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CERIF 2008 – 1.2 Semantics

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Abstract:

The CERIF Semantics is one component of the CERIF 2008 – 1.2 Full Data Model (FDM). It aims at recommending a standardised formal semantics to be applied in the wider context of Current Research Information Systems (CRISs) with CERIF as the underlying data model to supply the relevant entities and their relationships. The semantic component in this version presents the current core semantics; that is, the types and roles considered relevant in a research context between the involved core entities. Compared to its preceding version, this release provides a major upgrade with respect to the quantity of relevant terms.

CERIF is considered a standard; recommended by the European Union to its Member States. It has been developed with support by the European Commission in two major phases: 1987-1990 and 1997-1999. In 2000 the European Commission handed over care and custody of CERIF to euroCRIS (<http://www.eurocris.org>) a not-for-profit organisation dedicated to the promotion of CRISs (Current Research Information Systems).

Status:

CERIF model improvements are based on discussions among euroCRIS CERIF task group members. This document will be updated alongside major model updates.

Location:

http://www.eurocris.org/Uploads/Web%20pages/CERIF2008/Release_1.2/CERIF2008_1.2_Semantics.pdf

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1. Introduction

The presented CERIF Semantics of types and roles is the second step towards formalising general relationship and type terms for the research domain. The current version has matured from its preceding version CERIF 2008 – 1.1 Semantics (which mainly focused on publications), from feedback at Tutorial presentations, Membership Meetings, from discussions on the CERIF TG mailinglist, and substantially, from extensive discussions at physical CERIF TG meetings. Information Scientists, Librarians, Computer Scientists, Researchers, Managers, Practitioners and Engineers have presented and contributed their views summarized with this document. During communications, from research, and in meetings, it became clear that many different and in parts overlapping metadata schemes or terminologies exist for scientific subdomains (i.e. publications, funding, teaching, ...). [1] provides a comprehensive overview of existing metadata descriptions for digital libraries, among them – the two most established ones: Dublin Core¹ and MODS² – and identifies a need for standardisation. The CERIF Semantics aims at recommending a formal semantics to be applied in the wider context of the Research domain as such, including the domain of scholarly publications, funding, teaching, etc., with CERIF as the underlying data model to supply the involved entities and their relationships. The CERIF Semantics is one component of the CERIF 2008 – 1.2 Full Data Model (FDM).

This document is simply the collection of terms and a current description, with a reference to the source of description where available. For the understanding of the CERIF model as such, we refer to [2].

2. CERIF Components

The current CERIF 2008 – 1.2 release comprises the following components:

- CERIF 2008 – 1.2 FDM: Model Introduction and Specification
separate document available from the website [2]
- CERIF 2008 – 1.2 FDM: SQL scripts for most common databases
available for members only
- CERIF 2008 – 1.2 XML: Data Exchange Format Specification
separate document available from the website [3]
- CERIF 2008 – 1.2 XML Examples
available for euroCRIS members only
- CERIF 2008 – 1.2 XML Schema Files
CERIF XML validation files available from the website
http://www.eurocris.org/Uploads/Web%20pages/CERIF2008/Release_1.2/XML-SCHEMAS/
- CERIF 2008 – 1.2 Semantics
this document

CERIF 2008 – 1.2 related files and more documents and background information about CERIF and CRISs can be downloaded from the public euroCRIS website: <http://www.eurocris.org/Index.php?page=CERIFreleases&t=1>. The physical SQL scripts and XML examples files are available for members only^{3*}.

¹ Dublin Core (DC): <http://dublincore.org/>

² Metadata Object Description Schema (MODS): <http://www.loc.gov/standards/mods/>

* The CERIF 2008–1.2 release was modeled with Toad Data Modeler³ by Quest Software³ which allows to draw ERM diagrams, to generate SQL scripts for most common databases (Oracle, Microsoft, IBM, etc.), to reverse engineer from databases, to create screenshots of the model and model parts, and to model at physical and logical level. The resulting CERIF SQL scripts are generated automatically from the physical level.

3. CERIF Semantics 2008 – 1.2

The CERIF Semantics is maintained within the so called Semantic Layer that has been thoroughly introduced as a concept – enhanced with examples, as part of the CERIF 2008 – 1.2 Introduction and Specification document [2]. The CERIF Semantics may be best viewed as a filler; stuffing the CERIF Semantic Layer with contextually relevant semantics.

3.1 Current CERIF Core Entities

We present the current CERIF Semantics; that is: types, and roles for the linkage between current core entities. The following entities and their relationships are currently considered the CERIF Core. The current core is only a temporary definition, where further entities may be included in future releases.

- cfPerson_Person
- cfPerson_Classification
- cfPerson_OrganisationUnit
- cfPerson_Project
- cfPerson_ResultPublication
- cfPerson_Funding
- cfOrganisationUnit_OrganisationUnit
- cOrganisationUnit_Classification
- cfOrganisationUnit_Project
- cfOrganisationUnit_ResultPublication
- cfOrganisation_Funding
- cfProject_Project
- cfProject_Classification
- cfProject_ResultPublication
- cfProject_Funding
- cfResultPublication_ResultPublication
- cfResultPublication_Classification
- cfResultPublication_Funding
- cfFunding_Funding
- cfFunding_Classification

3.2 Current CERIF Semantic Terms (“cfCERIFSemantics_2008-1.2”)

Based on the definition of the current CERIF Core, terms relevant in the Core context have been formalised and described. To semantically support their disambiguation, the respective CERIF link entity from where the terms occurred is given in the table below. For organisational and readability reasons the online references to the term description sources is provided with the appendix.

Table 1: CERIF Semantics for the current Core

CERIF Link Entity	Term	Description
cfPerson_Person	Manager	Managers may direct workers directly or they may direct several supervisors who direct the workers. The manager must be familiar with the work of all the groups he/she supervises, but does not need to be the best in any or all of the areas. [...] Regardless of title, the manager is responsible for planning, directing, monitoring and controlling the people and their work.
		Management (Disambiguation)
	Mentor	A trusted counselor or guide.
		Supervisor
cfPerson_OrganisationUnit	Affiliation	A supervisor, foreperson, team leader, overseer, cell coach, facilitator, or area coordinator is a manager in business. The US Bureau of Census has four hundred titles under the supervisor classification.
		A person with the official task of overseeing the work of a person or group.
		one who supervises or has charge and direction of
cfPerson_OrganisationUnit	Affiliation	the act of becoming formally connected or joined; a social or business relationship

Subaffiliation	no specific source found
Head	a person who is in charge
Employee	a worker who is hired to perform a job
Member	anything that belongs to a set or class, an organization that is a member of another organization (especially a state that belongs to a group of nations)
Director	someone who controls resources and expenditures
Deputy Director	a person appointed to represent or act on behalf of director
Dean	an administrator in charge of a division of a university or college
Principle	A person who empowers another to act as his or her representative; The person having prime responsibility for an obligation as distinguished from one who acts as surety or as an endorser. (law)
Head of Department	a person who is in charge of a specialized division of a large organization
Group Leader	a person who rules or guides or inspires others or any number of entities (members) considered as a unit
Manager	someone who controls resources and expenditures
Spokesperson	an advocate who represents someone else's policy or purpose
Associate	a person with subordinate membership in a society, institution, or commercial enterprise
Fellow	a member of a learned society
Reviewer	someone who reads manuscripts and judges their suitability for publication
Contractor	someone (a person or firm) who contracts to build things, (law) a party to a contract
Subcontractor	someone who enters into a subcontract with the primary contractor
Administrator	someone who manages a government agency or department)
Secretary	a person who is head of an administrative department of government, an assistant who handles correspondence and clerical work for a boss or an organization
Researcher	a scientist who devotes himself to doing research
Junior Researcher	a scientist who devotes himself to doing research but younger; lower in rank; shorter in length of tenure or service
Senior Researcher	a scientist who devotes himself to doing research and is older; higher in rank; longer in length of tenure or service
Consultant	an expert who gives advice
Junior Consultant	an expert who gives advice and that is younger; lower in rank; shorter in length of tenure or service
Senior Consultant	an expert who gives advice that is older; higher in rank; longer in length of tenure or service,
Lecturer	someone who lectures professionally, a public lecturer at certain universities
Junior Lecturer	someone who lectures professionally, a public lecturer at certain universities and is younger; lower in rank; shorter in length of tenure or service
Senior Lecturer	someone who lectures professionally, a public lecturer at certain universities and is older; higher in rank; longer in length of tenure or service,
Guest Lecturer	someone who lectures professionally, a public lecturer at certain universities and is a visitor to whom hospitality is extended
Professor	someone who is a member of the faculty at a college or university
Assistant Professor	a university teacher lower in rank than an associate professor
Honorary Professor	given as an honor without the normal duties of a professor, someone who is a member of the faculty at a college or university
Visiting Professor	the activity of a professor making visits
Doctor (med)	a licensed medical practitioner
Research Fellow	is used to denote a research position at a university or similar institution, usually for academic staff or faculty member. A research fellow may act either as an independent investigator or under the supervision of a principal investigator.
Postdoc	a scholar or researcher who is involved in academic study beyond the level of a doctoral degree
PhD	a doctorate usually based on at least 3 years graduate study and a dissertation; the highest degree awarded graduate study

	Research Assistant	is a researcher employed, often on a temporary contract, by a university or a research institute, for the purpose of assisting in academic research.
	Reader	a public lecturer at certain universities
	Technician	someone known for high skill in some intellectual or artistic technique
	Teaching Fellow	is an advanced graduate student who serves as the primary instructor for an undergraduate course.
	Teaching Assistant	is an individual who assists a professor or teacher with instructional responsibilities
	Casual	without or seeming to be without plan or method; offhand
	Expert	a person with special knowledge or ability who performs skillfully
cfPerson_Project	Principle Investigator	also called promoter
	Co-Investigator	also called co-promoter (quite often from different organizations)
	Coordinator	someone whose task is to see that work goes harmoniously
	Manager	someone who controls resources and expenditures
		A project manager is a professional in the field of project management. Project managers can have the responsibility of the planning, execution, and closing of any project,
	Spokesperson	A spokesperson or spokesman or spokeswoman is someone engaged or elected to speak on behalf of others.
	Participant	Someone who takes part in an activity
	Contributor	Someone who contributes (or promises to contribute) a sum of money
	PhD Student	Doctor of Philosophy, abbreviated to PhD, or Ph.D. in English-speaking countries, for the Greek διδάκτωρ φιλοσοφίας (Latin philosophiae doctor). Here φιλοσοφία/philosophy, literally translating to "the love of wisdom", is used in the original Greek sense, loosely meaning "the pursuit of in depth knowledge" and does not refer to the scientific field philosophy.
	Researcher	a scientist who devotes himself to doing research
	Administrator	someone who administers a business
	Engineer	a person who uses scientific knowledge to solve practical problems
	Technician	someone whose occupation involves training in a specific technical process; someone known for high skill in some intellectual or artistic technique
	Reviewer	a writer who reports and analyzes events of the day
	Consultant	an expert who gives advice
	Project Officer	Within the funding organisation responsible for the project.
	Contact	a communicative interaction
	Applicant	also called proposer
	Contractor	someone (a person or firm) who contracts to build things
	Subcontractor	someone who enters into a subcontract with the primary contractor
cfPerson_ResultPublication	Author	The person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is copyrighted. A work may have two or more joint authors. In library cataloging, the term is used in its broadest sense to include editor, compiler, composer, creator, etc
	Author (numbered)	requires a cfFraction value
	Author (percentage)	requires a cfFraction value
	Creator	An entity primarily responsible for making the resource. // refers to the DublinCore Contributor element
	Contributor	A person or organization not specified in a Creator element who has made significant intellectual contributions to the resource but whose contribution is secondary to any person or organization specified in the Creator element (for example, editor, transcriber, and illustrator). // refers to the DublinCore Contributor element An entity responsible for making contributions to the resource. [...] Examples of a Contributor include a person, an organization, or a service. Typically, the name of a Contributor should be used to indicate the entity.

Editor	A person who prepares for publication the work(s) of one or more other authors. An editor may be responsible for selecting material included in a collection or for preparing manuscript copy for the printer, including annotation of the text, verification of the accuracy of facts and bibliographic citations, polishing grammar and style, organizing front and back matter, etc. Periodicals and large reference works often have a general editor or editor-in-chief who supervises the work of an editorial staff.
Subject	Any one of the topics or themes of a work, stated explicitly in the text or title or implicit in its message. In library cataloging, a book or other item is assigned one or more subject headings as access points, to assist users in locating its content by subject. In abstracting and indexing services, the headings assigned to represent the content of a document are called descriptors
Reviewer	A person who writes a brief or extended evaluation of a new book or other creative work, usually at the request of the editor of a publication that includes reviews. Scholarly works are usually reviewed by the author's peers. someone who reads manuscripts and judges their suitability for publication
Translator	person who renders speech or text from one language in another or from an older form of a language into a more modern form. Translations of a work often differ in fidelity to the original. Name of translator usually appears on the title page of a book, following the name of the author.
Publisher	person or corporate entity that prepares and issues printed materials for public sale or distribution, normally on the basis of a legal contract in which the publisher is granted certain exclusive rights in exchange for assuming the financial risk of publication and agreeing to compensate the author, usually with a share of the profits.
Commissioner	a government administrator, a member of a commission
Group Authors	any number of entities (members)/authors considered as a unit. Author is the person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is copyrighted.
Member	Is member of / has member: orgUnit A belongs to orgUnit B, which must be of an association or consortium type. Membership relationship between two orgUnits is in most cases exclusive with the Part role between the two orgUnits.
Funder	Funds / is funded by: orgUnit A furnishes monetary support for one or several research activities executed by orgUnit B. a provider of funds as for the support of a charitable or nonprofit organization
Part	Is part of / has part: used to represent the hierarchic structure of organisations. From one side it gives the position of an organisation unit within a greater organisation unit. From the other side, it gives the breakdown of an organisation unit to its constituent parts.
Acquisition	Acquired / was acquired by: orgUnit A is taken over by orgUnit B. OrgUnit A ceases to exist as an independent organization (this distinguishes this role from Stakeholder).
Supporter	patron: someone who supports or champions something
Stakeholder	Owns a share in / is owned by: orgUnit A owns a share in orgUnit B, which gives it rights over certain corporate aspects of orgUnit B
Merger	Merged with: both orgUnit A and orgUnit B are combined and give rise to another orgUnit (which has the Successor relationship to both orgUnit A and orgUnit B).
Contractor	Contracts / is contracted by: orgUnit A signing a contract with orgUnit B where orgUnit B agrees to perform specific research and orgUnit A agrees to provide funding.
Subcontractor	Subcontracts / is subcontracted by: orgUnit A being a Contractor, it signs a contract with orgUnit B where orgUnit B takes over a part of the orgUnit A's obligation to perform specific research, while orgUnit A transfers to orgUnit B a part of the funding.
Successor	no specific source found

cfOrganisationUnit
_OrganisationUnit

	Spin-Off	Is a spin-off from / has spin-off: orgUnit A is a company that has been established by orgUnit B, which is a public research institution. The mission for orgUnit A is to mature and market a result of research conducted at orgUnit B. This relationship type is usually accompanied by a Shareholder one.
cfOrganisationUnit _Project	Coordinator	someone whose task is to see that work goes harmoniously
	Participant	someone who takes part in an activity
	Contributor	Someone who contributes (or promises to contribute) a sum of money
	Applicant	organisation that submits a grant application on behalf of a consortium, partnership or network of participating organisations; the applicant represents and acts on behalf of the group of participating organisation in its relations with the Agency; if the grant application is selected, the Applicant will become the main beneficiary (see Beneficiary definition below) and will sign the grant agreement on behalf of the participating organisations
	Reviewer	A person who writes critical appraisals of books, plays, movies, etc., for publication
	Funder	the organisation contributing all or part of the project's cost. The funder might be your own organisation and/or any combination of domestic or foreign source. The funding might be in any form e.g. grant, loan.
	Contractor	contractor - Any natural or legal person or public entity or consortium of such persons and/or bodies selected at the end of the procedure for the award of the contract. The successful tenderer, once parties have signed the contract.
	Subcontractor	A business or person that carries out work for a company as part of a larger project
	Spin-Off	
cfOrganisationUnit _ResultPublication	IPR Claim	<p>1. The rights of creative workers in literary, artistic, industrial and scientific fields which can be protected either by copyright or trademarks, patents, etc.</p> <p>2. Tangible products of the human mind and intelligence entitled to the legal status of personal property, especially works protected by copyright, inventions that have been patented, and registered trademarks. An idea is considered the intellectual property of its creator only after it has been recorded or made manifest in specific form.</p>
	Publisher	A person or corporate entity that prepares and issues printed materials for public sale or distribution, normally on the basis of a legal contract in which the publisher is granted certain exclusive rights in exchange for assuming the financial risk of publication and agreeing to compensate the author, usually with a share of the profits.
		An entity responsible for making the resource available.
	Curator	A person responsible for the development, care, organization, and supervision of a museum, gallery, or other exhibit space and all the objects stored or displayed in it, a role requiring considerable knowledge and experience when items are selected on the basis of artistic merit or connoisseurship. Also, a person in charge of a special collection, trained to assist users in locating and interpreting its holdings.
		the custodian of a collection
	Reviewer	A person who writes a brief or extended evaluation of a new book or other creative work, usually at the request of the editor of a publication that includes reviews. Scholarly works are usually reviewed by the author's peers.
	Author	The person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is copyrighted. A work may have two or more joint authors.
	Commissioner	is in principle the title given to a member of a commission or to an individual who has been given a commission (official charge or authority to do something, the noun's second meaning)

	Funder	a provider of funds as for the support of a charitable or nonprofit organization
	Author's Institution	an organization founded and united for a specific purpose where the author has a relationship
	Publisher's Institution	an organization founded and united for a specific purpose where the publisher has a relationship
	Reviewer's Institution	an organization founded and united for a specific purpose where the reviewer has a relationship
	External Organisation	an organization founded and united for a specific purpose that is happening or arising or located outside or beyond some limits or especially surface
cfProject_Project	Part	something determined in relation to something that includes it
	BuiltOn	informally, a form of succession
	Succession	the action of following in order
	Cooperation	cooperate - collaborate: work together on a common enterprise of project;
cfProject_ResultPublication	Originator	someone who creates new things
cfResultPublication_Classification	Book	A collection of leaves of paper, parchment, vellum, cloth, or other material (written, printed, or blank) fastened together along one edge, with or without a protective case or cover.
	Book Review	An evaluative account of a recent book, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
	Book Chapter Abstract	A brief, objective representation of the essential content of a book chapter, presenting the main points in the same order as the original but having no independent literary value.
	Book Chapter Review	An evaluative account of a recent book chapter, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
	Inbook	A part of a book, usually untitled. May be a chapter (or section or whatever) and/or a range of pages.
	Anthology	A collection of extracts or complete works by various authors, selected by an editor for publication in a single volume or multivolume set. Anthologies are often limited to a specific literary form or genre (short stories, poetry, plays) or to a national literature, theme, time period, or category of author.
	Monograph	A relatively short book or treatise on a single subject, complete in one physical piece, usually written by a specialist in the field. Monographic treatment is detailed and scholarly but not extensive in scope.
	Referencebook	A book designed to be consulted when authoritative information is needed, rather than read cover to cover. Reference books often consist of a series of signed or unsigned "entries" listed alphabetically under headwords or headings, or in some other arrangement (classified, numeric, etc.).
	Textbook	An edition of a book specifically intended for the use of students who are enrolled in a course of study or preparing for an examination on a subject or in an academic discipline, as distinct from the trade edition of the same title. Also refers to the standard work used for a specific course of study, whether published in special edition or not.
	Encyclopedia	A book or numbered set of books containing authoritative summary information about a variety of topics in the form of short essays, usually arranged alphabetically by headword or classified in some manner. An entry may be signed or unsigned, with or without illustration or a list of references for further reading. Headwords and text are usually revised periodically for publication in a new edition.
	Manual	refers to a book or pamphlet containing practical instructions, rules, or steps for performing a task or operation, assembling a manufactured object, or using a system or piece of equipment. Used synonymously with handbook.
	Otherbook	Uncertain of definition – originates from BibTex

	Journal	A periodical devoted to disseminating original research and commentary on current developments in a specific discipline, subdiscipline, or field of study (example: Journal of Clinical Epidemiology), usually published in quarterly, bimonthly, or monthly issues sold by subscription (click here to see an example). Journal articles are usually written by the person (or persons) who conducted the research.
	Journal Article	A self-contained nonfiction prose composition on a fairly narrow topic or subject, written by one or more authors and published under a separate title in a collection or periodical containing other works of the same form.
	Journal Article Abstract	A brief, objective representation of the essential content of an article, presenting the main points in the same order as the original but having no independent literary value.
	Journal Article Review	An evaluative account of a recent of a newly published literary or scholarly work, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
	Conference Proceedings	A proceeding is a collection of articles, published abstracts or posters gathered from a conference. Can have several editors.
	Conference Proceedings Article	Articles that has been presented at a conference. Articles has been collected and published in a proceeding.
	Letter	A letter (also known as "communication") is a brief description of important new research.
	Letter to Editor	A letter, usually printed at the discretion of the publisher on the editorial page of a newspaper or magazine, in which a reader expresses his or her views on the subject of a previously published article or editorial, or on the editorial policy of the publication in general, sometimes followed by a brief response from the editor(s).
	PhD Thesis	Dissertation/Thesis that leads to the acquirement of a Ph.D. Degree.
	Doctoral Thesis	Dissertation/Thesis that leads to the acquirement of a doctoral degree.
	Report	A separately published record of research findings, research still in progress, or other technical findings, usually bearing a report number and sometimes a grant number assigned by the funding agency.
	Short Communication	A short communication is a concise, but independent report representing a significant contribution to a subject.
	Poster	A visual presentation of an academic subject presented at a conference.
	Presentation	Uncertain of definition
	Newsclipping	An article published in a newspaper, newsmagazine, or online news service, reporting the details of a current event or the latest information on a topic of general interest. News stories are usually short and often unattributed.
	Commentary	A written explanation or criticism or illustration that is added to a book or other textual material.
	Annotation	A brief note, usually no longer than two or three sentences, added after a citation in a bibliography to describe or explain the content or message of the work cited or to comment on it.
cfResultPublication _ResultPublication	Derived From	the source or origin from which something derives
	Part	something determined in relation to something that includes it
cfResultPublication _Funding	Funder	
cfPerson _Classification	Male	a person who belongs to the sex that cannot have babies
	Female	a person who belongs to the sex that can have babies
cfOrganisationUnit _Classification	Non-for-Profit	A non-profit organization (abbreviated as NPO, also known as a not-for-profit organization[1]) is an organization that does not distribute its surplus funds to owners or shareholders, but instead uses them to help pursue its goals.[2] Examples of NPOs include charities (i.e. charitable organizations), trade unions and public arts organizations. Most governments and government agencies meet this definition, but in most countries they are considered a separate type of organization and not counted as NPOs.

	Academic Institute	Academic institution is an educational institution dedicated to education and research, which grants academic degrees.
	University	A university is an institution of higher education and research, which grants academic degrees in a variety of subjects. A university is a corporation that provides both undergraduate education and postgraduate education.
	University College	The term "university college" is used in a number of countries to denote college institutions that provide tertiary education but do not have full or independent university status. A university college is often part of a larger university. The precise usage varies from country to country.
	Strategic Research Institute	
	Research Institute	A research institute is an establishment endowed for doing research. Research institutes may specialize in basic research or may be oriented to applied research.
	Company	A company is a form of business organization. In the United States, a company is a corporation—or, less commonly, an association, partnership, or union—that carries on an industrial enterprise." Generally, a company may be a "corporation, partnership, association, joint-stock company, trust, fund, or organized group of persons, whether incorporated or not, and (in an official capacity) any receiver, trustee in bankruptcy, or similar official, or liquidating agent, for any of the foregoing." In English law, and therefore in the Commonwealth realms, a company is a form of body corporate or corporation, generally registered under the Companies Acts or similar legislation. It does not include a partnership or any other unincorporated group of persons.
	SME	Small and medium enterprises (also SMEs, small and medium businesses, SMBs, and variations thereof) are companies whose headcount or turnover falls below certain limits. EU Member States traditionally have their own definition of what constitutes a SME, for example the traditional definition in Germany had a limit of 250 employees, while, for example, in Belgium it could have been 100. But now the EU has started to standardize the concept. Its current definition categorizes companies with fewer than 10 employees as "micro", those with fewer than 50 employees as "small", and those with fewer than 250 as "medium".
	Government	A government is the organization, or agency through which a political unit exercises its authority, controls and administers public policy, and directs and controls the actions of its members or subjects.
	Higher Education	Higher education or post-secondary education refers to a level of education that is provided at academies, universities, colleges, seminaries, institutes of technology, and certain other collegiate-level institutions, such as vocational schools, trade schools, and career colleges, that award academic degrees or professional certifications.
cfProject _Classification	Discipline Codes	i.e. Ortelius Classification, Artmis Frascati, DEWY, ...
	Application Codes	Vocabularies defined or developed for a particular application context, use-case.
cfFunding _Classification	Funding Programme	A Funding Programme is the source of financial means to a project, programme, equipment, event or any other structured scientific activity*. A Funding Programme is managed by a Funding Organisation.
	Call	no specific source found.
	Tender	1) An unconditional offer made by one to another to enter into the contract of transaction of goods or services at certain specified cost. Normally government bodies and business groups issues notices for quotes for specified goods or services from other businesses which is known as tender. 2) act of offering money or settlement for any dues or claims.
	Gift	A gift or a present is the transfer of something without the expectation of receiving something in return. Although gift-giving might involve an expectation of reciprocity, a gift is meant to be free.
cfPerson_Funding	Manager	someone who controls resources and expenditures
	Applicant	a person who requests or seeks something such as assistance or

		employment or admission
	Contact	a person who is in a position to give you special assistance
cfOrganisationUnit_Funding	Contact	a person who is in a position to give you special assistance
	Manager	someone who controls resources and expenditures
	Issuer	an institution that issues something (securities or publications or currency etc.)
	Responsible	being the agent or cause; worthy of or requiring responsibility or trust; or held accountable
	Financier	Financier (pronounced /finən'siər/, French: [finã'sje]) is a term for a person who handles typically large sums of money, usually involving money lending, financing projects, large-scale investing, or large-scale money management.
	Cost Center	In business, a cost centre is a division that adds to the cost of an organization, but only indirectly adds to its profit. Typical examples include research and development, marketing and customer service.
	Applicant	a person who requests or seeks something such as assistance or employment or admission
	Contributor	Someone who contributes (or promises to contribute) a sum of money
cfProject_Funding	Pending	awaiting conclusion or confirmation
	Awarded	give as judged due or on the basis of merit
	Refused	refuse to let have
cfResultPublication_Funding	Funding Programme Document	the intitial funding programme document
	Call-Document	the initial call document
	Tender-Document	the initial tender document
	Gift-Document	the intial tender document
cfFunding_Funding	Part	something determined in relation to something that includes it
	Related	an abstraction belonging to or characteristic of two entities or parts together

4. Next Steps

The quality improvement, maintenance and extension of a formal CERIF Semantics will be a major focus alongside upcoming CERIF releases. This current version is a collection of core terms relevant in the Research context, where future releases will have to further improve the descriptions, to disambiguate the terms according to relationship contexts. It may have to be considered, if it is possible to abstract from the current relationship terms to a mereological scheme in the general research context. Funding related terms may need fundamental definitions that may be sustained in the Research context.

5. References

[1] Gartner, R. (2008): Metadata for the digital libraries: state of the art and future directions (1.0). Peer reviewed report from the JISC Technology and Standards Watch. April 2008, Bristol, UK

[2] Jörg, B.; Jeffery, K.G.; van Grootel, G.; Asserson, A.; Dvorak, J.; Rasmussen, H.: (2010): CERIF 2008 – 1.2 Full Data Model (FDM): Introduction and Specification. euroCRIS, November 2010.

[3] Jörg, B.; van Grootel, G.; Jeffery, K.G.; Dvorak, J.; (2010): CERIF 2008 – 1.2 XML: Data Exchange Format Specification. euroCRIS, November 2010.

6. Appendix

For organisational and readability reasons, the references to the description sources is listed separately with this appendix.

Term	Description	Online Source of Description
Manager	Managers may direct workers directly or they may direct several supervisors who direct the workers. The manager must be familiar with the work of all the groups he/she supervises, but does not need to be the best in any or all of the areas. [...] Regardless of title, the manager is responsible for planning, directing, monitoring and controlling the people and their work.	http://management.about.com/od/policiesandprocedures/g/manager1.htm
	Management (Disambiguation)	http://en.wikipedia.org/wiki/Management_%28disambiguation%29
Mentor	A trusted counselor or guide.	http://www.merriam-webster.com/dictionary/mentor
Supervisor	A supervisor, foreperson, team leader, overseer, cell coach, facilitator, or area coordinator is a manager in business. The US Bureau of Census has four hundred titles under the supervisor classification.	http://en.wikipedia.org/wiki/Supervisor
	A person with the official task of overseeing the work of a person or group.	http://en.wiktionary.org/wiki/supervisor
	one who supervises or has charge and direction of	http://wordnetweb.princeton.edu/perl/webwn?s=supervisor
Affiliation	the act of becoming formally connected or joined; a social or business relationship	http://wordnetweb.princeton.edu/perl/webwn?s=affiliation
Subaffiliation	no specific source found	
Head	a person who is in charge	http://wordnetweb.princeton.edu/perl/webwn?s=head
Employee	a worker who is hired to perform a job	http://wordnetweb.princeton.edu/perl/webwn?s=Employee
Member	anything that belongs to a set or class, an organization that is a member of another organization (especially a state that belongs to a group of nations)	http://wordnetweb.princeton.edu/perl/webwn?s=member
Director	someone who controls resources and expenditures	http://wordnetweb.princeton.edu/perl/webwn?s=director
Deputy Director	a person appointed to represent or act on behalf of director	http://wordnetweb.princeton.edu/perl/webwn?s=deputy
Dean	an administrator in charge of a division of a university or college	http://wordnetweb.princeton.edu/perl/webwn?s=dean
Principle	A person who empowers another to act as his or her representative; The person having prime responsibility for an obligation as distinguished from one who acts as surety or as an endorser. (law)	http://www.yourdictionary.com/principal
Head of Department	a person who is in charge of a specialized division of a large organization	http://wordnetweb.princeton.edu/perl/webwn?s=department ; http://wordnetweb.princeton.edu/perl/webwn?s=head
Group Leader	a person who rules or guides or inspires others or any number of entities (members) considered as a unit	http://wordnetweb.princeton.edu/perl/webwn?s=group ; http://wordnetweb.princeton.edu/perl/webwn?s=leader
Manager	someone who controls resources and expenditures	http://wordnetweb.princeton.edu/perl/webwn?s=manager
Spokesperson	an advocate who represents someone else's policy or purpose	http://wordnetweb.princeton.edu/perl/webwn?s=spokesperson
Associate	a person with subordinate membership in a society, institution, or commercial enterprise	http://wordnetweb.princeton.edu/perl/webwn?s=associate
Fellow	a member of a learned society	http://wordnetweb.princeton.edu/perl/webwn?s=fellow
Reviewer	someone who reads manuscripts and judges their suitability for publication	http://wordnetweb.princeton.edu/perl/webwn?s=reviewer
Contractor	someone (a person or firm) who contracts	http://wordnetweb.princeton.edu/perl/webwn?s=contractor

	to build things, (law) a party to a contract	
Subcontractor	someone who enters into a subcontract with the primary contractor	http://wordnetweb.princeton.edu/perl/webwn?s=subcontractor
Administrator	someone who manages a government agency or department)	http://wordnetweb.princeton.edu/perl/webwn?s=administra tor
Secretary	a person who is head of an administrative department of government, an assistant who handles correspondence and clerical work for a boss or an organization	http://wordnetweb.princeton.edu/perl/webwn?s=secretary
Researcher	a scientist who devotes himself to doing research	http://wordnetweb.princeton.edu/perl/webwn?s=researcher
Junior Researcher	a scientist who devotes himself to doing research but younger; lower in rank; shorter in length of tenure or service	http://wordnetweb.princeton.edu/perl/webwn?s=Junior; http://wordnetweb.princeton.edu/perl/webwn?s=researcher
Senior Researcher	a scientist who devotes himself to doing research and is older; higher in rank; longer in length of tenure or service	http://wordnetweb.princeton.edu/perl/webwn?s=senior; http://wordnetweb.princeton.edu/perl/webwn?s=researcher
Consultant	an expert who gives advice	http://wordnetweb.princeton.edu/perl/webwn?s=consultant
Junior Consultant	an expert who gives advice and that is younger; lower in rank; shorter in length of tenure or service	http://wordnetweb.princeton.edu/perl/webwn?s=junior; http://wordnetweb.princeton.edu/perl/webwn?s=consultant
Senior Consultant	an expert who gives advice that is older; higher in rank; longer in length of tenure or service,	http://wordnetweb.princeton.edu/perl/webwn?s=consultant ; http://wordnetweb.princeton.edu/perl/webwn?s=senior
Lecturer	someone who lectures professionally, a public lecturer at certain universities	http://wordnetweb.princeton.edu/perl/webwn?s=lecturer
Junior Lecturer	someone who lectures professionally, a public lecturer at certain universities and is younger; lower in rank; shorter in length of tenure or service	http://wordnetweb.princeton.edu/perl/webwn?s=lecturer; http://wordnetweb.princeton.edu/perl/webwn?s=junior
Senior Lecturer	someone who lectures professionally, a public lecturer at certain universities and is older; higher in rank; longer in length of tenure or service,	http://wordnetweb.princeton.edu/perl/webwn?s=senior; http://wordnetweb.princeton.edu/perl/webwn?s=lecturer
Guest Lecturer	someone who lectures professionally, a public lecturer at certain universities and is a visitor to whom hospitality is extended	http://wordnetweb.princeton.edu/perl/webwn?s=guest; http://wordnetweb.princeton.edu/perl/webwn?s=lecturer
Professor	someone who is a member of the faculty at a college or university	http://wordnetweb.princeton.edu/perl/webwn?s=professor
Assistant Professor	a university teacher lower in rank than an associate professor	http://www.thefreedictionary.com/assistant+professor
Honorary Professor	given as an honor without the normal duties of a professor, someone who is a member of the faculty at a college or university	http://wordnetweb.princeton.edu/perl/webwn?s=honorary; http://wordnetweb.princeton.edu/perl/webwn?s=professor
Visiting Professor	the activity of a professor making visits	http://wordnetweb.princeton.edu/perl/webwn?s=visiting; http://wordnetweb.princeton.edu/perl/webwn?s=professor
Doctor (med)	a licensed medical practitioner	http://wordnetweb.princeton.edu/perl/webwn?s=Doctor
Research Fellow	is used to denote a research position at a university or similar institution, usually for academic staff or faculty member. A research fellow may act either as an independent investigator or under the supervision of a principal investigator.	http://en.wikipedia.org/wiki/Research_fellow
Postdoc	a scholar or researcher who is involved in academic study beyond the level of a doctoral degree	http://wordnetweb.princeton.edu/perl/webwn?s=Postdoc
PhD	a doctorate usually based on at least 3 years graduate study and a dissertation; the highest degree awarded graduate study	http://wordnetweb.princeton.edu/perl/webwn?s=PhD
Research Assistant	is a researcher employed, often on a temporary contract, by a university or a research institute, for the purpose of assisting in academic research.	http://en.wikipedia.org/wiki/Research_assistant
Reader	a public lecturer at certain universities	http://wordnetweb.princeton.edu/perl/webwn?s=reader
Technician	someone known for high skill in some	http://wordnetweb.princeton.edu/perl/webwn?s=Technician

	intellectual or artistic technique	
Teaching Fellow	is an advanced graduate student who serves as the primary instructor for an undergraduate course.	http://en.wikipedia.org/wiki/Teaching_fellow
Teaching Assistant	is an individual who assists a professor or teacher with instructional responsibilities	http://en.wikipedia.org/wiki/Teaching_assistant
Casual	without or seeming to be without plan or method; offhand	http://wordnetweb.princeton.edu/perl/webwn?s=casual
Expert	a person with special knowledge or ability who performs skillfully	http://wordnetweb.princeton.edu/perl/webwn?s=expert
Principle Investigator	also called promoter	CERIF TG / euroCRIS
Co-Investigator	also called co-promoter (quite often from different organizations)	CERIF TG / euroCRIS
Coordinator	someone whose task is to see that work goes harmoniously	http://wordnetweb.princeton.edu/perl/webwn?s=coordinator
Manager	someone who controls resources and expenditures	http://wordnetweb.princeton.edu/perl/webwn?s=manager
	A project manager is a professional in the field of project management. Project managers can have the responsibility of the planning, execution, and closing of any project,	http://en.wikipedia.org/wiki/Project_manager
Spokesperson	A spokesperson or spokesman or spokeswoman is someone engaged or elected to speak on behalf of others.	http://wordnetweb.princeton.edu/perl/webwn?s=spokesperson
Participant	Someone who takes part in an activity	http://wordnetweb.princeton.edu/perl/webwn?s=participant
Contributor	Someone who contributes (or promises to contribute) a sum of money	http://wordnetweb.princeton.edu/perl/webwn?s=contributor
PhD Student	Doctor of Philosophy, abbreviated to PhD, or Ph.D. in English-speaking countries, for the Greek διδάκτωρ φιλοσοφίας (Latin philosophiae doctor). Here φιλοσοφία/philosophy, literally translating to "the love of wisdom", is used in the original Greek sense, loosely meaning "the pursuit of in depth knowledge" and does not refer to the scientific field philosophy.	http://en.wikipedia.org/wiki/Doctor_of_Philosophy
Researcher	a scientist who devotes himself to doing research	http://wordnetweb.princeton.edu/perl/webwn?s=researcher
Administrator	someone who administers a business	http://wordnetweb.princeton.edu/perl/webwn?s=administra tor
Engineer	a person who uses scientific knowledge to solve practical problems	http://wordnetweb.princeton.edu/perl/webwn?s=engineer
Technician	someone whose occupation involves training in a specific technical process; someone known for high skill in some intellectual or artistic technique	http://wordnetweb.princeton.edu/perl/webwn?s=technician
Reviewer	a writer who reports and analyzes events of the day	http://wordnetweb.princeton.edu/perl/webwn?s=reviewer
Consultant	an expert who gives advice	http://wordnetweb.princeton.edu/perl/webwn?s=consultant
Project Officer	Within the funding organsiation responsible for the project.	CERIF TG / euroCRIS
Contact	a communicative interaction	http://wordnetweb.princeton.edu/perl/webwn?s=contact
Applicant	also called proposer	CERIF TG / euroCRIS
Contractor	someone (a person or firm) who contracts to build things	http://wordnetweb.princeton.edu/perl/webwn?s=contractor
Subcontractor	someone who enters into a subcontract with the primary contractor	http://wordnetweb.princeton.edu/perl/webwn?s=subcontrac tor
Author	The person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is	http://lu.com/odlis/search.cfm

	copyrighted. A work may have two or more joint authors. In library cataloging, the term is used in its broadest sense to include editor, compiler, composer, creator, etc	
Author (numbered)	requires a cfFraction value	
Author (percentage)	requires a cfFraction value	
Creator	An entity primarily responsible for making the resource. // refers to the DublinCore Contributor element	http://dublincore.org/documents/dces/
Contributor	A person or organization not specified in a Creator element who has made significant intellectual contributions to the resource but whose contribution is secondary to any person or organization specified in the Creator element (for example, editor, transcriber, and illustrator). // refers to the DublinCore Contributor element	http://library.princeton.edu/departments/tsd/katmandu/html/dccontributor.html
	An entity responsible for making contributions to the resource. [...] Examples of a Contributor include a person, an organization, or a service. Typically, the name of a Contributor should be used to indicate the entity.	http://dublincore.org/documents/dces/
Editor	A person who prepares for publication the work(s) of one or more other authors. An editor may be responsible for selecting material included in a collection or for preparing manuscript copy for the printer, including annotation of the text, verification of the accuracy of facts and bibliographic citations, polishing grammar and style, organizing front and back matter, etc. Periodicals and large reference works often have a general editor or editor-in-chief who supervises the work of an editorial staff.	http://lu.com/odlis/odlis_e.cfm#editor
Subject	Any one of the topics or themes of a work, stated explicitly in the text or title or implicit in its message. In library cataloging, a book or other item is assigned one or more subject headings as access points, to assist users in locating its content by subject. In abstracting and indexing services, the headings assigned to represent the content of a document are called descriptors	http://lu.com/odlis/odlis_s.cfm#subject
Reviewer	A person who writes a brief or extended evaluation of a new book or other creative work, usually at the request of the editor of a publication that includes reviews. Scholarly works are usually reviewed by the author's peers.	http://lu.com/odlis/odlis_R.cfm#reviewer
	someone who reads manuscripts and judges their suitability for publication	http://wordnetweb.princeton.edu/perl/webwn?s=reviewer
Translator	person who renders speech or text from one language in another or from an older form of a language into a more modern form. Translations of a work often differ in fidelity to the original. Name of translator usually appears on the title page of a book, following the name of the author.	http://lu.com/odlis/odlis_t.cfm#translator

Publisher	person or corporate entity that prepares and issues printed materials for public sale or distribution, normally on the basis of a legal contract in which the publisher is granted certain exclusive rights in exchange for assuming the financial risk of publication and agreeing to compensate the author, usually with a share of the profits.	http://lu.com/odlis/odlis_t.cfm#publisher
Commissioner	a government administrator, a member of a commission	http://wordnetweb.princeton.edu/perl/webwn?s=Commissioner
Group Authors	any number of entities (members)/authors considered as a unit. Author is the person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is copyrighted.	http://wordnetweb.princeton.edu/perl/webwn?s=group ; http://lu.com/odlis/search.cfm
Member	Is member of / has member: orgUnit A belongs to orgUnit B, which must be of an association or consortium type. Membership relationship between two orgUnits is in most cases exclusive with the Part role between the two orgUnits.	wordnet "member" rephrased
Funder	Funds / is funded by: orgUnit A furnishes monetary support for one or several research activities executed by orgUnit B.	wordnet "fund"
	a provider of funds as for the support of a charitable or nonprofit organization	http://www.yourdictionary.com/funder
Part	Is part of / has part: used to represent the hierarchic structure of organisations. From one side it gives the position of an organisation unit within a greater organisation unit. From the other side, it gives the breakdown of an organisation unit to its constituent parts.	no specific source
Acquisition	Acquired / was acquired by: orgUnit A is taken over by orgUnit B. OrgUnit A ceases to exist as an independent organization (this distinguishes this role from Stakeholder).	wordnet "acquisition"
Supporter	patron: someone who supports or champions something	wordnet "supporter"
Stakeholder	Owns a share in / is owned by: orgUnit A owns a share in orgUnit B, which gives it rights over certain corporate aspects of orgUnit B	http://en.wikipedia.org/wiki/Stakeholder_%28corporate%29
Merger	Merged with: both orgUnit A and orgUnit B are combined and give rise to another orgUnit (which has the Successor relationship to both orgUnit A and orgUnit B).	http://en.wikipedia.org/wiki/Merger
Contractor	Contracts / is contracted by: orgUnit A signing a contract with orgUnit B where orgUnit B agrees to perform specific research and orgUnit A agrees to provide funding.	no good source found
Subcontractor	Subcontracts / is subcontracted by: orgUnit A being a Contractor, it signs a contract with orgUnit B where orgUnit B takes over a part of the orgUnit A's obligation to perform specific research, while orgUnit A transfers to orgUnit B a part of the funding.	no good source found
Successor	no specific source found	no good source found

Spin-Off	Is a spin-off from / has spin-off: orgUnit A is a company that has been established by orgUnit B, which is a public research institution. The mission for orgUnit A is to mature and market a result of research conducted at orgUnit B. This relationship type is usually accompanied by a Shareholder one.	http://en.wikipedia.org/wiki/Research_spin-off , where just 4 is the relevant case for us
Coordinator	someone whose task is to see that work goes harmoniously	http://wordnetweb.princeton.edu/perl/webwn?s=coordinator
Participant	someone who takes part in an activity	http://wordnetweb.princeton.edu/perl/webwn?s=participant
Contributor	Someone who contributes (or promises to contribute) a sum of money	http://wordnetweb.princeton.edu/perl/webwn?s=contributor
Applicant	organisation that submits a grant application on behalf of a consortium, partnership or network of participating organisations; the applicant represents and acts on behalf of the group of participating organisation in its relations with the Agency; if the grant application is selected, the Applicant will become the main beneficiary (see Beneficiary definition below) and will sign the grant agreement on behalf of the participating organisations	http://eacea.ec.europa.eu/erasmus_mundus/tools/glossary_en.php
Reviewer	A person who writes critical appraisals of books, plays, movies, etc., for publication	http://www.google.com/dictionary?aq=f&langpair=en en&q=reviewer&hl=en
Funder	the organisation contributing all or part of the project's cost. The funder might be your own organisation and/or any combination of domestic or foreign source. The funding might be in any form e.g. grant, loan.	http://webarchive.nationalarchives.gov.uk/+http://www.dfid.gov.uk/aboutdfid/files/glossary_f.htm
Contractor	contractor - Any natural or legal person or public entity or consortium of such persons and/or bodies selected at the end of the procedure for the award of the contract. The successful tenderer, once parties have signed the contract.	ec.europa.eu/europeaid/work/procedures/implementation/practical_guide/documents/a1_glossary_en.doc
Subcontractor	A business or person that carries out work for a company as part of a larger project	http://www.google.com/dictionary?aq=f&langpair=en en&q=subcontractor&hl=en
Spin-Off		no specific source
IPR Claim	<p>1. The rights of creative workers in literary, artistic, industrial and scientific fields which can be protected either by copyright or trademarks, patents, etc.</p> <p>2. Tangible products of the human mind and intelligence entitled to the legal status of personal property, especially works protected by copyright, inventions that have been patented, and registered trademarks. An idea is considered the intellectual property of its creator only after it has been recorded or made manifest in specific form.</p>	http://www.newcastle.edu.au/service/library/tutorials/infoskills/glossary.html
Publisher	A person or corporate entity that prepares and issues printed materials for public sale or distribution, normally on the basis of a legal contract in which the publisher is granted certain exclusive rights in exchange for assuming the financial risk of publication and agreeing to compensate the author, usually with a share of the profits.	http://lu.com/odlis/odlis_p.cfm#publisher
	An entity responsible for making the resource available.	http://dublincore.org/documents/dces/

Curator	A person responsible for the development, care, organization, and supervision of a museum, gallery, or other exhibit space and all the objects stored or displayed in it, a role requiring considerable knowledge and experience when items are selected on the basis of artistic merit or connoisseurship. Also, a person in charge of a special collection, trained to assist users in locating and interpreting its holdings. the custodian of a collection	http://lu.com/odlis/search.cfm http://wordnetweb.princeton.edu/perl/webwn?s=curator
Reviewer	A person who writes a brief or extended evaluation of a new book or other creative work, usually at the request of the editor of a publication that includes reviews. Scholarly works are usually reviewed by the author's peers.	http://lu.com/odlis/odlis_r.cfm#reviewer
Author	The person or corporate entity responsible for producing a written work (essay, monograph, novel, play, poem, screenplay, short story, etc.) whose name is printed on the title page of a book or given elsewhere in or on a manuscript or other item and in whose name the work is copyrighted. A work may have two or more joint authors.	http://lu.com/odlis/odlis_r.cfm#author
Commissioner	is in principle the title given to a member of a commission or to an individual who has been given a commission (official charge or authority to do something, the noun's second meaning	http://en.wikipedia.org/wiki/Commissioner
Funder	a provider of funds as for the support of a charitable or nonprofit organization	http://www.yourdictionary.com/funder
Author's Institution	an organization founded and united for a specific purpose where the author has a relationship	http://wordnetweb.princeton.edu/perl/webwn?s=institution ; http://lu.com/odlis/search.cfm
Publisher's Institution	an organization founded and united for a specific purpose where the publisher has a relationship	http://lu.com/odlis/search.cfm ; http://www.yourdictionary.com/funder
Reviewer's Institution	an organization founded and united for a specific purpose where the reviewer has a relationship	http://lu.com/odlis/search.cfm ; http://lu.com/odlis/search.cfm
External Organisation	an organization founded and united for a specific purpose that is happening or arising or located outside or beyond some limits or especially surface	http://wordnetweb.princeton.edu/perl/webwn?s=External ; http://wordnetweb.princeton.edu/perl/webwn?s=institution
Part	something determined in relation to something that includes it	http://wordnetweb.princeton.edu/perl/webwn?s=Part
BuiltOn	informally, a form of succession	CERIF TG / euroCRIS
Succession	the action of following in order	http://wordnetweb.princeton.edu/perl/webwn?s=succession
Cooperation	cooperate - collaborate: work together on a common enterprise of project;	http://wordnetweb.princeton.edu/perl/webwn?s=cooperate
Originator	someone who creates new things	http://wordnetweb.princeton.edu/perl/webwn?s=Originator
Book	A collection of leaves of paper, parchment, vellum, cloth, or other material (written, printed, or blank) fastened together along one edge, with or without a protective case or cover.	http://lu.com/odlis/odlis_B.cfm#book
Book Review	An evaluative account of a recent book, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.	http://lu.com/odlis/odlis_R.cfm#review
Book Chapter Abstract	A brief, objective representation of the essential content of a book chapter, presenting the main points in the same order as the original but having no independent literary value.	http://lu.com/odlis/index.cfm#abstract

Book Chapter Review	An evaluative account of a recent book chapter, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.	http://lu.com/odlis/odlis_R.cfm#review
Inbook	A part of a book, usually untitled. May be a chapter (or section or whatever) and/or a range of pages.	http://en.wikipedia.org/wiki/BibTeX#Entry_Types
Anthology	A collection of extracts or complete works by various authors, selected by an editor for publication in a single volume or multivolume set. Anthologies are often limited to a specific literary form or genre (short stories, poetry, plays) or to a national literature, theme, time period, or category of author.	http://lu.com/odlis/odlis_A.cfm#anthology
Monograph	A relatively short book or treatise on a single subject, complete in one physical piece, usually written by a specialist in the field. Monographic treatment is detailed and scholarly but not extensive in scope.	http://lu.com/odlis/odlis_M.cfm#monograph
Referencebook	A book designed to be consulted when authoritative information is needed, rather than read cover to cover. Reference books often consist of a series of signed or unsigned "entries" listed alphabetically under headwords or headings, or in some other arrangement (classified, numeric, etc.).	http://lu.com/odlis/odlis_r.cfm#referencebook
Textbook	An edition of a book specifically intended for the use of students who are enrolled in a course of study or preparing for an examination on a subject or in an academic discipline, as distinct from the trade edition of the same title. Also refers to the standard work used for a specific course of study, whether published in special edition or not.	http://lu.com/odlis/odlis_T.cfm#textbook
Encyclopedia	A book or numbered set of books containing authoritative summary information about a variety of topics in the form of short essays, usually arranged alphabetically by headword or classified in some manner. An entry may be signed or unsigned, with or without illustration or a list of references for further reading. Headwords and text are usually revised periodically for publication in a new edition.	http://lu.com/odlis/odlis_E.cfm#encyclopedia
Manual	refers to a book or pamphlet containing practical instructions, rules, or steps for performing a task or operation, assembling a manufactured object, or using a system or piece of equipment. Used synonymously with handbook.	http://lu.com/odlis/odlis_M.cfm#manual
Otherbook	Uncertain of definition – originates from BibTeX	To books not specified other places?
Journal	A periodical devoted to disseminating original research and commentary on current developments in a specific discipline, subdiscipline, or field of study (example: Journal of Clinical Epidemiology), usually published in quarterly, bimonthly, or monthly issues sold by subscription (click here to see an example). Journal articles are usually written by the person (or persons) who conducted the research.	http://lu.com/odlis/odlis_J.cfm#journal
Journal Article	A self-contained nonfiction prose composition on a fairly narrow topic or subject, written by one or more authors	http://lu.com/odlis/odlis_A.cfm#article

	and published under a separate title in a collection or periodical containing other works of the same form.	
Journal Article Abstract	A brief, objective representation of the essential content of an article, presenting the main points in the same order as the original but having no independent literary value.	http://lu.com/odlis/index.cfm#abstract
Journal Article Review	An evaluative account of a recent of a newly published literary or scholarly work, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.	http://lu.com/odlis/odlis_R.cfm#review
Conference Proceedings	A proceeding is a collection of articles, published abstracts or posters gathered from a conference. Can have several editors.	Pure4 Working group - DK
Conference Proceedings Article	Articles that has been presented at a conference. Articles has been collected and published in a proceeding.	Pure4 Working group - DK
Letter	A letter (also known as "communication") is a brief description of important new research.	Pure4 Working group - DK
Letter to Editor	A letter, usually printed at the discretion of the publisher on the editorial page of a newspaper or magazine, in which a reader expresses his or her views on the subject of a previously published article or editorial, or on the editorial policy of the publication in general, sometimes followed by a brief response from the editor(s).	http://lu.com/odlis/odlis_l.cfm#lettereditor
PhD Thesis	Dissertation/Thesis that leads to the acquirement of a Ph.D. Degree.	Pure4 Working group - DK
Doctoral Thesis	Dissertation/Thesis that leads to the acquirement of a doctoral degree.	Pure4 Working group - DK
Report	A separately published record of research findings, research still in progress, or other technical findings, usually bearing a report number and sometimes a grant number assigned by the funding agency.	http://lu.com/odlis/odlis_R.cfm#report
Short Communication	A short communication is a concise, but independent report representing a significant contribution to a subject.	http://www.ejbiotechnology.info/iaformato/short_communications.html
Poster	A visual presentation of an academic subject presented at a conference.	Pure4 Working group - DK
Presentation	Uncertain of definition	Presentation as in a speech? Paper presentation at a conference?
Newsclipping	An article published in a newspaper, newsmagazine, or online news service, reporting the details of a current event or the latest information on a topic of general interest. News stories are usually short and often unattributed.	http://lu.com/odlis/odlis_N.cfm#newsstory
Commentary	A written explanation or criticism or illustration that is added to a book or other textual material.	http://wordnetweb.princeton.edu/perl/webwn?s=Commentary
Annotation	A brief note, usually no longer than two or three sentences, added after a citation in a bibliography to describe or explain the content or message of the work cited or to comment on it.	http://lu.com/odlis/odlis_A.cfm#annotation
Derived From	the source or origin from which something derives	http://wordnetweb.princeton.edu/perl/webwn?s=derivation
Part	something determined in relation to something that includes it	http://wordnetweb.princeton.edu/perl/webwn?s=part
Funder		
Male	a person who belongs to the sex that cannot have babies	http://wordnetweb.princeton.edu/perl/webwn?s=male ;

Female	a person who belongs to the sex that can have babies	http://wordnetweb.princeton.edu/perl/webwn?s=female;
Not-for-Profit	A non-profit organization (abbreviated as NPO, also known as a not-for-profit organization[1]) is an organization that does not distribute its surplus funds to owners or shareholders, but instead uses them to help pursue its goals.[2] Examples of NPOs include charities (i.e. charitable organizations), trade unions and public arts organizations. Most governments and government agencies meet this definition, but in most countries they are considered a separate type of organization and not counted as NPOs.	http://en.wikipedia.org/wiki/Not-for-profit
Academic Institute	Academic institution is an educational institution dedicated to education and research, which grants academic degrees.	http://en.wikipedia.org/wiki/Academic_institution
University	A university is an institution of higher education and research, which grants academic degrees in a variety of subjects. A university is a corporation that provides both undergraduate education and postgraduate education.	http://en.wikipedia.org/wiki/University
University College	The term "university college" is used in a number of countries to denote college institutions that provide tertiary education but do not have full or independent university status. A university college is often part of a larger university. The precise usage varies from country to country.	http://en.wikipedia.org/wiki/University_college
Strategic Research Institute		no specific source found
Research Institute	A research institute is an establishment endowed for doing research. Research institutes may specialize in basic research or may be oriented to applied research.	http://en.wikipedia.org/wiki/Research_institute
Company	A company is a form of business organization. In the United States, a company is a corporation—or, less commonly, an association, partnership, or union—that carries on an industrial enterprise." Generally, a company may be a "corporation, partnership, association, joint-stock company, trust, fund, or organized group of persons, whether incorporated or not, and (in an official capacity) any receiver, trustee in bankruptcy, or similar official, or liquidating agent, for any of the foregoing." In English law, and therefore in the Commonwealth realms, a company is a form of body corporate or corporation, generally registered under the Companies Acts or similar legislation. It does not include a partnership or any other unincorporated group of persons.	http://en.wikipedia.org/wiki/Company
SME	Small and medium enterprises (also SMEs, small and medium businesses, SMBs, and variations thereof) are companies whose headcount or turnover falls below certain limits. EU Member States traditionally have their own definition of what constitutes an SME, for example the traditional definition in Germany had a limit of 250 employees, while, for example, in Belgium it could have been 100. But now the EU has started to standardize the concept. Its current	http://en.wikipedia.org/wiki/Small_and_medium_enterprises ; http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

	definition categorizes companies with fewer than 10 employees as "micro", those with fewer than 50 employees as "small", and those with fewer than 250 as "medium".	
Government	A government is the organization, or agency through which a political unit exercises its authority, controls and administers public policy, and directs and controls the actions of its members or subjects.	http://en.wikipedia.org/wiki/Government
Higher Education	Higher education or post-secondary education refers to a level of education that is provided at academies, universities, colleges, seminaries, institutes of technology, and certain other collegiate-level institutions, such as vocational schools, trade schools, and career colleges, that award academic degrees or professional certifications.	http://en.wikipedia.org/wiki/Higher_education
Discipline Codes	i.e. Ortelius Classification, Artmis Frascati, DEWY, ...	
Application Codes	Vocabularies defined or developed for a particular application context, use-case.	CERIF TG / euroCRIS
Funding Programme	A Funding Programme is the source of financial means to a project, programme, equipment, event or any other structured scientific activity*. A Funding Programme is managed by a Funding Organisation.	http://www.eurocris.org/Uploads/Web%20pages/members_meetings/200905_-_Athens__Greece/Funding_Program_Workshop_Introduction_-_Geert_van_Grootel.ppt
Call	no specific source found.	no specific source found
Tender	1) An unconditional offer made by one to another to enter into the contract of transaction of goods or services at certain specified cost. Normally government bodies and business groups issues notices for quotes for specified goods or services from other businesses which is known as tender. 2) act of offering money or settlement for any dues or claims.	http://www.legal-explanations.com/definitions/tender.htm
Gift	A gift or a present is the transfer of something without the expectation of receiving something in return. Although gift-giving might involve an expectation of reciprocity, a gift is meant to be free.	http://en.wikipedia.org/wiki/Gift
Manager	someone who controls resources and expenditures	http://wordnetweb.princeton.edu/perl/webwn?s=manager;
Applicant	a person who requests or seeks something such as assistance or employment or admission	http://wordnetweb.princeton.edu/perl/webwn?s=applicant;
Contact	a person who is in a position to give you special assistance	http://wordnetweb.princeton.edu/perl/webwn?s=contact;
Contact	a person who is in a position to give you special assistance	http://wordnetweb.princeton.edu/perl/webwn?s=contact;
Manager	someone who controls resources and expenditures	http://wordnetweb.princeton.edu/perl/webwn?s=manager;
Issuer	an institution that issues something (securities or publications or currency etc.)	http://wordnetweb.princeton.edu/perl/webwn?s=issuer;
Responsible	being the agent or cause; worthy of or requiring responsibility or trust; or held accountable	http://wordnetweb.princeton.edu/perl/webwn?s=responsible;
Financier	Financier (pronounced /finən'siər/, French: [finã'sje]) is a term for a person who handles typically large sums of money, usually involving money lending, financing projects, large-scale investing, or large-	http://en.wikipedia.org/wiki/Financier

	scale money management.	
Cost Center	In business, a cost centre is a division that adds to the cost of an organization, but only indirectly adds to its profit. Typical examples include research and development, marketing and customer service.	http://en.wikipedia.org/wiki/Cost_centre_%28business%29
Applicant	a person who requests or seeks something such as assistance or employment or admission	http://wordnetweb.princeton.edu/perl/webwn?s=applicant;
Contributor	Someone who contributes (or promises to contribute) a sum of money	http://wordnetweb.princeton.edu/perl/webwn?s=contributor
Pending	awaiting conclusion or confirmation	http://wordnetweb.princeton.edu/perl/webwn?s=Pending
Awarded	give as judged due or on the basis of merit	http://wordnetweb.princeton.edu/perl/webwn?s=Award
Refused	refuse to let have	http://wordnetweb.princeton.edu/perl/webwn?s=Refuse
Funding Programme Document	the initial funding programme document	CERIF TG / euroCRIS
Call-Documents	the initial call document	CERIF TG / euroCRIS
Tender-Documents	the initial tender document	CERIF TG / euroCRIS
Gift-Documents	the initial tender document	CERIF TG / euroCRIS
Part	something determined in relation to something that includes it	http://wordnetweb.princeton.edu/perl/webwn?s=Part
Related	an abstraction belonging to or characteristic of two entities or parts together	http://wordnetweb.princeton.edu/perl/webwn?s=Relation