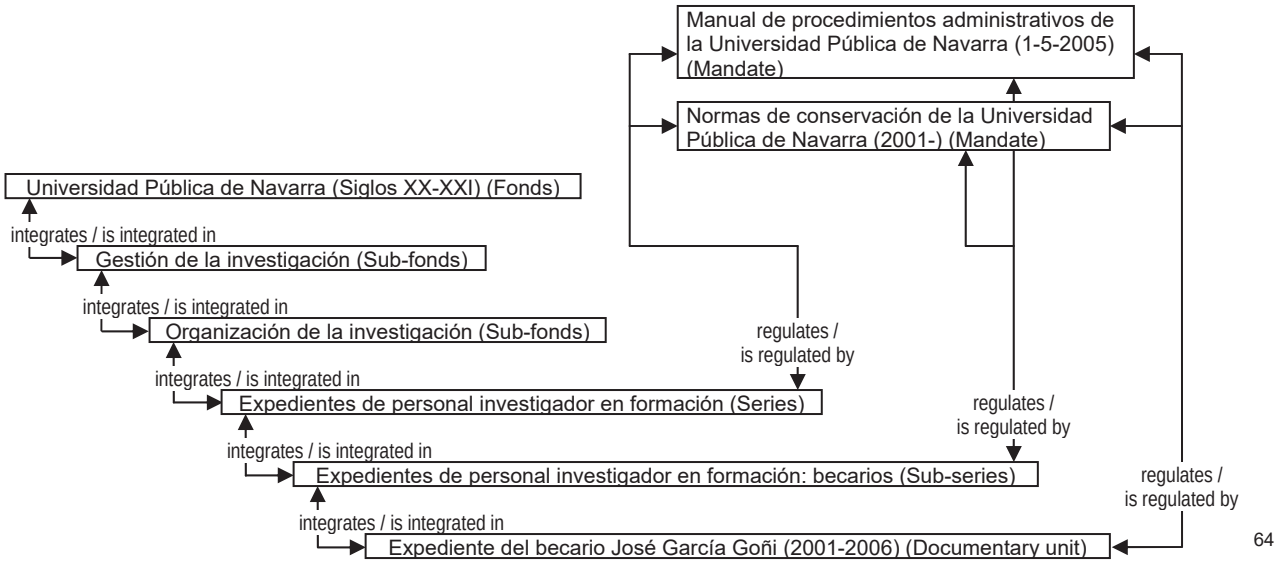


62

[62] Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).



63



64

[63] Function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[64] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

3.2.2 The perspective of the structure of records: "hierarchical whole/part" relationship type

From the fundamental perspective of the structure of records, the Conceptual model identifies the main "hierarchical whole/part" relationship type (one-to-many) (records ←→ records) (figure 28).

This relationship type refers to the link between two records entities, one of which (whole) integrates the other (part).

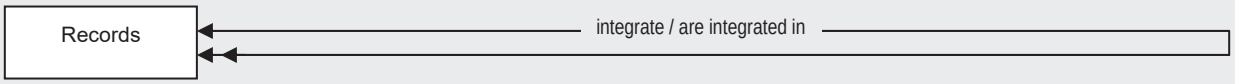


Figure 28. Diagram of "hierarchical whole/part" relationship type (one-to-many) (records ←→ records)

However, this diagram is very general and does not represent accurately the possible "hierarchical whole-part" relationships between records entities. For this reason it has been necessary to make more precise diagrams for four different cases:

- "Hierarchical whole/part" relationship type (one-to-many) between records entities of multiple subtypes, integrated in a fonds that occupies the top level of the hierarchy of records (figure 29).
- "Hierarchical whole/part" relationship type (one-to-many) between records entities of all subtypes, integrated in a group of fonds (figure 30).
- "Hierarchical whole/part" relationship type (one-to-many) between records entities of various subtypes, integrated in a collection that occupies the top level of the hierarchy of records (figure 31).
- "Hierarchical whole/part" relationship type (one-to-many) between records entities of various subtypes, integrated in a series that occupies the top level of the hierarchy of records (figure 32).

Figure 33 shows the sum of these four diagrams.

The diagram of figure 29 represents the “hierarchical whole/part” relationship type (one-to-many) between records entities of multiple subtypes, integrated in a fonds that occupies the top level of the hierarchy of records.

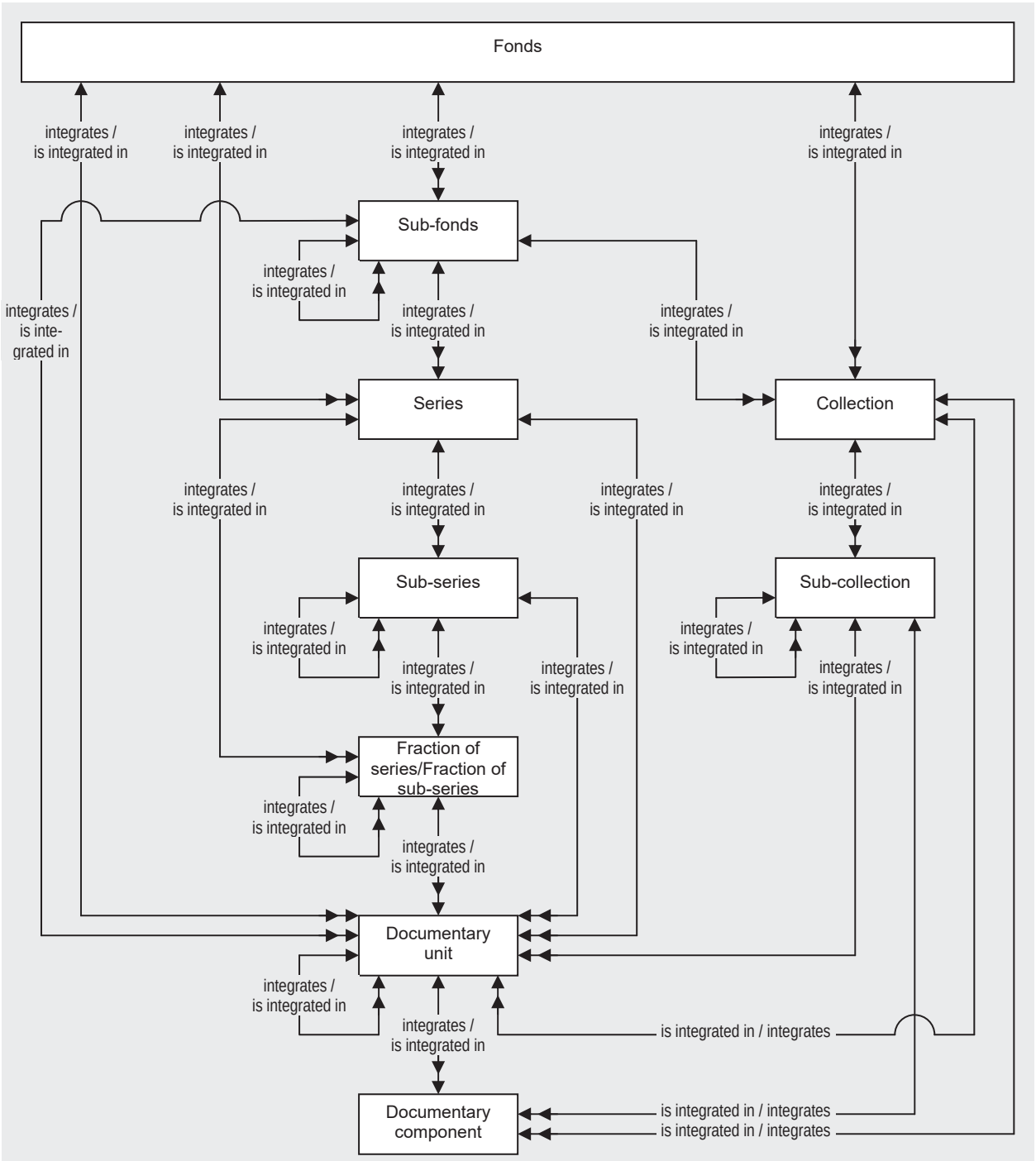
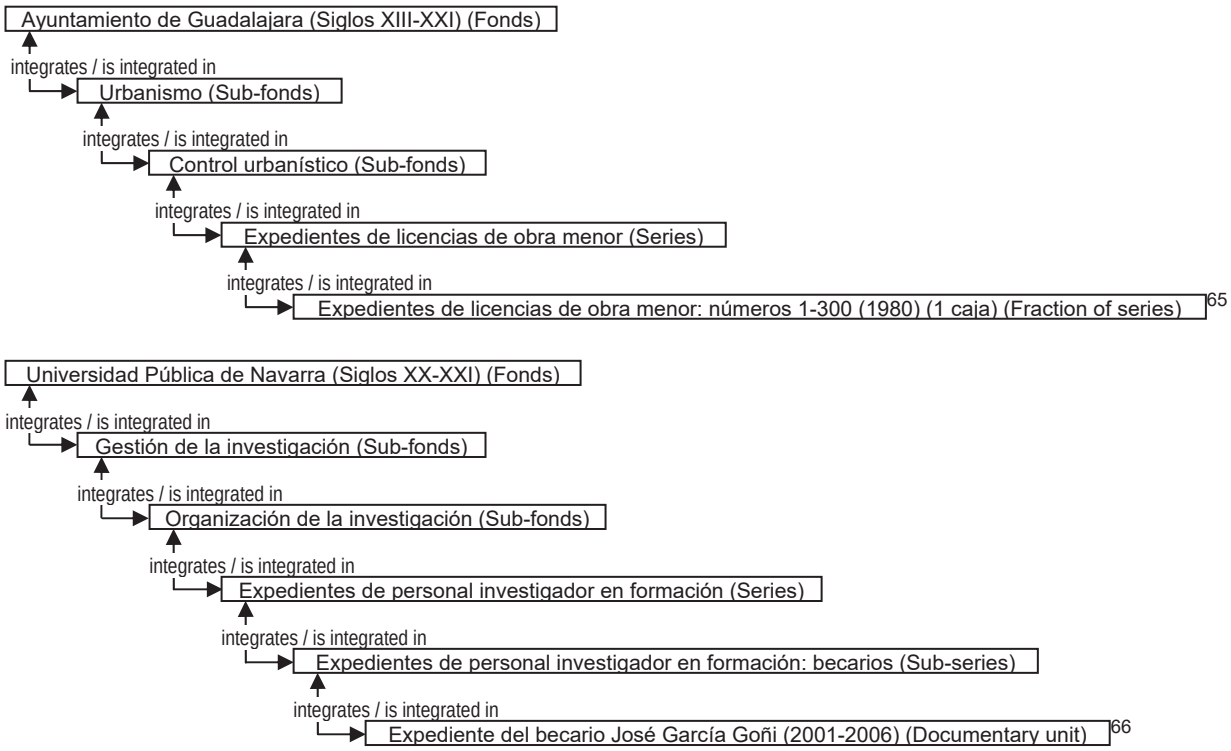


Figure 29. Diagram of “hierarchical whole/part” relationship type (one-to-many) between records entities of multiple subtypes, integrated in a fonds that occupies the top level of the hierarchy of records

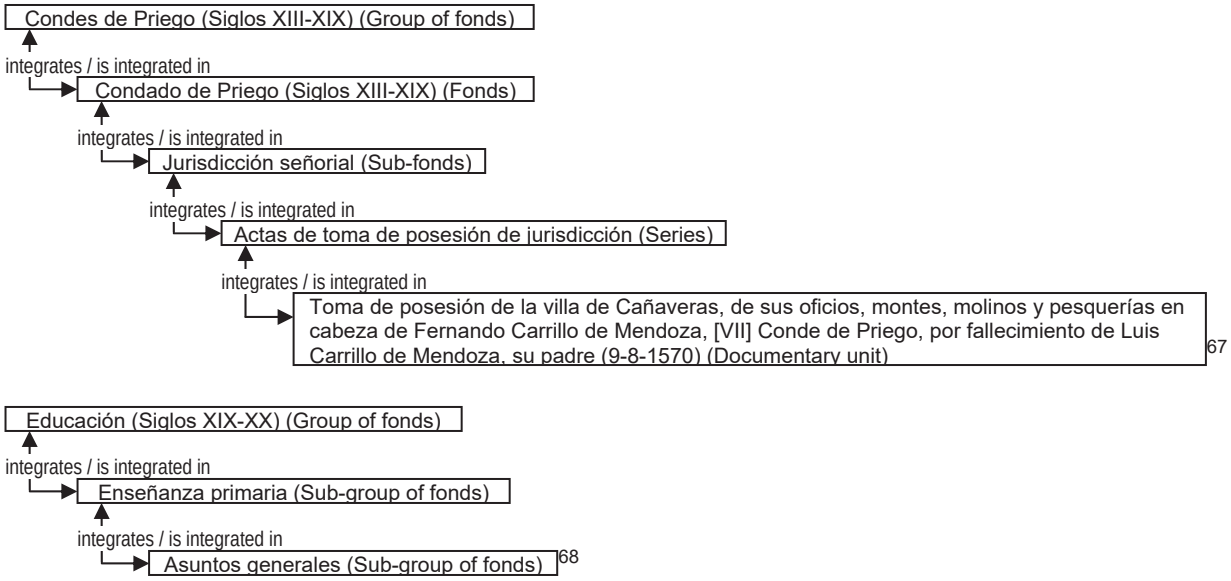
Examples of relationships:



[65] Fonds held in the Municipal Archives of Guadalajara. Source: Municipal Archives of Guadalajara (4 May 2011).
[66] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

The diagram of figure 30 represents the “hierarchical whole/part” relationship type (one-to-many) between records entities of all subtypes, integrated in a group of fonds.

Examples of relationships:



[67]
[68]

[67] Group of fonds held in the National Historical Archive Nobility Section. Source: ARCHIVO HISTÓRICO NACIONAL (ESPAÑA). *Inventario del Archivo de los Condes de Priego: Sección Nobleza del Archivo Histórico Nacional.* [Elaborado por Aránzazu Lafuente Urién]. [Madrid]: Ministerio de Educación y Cultura, Centro de Publicaciones, [1999], p. 48.

[68] Group of fonds held in the Central Archive of Education (Ministry of Education, Culture and Sport). Source: *Archivo Central Educación* [online]. [Viewed 27 April 2012]. Available from: http://www.educacion.gob.es/cide/jsp/plantilla.jsp?id=arch01.

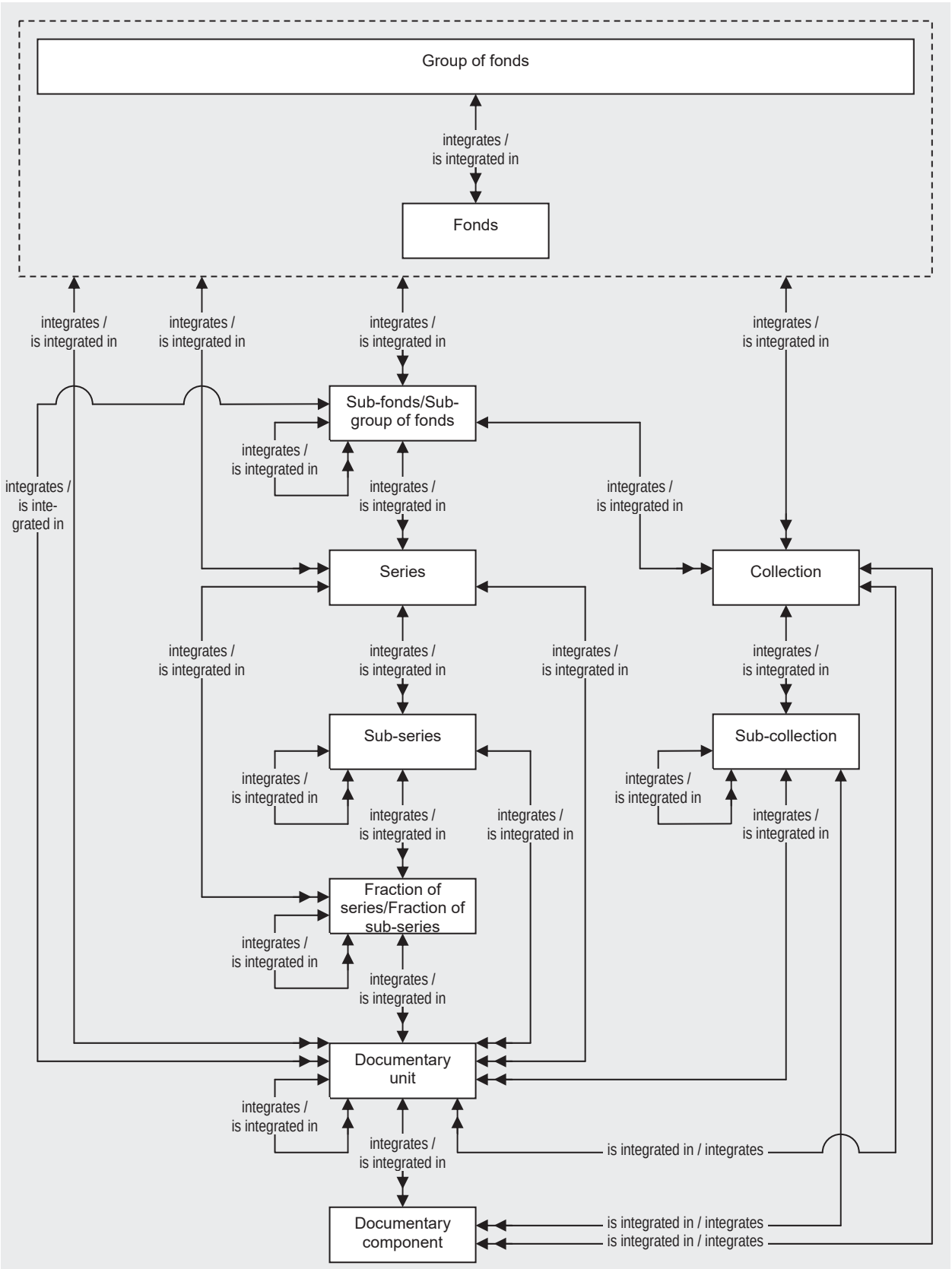


Figure 30. Diagram of "hierarchical whole/part" relationship type (one-to-many) between records entities of all subtypes, integrated in a group of fonds

The diagram of figure 31 represents the “hierarchical whole/part” relationship type (one-to-many) between records entities of various subtypes, integrated in a collection that occupies the top level of the hierarchy of records.

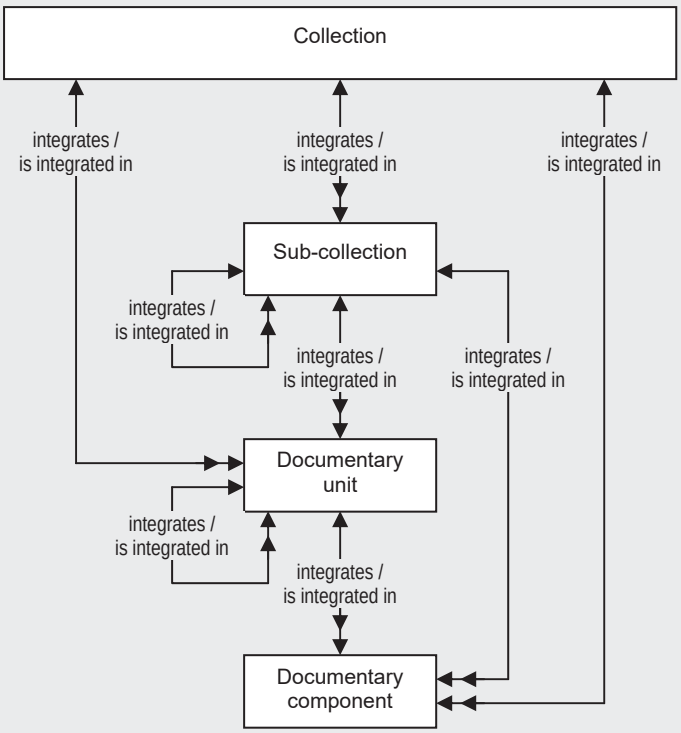
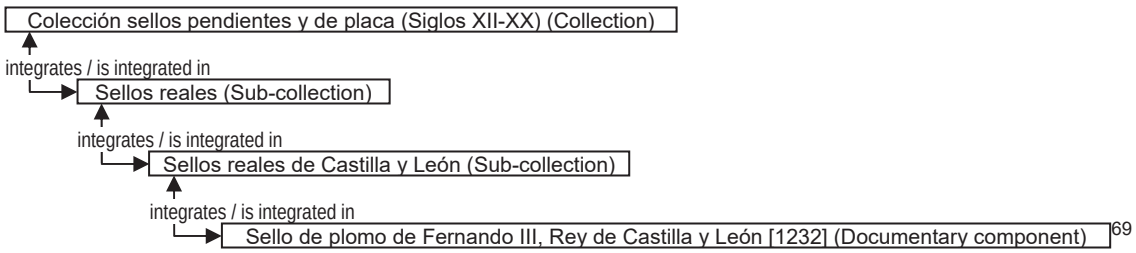


Figure 31. Diagram of “hierarchical whole/part” relationship type (one-to-many) between records entities of various subtypes, integrated in a collection that occupies the top level of the hierarchy of records

Examples of relationships:



[69]

[69] Collection held in the National Historical Archive. Source: National Historical Archive (30 May 2011).

[70] Collection held in the General Archive of Simancas. Source: General Archive of Simancas (19 May 2011).
[71] Collection held in the Historical Memory Documentary Centre. Source: *Portal de Archivos Españoles (PARES)* [online]. [Viewed 1 June 2011]. Available from: http://pares.mcu.es/.

The diagram of figure 32 represents the “hierarchical whole/part” relationship type (one-to-many) between records entities of various subtypes, integrated in a series that occupies the top level of the hierarchy of records.

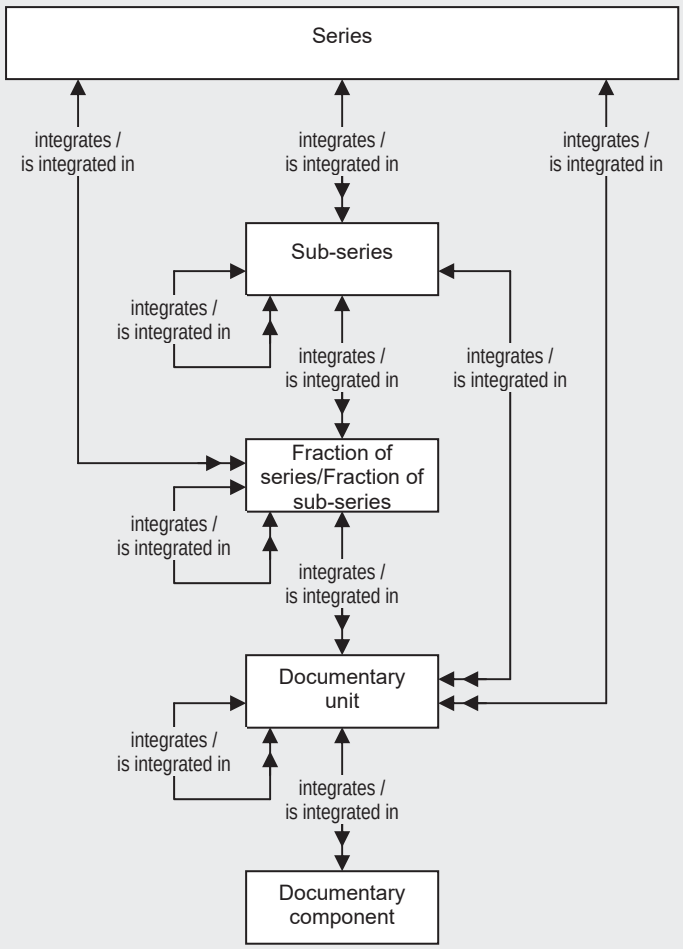
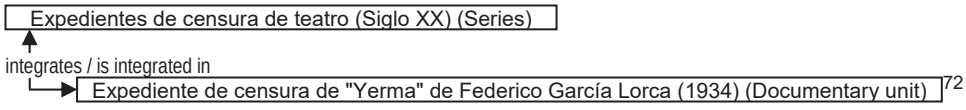


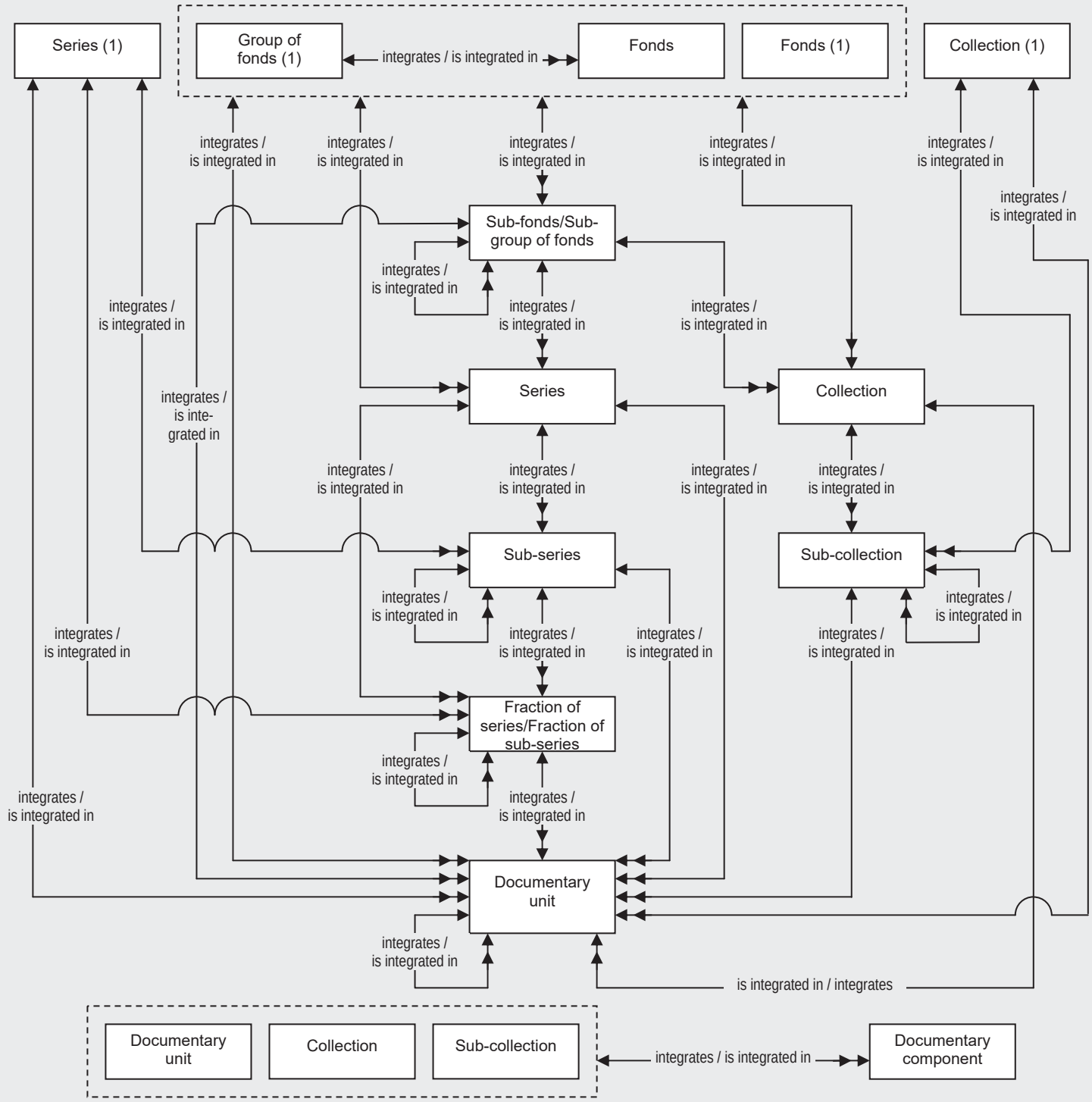
Figure 32. Diagram of “hierarchical whole/part” relationship type (one-to-many) between records entities of various subtypes, integrated in a series that occupies the top level of the hierarchy of records

Example of relationship:



[72]

[72] Series held in the General Administration Archive. Sources: TORREBLANCA LÓPEZ, Agustín. Fuentes documentales para la historia del control administrativo de la representación de obras teatrales (1939-1985). En: *SIGNO: Revista de historia de la cultura escrita*. Alcalá de Henares: Universidad de Alcalá, 1995, n. 2, pp. 79-80; *Portal de Archivos Españoles (PARES)* [online]. [Viewed 28 June 2012]. Available from: http://pares.mcu.es/.



Observations: the fonds, series, documentary unit, collection and sub-collection entity subtypes are represented two or three times.

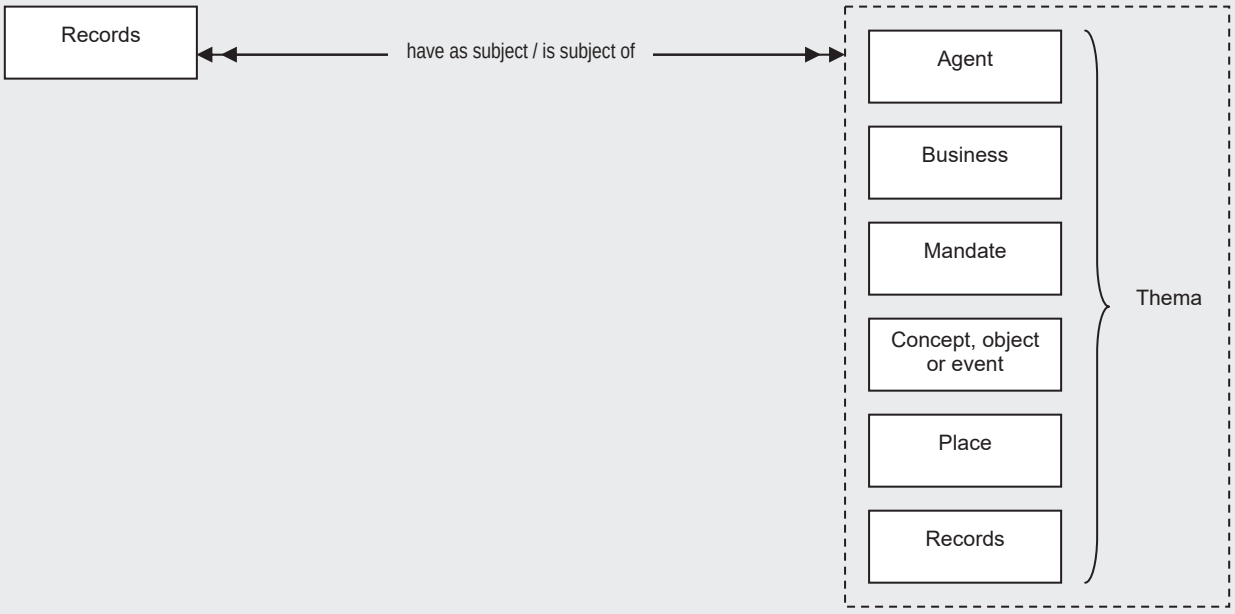
Note:
(1) It occupies the top level of the hierarchy that form the records according to "hierarchical whole-part" relationship type.

Figure 33. Diagram of "hierarchical whole/part" relationship type (one-to-many) between records entities of the same or different subtype

3.2.3 The perspective of the content of records and their informational value: "subject" relationship type

From the fundamental perspective of the content of records and their information value, the Conceptual model identifies the main "subject" relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records) (figure 34).

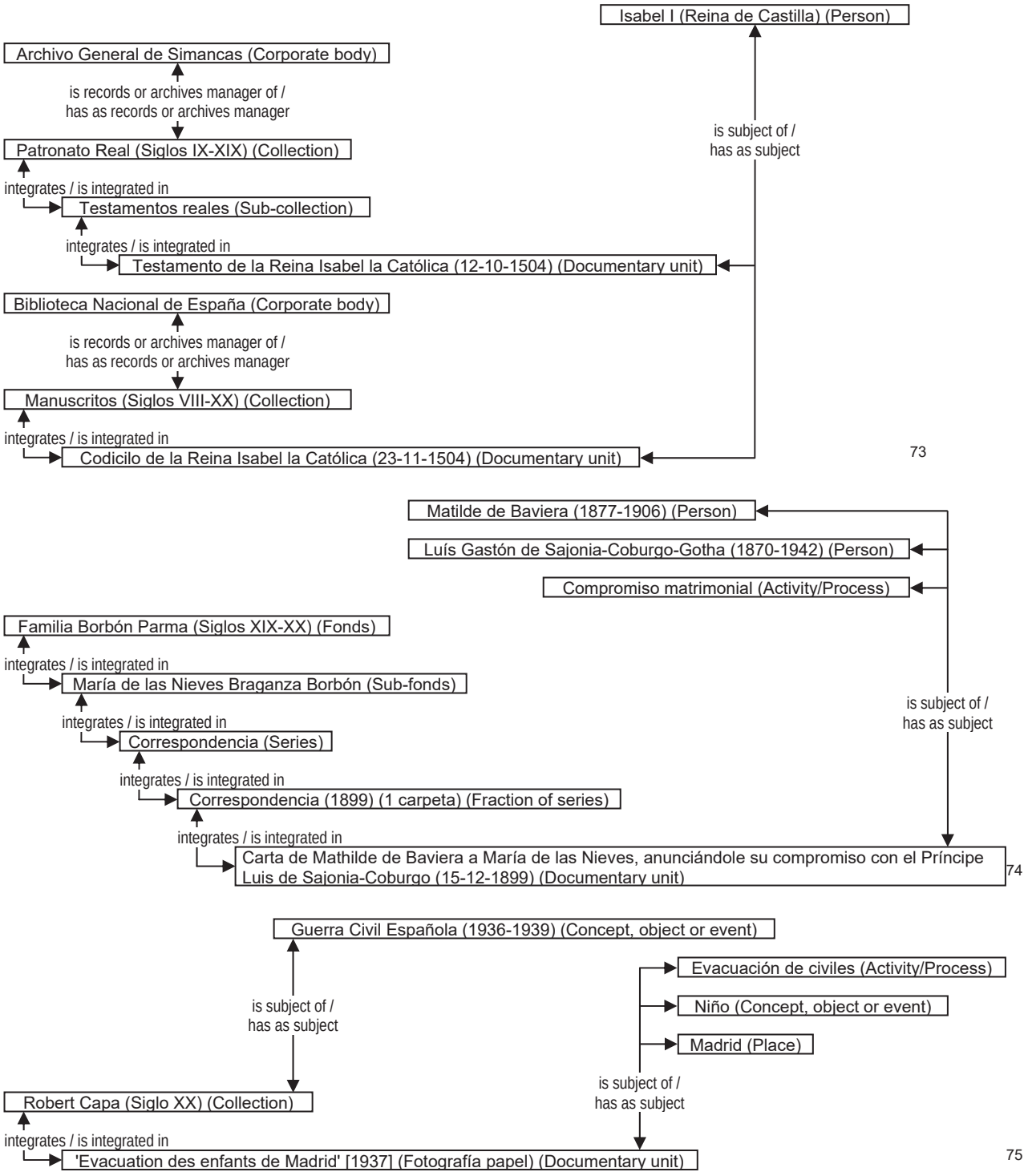
This relationship type refers to the link between a records entity and the entity (agent, business, mandate, concept, object or event, place or records) which is subject of that.



Observations: the records entity type is represented two times.

Figure 34. Diagram of "subject" relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records)

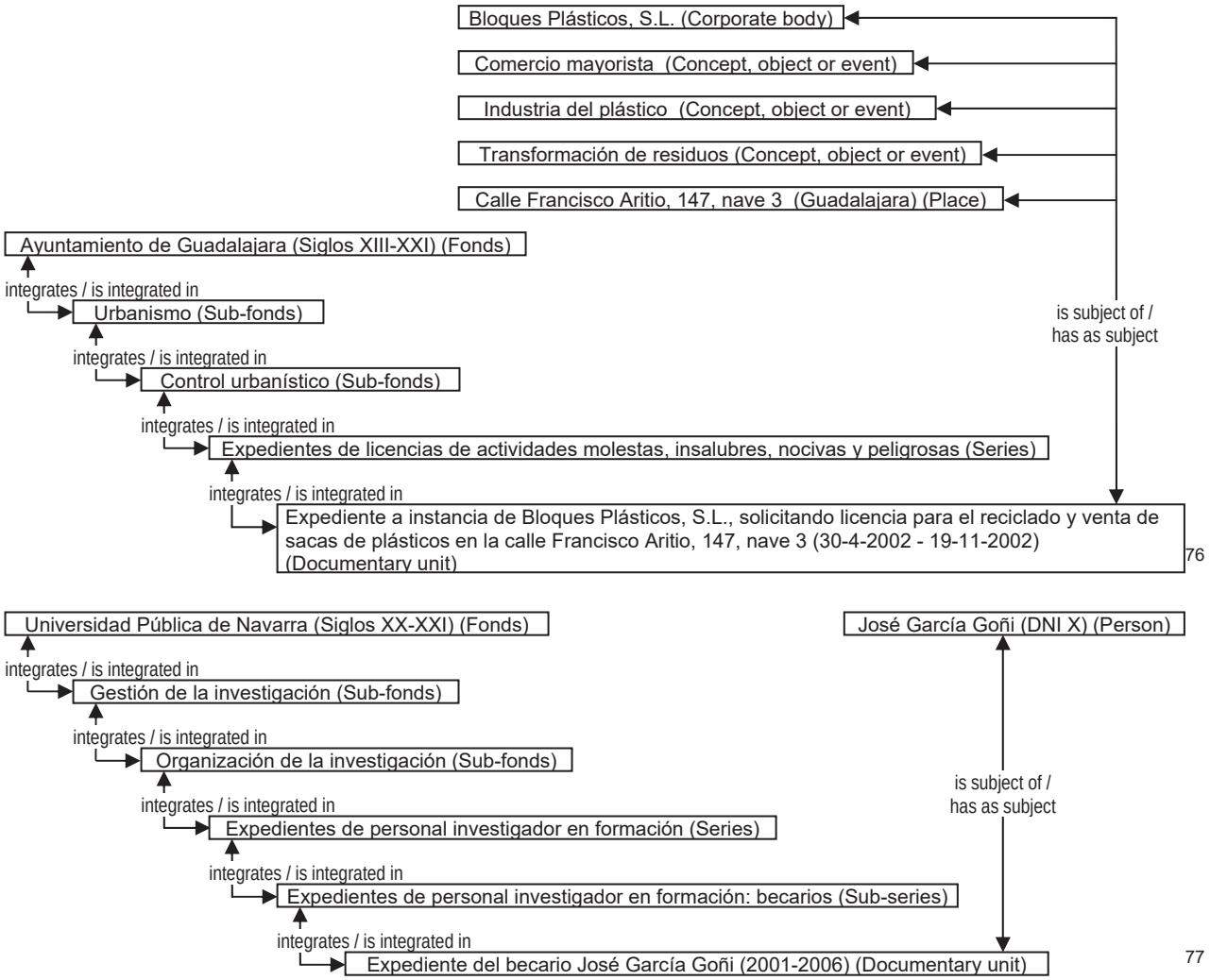
Examples of relationships:



[73] Collections held in the General Archive of Simancas and National Library of Spain. Sources: General Archive of Simancas (20-5-2011); *Manuscritos* [online]. [Viewed 27 April 2012]. Available from: http://www.bne.es/es/Colecciones/Manuscritos/index.html; *Catálogo BNE* [online]. [Viewed 27 April 2012]. Available from: http://catalogo.bne.es/uhtbin/webcat.

[74] Fonds held in the National Historical Archive. Source: National Historical Archive (4 May 2011).

[75] Collection held in the Historical Memory Documentary Centre. Source: *Portal de Archivos Españoles (PARES)* [online]. [Viewed 1 June 2011]. Available from: http://pares.mcu.es/.



[76] Fonds held in the Municipal Archives of Guadalajara. Source: Municipal Archives of Guadalajara (4 May 2011).
[77] Fonds held in the Section of Records Management and General Archives of the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

3.2.4 Other relationship type(s) between records

From the perspective of the association between records, the Conceptual model identifies the "association" relationship type (many-to-many) (records ←→ records) (figure 35).

This relationship type refers to two associated records entities from a different perspective to the structure and the "hierarchical whole/part" relationship type.

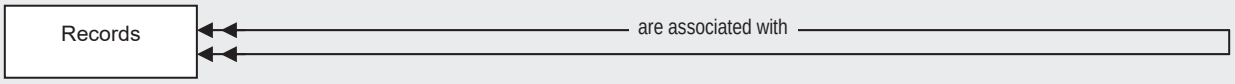


Figure 35. Diagram of "association" relationship type (many-to-many) (records ←→ records)

Logically, it is possible to consider more specific relationship types based on more concrete perspectives or viewpoints. Figure 36 shows some more specific relationship types (indicated as examples) that can be estimated.

Perspective	Specific relationship type
Succession of records entities.	"Succession" relationship type (many-to-many) (records ←→ records)
Documentary transmission or tradition of documentary units.	"Documentary transmission or tradition" relationship type (many-to-many) (documentary unit ←→ documentary unit)
Reproduction of records entities.	"Reproduction" relationship type (many-to-many) (records ←→ records)
(…)	(…)

Figure 36. Table of examples of specific relationship types records ←→ records from different perspectives [78]

[78] The Conceptual model also identifies two other specific relationship types, but these have not been included in this report for reasons of simplicity:

- "Association by provenance" relationship type (many-to-one) (documentary unit ←→ group of fonds, fonds, sub-fonds/sub-group of fonds, series, sub-series, fraction of series/fraction of sub-series or compound documentary unit).
- "Association by provenance" relationship type (many-to-one) (documentary component ←→ documentary unit).

"Succession" relationship type (records ←→ records)

This relationship type (many-to-many) (figure 37) refers to the link between two records entities that follow in order or in time from a particular perspective (succession in documenting certain business entities, etc.).

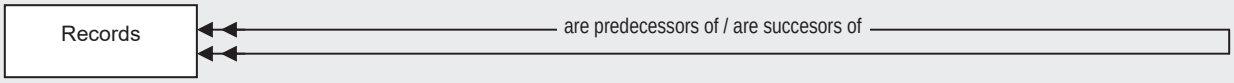
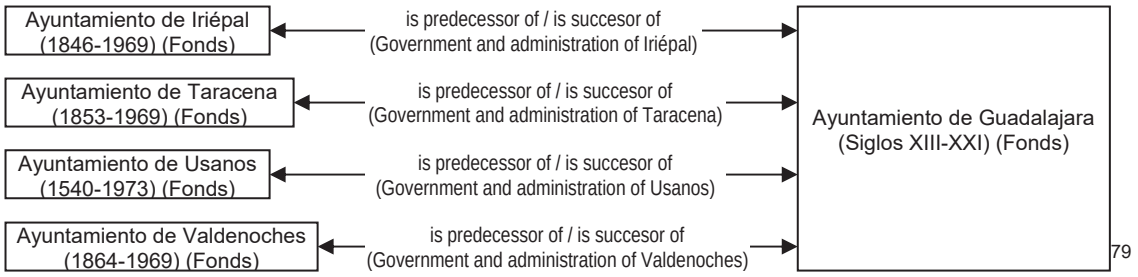


Figure 37. Diagram of "succession" relationship type (many-to-many) (records ←→ records)

Examples of relationships:



[79]

[79] Fonds held in the Municipal Archives of Guadalajara. Source: Municipal Archives of Guadalajara (4 May 2011).

"Documentary transmission or tradition" relationship type (documentary unit ←→ documentary unit)

This relationship type (many-to-many) (figure 38) refers to the link between two documentary units that are associated by documentary transmission or tradition (draft/original, original/copy, etc.).

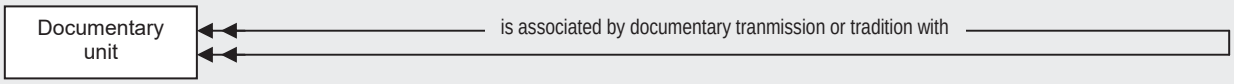
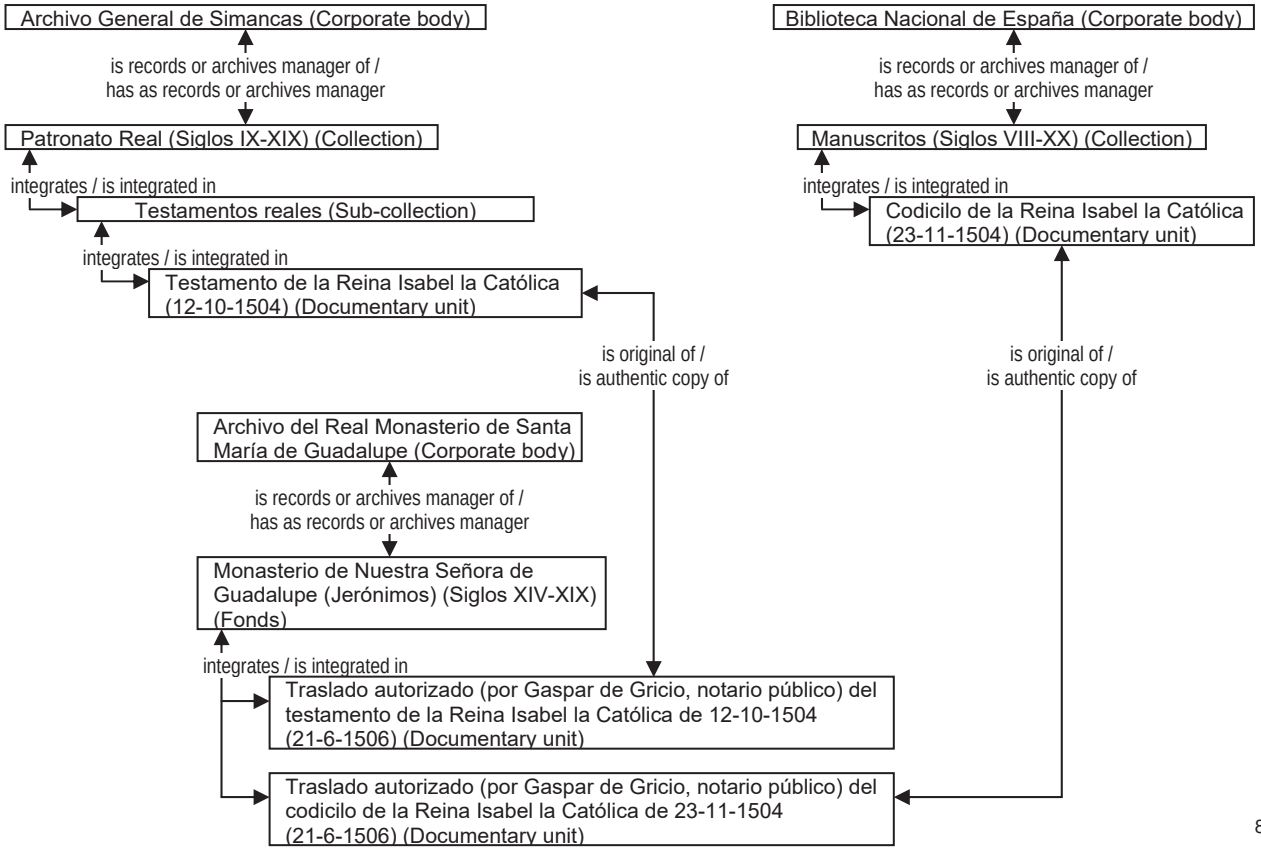


Figure 38. Diagram of "documentary transmission or tradition" relationship type (many-to-many) (documentary unit ←→ documentary unit)

Logically, it is possible to consider more specific relationship types, for example: "draft/original" relationship type, "original/copy" relationship type, "original/authentic copy" relationship type, "original/simple copy" relationship type, etc.

Examples of relationships:



[80]

[80] Collections and fonds held in the General Archive of Simancas, National Library of Spain and Archive of the Royal Monastery of Santa Maria de Guadalupe. Sources: General Archive of Simancas (20 May 2011); *Manuscritos* [online]. [Viewed 27 April 2012]. Available from: http://www.bne.es/es/Colecciones/Manuscritos/index.html; *Catálogo BNE* [online]. [Viewed 27 April 2012]. Available from: http://catalogo.bne.es/uhtbin/webcat; Archivo del Real Monasterio de Santa María de Guadalupe (17 May 2011).

"Reproduction" relationship type (records ←→ records)

This relationship type (many-to-many) (figure 39) refers to the link between two records entities, one of which is a reproduction (data file, microform, facsímile, etc.) of the other[81].

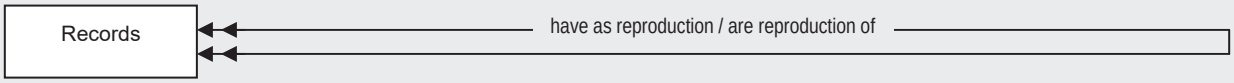
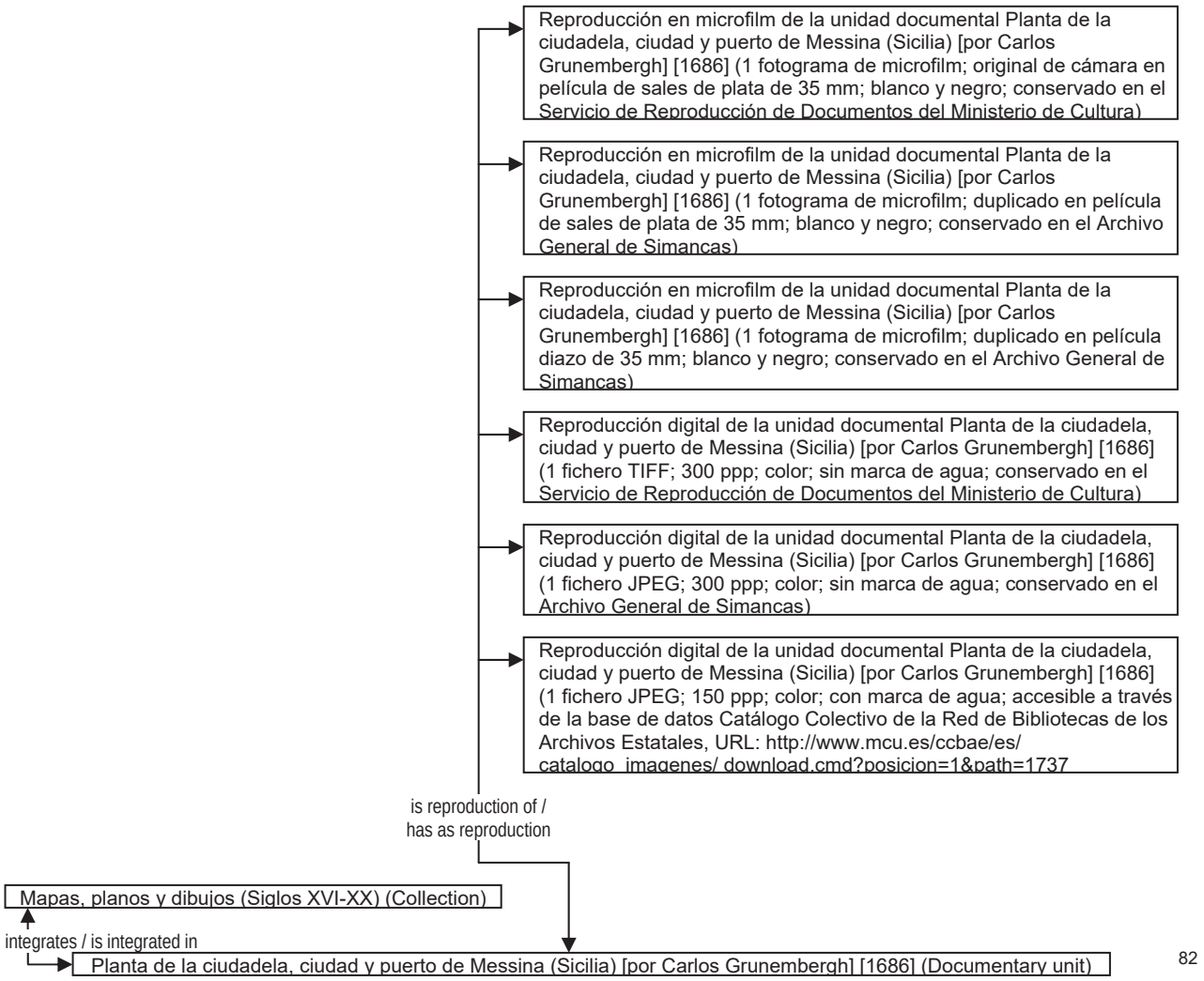


Figure 39. Diagram of "reproduction" relationship type (many-to-many) (records ←→ records)

Examples of relationships:



[81] However, in this relationship type the reproduction does not always have the status of record.
[82] Collection held in the General Archive of Simancas. Sources: General Archive of Simancas (18 May 2011); Document Reproduction Service of the Ministry of Culture (18 May 2011).

3.2.5 Relationship type(s) between agents

From the perspective of the link between agents, the Conceptual model identifies the "link" relationship type (many-to-many) (agent ←→ agent) (figure 40).

This relationship type refers to the link between two agents from any perspective.

Figure 40. Diagram of "link" relationship type (many-to-many) (agent ←→ agent)

Logically, it is possible to consider more specific relationship types based on more concrete perspectives or viewpoints. Figure 41 shows some more specific relationship types (indicated as examples) that can be estimated.

Perspective	Specífic relationship type
Hierarchy of corporate bodies.	"Hierarchical" relationship type (many-to-many) (corporate body ←→ corporate body)
Succession of corporate bodies.	"Succession" relationship type (many-to-many) (corporate body ←→ corporate body)
Family link between families.	"Family" relationship type (many-to-many) (family ←→ family)
Family link between persons.	"Family" relationship type (many-to-many) (person ←→ person)
Membership to corporate bodies.	"Membership" relationship type (many-to-many) (person ←→ corporate body)
Membership to families.	"Membership" relationship type (many-to-many) (person ←→ family)
(…)	(…)

Figure 41. Table of examples of specific relationship types agent ←→ agent from different perspectives

"Hierarchical" relationship type (corporate body ←→ corporate body)

This relationship type (many-to-many) (figure 42) refers to the link between two corporate bodies, one of which is subordinate to the other from a particular perspective (within a corporate hierarchy, functional hierarchy, etc.). It can be a "hierarchical whole/part" relationship type or not.

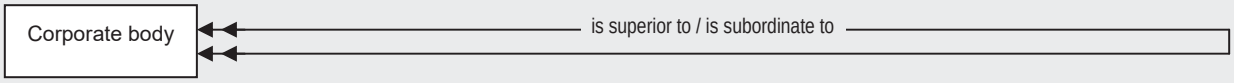
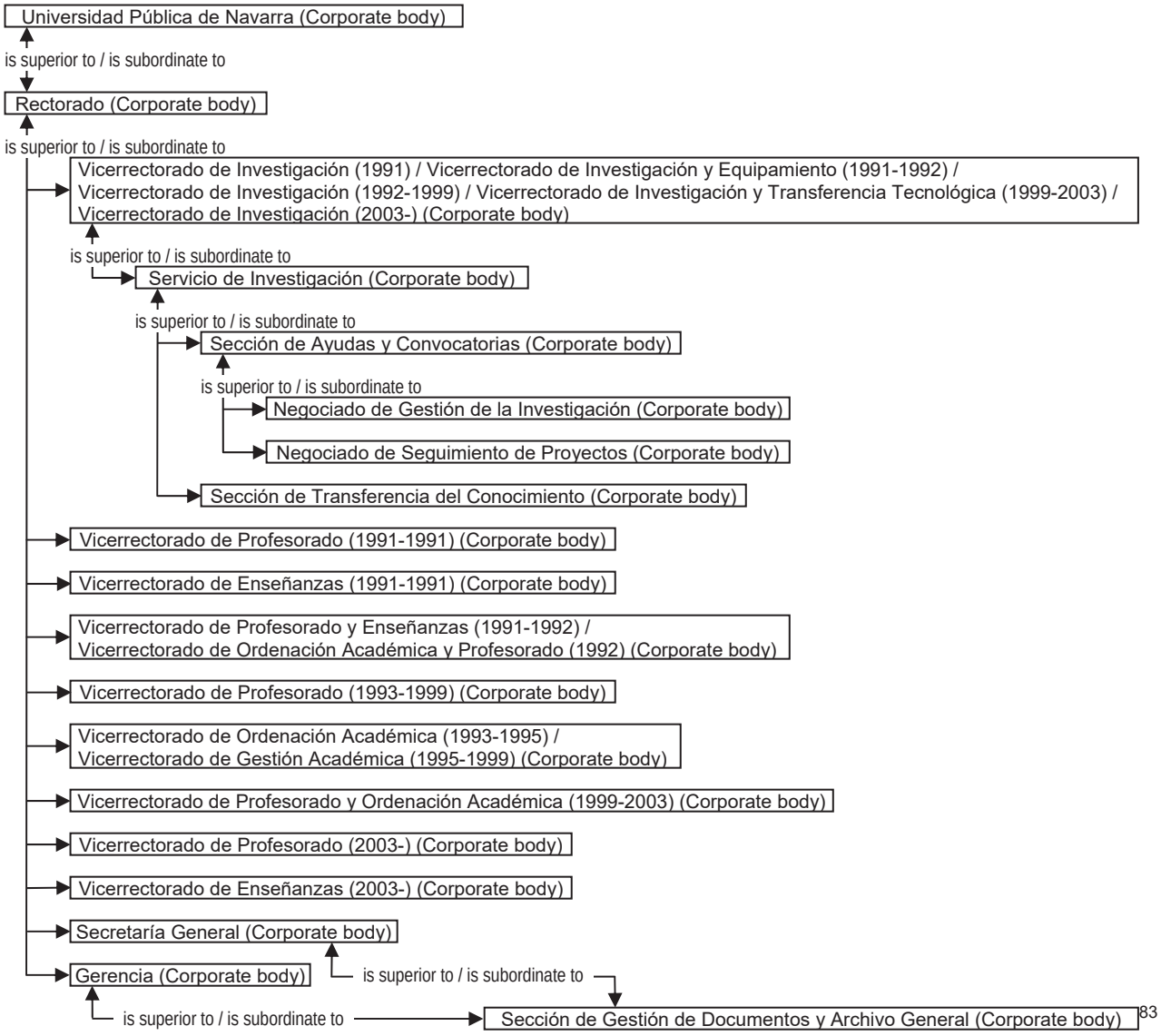


Figure 42. Diagram of "hierarchical" relationship type (many-to-many) (agent ←→ agent)

Examples of relationships:



[83]

[83] Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

"Succession" relationship type (corporate body ←→ corporate body)

This relationship type (many-to-many) (figure 43) refers to the link between two corporate bodies that follow in order or in time from a particular perspective (succession in carrying out of certain business entities, merger of corporate bodies, split of corporate bodies, etc.). The corporate bodies involved in the relationship may have a partially overlapped temporary existence or not.

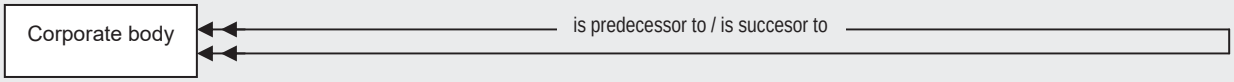
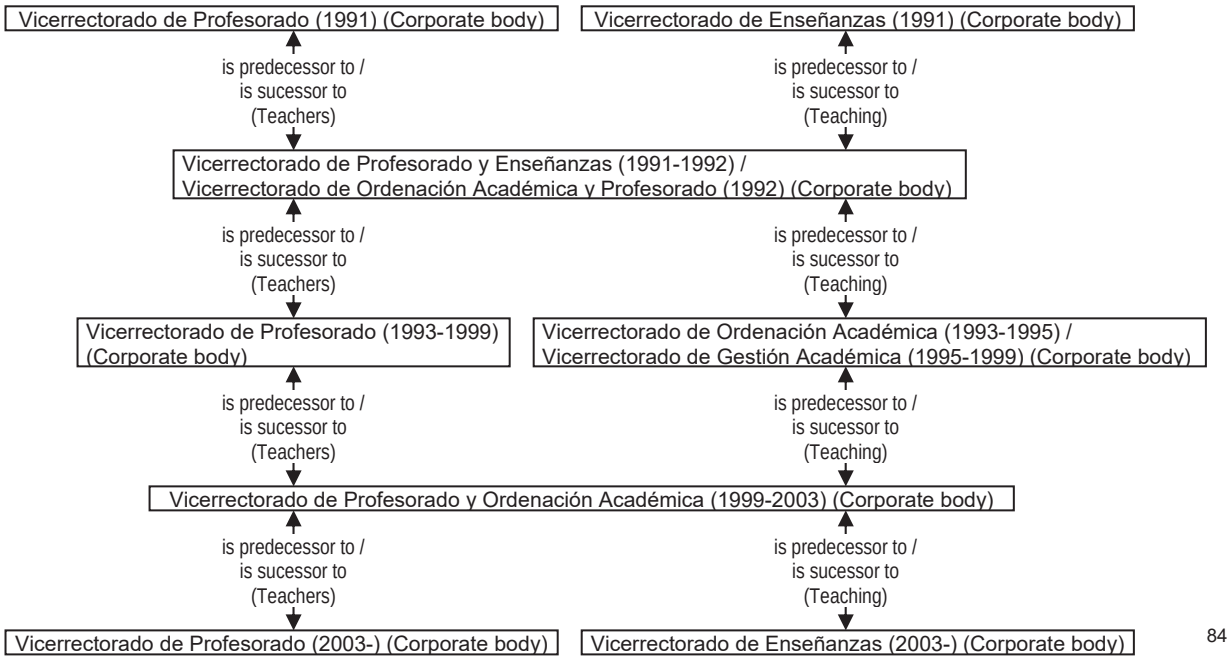


Figure 43. Diagram of "succession" relationship type (many-to-many) (agent ←→ agent)

Examples of relationships:



[84]

[84] Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

"Family" relationship type (family ←→ family)

This relationship type (many-to-many) (figure 44) refers to the family link between two families from a particular perspective (progenitor family/descendent family, union of families, etc.).

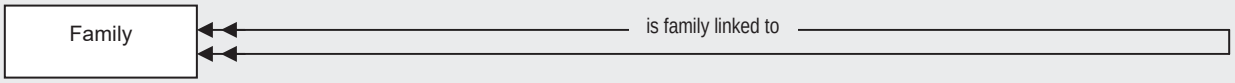
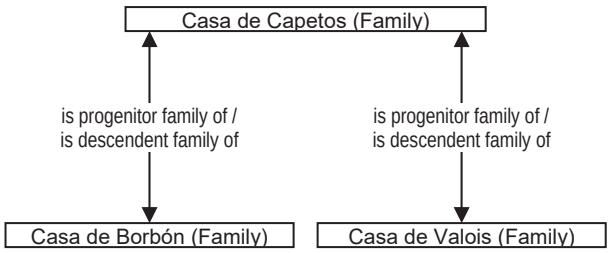


Figure 44. Diagram of "family" relationship type (many-to-many) (family ←→ family)

Logically, it is possible to consider more specific relationship types, for example: "genealogical" relationship type (progenitor family/descendent family), "union of families" relationship type, etc.

Examples of relationships:



"Family" relationship type (person ←→ person)

This relationship type (many-to-many) (figure 45) refers to the family link of any kind between two persons (father, mother, son, daughter, husband, wife, partner, brother, sister, etc.).

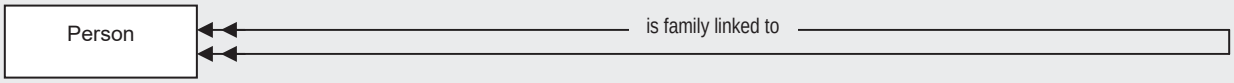
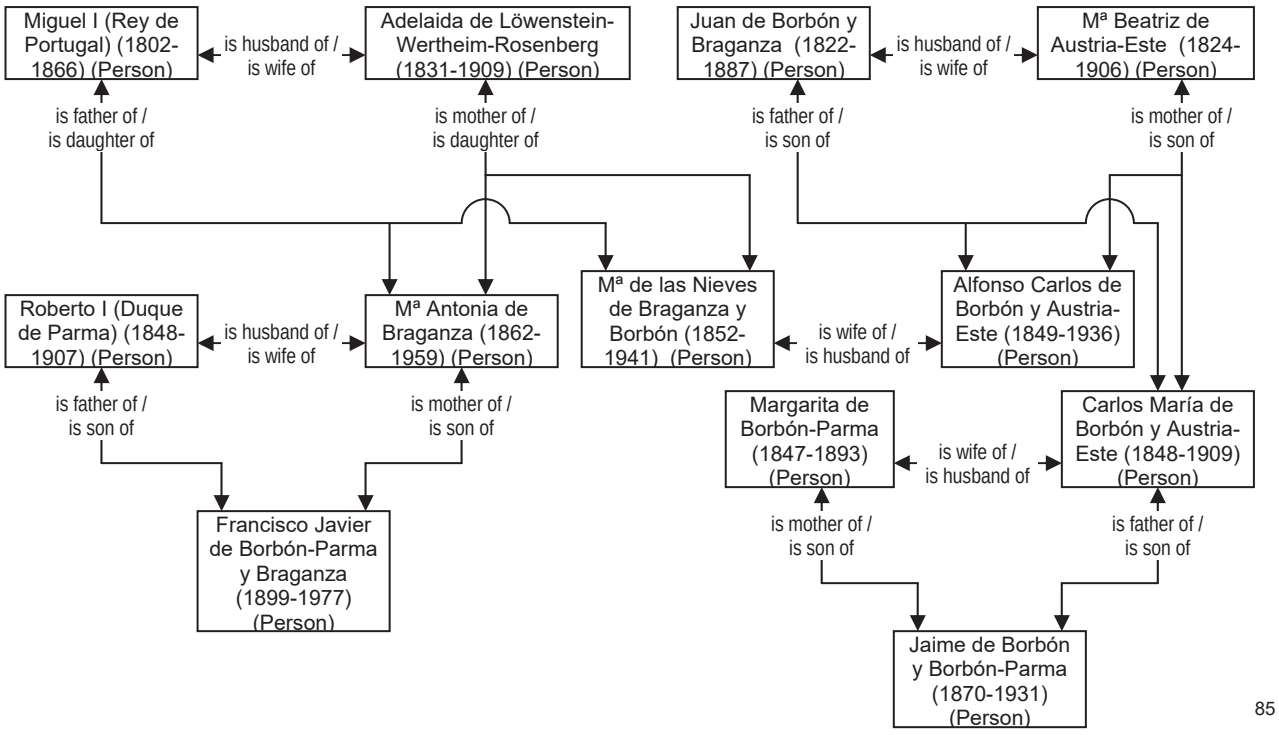


Figure 45. Diagram of "family" relationship type (many-to-many) (person ←→ person)

Logically, it is possible to consider more specific relationship types, for example: "parent/child" relationship type, "conjugal or couple" relationship type, etc.

Examples of relationships:



[85]

[85] Source: National Historical Archive (4 May 2011).

"Membership" relationship type (person ←→ corporate body)

This relationship type (many-to-many) (figure 46) refers to the link between a person and a corporate body in which the person is a member from a particular perspective (labour relation, affiliation, etc.).

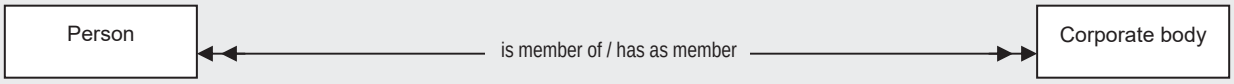
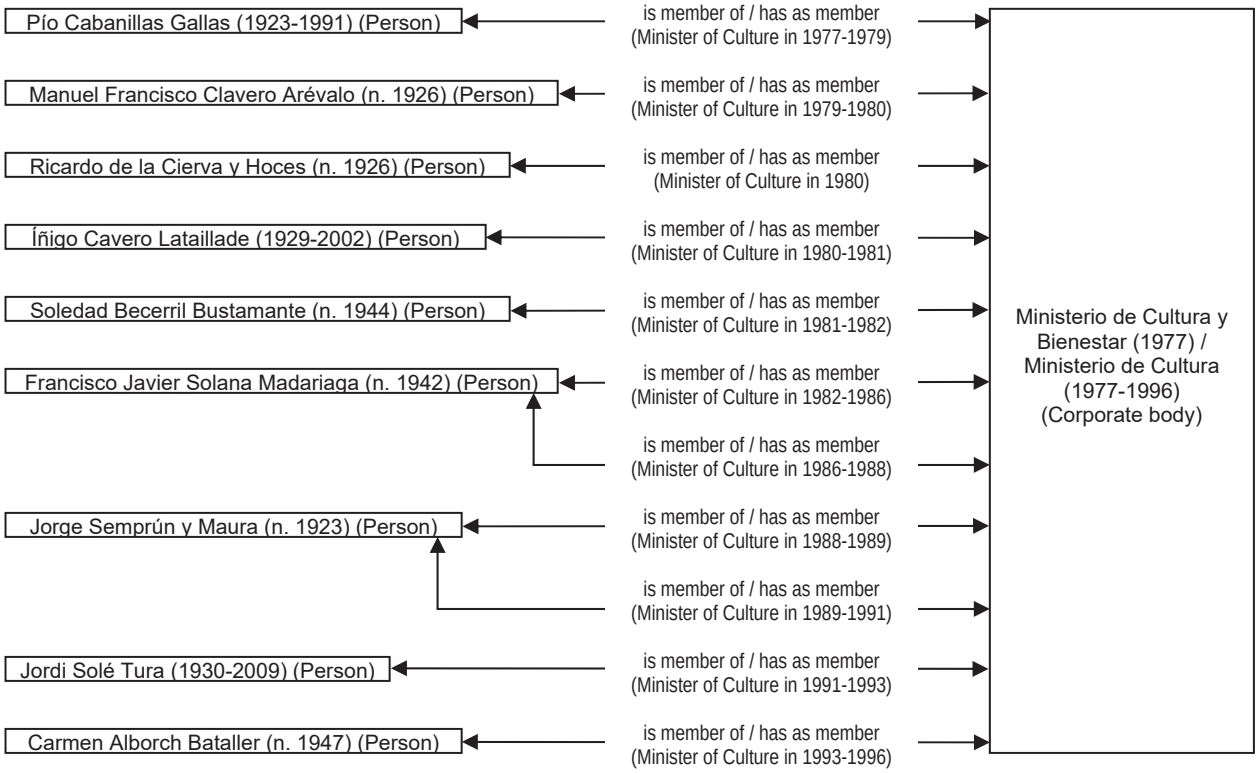


Figure 46. Diagram of "membership" relationship type (many-to-many) (person ←→ corporate body)

Examples of relationships:



"Membership" relationship type (person ←→ family)

This relationship type (many-to-many) (figure 47) refers to the link between a person and a family of which the person is a member.

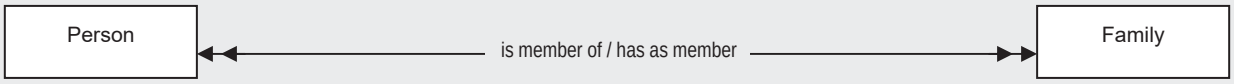
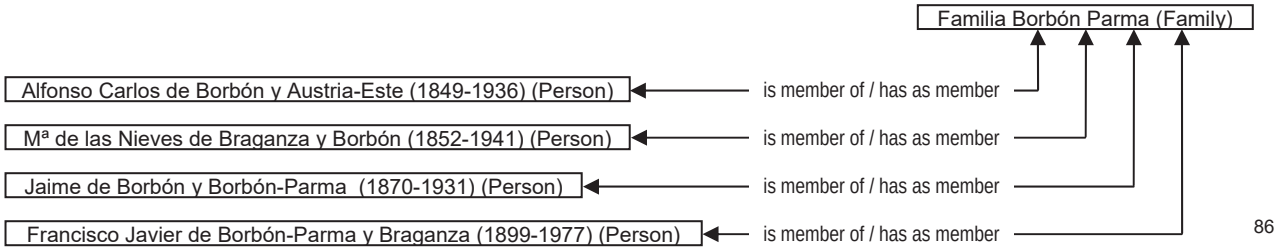


Figure 47. Diagram of "membership" relationship type (many-to-many) (person ←→ family)

Examples of relationships:



[86]

[86] Source: National Historical Archive (4 May 2011).

3.2.6 “Hierarchical whole/part” relationship type between business entities

From the perspective of the structure of business entities, the Conceptual model identifies the “hierarchical whole/part” relationship type (one-to-many) (business ←→ business) (figure 48).

This relationship type refers to the link between two business entities, one of which (whole) integrates the other (part).

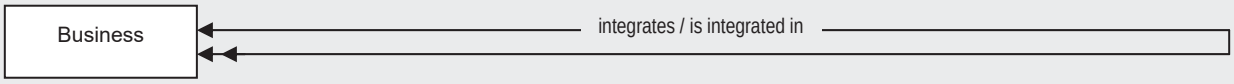


Figure 48. Diagram of “hierarchical whole/part” relationship type (one-to-many) (business ←→ business)

However, this diagram is very general and does not represent accurately the possible "hierarchical whole-part" relationships between business entities. For this reason it has been necessary to make a more precise diagram of “hierarchical whole/part” relationship type (one-to-many) between business entities of the same or different subtype (figure 49).

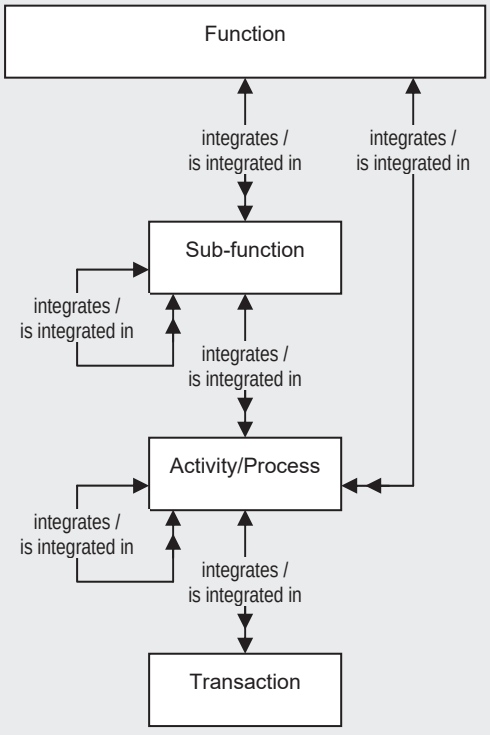
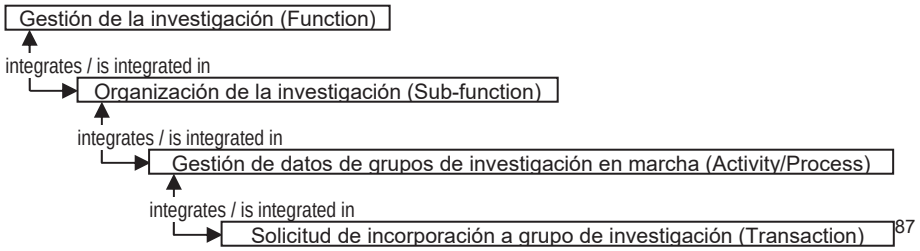
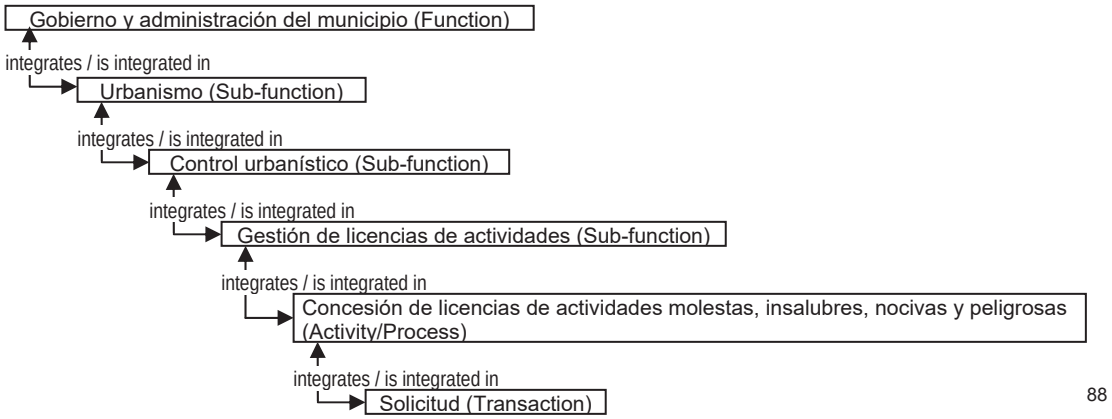


Figure 49. Diagram of “hierarchical whole/part” relationship type (one-to-many) between business entities of the same or different subtype

Examples of relationships:



[87]



[88]

[87] Function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).
[88] Function performed by the Guadalajara City Council. Source: Municipal Archives of Guadalajara (4 May 2011).

3.2.7 Other relationship type(s) between business entities

From the perspective of the association between business entities, the Conceptual model identifies the “association” relationship type (many-to-many) (business ←→ business) (figure 50).

This relationship type refers to two associated business entities from a different perspective to the structure and the “hierarchical whole/part” relationship type.

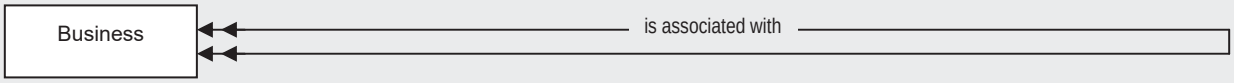


Figure 50. Diagram of “association” relationship type (many-to-many) (business ←→ business)

Logically, it is possible to consider more specific relationship types based on more concrete perspectives or viewpoints. Figure 51 shows a more specific relationship type (indicated as example) that can be estimated.

Perspective	Specífic relationship type
Succession of business entities.	“Succession” relationship type (many-to-many) (business ←→ business)
(…)	(…)

Figure 51. Example of specific relationship type business ←→ business from one perspective

"Succession" relationship type (business ←→ business)

This relationship type (many-to-many) (figure 52) refers to the link between two business entities that follow in order or in time from a particular perspective (merger of business entities, split of business entities, etc.). This relationship type occurs frequently (but not always) between business entities of the same subtype (for example, between functions, between activities/processes, etc.). The business entities involved in the relationship may have a partially overlapped temporary existence or not.

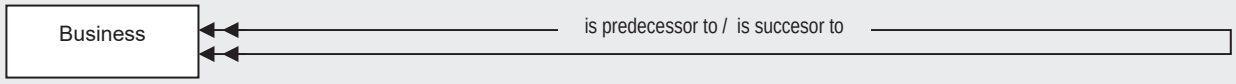
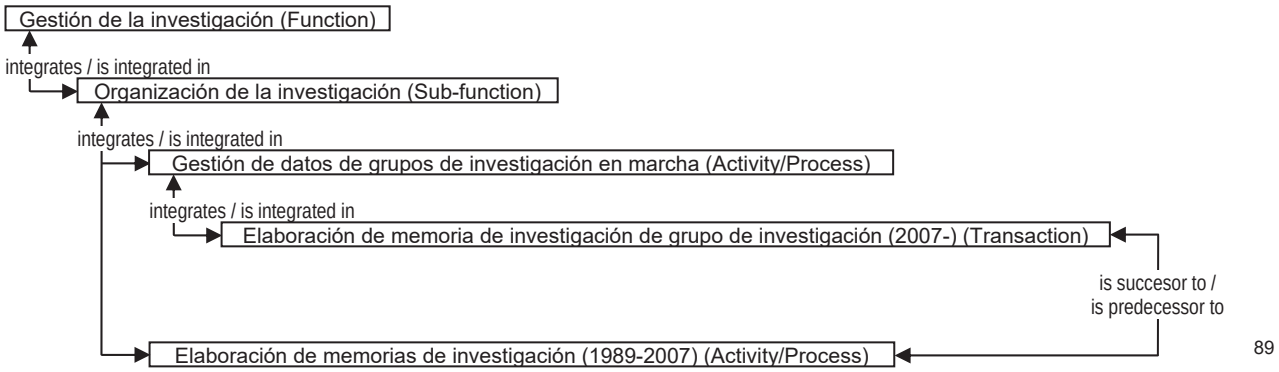


Figure 52. Diagram of "succession" relationship type (many-to-many) (business ←→ business)

Example of relationship:



[89]

[89] Function performed by the Public University of Navarre. Source: Section of Records Management and General Archives of the Public University of Navarre (5 May 2011).

4 Conclusions

CNEDA believes that the nearly five years (2007-2012) of hard work in NEDA-I Project provide multiple benefits and advantages:

(1) The Conceptual model in preparation will enable more robust development of NEDA (Spanish standards of archival description), specifically the data structure and content standards for descriptions of records, agents and functions (the main objective of NEDA-I Project).

(2) In addition, this Conceptual model provides other benefits and advantages to:
- Participate more solidly in the international effort to review the four ICA descriptive standards (ISAD(G)2, ISAAR(CPF)2, ISDF and ISDIAH), and, perhaps, to develop an international conceptual model for archival description.
- Develop projects that contribute to the growth of the Semantic Web (Linked Data, RDF).
- Protect more solidly the conceptual basis of archival description with respect to the description in other domains (libraries, museums, etc.).

Appendix 1. Spanish and English expressions

In this report the Spanish expressions (included in the document Conceptual model of June 18, 2012) that represent important concepts about archival description and/or ER data modeling technique have been translated into English as shown below:

Expression in Spanish	Expression in English
Comisión de Normas Españolas de Descripción Archivística (CNEDA)	Commission on Spanish Standards of Archival Description
Normas españolas de descripción archivística (NEDA)	Spanish standards of archival description
Programa NEDA	NEDA Program
Proyecto NEDA-I	NEDA-I Project
descripción archivística	archival description
sistema de descripción archivística	archival descriptive system
modelo conceptual de descripción archivística	conceptual model of archival description
requisitos de datos básicos de las descripciones de documentos de archivo, agentes y funciones	basic data requirements for descriptions of records, agents and functions
téncnica de modelado de datos entidad-relación	ER data modeling technique
entidad	entity
tipo de entidad	entity type
subtipo de entidad	entity subtype
relación	relationship
tipo de relación	relationship type
atributo	attribute
documentos de archivo (tipo de entidad)	records (entity type)
grupo de fondos (subtipo de entidad)	group of fonds (entity subtype)
fondo (subtipo de entidad)	fonds (entity subtype)
división de fondo/grupo de fondos (subtipo de entidad)	sub-fonds/sub-group of fonds (entity subtype)
serie (subtipo de entidad)	series (entity subtype)
subserie (subtipo de entidad)	sub-series (entity subtype)
fracción de serie/subserie (subtipo de entidad)	fraction of series/fraction of sub-series (entity subtype)
unidad documental (subtipo de entidad)	documentary unit (entity subtype)
componente documental (subtipo de entidad)	documentary component (entity subtype)

colección (subtipo de entidad)	collection (entity subtype)
división de colección (subtipo de entidad)	sub-collection (entity subtype)
unidad documental compuesta	compound documentary unit
unidad documental simple (o documento de archivo)	item (or single documentary unit)
agente (tipo de entidad)	agent (entity type)
institución (subtipo de entidad)	corporate body (entity subtype)
famillia (subtipo de entidad)	family (entity subtype)
persona (subtipo de entidad)	person (entity subtype)
función y sus divisiones (tipo de entidad)	business (entity type)
función (subtipo de entidad)	function (entity subtype)
división de función (subtipo de entidad)	sub-function (entity subtype)
actividad/proceso (subtipo de entidad)	activity/process (entity subtype)
acción (subtipo de entidad)	transaction (entity subtype)
norma (tipo de entidad)	mandate (entity type)
concepto, objeto o acontecimiento (tipo de entidad)	concept, object or event (entity type)
lugar (tipo de entidad)	place (entity type)
tipo de relación de “creación, producción, gestión, etc.” (de muchos a muchos) (documentos de archivo ←→ agente)	“authorship or contribution to genesis, creation, management, etc.” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "autoría o colaboración en la génesis" (de muchos a muchos) (unidad documental simple ←→ agente)	“authorship or contribution to genesis” relationship type (many-to-many) (item ←→ agent)
tipo de relación de "autoría" (de muchos a muchos) (unidad documental simple ←→ agente)	“authorship” relationship type (many-to-many) (item ←→ agent)
tipo de relación de "colaboración en la génesis" (de muchos a muchos) unidad (documental simple ←→ agente)	“contribution to genesis” relationship type (many-to-many) (item ←→ agent)
tipo de relación de "destino" (de muchos a muchos) (unidad documental ←→ agente)	“destination” relationship type (many-to-many) (documentary unit ←→ agent)
tipo de relación de "remisión" (de muchos a muchos) (unidad documental ←→ agente)	“sending” relationship type (many-to-many) (documentary unit ←→ agent)
tipo de relación de "producción" (procedencia orgánica) (de uno a uno, de uno a muchos, o de muchos a muchos) (grupo de fondos, fondo, división de fondo/grupo de fondos, serie, subserie, fracción de serie/subserie o unidad documental ←→ agente)	“creation” relationship type (provenance with respect to agents) (one-to-one, one-to-many, or many-to-many) (group of fonds, fonds, sub-fonds/sub-group of fonds, series, sub-series, fraction of series/fraction of sub-series or documentary unit ←→ agent)

tipo de relación de "colección" (de muchos a muchos) (colección, división de colección, unidad documental o componente documental ←→ agente)	“collection” relationship type (many-to-many) (collection, sub-collection, documentary unit or documentary component ←→ agent)
tipo de relación de "gestión documental" (de muchos a muchos) (documentos de archivo ←→ agente)	“records or archives management” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "custodia" (de muchos a muchos) (documentos de archivo ←→ agente)	“custody” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "organización" (de muchos a muchos) (documentos de archivo ←→ agente)	“arrangement” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "descripción" (de muchos a muchos) (documentos de archivo ←→ agente)	“description” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "transferencia" (de muchos a muchos) (documentos de archivo ←→ agente)	“transfer” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "eliminación" (de muchos a muchos) (documentos de archivo ←→ agente)	“destruction” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "propiedad" (de muchos a muchos) (documentos de archivo ←→ agente)	“ownership” relationship type (many-to-many) (records ←→ agent)
tipo de relación de "propiedad intelectual" (de muchos a muchos) (documentos de archivo ←→ agente)	“copyright ownership” relationship type (many-to-many) (records ←→ agent)
tipo de relación de “realización” (de muchos a muchos) (agente ←→ función y sus divisiones)	“carrying out” relationship type (many-to-many) (agent ←→ business)
tipo de relación de “testimonio” (procedencia funcional) (de muchos a muchos) (documentos de archivo ←→ función y sus divisiones)	“evidence” relationship type (functional provenance) (many-to-many) (records ←→ business)
tipo de relación de “regulación” (de muchos a muchos) (norma ←→ agente, función y sus divisiones o documentos de archivo)	“regulation” relationship type (many-to-many) (mandate ←→ agent, business, or records)
tipo de relación “jerárquica todo-parte” (de uno a muchos) (documentos de archivo ←→ documentos de archivo)	“hierarchical whole/part” relationship type (one-to-many) (records ←→ records)
tipo de relación de “materia” (de muchos a muchos) (documentos de archivo ←→ agente, función y sus divisiones, norma, concepto, objeto o acontecimiento, lugar o documentos de archivo)	“subject” relationship type (many-to-many) (records ←→ agent, business, mandate, concept, object or event, place or records)

tipo de relación de “asociación” (de muchos a muchos) (documentos de archivo ←→ documentos de archivo)	“association” relationship type (many-to-many) (records ←→ records)
tipo de relación de “sucesión” (de muchos a muchos) (documentos de archivo ←→ documentos de archivo)	“succession” relationship type (many-to-many) (records ←→ records)
tipo de relación de “tradición documental” (de muchos a muchos) (unidad documental ←→ unidad documental)	“documentary transmission or tradition” relationship type (many-to-many) (documentary unit ←→ documentary unit)
tipo de relación de “reproducción” (de muchos a muchos) (documentos de archivo ←→ documentos de archivo)	“reproduction” relationship type (many-to-many) (records ←→ records)
tipo de relación de “vinculación” (de muchos a muchos) (agente ←→ agente)	“link” relationship type (many-to-many) (agent ←→ agent)
tipo de relación “jerárquica” (de muchos a muchos) (institución ←→ institución)	“hierarchical” relationship type (many-to-many) (corporate body ←→ corporate body)
tipo de relación de “sucesión” (de muchos a muchos) (institución ←→ institución)	“succession” relationship type (many-to-many) (corporate body ←→ corporate body)
tipo de relación “familiar” (de muchos a muchos) (familia ←→ familia)	“family” relationship type (many-to-many) (family ←→ family)
tipo de relación “familiar” (de muchos a muchos) (persona ←→ familia)	“family” relationship type (many-to-many) (person ←→ person)
tipo de relación de “pertenencia” (de muchos a muchos) (persona ←→ institución)	“membership” relationship type (many-to-many) (person ←→ corporate body)
tipo de relación de “pertenencia” (de muchos a muchos) (persona ←→ familia)	“membership” relationship type (many-to-many) (person ←→ family)
tipo de relación “jerárquica todo-parte” (de uno a muchos) (función y sus divisiones ←→ función y sus divisiones)	“hierarchical whole/part” relationship type (one-to-many) (business ←→ business)
tipo de relación de “asociación” (de muchos a muchos) (función y sus divisiones ←→ función y sus divisiones)	“association” relationship type (many-to-many) (business ←→ business)
tipo de relación de “sucesión” (de muchos a muchos) (función y sus divisiones ←→ función y sus divisiones)	“succession” relationship type (many-to-many) (business ←→ business)