

Annex I

Description of Work

(Targeted Projects)

ECP-2007-DILI-527003

ARROW

Accessible Registries of Rights Information and Orphan
Works towards Europeana



eContentplus

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18.11.2007
[Signature]*

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0 Project Summary

European national libraries, publishers and collective management organisations, also representing writers – working through their main European associations and a significant number of national organisations – propose a targeted project to address in a single framework the fundamental issue of rights information management to underpin the digital library initiative. The challenges of orphan works, out of print books, clearance of protected material and interoperability between public and private collections can be overcome only through setting the **rights information infrastructure** that Arrow will deliver, moving towards a more inclusive digital library.

This infrastructure will include, but not be limited to, the creation of a European distributed **registry of orphan works** and access to **network of existing clearance centres** for out of print works, in line with the recommendation of the High Level Expert Group on Digital libraries. The system will also provide the infrastructure for the management of any type of rights information, so facilitating the actual implementation of innovative business models for both digital libraries and private econtent providers.

Key to achieving this objective is **interoperability, standards deployment, and stakeholder involvement**. The project will start addressing the problem of interoperability along the whole value chain of digital libraries as far as rights information and other content metadata are concerned. It will produce guidelines on applicable standards for content identification and description, and for technical interoperability, to enhance interoperability between public and private digital content collections. The analysis will be based on the concept of “business interoperability”: i.e. the capacity for independent **business models** and public missions to co-exist and grow in a single environment that allow users to access the different content and services regardless of their origin and nature.

The rights information infrastructure will facilitate the search for rightholders and the identification of public domain works, orphan works, out of print works and other copyrighted works, thus helping to manage a key risk in the digital library initiatives – a black hole of missing works that are impossible to digitise because they are in copyright but could be released for inclusion and access if only the rights information infrastructure existed. The broad involvement of rightholders, collective management organisations and libraries provides critical mass to approach the problem at pan-European level. Though inevitably the system will be based upon specific use-cases, it will envisage from the beginning a full European perspective.

1 Rationale and Objectives

1.1 Description of the issue addressed and the current situation (baseline)

Since the launch of the i2010 Digital Library initiative it has been clear that a key issue is the inclusion in the digitisation programmes of copyrighted works. Limiting the scope of online availability to public domain content would imply that “*for literature (...) only works from the early 1900s or before are available*”¹, thus creating what has been defined as the “black hole” of XX century cultural heritage. The challenge for online availability is thus to create an infrastructure that facilitates reaching “*agreements, on a case by case basis, with the rightholders*” (ibid), which are only possible if there are appropriate incentives, and thus reliable business models for commercial players to invest in that direction.

The project proposes an integrated solution to the two issues enlightened by the i2010 DL (orphan works and out of print works) by developing a technical and social infrastructure for the exchange of rights information enabling the creation of clearing mechanisms about literary works and an interoperable access to digital content offered by public institutions and private organisations. When establishing models for databases and rights clearance centres for orphan works and out-of-print works the project will observe criteria currently being devised by the i2010 Digital Libraries High Level Expert Group (HLEG), Copyright subgroup².

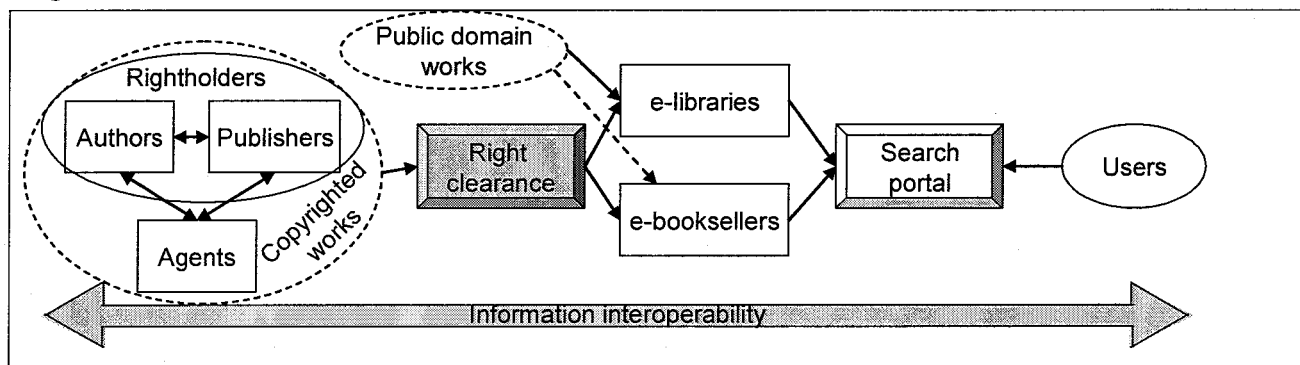
¹ COM(2005) 465, http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm, hereinafter referred to as [i2010 DL].

² European Digital Library Initiative, High Level Expert Group (HLEG) - Copyright Subgroup, *Report on Digital Preservation, Orphan Works and Out-of-Print Works, Selected Implementation Issues* (Apr 07).

1.1.1 Challenges in managing rights information

The project approach is based on the analysis of the econtent value net¹ (see Fig. 1). Users look for content through search portals in order to discover the available content, which could be found both in library and e-retailers collections. Such collections are fed with content that can be copyrighted or public domain. The simplification that copyrighted content will be found in commercial collections and public domain in digital libraries is misleading. Libraries may include copyrighted works (in particular but not exclusively: orphan or out of print works, or works released under creative commons license by rightholders) for which they have cleared the rights, under the relevant legislation and licensing scheme. E-retailers may have in their collections public domain works, for example whether annotated or illustrated. Along the whole process, there is a lack of interoperability in the information exchange among all the players in the value net.

Fig. 1 – The econtent value net²



In this framework, the first need is to increase clarity about the copyright status of works, which is essential for delivering comprehensive online access to digitised content. Libraries need to know the copyright status of works they are planning to digitise and make publicly available. In many cases rightholders (or their agents, including Collective Management Organisations - CMO) can be identified, located, and approached for copyright permission but these procedures are often both time consuming and expensive. In other cases rightholders cannot be identified or located even after very diligent search. Works can then be classified as "orphan" and currently can not be used or digitised with legal certainty, and must remain inaccessible to users.

How relevant this problem is in the development of European digital libraries is widely emphasised by the *i2010 DL* Communication: "The clarification and transparency of the copyright status of works is very relevant. In some cases, the costs of establishing the IPR-status of a work will be higher than its digitisation and bringing it online". Beyond orphan works, further problems are related to "out-of-print" works, defined as "work that are not commercially available, as declared by the appropriate rightholders" for which "a solution is required to facilitate the digitisation and the making available (...) to users by libraries"³.

1.1.2 Business models and interoperability issues for copyrighted works access

On the other side of the value net, the project will explore possible business models facilitating co-existence and interoperability between public institutions and commercial publishing initiatives. The purpose is not to homogenise business models, which is neither realistic nor desirable, but to valorise cultural, economic and social diversity making the different options interoperable. In Europe, besides the digital libraries initiatives, different solutions driven by the private sector are emerging. In Germany the publisher association launched the Libreka platform (www.libreka.de, formerly VTO - VolltextSuche Online) where participating publishers

¹ The concept of "value net" instead of the "value chain" increases understanding of the value system in markets not characterised by linear relationships, as the chain metaphor suggests. See C. Parolini, *The value net: A Tool for Competitive Strategy*, New York, J. Wiley, 1999.

² The figure is an elaboration of the model proposed by D: Zwirn, *Etude en vue de l'élaboration d'un modèle économique de participation des éditeurs à la bibliothèque numérique européenne* (Europeana), Paris, Apr 2007 (<http://www.bnf.fr/PAGES/catalog/pdf/EUROPEANA-NUMILOG2007.pdf>).

³ European Digital Library Initiative, High Level Expert Group (HLEG) - Copyright Subgroup, *Report on Digital Preservation, Orphan Works and Out-of-Print Works*, cited. In principle, books (i.e. the individual manifestations of abstract works) are out of print and not works. However, the mentioned definition makes it clear that a work itself may be "out of print" if there are not (printed or digital) manifestations derived from that work commercially available.

offer end users a full text search within their books; in Norway the national library, authors and publishers associations and one collective society signed an agreement to provide some forms of access to the full text via the library services¹; in France a joint initiative between the national library and the publishers association is leading a one-year experiment from March 2008 (<http://gallica2.bnf.fr/>) which allows the access of several thousands of copyrighted books recently published via some e-retailers' websites².

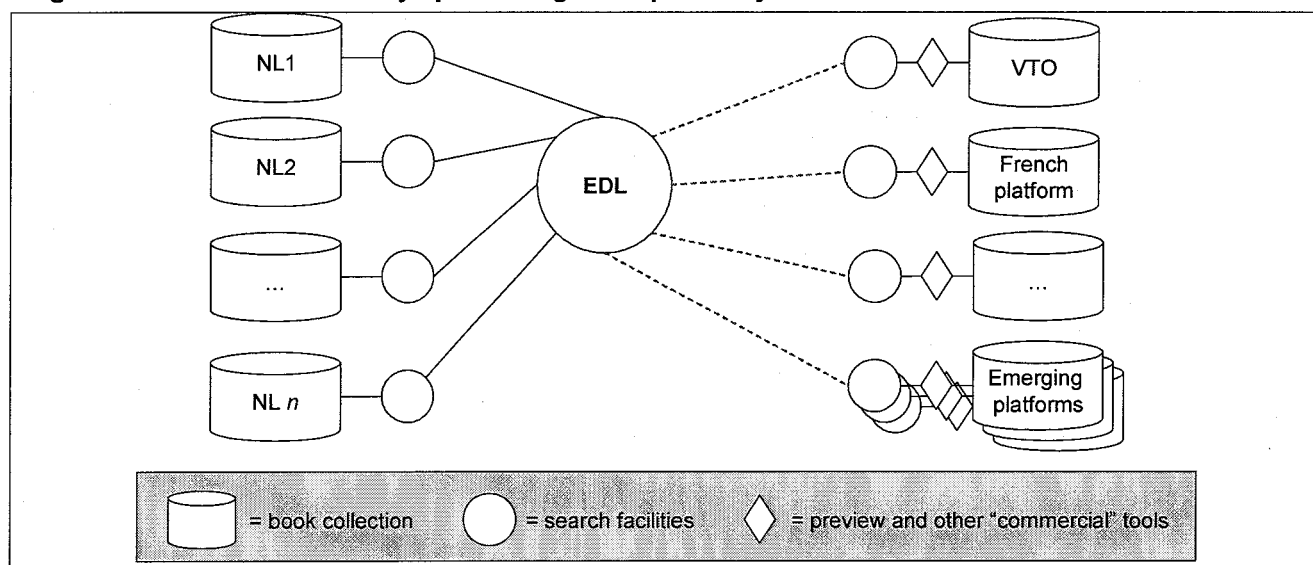
The current situation is described in fig. 2:

- Digital libraries offer book collections at national level (NL n in the left side of the graph), freely accessible by users; each library also has its own search facilities to help users to find what they are looking for;
- The EDLnet Thematic Network project is implementing an interoperability model and common access point to the European institutions (libraries, museums, archives and audio-visual archives), named Europeana;
- At the same time (right side of the graph), there are private initiatives that offer the possibility to search book collections and to access at defined conditions, usually not for free. the related books.
- Such platforms have an additional component: they must offer "commercial" elements that make the collections appealing for potential customers. A peculiar element is the "preview system", which allows users to have glance of the book but not to access the full text. Libraries do not need this, since they offer full text access since the first step.

There are two issues still not solved in the current situation:

- First, the two sides of the figure are not dialoguing due to the fact that the private and public initiatives are not interoperable.
- Second, the private offer is still characterised by high level of fragmentation and lack of co-ordinated approach at European level. Furthermore, in many countries it is difficult for the industry to afford the high investments necessary to implement these types of initiatives.

Fig. 2 State of the art of library / publishing interoperability



1.2 Description of the project objectives

Project objectives are defined to address the two issues described above.

1.2.1 An infrastructure for rights information

The project proposes the creation of a distributed network of national databases containing information about the rights status of works. The registries will contain information about works in public domain or in copyright, related to books both in print and out of print, and about relevant rightholders and possible status of orphan works. The purpose is to create tools allowing different solutions implemented in different Member States to

¹ The text is available from www.european-writers-congress.org/upload/Avtale.pdf.

² See D. Zwirn, cited. The platform has been launched at the Paris Book Fair in March 2008.

be interoperable, thus directly meeting the recommendations of the High level expert group (HLEG) nominated by the European Commission for the purpose¹. This also means that the final architecture of the system can not be completely designed a priori, since it must take into consideration the actual national solutions that are under development. Only at the end of the first phase of the project the architecture will be designed in detail (see WP5).

The system will also provide valuable tools for both public and private organisations who wish to contact active rightholders to seek copyright clearance for the reuse of content².

Currently, there are no rights information sources, despite the fact that in many countries good bibliographic resources exist that provide rich information about books in print and, to a lesser extent, out of print. Nevertheless such resources are not homogeneous and in some countries (particularly new EU members) databases are not as reliable as in others. Above all, they are not interoperable, because of differences in the data collection policies and metadata schemas adopted. Though bibliographic databases may have comprehensive information on in print books and territorial sales rights, they rarely contain metadata about rights ownership and usage policies. Such information is held instead in a wide array of different formats by publishers, collecting societies, and authors that make them difficult to be accessed. The project aims at creating interoperability among all different sources and – when necessary – to enrich metadata by creating infrastructures that allow rightholders to declare their rights and users to provide information during the searching process for rights, thus enhancing the system according to a cooperative model.

Once identified the rights in a work, if in copyright, they need to be cleared. The project aims to test out rights clearance models, for orphan works and out-of-print works, based on both direct licensing and voluntarily established rights clearance centres to support direct licensing when appropriate, as suggested by the i2010 Digital Libraries HLEG. The rights clearance centres established nationally will take existing databases as a starting point and interlink them. Depending on their mandates, rights clearance centers are foreseen to grant authorisation, redirect to rightholders, to other authorised databases or rights clearers, or deny the licence. A European network of national rights clearing centers will be created by the interlinking of databases and solutions.

1.2.2 Enhancing business interoperability between public and private e-content

As for the second issue enlightened in 1.1.2, Arrow will provide schemes and guidelines to facilitate existing and emerging initiatives to interoperate. Two aspects are crucial: interoperability and business models. Keywords of the project are thus standardisation, interoperability and stakeholders collaboration. In the last decade, there have been many initiatives for standardisation of different aspects of communication flows within the book world. However, not always commercial publishers and the public sector were able to collaborate on this purpose. The Arrow project represents a change in this respect, starting from the nature of the consortium, which is widely representative of the different communities involved: libraries, rightholders and CMOs.

The described characteristics of the project directly comply with the objectives of the 2007 eContentplus work programme. We “*aim to solve specific known problems [rights information and business models] by pooling together the resources of interested participants in a consortium*” (§2.2). A key value of the project is precisely in that: it is probably the first time that representatives of *all* the stakeholders in the book value net are involved in a single initiative at such a large scale. The publishers, Reproduction Rights Organisations (RROs) and national libraries are involved in the project at very high level, both through European organisations and individual representatives, thus providing a clear *European dimension* to the project.

Standards deployment and interoperability – in particular across borders, languages and cultures, and between public and private collections – are other keywords we share with the work programme. Interoperability between public and private digital collections is the first objective requested for the targeted

¹ “Any solution adopted in a Member States should be interoperable with those adopted in other Member States so that the mechanism fully supports the Digital Library Initiative” (Ibid).

² After the original draft of the Arrow project, two projects in the USA have been launched with the same objective but with slightly different approach. DiscoverWorks (www.discoverworks.org) is an open, community-based web-site where anyone can post or find copyright information and metadata about all kinds of content - books, images, music, etc. In parallel, the OCLC is planning the creation of a Registry of Copyright Evidence (www.oclc.org/programs/ourwork/infrastructures/newservice/copyright.htm) to store and make available rights information at single work level. Though sharing some key elements with Arrow, and in particular the concept that “orphan work” issue should be afforded first trying to “*save the parents*”, i.e. through discovering rightholders, the two projects are different from Arrow because of two aspects: first, in the US there is a centralised approach while in Europe a distributed approach is necessary, to better deal with multilingualism and cultural diversity; and second, the existence of two projects, not co-ordinated (at least currently), is a weakness that Arrow has not, since it involves since the beginning all the relevant stakeholders.

project in the domain of digital libraries (§ 5.2 of the work programme). The project also approaches the other two issues focused by the action line: “*business models enabling access to copyrighted works*” and, in particular, “*creation of databases and testing of clearance mechanisms for out of print and/or orphan works*”. Our principle is that the issues focused are very interconnected and should be addressed together: before establishing clearing mechanisms, it should be clarified which are the business models underlying the rights requests. Interoperability between different resources needs to fit the requirement of the outlined business framework: otherwise the risk is to create tools for interoperability that nobody has the incentive to use. Likewise, both the creation of registries containing rights information about works and the interoperability among private and public digital collections should be based on the analysis of existing metadata sources and digital objects related to works. By addressing the two issues at once, the project will exploit synergies, maximise the outcomes and avoid duplication of efforts.

1.3 Expected results

A distributed network of sources for information on copyright status and data about European literary works, to be used in the process of digitisation to facilitate the identification of relevant rightholders, and a set of guidelines to foster interoperability between private and public collections (regardless the right statuses and the type of access provided) are the core results expected at the end of the project.

Ideally, libraries wish to digitise books contained in their collections. To do this, they have to pass the following steps:

1. Identify the underlying work(s) incorporated in the books planned for digitisation;
2. Identify if the underlying work is in public domain or protected (or a work already defined as “orphan”), and if it is in print or out of print.
3. Describe in unambiguous way the use that is requested (e.g. the library may have plans for digitisation within preservation programmes, or on line access with certain characteristics, or electronic document delivery, etc.).
4. Identify the appropriate rightholder(s) or rightholders’ agent (e.g. a collecting society).
5. Ask for appropriate permission.

Not surprising libraries declare that such a long procedure is even more expensive than the digitisation itself. And for protected works the cost for handling the procedure are often higher than the fee requested by rightholders. The set-up of rights clearance services is therefore essential to enable libraries to make available their content to final users.

The relevant contribution of the Arrow project is the management of the complex workflow that comes out from merging the processes described through the use cases below.

The Arrow system will serve libraries during the first four steps above mentioned, helping the dialogue with rightholders, leaving to the parties the final negotiation, within potentially different business frameworks. For the first step (see Fig. 3, Process 1) libraries will ask the system to identify the underlying work(s) incorporated in the book they wish to digitise. Searches are triggered by using bibliographic metadata or standard identifiers such as ISBN or ISTC. Usually, libraries will have an ISBN (for books published in last decades) or some key metadata which are referred to a specific edition of the work. To ask permission and to avoid double digitisation, they have to know the respective work. In terms of standard identifiers this may be translated into: “get the ISTC from an ISBN”. The Arrow will allow libraries to query the existing data resources to identify such a relation. There are two issues that the project must address:

- a) The ISTC, as said, is just being implemented now, and thus only partial information about the relations between ISBNs and ISTCs are currently available;
- b) The possible existing resources to be queried are many, and currently not interoperable.

The project will afford the two issues. Essentially, the system will discriminate between the existing resources to query, taking into account the different infrastructures in place in the different countries. There could be databases of different kind: books in print, RRO repertoires, national bibliographies (and in perspective the ISTC databases as such), and in every country the situation is different. Furthermore, some of these resources are freely available, others are accessible on charge. The preliminary analysis will clarify which is the situation in the countries involved, so to maximise the efficiency of this phase, and to establish a business framework for that¹.

¹ The situation is on rapid evolution. For instance, Nielsen BookData (the producer of the UK books in print) announced the intention to assign ISTCs to all the bibliographic titles in their database, enriching the “ISBN based” db with ISTC data, and thus allowing discovery

Once libraries have queried the system, they may receive two different answers:

- i) the system is able to provide an ISTC;
- ii) the system is not able, since there is not ISTC already registered for that work.

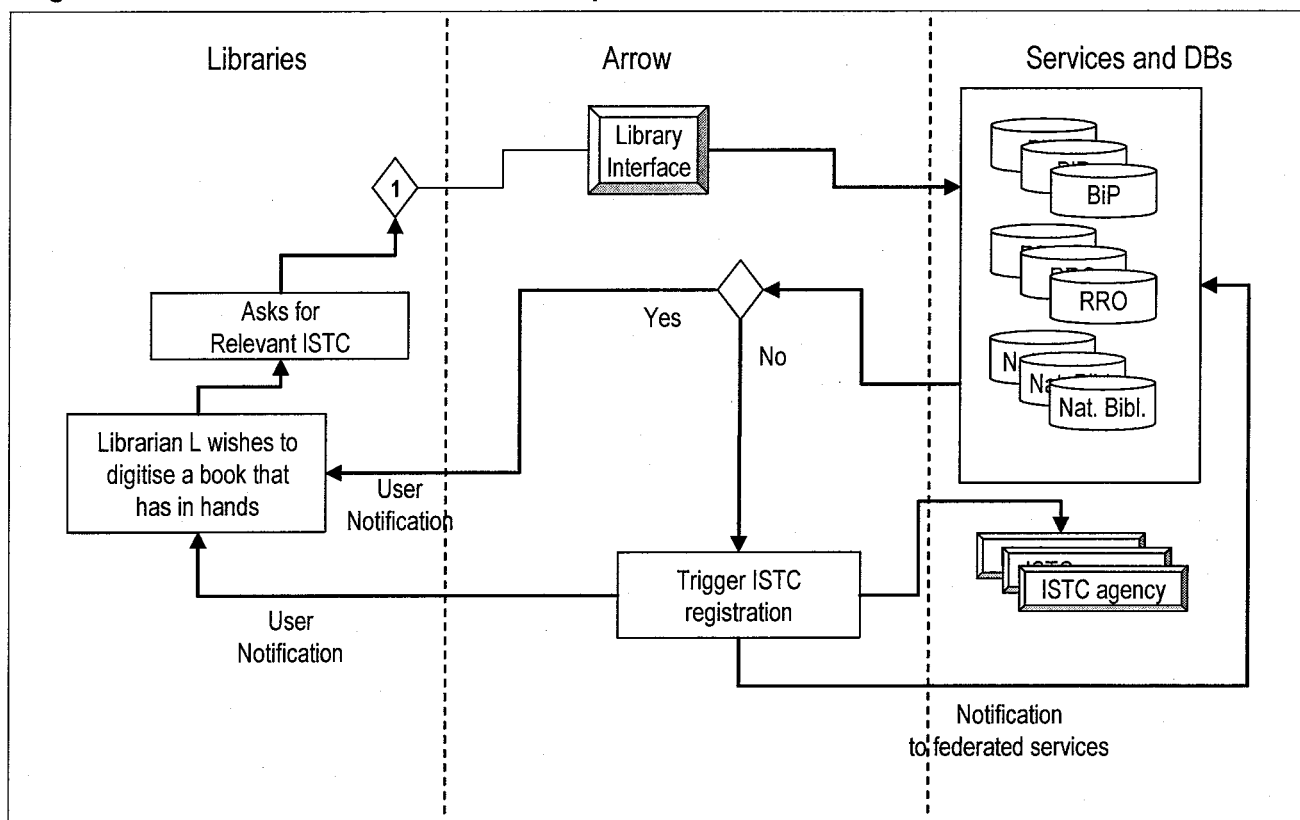
In this second case, the Arrow system will trigger the ISTC registration to the appropriate registration agency, and a new number associated to the selected book will be registered. The value of receiving – in all cases – an ISTC is that this can be employed by the librarian in order to check if the work is already available in digital form, whether it has been already digitised by a library or is available in a publishing digital collection. It is impossible to use directly the ISBN for this purpose, because the standard mandates to have different ISBNs for the digital edition of a work already published in print¹.

The main difficulty in this phase is related to the introduction of the new standard. However, as any other new procedure to obtain the same result should pass through a start up phase as well, it is preferable that relevant player start using a standard tool, which, on the long term, provides added value, e.g. for tracking the relations between the different manifestations of the same work.

In any case, the Process 1 will end with the communication of the information retrieved (the relevant ISTC, if newly registered) to the federated resources (services and DBs), so to enrich them and make the information stably available for new queries.

This phase also implies some issues related to mapping between existing bibliographic resources and rights information databases (existing or under development). More precisely, the issue to be approached is to integrate bibliographic and rights information within the Arrow system. This objective will be achieved using the same standard identifiers (ISBN and ISTC) as unique keys to access bibliographic and rights databases and through tracking relations between the two, as the rules of the two ISO standards provide as mandatory.

Fig. 3 - Arrow Process 1. Work Identification process



Once one work is correctly identified with a standard and unique number and this is used to identify such work across bibliographic repositories and rights repertoires, mapping the whole set of metadata is unnecessary, since different information (bibliographic or on rights) can be retrieved using the identifier as primary key to query different resources.

of the relation. Similar approach is expected by other bibliographic database owners, at least in commercial and CMO environment.

¹ Though this value added service – to allow checking existence of selected work in digital form, so to save the cost for digitisation – is not included in the Arrow project, the use of the described methodology may facilitate its future development.

Some need for mapping metadata schemas still remain as far as the first steps of the process are concerned, in particular when the request for work identification come from a book without an ISBN, which can be very frequent in library collections, with book published before the creation of the standard. However, the need for such mapping is limited to a core set of metadata with the sole purpose of unambiguous identification, and this is much easier than a full mapping of complete metadata records. The experiences in this field¹ clearly demonstrated that although full mapping between two or more schemas can be very difficult when not impossible, this is not true if you consider only few metadata with the purpose of identifying (i.e. unambiguously distinguishing one entity from another) and not of describing. Furthermore, existing bibliographic resources are usually already built on (or interoperable with) a limited number of standard schemas, which have been already mapped at this level. Reference schemas will be – inevitably – the “ISBN core metadata schema” and the ONIX for ISTC, which are already conceived as interconnected.

At this stage Process 2 will start (Fig. 4). Libraries need to acquire the permission to make a certain use of a work (identified according to Process 1). This may or may not include the digitisation but in any case does include a use (e.g. make the content available on the Internet, store the content for preservation purposes, etc.) that should be clearly defined.

The first value offered by the Arrow is precisely to support the library to express the request for permission in standard and unambiguous form. This must be done since the very beginning, when searching for the rightholders, since different people may be in charge of authorising different uses.

Once the use is defined, the library will query – through Arrow – the resources where the information about the right status of the work could be stored. Once again, which resources are relevant is something that shall be defined in the first phase of the project, where also the interoperability issues among the existing databases will be afforded in order to ensure federated search.

The first search performed in Process 2 will produce one of the following results:

- a) the rightholders is known, which is to be articulated into two cases:
 - a.1) the work is commercially available: the library will be redirected to the relevant rightholders who control the right for the specific use
 - a.2) the work is “out of print”: the library will be redirected to the relevant clearing service to acquire the right for such specific category of work (see below)
- b) the rightholders is unknown within the Arrow federated system.

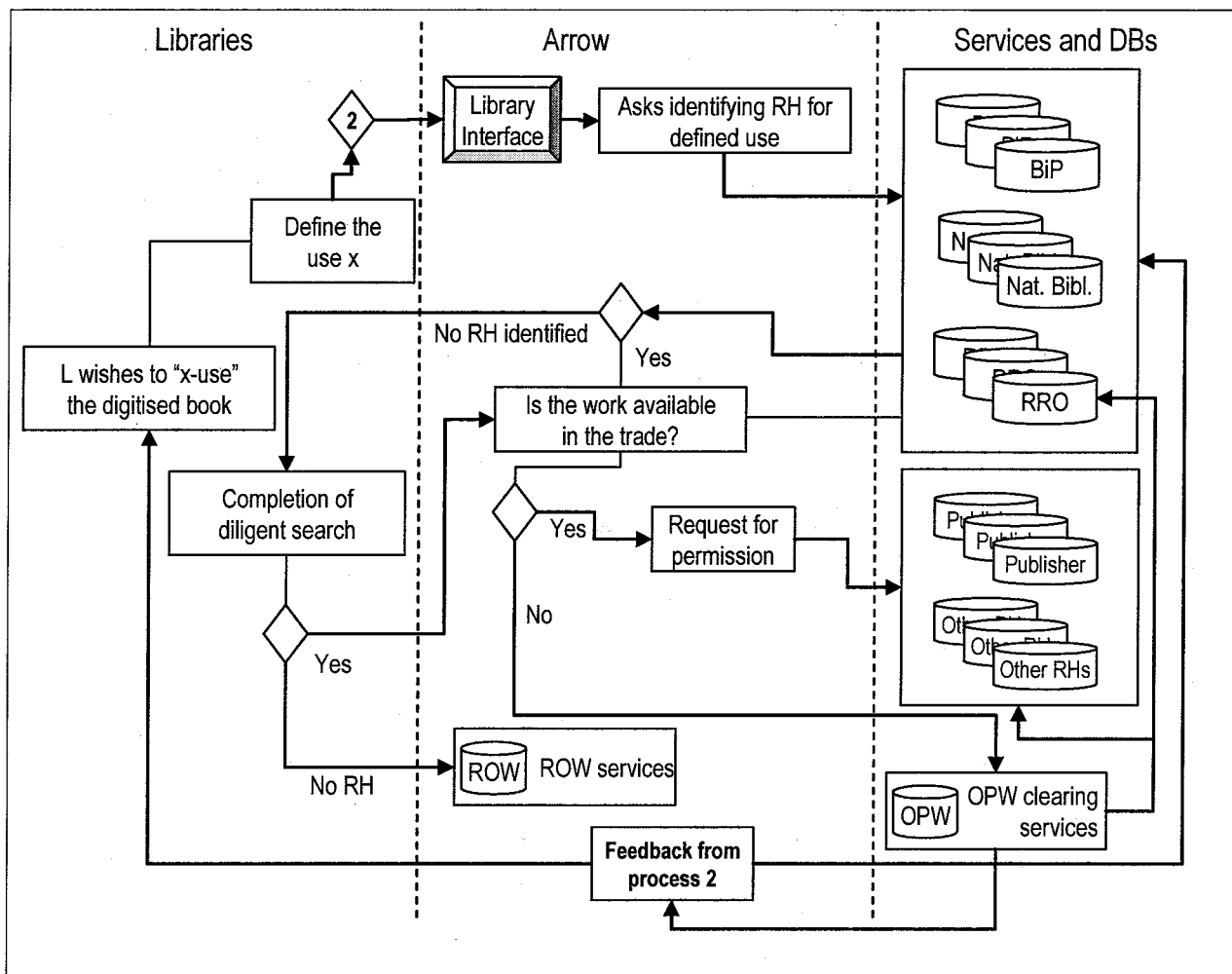
In the first case, an issue is how to manage the required redirection, in particular for the case of out of print work, following the guidelines adopted by the Copyright Subcommittee of the High Level Expert Group. There are two problems to be considered: which are the information necessary to activate a consistent redirection to the appropriate clearing center (or even to the individual rightholder or his/her agent) and which technology is more effective to be used for redirection. Both elements will be defined in the WP devoted to the architecture design on the basis of the following principles:

- On the first point, the information to be collected will be different country by country in respect to possible national solutions that will be adopted for clearing centers. For instance, in a country that adopts an “extended collective license” system, it would be sufficient to identify that the relevant rightholders are of that country to identify the appropriate clearing center; in a country that requires individual mandates, it is necessary to collect specific information from the repertoires of the potential relevant clearing centers. And so on. The system will define which information should be searched for in the different circumstances to be consistent with the objective.
- On the second point, the best technological solutions will be defined after appropriate evaluation of existing options, within the principle that this should be standard and open. In particular, it will be assessed the possibility to use “resolution mechanisms”, like that provided by the DOI or in general by the Handle technology, in order to provide solutions that allow rightholders to manage also such redirection in a dynamic way. Such technologies allow linking any type of information or resource directly within to the standard identifier, so that rightholders can link information about appropriate agent(s) to be asked for permission directly within the standard identifier of that work, e.g. using combination of ISBN and/or ISTC with DOI (or similar)².

¹ See, for example, the MARC / ONIX mapping provided by the British Library, the Library of Congress and OCLC, see: <http://www.editeur.org/onixmarc.html>.

² An example of such technology is the so called “Actionable ISBN”, or ISBN-A, which has been implemented by mEDRA (the company

Fig. 4 - Arrow Process 2. Identification of RH(s) and request for permission



In the second case, the library will be asked to complete the due “diligent search”. The concept of diligent search represents the checking protocol that stakeholders have to respect in order to be granted with the permission of declaring that a given work is orphan. The definition of such protocol and of the associated activities are independent from the Arrow project and have to be legally formalized within each country by the appropriate authorities. Arrow could and will serve these processes, but cannot substitute them. When completed the diligent search, the librarian is enabled to communicate to Arrow its results, providing data about the rightholder (if found) or the data for the inclusion of the work within the Registry of Orphan Works (ROW). It is worth to notice that the ROW will not be sort of “official” registry, with direct legal force, but a repository of evidences “declared” by someone. In the described use-case, the stored information is: “the Library L1 declares to have completed a diligent search on Work W1 without finding rightholder for the Use U1”

Both for cases a) and b), the collected information will be available for the following users: when the rightholder is found, this will be communicated to the federated databases, in the opposite case the ROW will be publicly available so that any interested party can access and possibly query the system to gather information or to add further declaration on copyright status, through the Process 3 (Fig. 5)

This will start when rightholders check registered information about their books. Prior to this, they will receive the ISTC of their work in similar way as described in Process 1, in order to have again a reliable work identifier independent from the manifestations of the book.

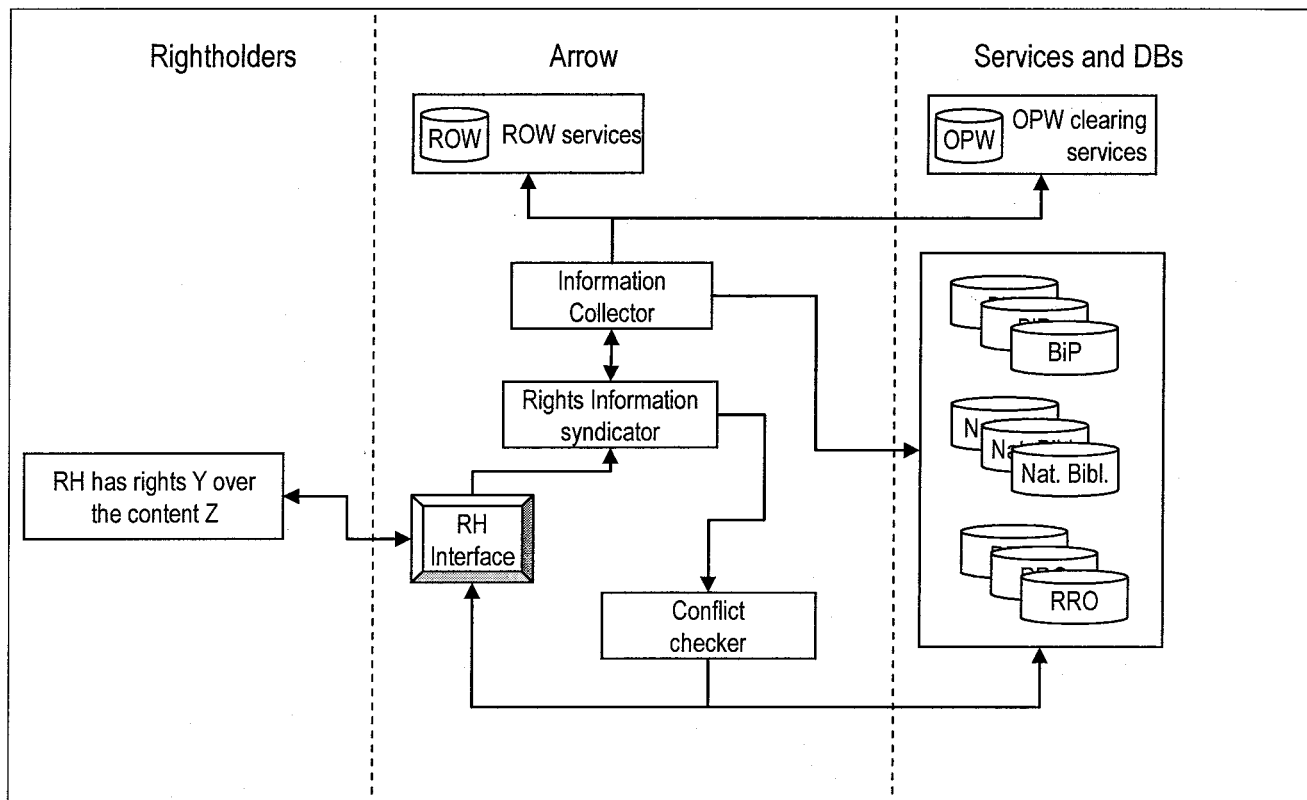
Within Process 3 authors and publishers can query through a single access point the different metadata repositories available: the one internal to Arrow (the ROW) and the external ones.

owned by two ARROW partners: AIE and Cineca), in collaboration with MVB in Germany. All the expertises developed in that project are thus present within the consortium.

During this process, the Arrow system will check the consistence of the retrieved information in order to notify possible conflicts to the appropriate federated services.

Finally, when the existing information have been collected and checked, RHs may desire to update or amend them. In this case Arrow will redirect the RH to the appropriate service and will provide tools for sending messages on right declaration in standard format. Once again, the system will manage declaration on rights and not information on the official rights status. Using standard message and dictionary for such declaration facilitate to point out possible conflicts in the declarations (e.g. two people claim to be exclusive owner of the same right on the same work).

Fig. 5 - Arrow Process 3 (Check for existing rights information)



This comprehensive system will be enriched by further results:

- *Guidelines for the identification of the status of an individual work.* Which problems are involved in the definition of a work as "public domain"¹? Which is the sufficient due diligence to be applied before defining a work as orphan? And so on. The guidelines will be based on the solution developed by the copyright subgroup and approved by the High Level Expert Group established under the i2010 digital libraries initiative and endorsed also by the European Commission test regarding diligent search for rightholders for orphan works as well as those for orphan works and out-of-print works databases and rights clearance centres. These solutions have been recently approved and endorsed by all the relevant stakeholders also present within the ARROW project and thus there is no intention to restart the discussion about. However, it will be useful to observe the actual acceptance at national level so that the deliverable is conceived as a tool to support relevant players in the individual EU member states to transform the general principles into practice.
- A European *Registry of Orphan Works* (ROW), made up of federated national registries, where works for which the search for rightholders have been duly completed without results will be identified and described with appropriate metadata. The ROW will be freely accessible online, through multi-lingual interface, in order to allow reaching such information by all interested parties, including rightholders that have not been identified to claim their rights even in late stage. The management of the ROW may involve the establishment Rights Clearance Centres for orphan works (OW) and, when appropriate, to

¹ "Even if works are out of copyright, the situation is not always straightforward. There may be rights attached to the different editions of a work that is itself no longer protected by copyrights, for example rights to introductions, covers and typography" [2010 DL].

support direct licensing of out-of-prints works (OPW). Therefore, criteria to be followed by Rights Clearance Centres (e.g. an RRO), when clearing rights for OW and OPW, will be established and tested.

Comprehensively, this system will form a European “**rights information infrastructure**”, which is the main expected result of the project. However, working on interoperability of rights metadata also requires to cope with many problems related to metadata exchange among all the players in the value net that are the basis to provide interoperability also for the final part of the chain: the possibility for users to access through a single point content resident in a number of platforms.

Therefore, the WP4, devoted to interoperability, will produce also guidelines on identification standards, metadata schemas and web resolution mechanisms to allow existing and emerging platforms (see Fig. 2) to become interoperable and thus to join – for example but not limited to – the Europeana system as developed in the EDLnet project.

From a technical point of view, the Arrow project will develop an architecture which is responsible of orchestrating the above described workflow. Since it is not the purpose of the Arrow project to maintain works metadata in a new database, such an architecture will meet all the architectural requirements proper of federated search engines: it will act as a bridge between the available external repositories and will provide the support for the execution of the mentioned processes so as to collect the results of its activities within the Registry of Orphan Works. In developing this architecture we will exploit the available technologies that are described in Section 7.2.

To obtain this, the project will provide a set of guidelines for the different players along the value chain. This will encompass:

- A complete set of *guidelines on applicable standards* for public and private online collections, in relation to identification and description (metadata) for *products, works and parties*, right expression, formats, protocols and network resolution mechanisms.
- Guidelines on “business interoperability”, i.e. the capacity of coexistence among different business models (commercial, public sector, etc.) in the field.

The access to the full text of content involved will be under the different conditions set by rightholders or libraries, and thus may be free of charge or with payment according to different models. Arrow will define, on the basis of preliminary studies already conducted¹ and on the existing experiences, in particular the German Libreka, the national library of Norway and as well as the French experiment “Gallica” led by the Bibliothèque nationale de France and the publishers association (all involved in the project), a number of business models to make the digital content available to users. These models will provide a framework for copyrighted content aggregation with different possibilities regarding the standards used by publishers to provide the content, the storage and access facilities for the digital files, and the mechanisms available to end users in order to retrieve the content (authentication, subscription to a collection, pay per download, pay per view, etc.). The business models definition will also provide insight on estimated costs for access to digital copyrighted works and how these costs can be distributed among the players of the value chain, from the author to the end user, and the role played by the digital library in this regard. The actual implementation of business models requires the use of rights information so that the rights information infrastructure also will facilitate interoperability in the final phase of the chain.

Two simple examples may illustrate the point: in the Norwegian initiative, content is available in the national library under certain conditions, e.g. users can not download and printout content (clause 3.2 of the cited agreement), while in another platform download may be available at a price; in the experimental French platform, Gallica, potentially enables access both to public domain digitised documents, available for free in a library collection, and to commercial versions of the same works sold at a price, since enriched with other content (e.g. notes, comments, illustration, etc.) by commercial publishers, via some e-retailers' websites. In both cases interoperability can be reached using elements of the Arrow system: expression of usage terms in the first example and relations between work and individual versions of that work in the other case.

As a whole, the Arrow infrastructure will enhance solutions that facilitate any user, once has selected a book of interest, for example through the Europeana system, to be redirected to the appropriate service, within the network, having the possibility to view the full content according to the corresponding business model. This will be achieved by the definition of guidelines for technical interoperability (metadata, protocols...) to facilitate the aggregation of multilingual content both copyrighted and public domain in a common interface,

¹ See in particular the § 3.7.2. of the cited study by D. Zwirn.

and the effective implementation of a variety of different business models as most suitable to different European countries with different publishing policies.

Such guidelines will directly stem from the preparatory work for designing the ARROW system, which can be seen, at the end, as a set of tool for interoperability. The whole process is:

- the need for interoperability will be defined at technical and business level through detailed analysis of the systems in use by different players (publishers, libraries, CMOs, etc.) and the objectives to be achieved (who should interoperate with whom, and for what);
- the ARROW system will be defined with the goal of solving such concrete needs and thus is conceived to make all the reference resources interoperable;
- the guidelines will be defined within this scheme, and will provide any other player wishing to join the system or to use the individual tools, with specifications to do so with minimum effort.

The peculiar value of the Arrow guidelines on Interoperability, in comparison with that already existing (in particular those produced within the EDL / TEL initiatives), is that they will take into consideration the viewpoints of all the players involved in the chain, from authors to libraries. Besides more common "horizontal" interoperability among initiatives coming from the same environment in different countries (e.g. libraries or commercial databases that speak the same language), Arrow will focus sort of "vertical" interoperability, considering the value chain issue, and combining with the "horizontal" one.

Dissemination of guidelines is always an issue and it is difficult to envisage how to transform them into practices. The Arrow approach is that the link between "business interoperability" and "technical interoperability" would be the basis for following outreach. Business models (both for public sector and for commercial players) have to provide concrete incentive for the adoption of guidelines. For this reason, the dissemination strategy for interoperability guidelines will be based very much on the value provided to the respective business models to the different players in the value chain.

1.4 List of participants

List of Participants					
Partic. No	Participant name	Country	Role in the project	Date enter project	Date exit project
1	AIE - Associazione Italiana Editori	Italy	Co-ordinator; leader of WP1 (management). Standardisation and legal expert	1	30
2	BNF - Bibliothèque Nationale de France	France	Leader of WP 4 - Content provider, interoperability and standardisation expert, legal expert	1	30
3	IFRRO - International Federation of Reproduction Rights Organisations	Belgium	Leader of WP2 - Dissemination and awareness; legal and standardisation expert	1	30
4	FEP - Federation of European Publishers	Belgium	Leader of WP3 - Business model and legal expert. Dissemination	1	30
5	BL – British Library	United Kingdom	Content provider – Interoperability expert	1	30
6	NUK - Narodna in Univerzitetna Knjiznica	Slovenia	Content provider – standardisation expert	1	30
7	BNE – Biblioteca Nacional de Espana	Spain	Content provider – interoperability expert. Use case for validation	1	30
8	DNB – Deutsche Nationalbibliothek	Germany	Content provider – Use case for validation, Interoperability expert	1	30
9	MVB – Marketing und Verlagsservice des Buchhandels	Germany	Leader of WP 5 – Content provider. Standardisation and business model expert	1	30
10	FGEE – Federación de Gremios de Editores de Espana	Spain	Standardisation and legal expert. Data provider. Dissemination	1	30
11	NUMILOG	France	Technical expert; content provider; use case for validation	1	30
12	CINECA – Consorzio Interuniversitario per il Calcolo Automatico dell'Italia Nord Orientale	Italy	Leader of WP 6 - Technology provider	1	30
13	CLA - Copyright licensing Agency	United Kingdom	Data provider. Legal expertise. Use case for validation	1	30
14	NLN - National Library of Norway	Norway	Content provider. . Use case for validation	1	30
15	UIBK - Universität Innsbruck	Austria	Leader of WP7 - Content provider. Involvement of the EOD network	1	30
16	KB - Koninklijke Bibliotheek	The Netherlands	Interoperability expert	1	30

2 Contribution to programme objectives

Arrow stems from high level discussion among all the relevant stakeholders at European level. The European associations of writers, publishers, collective management organisations and national libraries have been the key promoters of the project, pooling together national experiences and expertises to approach the issues focused by the eContentPlus work programme: to increase interoperability between copyrighted and public domain content, to enhance innovative business models in the econtent arena, to create better conditions for accessing, using, reusing and exploiting digital material, to help **content stakeholders** (providers and users) to realise the full potential of digital content. Content providers, i.e. libraries and publishers will be able to increase the use and re-use of their material. Digital content held by both commercial providers and cultural institutions will be made interoperable. Databases and rights clearing centres for orphans and out-of-print works will be established and available to the Europeana.

Several national initiatives to digitise, preserve and make content available, launched by libraries or commercial companies or (more rarely) in partnership between the two, do exist. But they answer to the problems emphasised by the i2010 Digital Library initiative only at limited scale. National solutions are different since they must fit different cultural and economic requirements. Commercial practices, publishing arenas, library infrastructures and visions, and even copyright regulation are different. This gives rise to a diversity that can be a value when allows to better fit users requirements, but is also a risk of isolation if the different solutions will not be interoperable among themselves.

A European-wide solution is needed. And this requires not only a general political agreement but also a targeted project that should give concreteness to the envisaged solutions. The project was born when European and national stakeholders associations agreed on this statement. The following step was to create a consortium to carry out the project. The criteria for setting the consortium were:

- the representation of all the stakeholders involved;
- the involvement of the most significant experiences already developed or under development in Europe;
- the presence of high level expertise referred to the work to be done;
- the inclusion of a significant number of member states.

A genuine pan-European dimension pertains to the project, thanks to the presence in the consortium of the European associations of publishers and RROs; this is further reinforced by the support of the new established EDL Foundation and by the presence – as partner or external supporter – of one authors association (in UK), five publishers associations (in IT, FR, ES, DE and UK), six RROs (UK, DK, FR, ES, NW, FI) and seven national libraries (FR, DE, UK, ES, NW, SL and FI). Finally, the link with the EOD Network, provided by the Innsbruck University Library, ensure relation with initiatives that involve the national libraries of further four countries (PT, HU, LI and DK).

Consortium members are full engaged in the implementation of the European digital library initiative, as it is demonstrated, among other facts, by the membership of three partners (FEP, IFRRO and British Library) nominated in the High Level Expert Group on Digital libraries, copyright subgroup.

The use of identification and metadata standards is a key feature of the project, as it is clearly demonstrated by the presence in the consortium of four ISBN agencies (IT, DE, SL, and NW), the European DOI agency (mEDRA, through its parent companies AIE and Cineca), and two ISMN agency (SL and NW). Furthermore, partners' representatives are members of the Boards of ISBN International, International DOI Foundation, EDItEUR (which is the managing agent of the ISBN International and the standard setting organisations for ONIX), of the ISTC Consortium, of the ISO working groups for ISNI, DOI, and "interoperability", and of the ACAP governance body. This means that the consortium has the expertise and the influence to foster the adoption of standard tools in the field of digital libraries far beyond the initial scope of the project.

The support of the European Digital Library Foundation and its joint portal that is planned to be developed in 2009, will be a key element for obtaining critical mass of materials as well as follow up and sustainability after the end of the project.

3 European dimension

In the Report "On i2010: towards a European digital library"¹, the European Parliament "Recommends setting up in stages a European digital library in the form of a single and direct access point to the European cultural

¹ Committee on Culture and Education - Rapporteur: M.-H. Descamps (www.europarl.europa.eu/meetdocs/2004_2009/documents/pr/648/648386/648386en.pdf)

heritage". This is only the last of a long series of political statements coming from the European Commission, the European Council and individual Member states stressing the importance of the digital library initiative for cultural, social and economic policy in Europe. It is significant that the Parliament report, while benefiting from the debate of the last years, recommends solutions with which the Arrow project is much in line. In particular, it "*encourages the setting up of a common interface providing access, via an integrated research engine, to content with guaranteed quality and reliability*" (Recommendation 13) and "*underlines the importance of achieving a multilingual interface giving direct access to content that is sought in all European Union languages*" (Rec. 14). This has been realised by TEL and the EDLnet Thematic Network project, and the Arrow project will help enhancing these features by promoting standard-based interoperability between public and private initiatives. The Report also "*points out that a distinction must be drawn between works in the public domain and copyright works (...) and to provide different models for each kind of work, suited to each sector*": the project affords the issue proposing the co-existence of multiple models for content availability in a single framework. The hypothesis is that digital libraries should not deal only with free access to public domain works, but should also facilitate the access to copyrighted works, also when they are distributed by commercial organisations. In such cases, "*European digital library acts as a simple conveyor of information*" (Rec. 22), which is the solution fostered by Arrow, enriched by web resolution mechanisms that allows users to reach directly the appropriate location(s) of the content or related services.

The difficulty of identification and right clearance of orphan works and out-of-print works is also emphasised by many political documents on the digital library initiative. In particular, the copyright subgroup of the HLEG on European digital library initiative, in its *Report on Digital Preservation, Orphan Works and Out-of-Print Works* (cited), sets some high level principle on this concern. In particular, "*the Subgroup shares the concept advanced by item 6(b) of the European Commission Recommendation of 24 August 2006 whereby the mechanisms intended to facilitate the use of such works should in principle be established or promoted on a voluntary basis*". Concerning orphan works, however, for the concrete implementation of such a principle, an information infrastructure for dealing with by default licenses should be in place, when information resources are dispersed. This is exactly what the Arrow project envisages.

The use of standards is another element recalled by all the documents dealing with the i2010 DL initiative (see § 7.2). It risks to become a vague cliché. Arrow takes instead the point very seriously: we will not "develop new standards" (which is the sentence that usually covers up that tendency) but will use existing, well established standards to take advantages exactly from the fact that they are already used by professionals within the book value net. However, we are also aware that the standard landscape is in a continuous evolution¹ and that the Europe should participate and possibly lead this evolution. For this reason, when standards do not exist for certain functions (namely the rights expression metadata) and some implementation work is planned, this is envisaged as development of application profiles within existing initiatives (Onix for Licensing Terms in the example), with the involvement of the relevant standard setting organisations. Standard use is a key feature of the Arrow project and it will be one of the most important differences with the existing mass digitisation initiatives promoted by individual private corporations, which have the natural tendency to use proprietary solutions for all the elements of their systems.

¹ "The changing standards landscape" was the title of the Conference organised by BISG and NISO in Washington, June 2007 (www.bisg.org/conferences/ala_2007.html).

4 Content

4.1 Underlying content

The scope of the project will be focused on books in order to prove the feasibility for this kind of content but the results could be re-used and upgraded for other kinds of materials (periodicals, newspapers, audiovisual, images, archives, manuscripts, etc.) in future projects or applications.

Therefore the presence of non-textual content types among the content made available by partners already allows to consider the scalability of the system and look forward to its exploitation by third applications.

Data on content are instead the basis for setting an interoperable rights information system .

Quantity and Quality of the Content								
Provider	Type	Quantity & Definition	Format & Quality	IPR	Current Use	Existing Metadata	Language	Additional comments
Content Type: Data								
AIE ESAIE	Data (bibliographic records)	57K records on books (37 in print 20 out of print)	Database exportable in different formats	Freely available for registered users	All Italian schools (35k schools)	Bibliographic data records (Isbn, authors, title, publisher, date, discipline, etc.)	Mostly Italian	
AIE ISBN agency	Data (bibliographic records)	0,9 M records on books, both in print and out of print	Database exportable in different formats	Co-owned by AIE	Currently only for internal use	Bibliographic title record fields in accordance to ONIX 2.1	Mostly Italian	Richer data (with additional text, images, etc.) are owned by IE, the company who produce the Italian books in print. Alliance with them are planned during the project
AIE+Cineca mEDRA	Data (Bibliographic)	70 K records with direct persistent Internet resolution	XML native database,	Freely searchable		Metadata records in accordance with ONIX-for-DOI-	The infra-structure is multilingual per se; data currently stored	The direct resolution

(which is a company 100% owned by AIE+Cineca)	records)	to actual content on line using the DOI (mainly text)	exportable in different formats			registration (for detail see www.medra.org)	mainly Italian, though German are growing	provided by the DOI allows immediate online access to all the items classified
British Library	Data (bibliographic records)	Various Bibliographic Datasets, up to 11.57 million files	Up to 11.57 million entries.	BL Database rights.	By BL in its entirety. In constituent parts by customers, other libraries etc	MARC 21	Various – predominantly English and Western European languages	The BL has numerous different databases that may be useful for the project. After the definition of the system it will be clear which are appropriate.
MVB	Data (bibliographic records)	1.2 Mio. title records of in print books + 1 M title records of out of print books,		Public domain, Licence for registered users	14.200 reg. users	Bibliographic title records in accordance to ONIX 2.1 standard	Mainly information to German language books, approx. 60.000 English and other language books	VLB German Books in Print database
MVB	Data (bibliographic records)	7.500 title records		Licence for registered users			German language text books	(Köbu Data) Austrian textbooks database
CLA	Data (Bibliographic records, rights ownership metadata, existing mandates, usage data)	Approximately 7million data items: books and serials published in Europe and internationally	Database exportable in various formats, web access under development	Used for rights licensing and distribution	Nationally: licensees: ≈36K education, business, government & library organisations. Internationally: EU RROs & their licensees	ISBN / ISSN, publisher, title, authors, whether in or out of print, country of publication, links to rightsholders, etc	Books and serials in all languages	CLA contributes a rich source of rights data on books and periodicals, with well-established mechanisms for licensing digitisation on a large scale

AIE ISBN agency (through Ediser, a company 100% owned by AIE)	Data (publisher records)	9K data on private and public publishers from Italy, Vatican and Switzerland	Database exportable in different formats	Owned by AIE	Currently only for internal use	Address, imprint, contacts, etc. Linkages with ISBN title ranges to identify right status of individual titles	Italian	This is a significant step for the creation of rightholders database
MVB	Data (publisher records)	23.500 publisher records from German, Austrian and Swiss publishers and publishing institutions		Licence for registered users				Directory of German publishers database
AIE (through Ediser)	Data (rights ownership metadata)	150 K title records with identification of rightholder (publishers and authors)	Exportable in different formats	Licence	Used for royalty distribution	Bibliographic data in ONIX compliant form	Mainly referred to Italian books	
Content Type: Text (Books)								
BNE	Text (Books)	500,000 pages	JPEG and TIFF with high resolution	Public domain	Thousands of current individual users per day by web	Marc21 and conversion to Dublin Core or XML	All languages, mainly Spanish, referred to text	
BNF	Text (Books)	117,000 books	PDF TIFF V6 G4 Compress. 300 dpi Black & white	Public domain and Licence	2 million visits per year	- Technical in TIFF header - Structure map in HTML and more recently XML - Descriptive InterMarc records + OAI PMH in simple DC - Permanent ID resolution using ARK identification	All	
BNF	Text (Books)	330,000 books	PDF TIFF V6 G4 Compress. 300 dpi	Public domain		Equal to the previous above	All	Digitisation Programme for the European Digital Library

DNB	Text (Books)	estimated 400,000 pages	Black & white	licence	No current use as the digitization process is about to begin	MARC21 / The European Library Application Profile	German	Planned collection growth: 30,000 in 2007 + 100,000 books per year during 3 years (2007-2009). Quantities provided are estimated on approx 2.000 titles as digital collection will be enriched in the Arrow project lifespan thanks to the clearance activities on 5.000 titles
MVB	Text (Books)	Around: 10.000 digitised books	PDF, GIF, ...	Licence for registered users		Bibliographic records in ONIX 2.1 standard Resolution mechanisms based on DOI / ISBN integration	Mainly German language books	LIBREKA database and search engine; the project has been launched middle Oct 2007 old books.
NLN	Text (Books)	1,500 books	JPEG, screen resolution	Public Domain	Used in NB's digital services	MARC/MODS/DC	Norwegian	
NLN	Text (Books)	250 books	JPEG screen resolution	Licence	Used in NB's digital services	MARC/MODS/DC	Norwegian, English, Sami	Newer books

NUK	Text (Books)	153 books	PDF, HTML; 71-120 dpi; archive 300- 600 dpi	Public Domain	unregistered users; (see comments)	Dublin core	Slovenian	We are running visit statistics only (hourly, daily, weekly, monthly, yearly), not per user or collection
NUMILOG	Text (Books)	around 10.000 ebooks	PDF	License	individual users and libraries (50)	ONIX + specific digital informations (file, weight, sometimes eISBN)	French English	
UIBK	Text (Books)	12.000 books	TIFF, PDF	Public domain, Licence, (not yet cleared)	Open access.	Dublin Core METS	DE, EN, FR, LA,...	Austrian Literature Online (Digital Library), titles from 1200 to 2007.
Content Type: Text (Serials)								
BNE	Text (Serials)	50,000,000 pages	JPEG and TIFF with high resolution	Not yet cleared	Only inside National Library, with more than 3 millions of pages downloaded by year	Few metadata in a proprietary format	Spanish and other languages	400 serials titles from 1999 to our days with OCR from 2004
BNE	Text (Serials)	500,000 pages	JPEG and TIFF with high resolution	Public domain	Thousands of current individual users per day by web	Few metadata in a proprietary format	Spanish	143 titles of press and magazines from 1772 to 1930 with OCR
BNF	Text (Serials)	137,000 newspaper issues	PDF TIFF V6 G4 Compress. 300 dpi	Public domain and Licence	2 million visits per year	Equal to the previous above	All	

		In grey																	
NLN	Text (Serials)	700,000 pages		TIFF, high/low resolution	Public Domain	Used in NB's digital services	MODS/DC	Norwegian	historical newspaper										
NUK	Text (Serials)	74,539 articles		PDF, HTML; 71-120 dpi; archive 300-600 dpi	Public Domain and License	unregistered users	Dublin core	slovenian	We are running visit statistics only (hourly, daily, weekly, monthly, yearly), not per user or collection										
Content Type: Text (Other textual items)																			
MVB	Text (content sample, TOC, annotation, ...)	1,200 textual contents		PDF	Public domain, Licence for registered users	14,200 reg. users		Mainly information to German language books, approx. 60.000 English and other language books	VLB German Books in Print database German Books out of Print database										
NUK	Text (Music sheet)	1,070 sheets		PDF; 71-120 dpi; archive 300-600 dpi	Public Domain	unregistered users	Dublin core	slovenian	We are running visit statistics only (hourly, daily, weekly, monthly, yearly), not per user or collection										
UIBK	Text (thesis)	10,000,000 pages		TIFF Group IV, partly OCRed fulltext	Public domain and partly licence Orphan works	Restricted local access	Dublin Core XMETADISS METS	DE	100,000 titles digitised until 2008, 216,000 planned until end of 2009										

				not yet cleared						
Content Type: Image										
BNE	Image (maps, posters, draws and engravings)	10,000 digital objects	JPEG and TIFF with high resolution	Public domain	Thousands of current individual users per day by web	Marc21 and conversion to Dublin Core or XML				
MVB	Image	669,000 front/back cover images,	JPEG,	Public domain, Licence for registered users	14,200 reg. users				VLB German Books in Print database German Books out of Print database	
NLN	Image	90,000 images	JPEG screen resolution	Public Domain	Used in NB's digital services	MODS/DC	Norwegian			
NUK	Image (photographs)	10,572 images	JPEG; 71-120 dpi; archive 300-600 dpi	Public Domain and License	unregistered users	Dublin core	Slovenian		We are running visit statistics only (hourly, daily, weekly, monthly, yearly), not per user or collection	
NUK	Image (maps)	68 images	MrSID; 72 dpi jog	Public Domain	unregistered users	Dublin core	Slovenian			
NUK	Image (posters)	2,030 images	JPEG; 71-120 dpi; archive 300-600 dpi	Not yet cleared	unregistered users	Dublin core	Slovenian			
Content Type: Audio-Visual										
MVB	Movies	30 video samples	AVI	Public domain, Licence for registered users	14,200 reg. users					

MVB	Sound/Audio	1,500 audio samples	MPEG	Public domain, Licence for registered users	14.200 reg. users		VLB German Books in Print database German Books out of Print database
NUK	Sound/Audio (Music recordings)	65 recordings	MP3 (VBR)	Public Domain	unregistered users	Dublin core	We are running visit statistics only (hourly, daily, weekly, monthly, yearly), not per user or collection
NLN	Sound/Audio (radio programs)	1,000 audio tracks	MP3	License	Used in NB's digital services (Only streaming)	MODS/DC	historical radio programs

Further content will be provided by non-partner organisations involved in the project (see list in §11.2.1). Such liaisons organisations declared availability of the following content:

Quantity and Quality of the Content – External supporters								
Provider	Type	Quantity & Definition	Format & Quality	IPR	Current Use	Existing Metadata	Language	Additional comments
Content Type: Data								
ALCS The authors' collective licensing organisation for UK	Data (Audiovisual and print bibliographic data, rights ownership data, existing mandates,	≈ 6million works: audiovisual, books and serials published in UK	PDF, Excel, Text, SQL etc	Used for rights licensing and distribution	Print and Audiovisual Media (national and intern.) and AV Societies throughout Europe	ISBN / ISSN, IPI, IDA, publisher, title, authors, other rights holders whether in/ out of print, country of production, links to rights holders, etc	English and some French, German, Spanish, Danish and Swiss local version titles	

	AV usage data)											
COPY-DAN Reproduction Rights Organisation for Denmark	Data (Bibliographic records, rights ownership data)	≈ 75 K titles: Books, newspapers, journals published all over the world	Database: Exportable in excel	Extended collective licensing and individual distribution.	Nationally: ≈ 9 K education, business, government Internationall y: RROs throughout the world and their licensees	Authors, publisher, title, ISBN/ISSN	Books and serials in all languages.					
PLS	Data (Contact details and rights information)	Records for 2 K book, journal, and magazine publishers in the UK	Database exportable in different formats and web accessible from a secure network	Subset available in the public domain, with a license for other project partners to use	The database is currently only for internal use	Address, imprint, titles, rights, prices, etc	English				A rights holder database currently exists, but the project will enable us to make a subset of this publicly accessible.	
CEDRO Reproduction Rights Organisation for Spain	Data (Bibliographic records, rights ownership metadata, existing mandates)	794.784 records describing books and 2.219 describing periodicals, in both cases belonging to CEDRO's national repertoire (figures as to 31 st August 2007)	Proprietary system on SQL database	Used for rights licensing and distribution.	Accessible at http://www.cedro.org/licencias_asistente.asp	ISBN / ISSN, publisher, title, authors, rightholders and rights share, etc.	Books and serials mainly in Spanish, Catalan, Basque and Galician					
CFC	Data (publishers records)	12.000 French publishing companies and 13.000 imprints	Exportable in different formats	Internal use		Address, representatives, owners, etc.						
CFC	Data (serials bibliographic)	16.000 titles (French periodicals)	Exportable in different formats	Internal use		ISSN, title, owner, category of periodical; right						newspapers, magazines, professional, medical and scientific journals

	c records)	More than 100.000 books	Exportable in different formats	Internal use	holders data	it contains data on each book which has been copied by the users
CFC	Data (books bibliographic records)	Elektra approx. 15.000 digital articles from 50 domestic scientific journals. Peri+ approx. 5.000 digitized articles from two old domestic journals	Elektra: PDF (also HTML) Peri+: PNG, OCR text files for full-text search	License for registered users.	Used in all Finnish public libraries, all polytechnics and most of the Finnish universities	Mainly in Finnish.
Kopioisto Reproduction Rights Organisation for Finland	Data (Elektra and Peri+ services - the network delivery of Finnish scientific articles)				MARC21Fin, Dublin Core Additional	This functioning service has been in use since 1997. It is a joint project between The National Library of Finland and Kopioisto. DC metadata accessible for harvesting (OAI-PMH) http://www.lib.helsinki.fi/elektra/english.html

4.2 IPR issues

One of the main objectives of the project is the clarification of the IPR status of content to be included within the digital library programmes. The problem should be seen from two viewpoints depending on the position of the observer within the value net above described. On one hand the project will provide tools for facilitating clearance of rights for copyrighted works – what we have called the “rights information infrastructure”. The key concept is that content providers are involved in the consortium through their representative bodies and through organisations they mandated to authorise physical and sometime digital reproduction. It is important to clarify the mechanism that rules the way content is made accessible: *a)* the library has the instances of content (typically a book) but cannot do much with it; *b)* the consortium brings in the owners of that content (i.e. authors and publishers), through collective manifestation (associations and CMOs); *c)* the content is available through agreements with libraries or through commercial offer by e-retailers, and this may be obtained through clearance mechanisms built upon rights metadata databases.

As far as third party rights on content are concerned, at the outset, organisations that manage clearing mechanisms normally do not manage content. Information resources and right clearance are services to be offered and made available to all players on a non discriminatory basis, and the CMO direct involvement in the content distribution could potentially generate conflict of interest. In fact, they administer metadata and not directly content. Therefore, the infrastructure for right information will not depend from third party rights in its constituency but, by nature, will provide services for clearing rights belonging to third parties. The problem is even more evident for orphan works, where the rightholders, by definition, are unknown, so that it is simply impossible to directly involve in the project unknown parties. Therefore, this part of the system inevitably depends on third party rights (that of individual rightholders) while offering a model for clearing services and, very important, enhancing business models that create incentives to rightholders to make econtent available. On the other side of the system, once the rights are cleared and the offer is defined, users will access content under the terms and conditions that have been set up. Content included in the Arrow network (and in particular that cited in the table above) will be accessible according to this scheme and thus *will not depend anymore from third parties rights* for the kind of use envisaged. The innovative aspect of the project is that there will not be a simple distinction between free and on payment content. For each content some use may be for free and others not, and the system will be able to manage this complexity since it is based on the comprehensive rights information infrastructure defined in the first part.

The IPR policy on project results will be defined as a task within the final exploitation plan (T1.4). However, partners agreed some high level principle:

- Some parts of the project results will be freely accessible. This shall regard in particular the registries of orphan works and the specification of standard metadata schemas, which will follow IPR policies of the relevant standard setting organisations, but may also include source codes of developed software;
- The business model for ensuring sustainability will be in principle based on selling services rather than mere exploitation of IP rights on project results;
- Services will be offered to the market on non discriminatory basis and according to a cost recovery principle, though costs may include resources necessary for new investments;
- IP rights will be co-owned by project partners. The intention is to continue collaboration after the project-end but it will be possible that co-ownership will allow separate exploitation of the IPR.

4.3 Multilingual and/or multicultural aspects

The decision to create a distributed network of resources for rights information comes from a keen appreciation of the cultural and linguistic diversity in the European literary world, which can be best approached by maintaining different data sources, each tailored to the national culture and using different languages in the users' interfaces.

Within this framework, interoperability among national (i.e. context referred) resources is the key strategy, and it will be achieved by sharing metadata schemas for send out messages from one IT system in a node of the network to another. While facilitating machine-to-machine interoperability, Arrow will also foster

interactions among people and between people and machines. Every user (professionals looking for rights information or readers searching content) may access the whole set of information starting from his/her customised access point. However, this will be possible only if machine interoperability is developed considering the issues related to human interfaces.

Such issues are particularly challenging in the field of rights information, since the meaning of rights terms are expressed by different vocabularies in the different languages, and may also acquire different meanings according to national legislation or legal language of every country. The project will build on existing rights dictionaries within the ONIX-for-Licensing Terms standard, and will take into consideration different contexts, different languages, different legal frameworks, and different cultures. "Translating" the specification, here, is not simply a matter of taking one "original" version and changing in other languages, but will mean to bring into the work for creating "the original" version the meanings that can be "originally" expressed only in other languages, because of peculiar legal rules and terminology, or practices, of a certain country.

The project will involve 10 countries (ES, IT, FR, DE, UK, SL, NW, AT, DK, FI) as well as 9 languages as first use case, but – through the involvement of European associations and partners or supporters representing groups of organisations, such as the EDL Foundation and the EOD Network – will be designed from the beginning according a pan-European approach. The challenge of multicultural aspects will also be present in the fact that the business models as well as the legislation could differ between the different partners involved.

Finally, the project will also facilitate the research of right-holders located in other countries.

5 Impact and sustainability

5.1 Analysis of demand

The digital library initiative of the European Commission and various submissions to the following open consultation highlighted the need to find workable solutions for copyright clearance in general, and for the cases of orphan and out of print works in particular. Libraries will not be able to provide digital access to large portions of their collections unless solutions for these challenges are established.

Orphan works exist in the collections of all cultural institutions. While the digitisation of this material is underway in Europe it will not be possible to provide access to the digital content thus created, until solutions to copyright challenges are put in place. A registry of rights information along with appropriate solutions for orphan works will ensure that end-users can enjoy access to these works.

To illustrate the extent of the orphan works problem the British Library estimates that more than 40% of all copyrightable works in existence are orphan¹. On the commercial side, being more concentrated on new titles, Google estimates that 74% of the works that they have considered under their digitisation program have unclear copyright status. Book publishers² have in their submissions to the Commission confirmed that they also face problems with orphan works in their publishing activities.

The cited Report from the HLEG's Copyright subgroup notes that an express permission to use an orphan work requires a clear and safe legislative framework and that without such a framework or express authorisation by the authorities no CMO could issue a licence on behalf of an unknown/unidentified rightholder. Some countries in and outside Europe have established mechanisms for dealing with the rights clearance challenges described above. In Canada the *Copyright Board*, working via two collective management societies, administers licences for orphan works. Similar licence schemes are provided for, if not yet launched, under the relevant copyright acts in Denmark, Fiji, Finland, India, Japan, Norway, South Korea, and Sweden. In the United States a rather different solution is pending. A legislative bill seeks to limit liability for artists, educators and others who make a "reasonably diligent search" to find a copyright owner. The criteria to allow the use of orphan works would be in the Act, as well as conditions for use. Users of orphan works must pay "reasonable compensation" should the orphan works owner reappear. Finally, a review of rights clearance challenges, including orphan works, is currently underway in Australia and UK³. The Arrow project is neutral about the solution or solutions put in place in each European country, and will

¹ The figure does not only refer to books, but includes among others audio recordings

² Federation of European Publishers: FEP response to Communication from the European Commission "2010: digital Libraries"

³ A more comprehensive picture is provided by the Report on Digital Preservation, Orphan Works and Out-of-Print Works, cited.

facilitate any of the above by making it easier to discover if a work is orphan and if it is not by making it easier to contact the rightholder(s).

Clarity about the copyright status of works to be digitised can be greatly enhanced through voluntary provision of a registry of works. This will have to build on the i2010 Digital Libraries High Level Expert Group (copyright subgroup) recommendation of mutually recognisable solutions in the Member States. This project will provide such a building block as it will provide a critical mass of data about European books and it is also further scalable. The main book data sources in a significant number of European countries (large and small, and from the different areas of the Union) are involved in the project, providing data about millions of literary works whose rights information are required by libraries. Furthermore, the system will be set up using an inclusive model, and using existing international standards so that further countries can join in a later stage.

On the other side of the value chain, the need of interoperability between public and private digital collections in order to give access points to digital resources either free of charge or under condition, is emphasised by all the analysis of the econtent market but it is difficult to be quantified in terms of actual demand. For sure, the huge investments of large corporations in this direction demonstrate that the expectation of the demand for such services is very high. The creation of common services will allow rightholders to exploit the so called "long tail" of the demand curve¹. Whilst in the traditional book market titles that have too low demand are not treated by the distribution channels, being not profitable, e-commerce allows to serve many more market niches. In this way, users seeking for very particular book may find what they are looking for, and rightholders of that book receive a remuneration. This is already true for Internet shops dealing with printed books, but it is even more evident when dealing with digital files, where distribution costs fall almost to zero.

Traditionally, libraries have been a privileged access point for out-of-print, rare or low-demand books. In the digital world, digital libraries can be a suited intermediary to direct the users to this kind of resources through appropriate search and retrieval mechanisms and by providing redirection to e-libraries or e-retailers.

The final shape of the demand curve for the book titles is impossible to foresee at the current stage, but opinions converge on the idea that the "tail" of that curve will be much long, i.e. that there will be opportunities for huge number of different titles to be sold. This has an impact on the assessment of whether a work is to be considered in or out of commerce. From a commercial perspective, digital technologies make it possible for rightholders to offer works in the markets that do not defend a full reprint, which would have been the only opportunity with previous technologies. On the other hand, when a rightholder decides to declare a work to be no longer commercially available, (s)he may also be willing to offer more liberal conditions for making it available to the public than it was when the work was still on sale, which again offers opportunities for the library.

The scope of the project will be focused on books in order to prove the feasibility for this kind of documents but the results could be re-used and upgraded for other kinds of materials (periodicals, newspapers, audiovisual, images, archives, manuscripts, etc.) in future projects or applications.

5.2 Target users and their needs

Target user description	Needs	Involvement & Role	Country coverage
Rightholders	To offer their content in the new environment To maintain control over the content To receive remuneration from use of their content	Participation through publishers associations. Authors will be invited – through their European association, the EWC – in joining the Project Steering Committee	All Europe through FEP + some countries directly as partners (IT, ES, DE) or supporters (FR and UK)
Rightholders representatives and/or	To offer new value added services, in particular rights	Direct participation	All Europe through IFRRO + some countries directly (UK) or as

¹ For the concept of "long tail" see C. Anderson, *The Long Tail: Why the Future of Business Is Selling Less of More*, Hyperion Books, 2006, who noted that a characteristics of the e-commerce, particularly when deals with econtent, is the capacity to sell higher number of items, making it profitable to sell few copies per title.

agents (RROs)	clearance		liaisons (ES, FR, DK, NW, FI)
National libraries	To reduce costs in rights acquisition and thus include more content at the same budget level To promote inter-operability for econtent	Direct participation	All Europe through EDL Foundation+ some countries as partners (FR, ES, SL, UK, DE, NW), external supporters (FI) or through the EOD network (PT, HU, LI, DK)
e-retailers and other intermediaries	To create commercial supply of econtent collection of copyrighted works To provide services to rightholders to reach new potential markets	Pilot direct participation Involvement during the validation phase as early users of the system	LIBREKA in Germany Numilog in France

5.3 Critical Mass

The creation of the rights information infrastructure depends on the availability of existing bibliographic data and rights information. As shown in the tables of chapter 4, partners and liaison organisations will provide several million records to be made interoperable for the project purpose. To have an idea of the dimension of the problem, we can consider that books in print in Europe are not less than 4 million (source: FEP), out of print books are difficult to estimate but should be several further millions. Other text works (serial items, in particular) are impossible to calculate. For any work multiple right information are needed, for different uses. The consortium will provide to the project data about more than 10 million items, covering around 70% of the European books in print and significantly also out of print, with some information about rights in many cases. The challenge is to take advantage from the three different source types (national bibliographies, books in print databases and RRO repertoires) combining them in order to catch the best information available about rightholders identification and right status. In fact, while library catalogues are usually the source covering the highest number of titles, books in print catalogue are essential to define the status of "in-print" / "out-of-print" and have information related to "price and availability" that may be used to support the rightholders identification. Finally, RROs' and authors' society repertoires are often the best source for specific rights information on textual works.

The most important element that determines the impact of the project is its genuine pan-European nature. This is obtained through the following:

- The presence of the FEP and IFRRO that bring in the project, respectively, the representation of all the European publishers associations and RROs;
- The support of the EDL Foundation, which provide evident link with the world of digital library initiatives at European level
- The link with the eBooks on Demand (EOD) Network (cf www.books2ebooks.eu) provided by the University library of Innsbruck. This network is a Europe-wide network of libraries aiming to digitise rare books. This service is already available in 13 libraries in 8 countries: Portugal, Denmark, Germany, Austria, Slovenia, Slovakia, Hungary and Estonia.
- The direct participation in the project, as partner and/or liaison organisation of seven national libraries, five publishers associations and six RROs.

As far as direct access to content is concerned, the project focuses on the interoperability between existing digital collection, in particular with the aim of providing a bridge between libraries and trade initiatives. To assess the consistency of content at disposal of the project we have thus to demonstrate the presence of critical mass in both fields. From the library side, the inclusion in the project of the National Library of the Netherlands, Koninklijke Bibliotheek, where the development staff of Europeana and European Library are hosted, is the key element to guarantee that the interoperability work is representative, while the presence of a number of national libraries will also allow to easy create use cases to validate the model. From the trade side, the project involves *the* three most significant initiatives launched in the last year in Europe: Libreka in Germany, the Gallica project in France, and the Norwegian joint library / rightholders collection.

5.4 Sustainability

To plan long term sustainability for Arrow the first step is to identify the value offered to players within the value net, which afterwards will be the basis to create feasible revenue streams to sustain the business.

Arrow is conceived as a B2B service addressed to all the players within the digital library value net, though there are evident implications for end users. It is possible to sum up the value offered to the different players as follows:

- For libraries, the possibility to increase services provided to their users and to reduce costs thanks to the process for right clearance;
- For rightholders, the possibility to access the emerging econtent market, exploiting also marginal niches in the so called "long tail" of the demand curve;
- For RROs to use existing expertise, experience and resources to assist rightholders through expanding existing services and offering new ones within their traditional functions of acting as collective intermediaries between rightholders and the user community;
- For e-retailers, to give higher visibility in the Internet to their collections;
- For Europeana and the European Library to give access to multiple collections and to be able to redirect users to the appropriate resource(s) or service(s) for the selected content.

The challenge for designing a sustainable business for Arrow will be to earn sufficient revenues from these values to cover the costs for maintenance of the system and the investments for necessary enhancement. The task of drafting the exploitation plan will consist in defining a consistent combination of (some or all) the following sources of future revenue:

(a) Sales of services based on metadata management. In this respect, the project will improve an existing market by building on the systems already established in the different countries. For instance: in UK and France data management within the book trade is the business of commercial companies; in Germany and Italy the same role is played by companies belonging to the publishers associations; in Slovenia as well as in many Northern countries national libraries have a significant role; in Spain the DILVE project has been launched as a joint initiative between publishers, the national RRO, and one not-for-profit organisation¹; in other circumstances the RROs may be the best resources of information. Such heterogeneity will be maintained, since it would be both undesirable and unrealistic to change already established practices. The model for future sustainability is designed to take into consideration such differences, and in particular to exploit the fact that many partners involved in the project have long experience of successful management of metadata (bibliographic, technical, administrative...). It is in their interest to enrich the data they are able to provide and to broaden the range of services offered on the basis of these data.

(b) Intermediation for rights clearance. The Arrow rights information infrastructure will allow CMOs (namely the RROs) to offer new services to existing customers and offer rights clearance and other services to new ones in this field. Such intermediation is usually paid on the basis of a fee being deducted from the remuneration collected before the balance is transferred to rightholders.

In both the (a) and (b) cases, the model for the sustainability of the system will be based on cost sharing: the services will continue to be provided by individual organisations (either belonging to the current consortium or not) that while using a central infrastructure will be asked to contribute to its maintenance. The fee model is to be defined, and could include flat fees calculated in respect to the potential market of each participant or more directly related to the actual volumes of business.

(c) Rightholders may pay for increasing visibility of their products. This is the model, for instance, of the Libreka platform, where publishers are asked to pay a fee for every book included in the collection, plus additional fees for special services.

(d) National libraries partners will reinforce their permanent missions through cost saving in digitisation of orphan, out of print and more in general copyrighted works and through enriching their search systems enlarging the scope to private collections.

One of the two major objectives of the project is to provide a solid basis of definitions and requirements for helping the future development of a web service which could be connected to Europeana, the European Library or to any other portal.

A key aspect in securing the long term interest of the partners is interoperability at the European level. For metadata providers this will lead to the creation of integrated data resources that may be sold as such,

¹ DILVE has also strong relations with the Governmental body in charge of the management of the ISBN agency in Spain.

increasing the value offered to the market. At the same time, RROs are facing the challenge of having interoperable systems for exchanging information about royalties collected and mandates received, and the project will facilitate this interoperability and thus generate good reasons for continuing participation. Finally, libraries have a strong interest in maintaining and sharing their metadata in a cost effective way.

The second element that will foster long term sustainability of the project is its scalability: the system is inclusive in nature, being founded on the exploitation of network effects. There are two types of scalability that will support sustainability: newcomers will allow cost sharing across a higher number of players, while new users requirements will allow the development of new businesses and services.

6 Performance monitoring

6.1 Success indicator

The achievement of objectives starts to be measurable from quantitative point of view at month 18, when the system will be ready and the network of rights information about literary works will be in place.

Indicators	Expected Progress		
	Month 18 (key project milestone)	Month 30	Month 42
Data aggregated: data on literary works for rightholder, orphan works and public domain identification made accessible from single point	≈ 2-3 mil works data made interoperable	≈ 8 mil works data	≈ 15 mil works data

When the system will be ready, the validation phase will allow measuring in terms of increase in access to data, but the most significant indicators will be the interaction between users from the two sides (rightholders and libraries) and the system itself. Such measures will be possible starting from the same month. The measure is definable in period of time.

Indicators	Expected Progress		
	Month 18-24	Month 24-36	Month 36-48
Data aggregated: data on rights-ownership made accessible from single point	≈ 500 K rights information added in the system	≈ 1 M rights information added	≈ 2 M rights information added
Increase in access from libraries: queries from users looking for information for the purpose of digitisation	≈ 500 K queries	≈ 1 M queries	≈ 2 M queries
Increase in access from rightholders: queries from users looking for information in the Orphan registry		30 % of the records stored in the Orphan registry	50 % of the records stored in the Orphan registry
Increase in use of standard identifiers (ISBN, ISTC, ISPI) and direct resolution in Internet through the DOI ¹	≈ 200 K additional assignment in the experimentation	≈ 2 M additional assignment	≈ 5 M additional assignment

The figures referred to the rights data collection will include orphan and out of print works data. It is difficult to isolate these two phenomena in respect to the whole system, precisely because we designed the "right information infrastructure" as a whole.

Even more difficult is to fix quantitative objectives for the Registry of orphan works specifically. In fact the Arrow system will have two objectives with opposite quantitative determinants: on one side the right information infrastructure aims at decreasing the number of orphan works, since serves the process of discovering rightholders; on the other side when an orphan work exists the objective is to include it in the Registry. In the ideal world the Registry should be empty, according the first criterion, while in the real world

¹ We can't anticipate the breakdown between such different Id systems, since this will depend from the study on "Standards applicable" and the resulting guidelines planned in WP3.

where orphans exist it should be full of titles. Therefore the number of titles included in the Registry, per se is not a variable for assessing the project, while the above described data about works with information about rights is one.

Previous to month 18, success indicators are more qualitative (studies, procedures, guidelines) and thus will be assessed according qualitative criteria following the methodology fixed in the Monitoring and evaluation plan.

6.2 Performance measurement and evaluation

Performance indicators are linked to specific workpackages; in particular indicators related to the Rights information infrastructure are linked to WP6 and WP7.

In order to implement an effective performance measurement, strict cooperation will be established between WP leaders of WP6 and WP7. While the WP6 leaders will be in charge to set appropriate tools to obtain statistics, WP7 leader will gather the data and use it as a valuable information to enrich validation.

WP6 leader will produce a quarterly report about system use and WP7 leader will elaborate the information in the validation report (D7.1) and short progress reports to the Consortium, highlighting criticalities or need for action.

The results of performance measurement and evaluation will be reported to the Commission in the framework of progress reporting.

7 Project work plan

7.1 Description of work and roles

The project life will pass through three main phases:

- A set of initial activities devoted to the design of the system, including preliminary actions aimed at detailing (a) legal and business models, (b) interoperability issues and (c) technological architecture;
- The actual set up of the right information infrastructure, including all the individual elements that characterise the services;
- A validation phase, during which the system will be used and assessed against predefined criteria, leading to an iterated version of project results.

These three phases also lead the design of five "technical workpackages" (three in the first phase, and one in each of the following two phases). Another two "transversal WPs" will complete the project plan, including the following functions:

- *Project management*, which includes project organisation, governance and administration, assessment and evaluation; and also the regulation of IP rights and the definition of the final exploitation plan.
- *Dissemination and awareness*, which will be based on different strategies in relation to the different phases of the project (see. §5.6)

These last two WPs will run along the whole project life while the chronological order of technical WPs is defined according to their nature. The design is the prerequisite to the set up of the different elements that will constitute the system. When the whole set of such elements is ready in a first release, then validation can start and feedback will be used to up-grade and possibly correct the system, in order to have a second release at the end of the project.

However, there is some overlapping in activities, necessary in a project running for more than two years in an environment characterised by turbulent evolution. A basic model "design → implementation → validation" risks to be too simplified in these circumstances and thus some discontinuity in the linear evolution of WPs has been introduced (see below).

To improve the effectiveness of project management, all the WPs have been divided into "Tasks", defined by specific results to be achieved.

The *project start up* (Task 1.1) is crucial because of the complexity of the initiative, due to the large number of partners and other interested parties, coming from different communities, and to the importance of the objectives, which also have strategic implications for all the players involved. During this phase the project governance bodies (see § 7) will be formed; and the *project operative workplan* (T.1.2) and the *quality and evaluation plan* (T.1.3), both drafted by the co-ordinator, will be approved. At the same time, the basis for the

dissemination work will be laid, within coordination of partner leading WP2: a template for the presentation of the project will be prepared within this phase while a reference group made up of representatives from the contracting partners chaired by IFRRO shall be established immediately after the signature of the contract.

A kick off meeting will take place where detailed tasks will be assigned to partners. However, it will not be a mere planning meeting: partners will be asked to provide presentations of the situation in their countries in respect to the three initial WPs starting afterward: business models, interoperability and technological design. Because of the rapid evolution in the econtent domain, we expect that the emerging picture will be different than when the project was first designed. The organisations supporting the project [see list in §11.2.1] and, if relevant, guests representing possible new initiatives emerged in the meantime will be invited, thus emphasising the open attitude of the project.

After the kick off meeting, a number of actions will start. The dissemination (WP 2) will begin by *promoting the project concept* (T.2.1) and will address to two main target groups: rightholders and libraries. In this phase the communication strategy will be agreed through preparation of a specific dissemination plan collecting information from all partners. A project website will be created, linked to existing and well established websites provided by the partners together with an information package (see § 5.6).

At the same time, two parallel WPs will start:

- **WP3: Legal and business model.** It consists of two tasks:
 - **T.3.1: Legal framework and operative solutions.** The legal framework in the field of orphan works and out of print is almost known, also thanks to the work of the sub-group of the HLEG nominated by the European Commission¹. What is still to be done is to implement operative solutions within the agenda set by that group. This would include some *Guidelines for the definition of orphan works and out of print works*, including agreed definition of diligent search for rightholders, defined after a broad consultation of the stakeholders involved, and *Guidelines for implementation of clearing mechanisms for out of print works*, including guidelines for the establishment of interoperable databases and rights clearance centres, based on the model licence elaborated by the HLEG.
 - **T.3.2. Definition of business models:** a number of possible models for co-existence and collaboration between public and commercial econtent collections are conceivable. The project will study the different opportunities without providing single recommendations. The purpose is to focus two issues: (i) which is the framework that allows maximum interoperability between such business models, so to provide users with highest degree of access to econtent, and (ii) the economic impact of policies implemented by the public sector, at national and European level, in this domain.
- **WP4: Interoperability:** the infrastructural elements ensuring high level of interoperability among the numerous library and publishing initiatives will be analysed focusing the whole value net and will include the following tasks.
 - **T.4.1: Standards applicable.** The standard landscape in the book world is in continuous evolution and is sometime perceived as a labyrinth². The project will prepare – with the collaboration of external experts hired as subcontractors on the basis of exclusive competences and independence – a report aimed at providing complete information and guidance to the different players of the value chain. The report will be used both as a tool for orienting the work in following phases of the project and as guideline for stakeholders, both rightholders and libraries.
 - **T.4.2: Technical interoperability.** Though related to the previous (so that the two teams involved will work in strict collaboration) technical interoperability has a broader scope of analysis, encompassing the different technologies used within the value net, such as protocols for metadata harvesting and syndication, file formats, users authentication, indexation, protection measures, accessibility criteria for disables, etc. In this phase, the project will produce common guidelines and requirements for improving interoperability between public and private digital content.
 - **T.4.3: Metadata specification for rights expression.** To collect and manage rights information for the use within the digital library programmes, it is necessary to define metadata schemas and message formats in a standard way. This will be done within the framework of the ONIX for Licensing Terms (OLT) initiatives, in particular using the results of the work done by the IFRRO technical working group that is developing a standard methodology for exchange of some right information about the

¹ A significant part of such group is represented in the Arrow consortium.

² Cf P. Attanasio, *Identification, Description and Web Resolution of Digital Objects: How to Exit the Labyrinth of Acronyms*, presentation at the Simposio Internacional "Bibliotecas y objetos digitales", Madrid, 24 Oct 2006, www.bibliotecasdigitales.es

repertoires they manage. This project started in 2006 and in February 2008 issued the first release of messages for expressing information about repertoires and for distribution purposes.

The initial phase of the work is completed by the comprehensive definition of system architecture during WP5 (*Design of system architecture*), which is concentrated on three tasks.

- **T. 5.1 Analysis of bibliographic resources and clearing mechanisms existing in Europe** – A comprehensive analysis of the bibliographic resources and clearing mechanisms existing in several countries directly involved in the project in order to make them interoperable.
- **T. 5.2 System Workflow** – The different workflows present in Arrow will be evaluated and defined.
- **T. 5.3 Design of rights information infrastructure** - Finally, the ARROW architecture will be designed, including the registries of orphan works and redirection mechanism to the network of clearing centres for out of print books.

The *first milestone* (month 12) of the project is fixed at the end of the WP 5. The results will be the basis for the actual set up of the rights information infrastructure for digital libraries (WP 6). The tasks within the WP 6 are defined by the main elements that will constitute the system. In addition, the set of guidelines and requirements for interoperability of copyrighted works access will reach a first step, which will allow having, at half of the project, a good overview of these matters.

At month 18 (*second project milestone*) a first release of the rights information infrastructure (WP6 - T.6.1), including the registry of orphan works (T.6.2), will be ready for use in the validation phase. One additional elements of the system - the redirection mechanism to the network of clearing centres (T.6.3) - will be completed later, at month 19. This timeframe has been planned in order to avoid to give too much organisational pressure in a single moment of the project and thus to increase efficiency in project management.

The validation work (WP 7) will start at month 17, since the first two months, running in parallel with the final work for system set up, will be devoted to the definition of methodology and the preparation of tools to gather feedback from users (T.7.1). In this way, actual validation will be ready to start as soon as the first part of the system will be completed.

Before the end of the second project year, some activities of the first phase will be updated, in particular the legal and business models studies and guidelines for applicable standard. The reason is that there are evolutions expected in these domains, and thus it would not be effective to stop the analysis at a given moment and consider the results as definitive. For instance, some of the standards concerned are referred to initiatives that are under development or initial deployment. E.g. the ISTC (which can be crucial both for the rights information initiative and for the need to track different manifestations available for the same work¹) is expected to be launched for actual deployment in the second half of 2008; the ONIX for Licensing Terms initiative is still in the development phase; the ISNI (useful for unique identification of public name of rightholders) is planned to be released as ISO standard not before the end of 2009, the DOI, though quite stable as de facto standard, is also passing the ISO procedure to become de jure standard, which is expected to be completed by 2009, etc. This strategy is even more evident as far as business models are concerned, since the expected emerging of new initiatives will provide further inputs to the study.

The validation phase will last at the end of the project. However, 2 months in advance (month 28) a formal report on the results will be ready, to be used by the developers to up-grade and possibly correct the system, so to have a second release at the end of the project (T.6.5). In parallel, the consortium will focus on the elaboration of a final exploitation plan, in order to ensure long term sustainability of the system (T.1.4). This will consider also the IPR issues on project results and will produce a comprehensive IPR agreement (see also § 5.5).

7.2 Technologies and Standards

A specific phase at the beginning of the project work is devoted to the complex issues related to standard applicable along the digital library value chain. Being interoperability one of the main goal of the project, standard is one of the most important keywords.

It risks to become a vague cliché. Arrow takes instead the point very seriously: we will not “develop new standards” (which is the sentence that usually covers up that tendency) but will use existing, well established standards to take advantages exactly from the fact that they are already used by professionals within the

¹ On this respect, see D. Zwirn, cited, p. 58.

book value net. However, we are also aware that the standard landscape is in a continuous evolution¹ and that the Europe should participate and possibly lead this evolution. For this reason, when standards do not exist for certain functions (namely the rights expression metadata) and some implementation work is planned, this is envisaged as development of application profiles within existing initiatives (Onix for Licensing Terms in the example), with the involvement of the relevant standard setting organisations. Standard use is a key feature of the Arrow project and it will be one of the most important differences with the existing mass digitisation initiatives promoted by individual private corporations, which have the natural tendency to use proprietary solutions for all the elements of their systems.

The project will consider the problem of standards for identification, metadata and web resolution according the table where the function of the different standards and their scope are the variables to clustering the standards to be analysed.

Fig. 6 - Scheme for the analysis of applicable standards

		Functions		
		Identification	Metadata	Web Resolution
Scope	Works	ISTC	ISTC-MD, ONIX	
	Manifestations	ISBN, ISSN, ISMN	ONIX, DC, MARC	DOI (Handle), URI
	Rights		OLT	
	Names	ISNI	ISNI-MD	

To digitise a book (*a manifestation*, in the table), libraries must first identify the underlying *work*, and deal with the related *rights*. If the work is not in public domain, they have to ask permission to the appropriate party, which is known through a *name*. To manage this process within an interoperable environment, they should use standard identifiers (i.e. unique names for entities) and express their information through interoperable metadata. Whether the process is acted within the Internet, it would be useful to have persistent web resolution mechanisms, in order to access from the identifier to the location(s) with appropriate information and services referred to that entity.

Many of the most relevant European associations that offer metadata in open access already provide such metadata to the European Digital Library (Europeana) and the European Library via the OAI-Protocol for Metadata Harvesting (OAI-PMH), the Search/Retrieve via URL (SRU) and the Z39.50 (the ISO standard communication protocol for online search and retrieval of bibliographic data) protocols.

The OAI-PMH gives a simple technical option for data providers to make their metadata available to services, based on the open standards HTTP and XML. The metadata that is carried by this protocol may be specified according to any possible XML schema. Thus, OAI-PMH provides a general purpose protocol for gathering metadata from many sources in one single place to support the development and the provisioning of complex services based on this "aggregated" data.

SRU is a standard XML-focused search protocol for Internet search queries, utilizing CQL (Contextual Query Language), a standard syntax for representing queries. It's worth noting that the European Library portal provides a public access interface based on the SRU protocol.

Z39.50 is a client server protocol for searching and retrieving information from remote computer databases. It is covered by ANSI/NISO standard Z39.50, and ISO standard 23950. The standard's maintenance agency is the Library of Congress. Z39.50 is widely used in library environments and is often incorporated into integrated library systems and personal bibliographic reference software.

In order to speed up the process of collecting metadata sources and enhancing interoperability among different resources and initiatives, Arrow will take into consideration such technologies and evaluate their adoption within the Arrow infrastructure.

¹ "The changing standards landscape" was the title of the Conference organised by BISG and NISO in Washington, June 2007 (www.bisg.org/conferences/ala_2007.html).

7.2.1 *The Arrow Architecture*

In the present paragraph a general representation of the processes involved in the Arrow architecture will be drawn, although the Arrow architecture will be detailed in the course of the project, being an output of the WP5.

The architecture consists of three layers: the Presentation Interface for libraries and rightholders, the Business logic and the Communication Interface (see Fig. 7).

The Presentation Interface for Library/RH is responsible for collecting inputs from the different users and for processing it to conform to a specification the Business logic can use.

At the moment we are considering two main users, though the preliminary work can add other potential clients:

- libraries that wish to obtain right information related with the titles to be digitised
- rightholders that wish to update/amend the right metadata (MD).

The Business logic occupies the middle layer; it processes commands, performs calculations and makes logical decisions and evaluations. It comprises the components (modules) that process the input coming from the above layer. It also moves and processes data between the two surrounding layers. As shown in the figure, it is also responsible of the logic for the ROW and of the Clearing mechanisms /OPW functions.

Taking into consideration the three workflows described in paragraph 1.3, the architecture will include the following modules:

- The "work identification" module including the meta-search module related with Arrow Process 1 "Work Identification Module".
- The Right data module, the ROW module and the Clearing mechanism module closely linked with the Arrow process 2 "Identification of RH(s) and request for permission" and Arrow process 3 "check for existing rights information".

The administration module is responsible to administer the user access to the Arrow services.

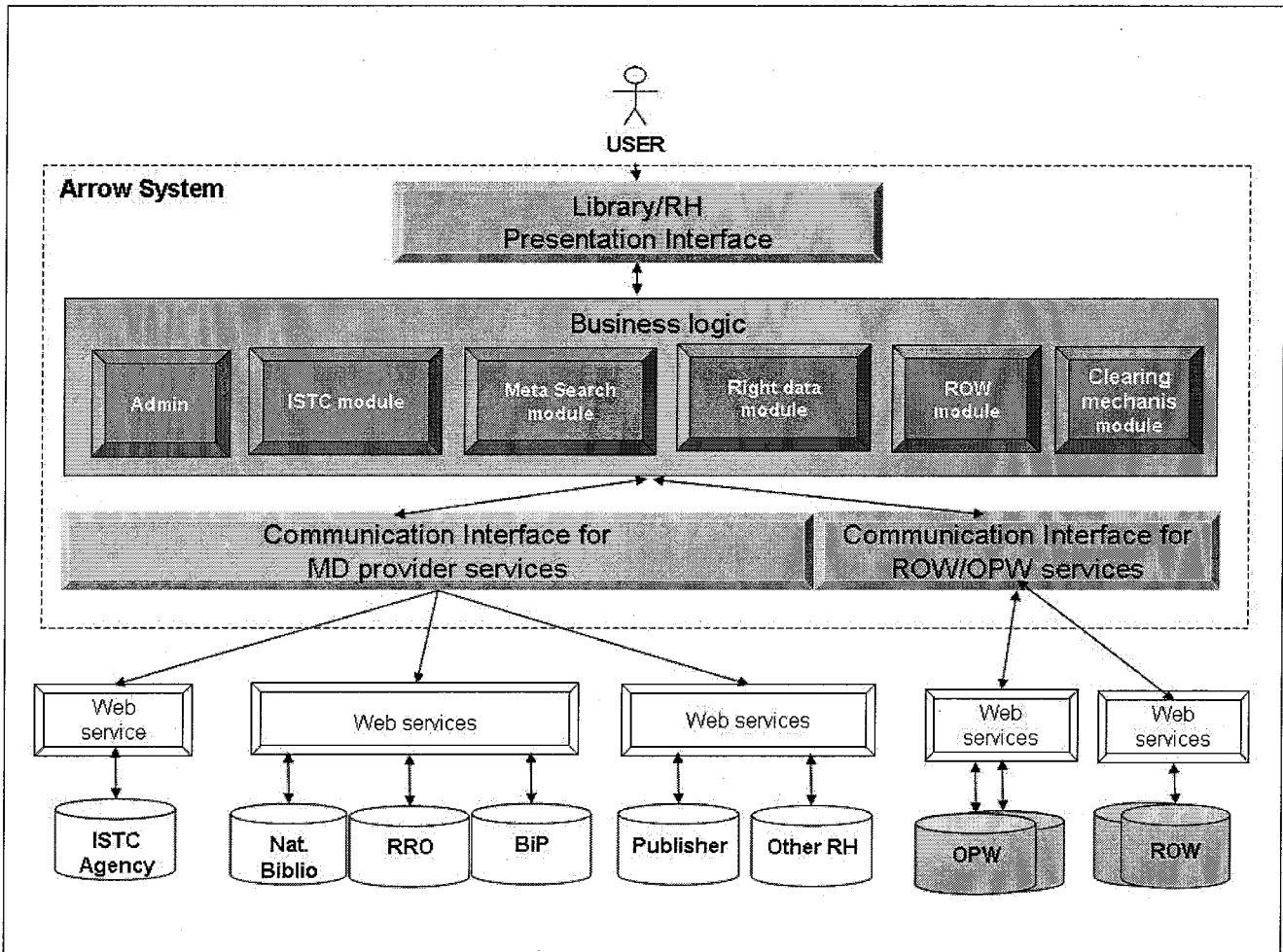
The third layer is the Communication Interface and is responsible to communicate with the external metadata provider services. It is divided in two parts: the first has the responsibility to interact with the metadata provider services.

Similar interfaces will be set up to communicate with the registries of orphan works (in the realistic hypothesis that more than one will be available) and with the services for out of print work.

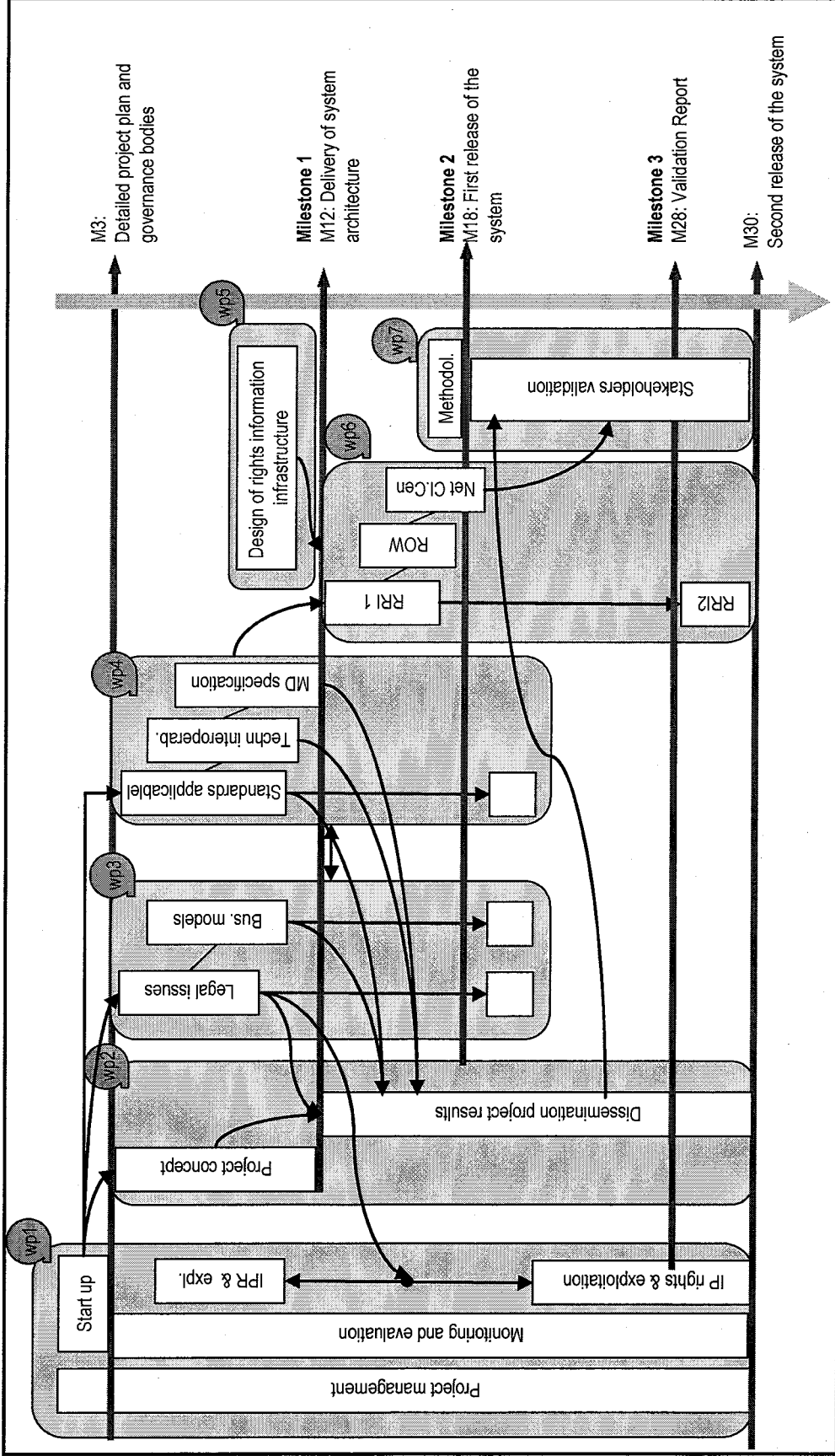
The fourth layer at the bottom of figure 7 is external to the Arrow architecture and represents the different services/resources maintaining rights and bibliographic metadata. In fact the expected result of the project is the set up of "a distributed network of sources for information on copyright status and data about European literary works". Hence, being the source of information not centralised in the Arrow system but distributed on different sites, all these modules will communicate using different protocols with these sources in order to send them the requests of information and collecting back the answers.

The deliverable 4.2 Technical Interoperability guidelines will provide an analysis of the main communication protocols for online search and retrieval of metadata adopted by the different categories of data information considered in the project.

Fig. 7 - Arrow architecture



The relations among different workpackages including dependencies and milestones can be graphically represented as follows :



7.4 Work package and labour effort overview

Work Package and Labour Effort Overview

WP No ¹	WP Description	Lead Applicant No ²	Start month	End month	Total Person months	AP 01	AP 02	AP 03	AP 04	AP 05	AP 06	AP 07	AP 08	AP 09	AP 10	AP 11	AP 12	AP 13	AP 14	AP 15	AP 16
						AIE	BNF	IFRRO	FEP	BL	NUK	BNE	DNB	MVB	FGEE	NUM ILOG	CIN	CLA	NLN	UJBK	KB
1	Management and evaluation	AIE	1	30	108	59	4	5	4	3,5	4	3	5	3	2	2	2	4	3	3	0,5
2	Dissemination and awareness	IFRRO	1	30	103,5	16	7	23	8	4	5	7	4	6	7	2	1	5	2	6	0,5
3	Legal and business models	FEP	4	23	86	13	7	7	15	4	2	4	10	5	6	3	1	4	2	3	0
4	Interoperability	BNF	4	23	95	13	14	6	1	3	3	4	4	12	2	7	7	5	3	0	11
5	Design of system architecture	MVB	4	12	53	7	2	3	2	1	1	2	5	14	2	0	6	5	2	3	1
6	Set up of right information infrastructure	CINECA	13	30	134,5	22	3	8	5	4,5	5	4	7	2	9	0	41	13	6	3	0
7	Validation	UJBK	17	30	81	6	5	3	3	2	2	4	13	8	4	3	3	5	0	20	0
	Total				661	136	42	55	38	22	22	28	48	50	32	17	61	41	18	38	13

1 Workpackage number: WP 1 – WP n.

2 Number of the applicant leading the work in this work package.

7.5 Work package description

Work package Description

Work package number :	1	Start date:	1	End date:	30
Work package title:	Management and evaluation				

Objectives

- ✓ Managing and coordinating the whole project work, including relations with European Commission
- ✓ Maximisation of integration and working efficiency among partners
- ✓ Monitoring and quality control of all the working phases and related deadlines
- ✓ Final definition of IPR within the consortium
- ✓ Definition of the final business model and exploitation plan

Description of work

Task 1.1. Start up - At the beginning of the project, the consortium will detail the project workplan and the monitoring and evaluation plan, assigning detailed tasks to all partners and defining ways to ensure maximum exploitation of the expertise present in the consortium. Governance bodies will be set up to take care of the effective management of the project (GM and MG) and to discuss strategic decisions including representatives of stakeholders (SC)

Task 1.2. Project management - The task will provide comprehensive project management according to the methodology described in detail in § 7.

Task 1.3. Monitoring and evaluation - In parallel, activities for monitoring and assessing project progresses and results will be carried out (see again § 7)

Task 1.4. IP rights and exploitation plan - In the final months of the project, issues related to IP rights and long term sustainability will be analysed in order to prepare an exploitation plan (see § 5.5)

(Inter-) Dependencies, milestones and expected result

By definition, project management is related to all the rest of the project work. A peculiar **dependency** is given by the relation between the results of WP3 (legal and business models) and the IPR and exploitation plan (T.1.4).

Milestones are fixed at **M12** (end of design phase), **M18** (end of system set up) and **M28** (formal reports from validation).

Expected results are effective management, monitoring and evaluation of the project, the consortium agreement on IP rights on project results, and the final exploitation plan.

Deliverables

- 1.1 Project operative workplan (M3)
- 1.2 Quality and evaluation plan (M3)
- 1.3 Progress Report (M7)
- 1.4 Progress Report (M13)
- 1.5 Annual Report (M13)
- 1.6 Pre-financing Request (M18)
- 1.7 Agreement on future IP rights (M18)
- 1.8 Progress Report (M19)
- 1.9 Progress Report (M25)
- 1.10 Annual Report (M25)
- 1.11 Progress Report (M31)
- 1.12 Monitoring and evaluation report (M31)
- 1.13 Final report, including exploitation plan (M31)
- 1.14 Final report public (M31)
- 1.15 Financial Statement (M31)

Work package number :	2	Start date:	1	End date:	30
Work package title:	Dissemination and awareness				

Objectives

- Incisive promotion of the project concept and results among rightholders, intermediaries and libraries in the countries involved, and to further target groups in additional European countries
- Effective and continuous involvement of external stakeholders throughout the system development and enhancement, in order to carry out demand-driven actions
- Increasing awareness within the digital library value net about interoperability and dealing with orphan works and out of print works
- Realisation of a dedicated project website, linked with the partners websites
- Dissemination of projects results and recruitment of early users of the system in stakeholders community
- Promotion of the system to general public

Description of work

At the beginning of the project, a reference group made by representatives of the consortium and chaired by the WP leader will be formed. A dissemination plan will be agreed, outlining communication strategy and an information package will be prepared with standard presentation of the project and different tools. Dissemination will start from **promoting the project concept (Task 2.1)**, which will be addressed to rightholders (authors and publishers), intermediaries (in particular RROs), digital libraries and commercial aggregators in order to increase the awareness on the main issues afforded by the project (the importance of standards and interoperability for rights information exchange and business models, the identification of RHs and the problem of orphan works, etc.).

The second phase is the **dissemination of project results (Task 2.2)**, when the dissemination activity will change its nature: as the first deliverables will be ready for dissemination, they will be promoted during events, bookfairs, etc. This will allow better “marketing” to early adopters of the system, to be involved during the validation phase.

The work will be based on existing tools provided by the partners, such as websites, newsletters, magazines, etc. Seminars and other meetings devoted to the project will be organised at national and international level in the second year, while existing occasions (conferences, meetings, fairs) will be exploited to disseminate promotional and information materials during the whole project. The dissemination activities will constantly gather feed back from the communities of interest, in order to tailor the project strategy according to stakeholders needs and materials updated in order to reflect the progress of the project.

A **project website** will be created, linked to the existing websites of the partners; to make this instrument more effective, news provided within the project will be frequently replicated within the partners' websites. The project will also issue an electronic only “Arrow newsletter” (its periodicity will be defined according actual needs), published also in the website, which will also contain all the press-release issued during the project life, according the strategy detailed in § 5.6.

(Inter-) Dependencies, milestones and expected result

Dependencies: The main phases of the WP will follow the evolution of the technical WPs: T2.1 will run during work of the WPs 3 to 5 and T2.2 during the WPs 6-7. In general, good awareness activities are important to have a real demand-driven project; in particular, they will be crucial to recruit professional users participating to the validation (WP 7).

Milestones: The main milestone is fixed at **M12**, when the first project results will be ready and thus the nature of dissemination will change, from promoting just a concept to disseminating actual results. When the system will be ready (**M18**) dissemination will again change, having the possibility to show a concrete system and not only studies and guidelines.

Expected results: Main expected result is the actual involvement of high number of stakeholders in project work and promoting to the general public of readers the final results. Some activities may have also value for policy makers at European level.

Deliverables

- 2.1 Project website** (M3, and continuously up-graded during the project lifespan)
- 2.2 Dissemination Plan** (M3 updated annually)
- 2.3 Project Presentation** (M3)
- 2.4 Project Presentation (results)** (M31)

Work package number :	3	Start date:	4	End date:	23
Work package title:	Legal framework and business models				

Objectives

- To study the legal framework and licensing models to be applied along the value chain in respect to the different national frameworks
- To elaborate operative solutions for handling with orphan works and out of print books, starting from stakeholders requirements
- To define the business models enabled by the project and general framework for enhancing innovative business models by external participants (authors, publishers, RROs, libraries, e-retailers)

Description of work

Task 3.1. Legal framework and operative solutions - Starting from the results of the copyright sub-groups within the High Level Expert Group on Digital libraries nominated by the European Commission, the project will focus operative solutions. Key topics are: concrete definition of procedures for diligent search before defining a work as orphan; definition of clearance mechanisms for out of print works, on the basis of the model licence delivered by the HLEG; model licenses for facilitating the envisaged business models.

Task 3.2. Definition of business models - The starting point is the cited study promoted by the BNF and the SNE in France on the same subject. However, this will be integrated through the experience coming from other partners in other countries. The guiding principle is the "business interoperability", i.e. to define a picture where many business models can coexist and interoperate in a single framework.

For both tasks, the methodology is the set up of two "project working groups", where the different stakeholders will be represented, which will prepare discussion papers that will be discussed with broader involvement of partners and external stakeholders. The ways for conducting such broader consultation are:

- Before the preparation of the discussion papers, the working groups will interview experts and professionals, selected with the purpose of having different viewpoints (so: players of different nodes of the value chain, in different member states);
- To enhance the debate on discussion papers, an open Internet consultation will be open, and in parallel some national and European workshops, with limited number of invited participants, will be organised in the form of brainstorming sessions;
- Finally, the results of the first two phases will be incorporated in a single report.

For both tasks a replication of the study is planned after around one year time, so to review the results to take into consideration the market evolution.

(Inter-) Dependencies, milestones and expected result

Dependencies: The results of this WP will be used for the definition of the system characteristics (WP 5). Business interoperability should be seen as complementary to technical interoperability (WP 4). For this reason, there will be constant relations between the working teams developing this WP and those of the other parallel two.

Milestones: The first delivery of the two reports is fixed to **M9** (T.3.1) and **M10** (T.3.2); both will be upgraded by the **M23**.

Results: Guidelines for operative legal solutions and business models.

Deliverables

- 3.1. Report on legal framework - Edition 1 (M9)**
- 3.2. Guidelines for the definition of orphan works (M9)**
- 3.3. Guidelines for clearance mechanisms for out of print works (M10)**
- 3.4. Report on business models - Edition 1 (M10)**
- 3.5. Report on legal framework - Edition 2 (M23)**
- 3.6. Report on business models - Edition 2 (M23)**

Work package number :	4	Start date:	4	End date:	23
Work package title:	Interoperability				

Objectives

- To enhance deployment of standards along the digital library value chain for identifying and describing content and for web resolution
- To promote interoperability in the digital library value net, from rights clearance to content search
- To implement specification of message formats for right expression within digital library initiatives.
- To define specification for metadata messaging and harvesting from RHs, intermediaries, libraries and e-retailers
- To define technical specification for interoperability among public and private digital collections in order to create a basis for the future development of web services

Description of work

Task 4.1. Standards applicable - Relevant standards are defined in respect to different functions (identification, metadata and web resolution) and different scopes (works, digital manifestations, rights, and parties). The picture is increasingly complex and this may create difficulties to professionals to full exploit the benefits of available standards and technologies. The project will provide guidance for all the cells of the ideal table created by crossing functions and scopes as far as the availability of econtent is concerned.

Task 4.2. Technical interoperability - The use of standard systems also enhances technical interoperability, which however should consider also technologies related to metadata harvesting and syndication, file formats, users authentication, content aggregation for indexation, protection measures, etc. This task will provide guidance also for these aspects, in order to facilitate interaction between public and private econtent collections. In both 4.1 and 4.2 Arrow will work in strict collaboration with the relevant standard setting organisations.

Task 4.3. Metadata specification for rights expression - While in most cases the use of standards is related to the adoption of existing systems, ad hoc standard for rights expression – which is one of the core aspects of the project – should be developed. The project plans to implement one or more ad hoc application profiles within the broader framework of ONIX for Licensing Terms (OLT) initiative. This will be done under the supervision of EDItEUR, the standard setting organisation responsible for OLT, so to ensure high level integration between the project results and general international development.

(Inter-) Dependencies, milestones and expected result

Dependencies: The WP deliverables are elements for the design of the Arrow system (WP 5) and following implementation (WP 6).

Milestones: The three tasks are planned to be completed their first release respectively at month **9, 10, 11** so to allow integration of results in design of system architecture. Afterwards, the guidelines for standards applicable will be upgraded by the **M23** in order to take into consideration expected evolution in the field.

Results: Guidelines for standards and interoperability addressed to all professionals of digital content value chain; technical specification of rights expression messages, released in form of open source licence or equivalent.

Deliverables

- 4.1. State of the art and guidelines for standards applicable – Edition 1 (M9)**
- 4.2. Guidelines for technical interoperability (M10)**
- 4.3. Specification of rights expression metadata (M11)**
- 4.4. State of the art and guidelines for standards applicable – Edition 2 (M23)**

Work package number :	5	Start date:	4	End date:	12
Work package title:	Design of system architecture				

Objectives

- To define the comprehensive system architecture for management of rights information, clearance mechanisms and orphan works registry
- To define workflows along the value chain both in metadata provision and in content provision
- To design user interfaces functionalities
- To include multilingual and multicultural dimensions in system architecture

Description of work

The goal of this WP is to transform the Arrow concepts and the work done in WP 3 and 4 in actual specification to allow the system set up. Technologies to be used are all "on the shelf" but the aim is to combine them in innovative way. The work consists of three tasks:

Task 5.1 Analysis of bibliographic resources and clearing mechanisms existing in Europe - The first step is a thorough analysis of the bibliographic resources and clearing mechanisms existing in the countries directly involved and in a number of further member states, aimed at assessing data consistency, the potential use in this context and needs for making them interoperable.

Task 5.2 Definition of system Workflow - The second step will be the analysis and design of expected workflow for declaring rights, query the system by users and redirect to appropriate resource. During this phase, the tools for enabling metadata enrichment with rights data will be designed.

Task 5.3 Design of rights information infrastructure - Finally, the ARROW architecture will be designed; in order to meet the requirements of performance, scalability and flexibility, the following design principles will be adopted:

- maintain the rights metadata in a distributed network of resources;
- allow new partners to join the Arrow federation with minimum efforts;
- design a distributed search technique that take into consideration the highly decentralized database structure.

During this phase every single architecture component will be fully designed.

(Inter-) Dependencies, milestones and expected result

Dependences: the WP is strictly related to WP 3 and 4, since business models and interoperability are key elements of the system architecture. The work among the three (partially parallel) WPs will be thus constantly co-ordinated.

Milestone: The task will terminate at **M12**, when the system specification will be released.

Results: Architectural design of the whole system, ready to be used in the set up phase.

Deliverables

5.1 Analysis of bibliographic resources and clearing mechanisms existing in Europe (M9)

5.2. Specification of rights information infrastructure (M12)

Work package number :	6	Start date:	13	End date:	30
Work package title:	Set up of rights information infrastructure				

Objectives

- Starting from existing infrastructure and on the basis of the system architecture defined in WP5, to integrate existing software to produce a “ready to use” system
- To provide tools for metadata enrichment for rights information about literary works and to query distributed databases on this respect
- To set up a network of distributed registries of orphan works (ROW), complete with all mechanisms for interaction between RHs and libraries
- To foster clearance mechanisms for out of print works, on the basis of the model licence promoted by the HLEG
- To promote mechanisms for actionability of standard identifiers in the digital library framework

Description of work

Task 6.1. Rights information infrastructure - release 1 - On the basis of the design provided by WP5 the infrastructure for rights information will be created and initially fed with data owned by partners. The system will be developed to be used by rightholders to declare rights data and by libraries and other professional users to query for rights clearance. The key concept is to have a system growing from its use, so the relations between workflow and data enrichment will be particularly cared.

Task 6.2. Creation of Registry of Orphan Works (ROW) - The ROW, as said, will assume the form of network of registries, country or regional based. It will be initially fed by libraries that already completed diligent search for some works without finding relevant RHs. The registry will be public, but will require registration. The profiles for access will be “Rightholder” or “User”: the two roles will allow different functionalities.

Task 6.3. Network of clearing mechanisms - Mechanisms for clearing rights for works, and in particular for out of print works, to be included in digitisation programmes are under construction or planned in some European countries. The Arrow system will redirect users looking for right information to such services whether appropriate information is present in the DBs.

Task 6.4. Rights information infrastructure - release 2 - After the validation, a second version of the infrastructure will be released, gathering the feedback coming from the early users.

(Inter-) Dependencies, milestones and expected result

Dependencies: WP 3 to 5 are propaedeutic to the start up of this WP, which cannot start without receiving input from them. On the other side, the completion of the system is propaedeutic to the beginning of WP 7 (validation).

Milestones: The general infrastructure, including the ROW is planned to be ready at **M18**, but the elements of task 6.3 will be added at **M19**. The second release of the system will be completed at the end of **M30**.

Results: A comprehensive information infrastructure as described in § 1.2, incorporating – at the end of the project – suggestions and other feedback stemming from the validation.

Deliverables

- 6.1. Rights information infrastructure - release 1 (M17)**
- 6.2. Registry of Orphan Work (M18)**
- 6.3. System for redirection to clearing mechanisms (M19)**
- 6.4. Rights information infrastructure - release 2 (M30)**

Work package number :	7	Start date:	17	End date:	30
Work package title:	Validation				

Objectives

- To validate the project results with relevant communities of stakeholders (authors, publishers, RROs, libraries, retailers)
- To gather feedback from stakeholders to improve the system
- To gather feedback from the use of the system for the definition of specifications for release 2

Description of work

Task 7.1. Definition of methodology and preparation of tools (m17-18)- The first phase of the WP will be devoted to the preliminary work for setting the validation. While the system will be under completion, this task will define the stakeholders validation methodologies, including methods for recruiting early users of the system within the stakeholders communities, in particular for rights declaration and search, according to formalised pattern. Also a detailed roadmap for the validation will be created according to the various validation aspects and the partners' focus.

Task 7.2. Stakeholders validation (m19-30)- Professionals along the value chain will be asked to use the different component of the system so to gather feedback for corrections and enhancements of the system. Though formal comments will be collected using online questionnaires, the main feedback will consist of analysis of actual efficiency of the system assessed against predefined criteria.

The validation will be based on four main approaches:

a) Structured interviews with stakeholders are an appropriate means to deeply understand the needs and expectations of stakeholders. These interviews will be made in continuation of the system requirements definition carried out in WP5. The interviews will cover a wide range of stakeholders, not only partners of the Arrow, including experts and institutions in the field. Since personal interviews are time-consuming, all partners within WP7 will be involved in this task. The interview guidelines will come from the WP leader.

b) Performance measuring. Once the rights infrastructure system is implemented and running statistical data will be gathered for performance measuring (c.f. 6.1). They will be analysed according to the single components of the system and will be carried out on a regular basis in month 21, 24 and 27.

c) Questionnaires. Once the European Registry of Orphan Works (ROW) is stable and a sufficient number of users is working, an online questionnaire will be placed directly at the system websites in order to evaluate the user satisfaction on a broad level. The questionnaire will be based on usability standards available in this field and it will be carried out by the maintainers of the system together with UIBK. All partners of WP7 will be involved in the analysis task. The questionnaire will be carried out between month 25 and month 26.

d) Feedback of early adopters. Early adopters of the system are those partners who will act as use cases. They are heavily involved with the implementation and setup of the system. Therefore an individual evaluation and analysis of their user satisfaction will be conducted based on an understanding of their individual situation, needs and constraints. These feedbacks will have a narrative character and will come from all ARROW partners and stakeholders involved in the whole phase of validation work.

The output of these tasks will be integrated in a validation report that will therefore include the following chapters:

7.2.1 Reports of structured interviews (M28)

7.2.2. Statistical evaluation (M21, M24, M27)

7.2.3. Online questionnaires evaluation (M28)

7.2.4. Reports from early adopters (M28)

(Inter-) Dependencies, milestones and expected result

Dependencies: by its nature the validation WP is deeply connected to the implementation of the system (WP 6): The actual work of WP7 will start once the setup is completed and the results of WP6 will provide feedback to upgrade the system itself for issuing the second release. Another key dependency is given with WP2 Dissemination (T.2.2): the recruitment of professional early users and the promotion of the platform to the general public are two objectives of the dissemination on which the efficiency of validation will depend.

Milestones: The delivery of the validation report at **M28** is the key milestone of this phase.

Results: Feedback from professional users to be used for system upgrade.

Deliverables

7.1. Validation roadmap (M19)

7.2. Validation report (M28)

7.6 Deliverables List

Deliverables List

Deliverable No	Deliverable title	Delivery date	Nature	Dissemination level
D1.1	Project operative workplan	M3	O	CO
D1.2	Quality and evaluation plan	M3	O	CO
D2.1	Project website	M3	O	PU
D2.2	Dissemination Plan	M3	O	CO
D2.3	Project Presentation	M3	O	PU
D1.3	Progress Report	M7	R	CO
D5.1	Analysis of bibliographic resources and clearing mechanisms existing in Europe	M9	R	PU
D3.1	Report on legal framework - Edition 1	M9	R	PU
D3.2	Guidelines for the definition of orphan works	M9	O	PU
D4.1	State of the art and guidelines for standards applicable – Edition 1	M9	R	PU
D3.3	Guidelines for clearance mechanisms for out of print works	M10	O	PU
D3.4	Report on business models - Edition 1	M10	R	PU
D4.2	Guidelines for technical interoperability	M10	O	PU
D4.3	Specification of rights expression metadata	M11	O	PU
D5.2	Specification of right information infrastructure	M12	O	PU
D1.4	Progress Report	M13	R	CO
D1.5	Annual Report	M13	R	PU
D6.1	Rights information infrastructure - release 1	M17	D	CO
D2.2	Dissemination Plan – 1 st annual update	M15	O	CO
D1.6	Pre-financing request	M18	O	CO
D1.7	Agreement on future IP rights	M18	O	CO
D6.2	Registry of Orphan Works	M18	P	PU
D6.3	System for redirection to clearing mechanisms	M19	P	PU
D1.8	Progress Report	M19	R	CO
D7.1	Validation roadmap	M19	R	CO
D3.5	Report on legal framework - Edition 2	M23	R	PU
D3.6	Report on business models - Edition 2	M23	R	PU
D4.4	State of the art and guidelines for standards applicable – Edition 2	M23	O	PU
D1.9	Progress Report	M25	R	CO

D1.10	Annual Report	M25	R	PU
D2.2	Dissemination Plan – 2nd annual update	M27	O	CO
D7.2	Validation report	M28	R	CO
D6.4	Rights information infrastructure - release 2	M30	P	PU
D1.11	Progress Report	M31	R	CO
D1.12	Monitoring and evaluation report	M31	R	CO
D1.13	Final report, including exploitation plan	M31	R	CO
D1.14	Final report (Public)	M31	R	PU
D1.15	Final Financial Statement	M31	R	CO
D2.4	Project Presentation (results)	M31	O	PU

8 Project management

8.1 Project Management Structure and Responsibilities

Arrow is a complex project to manage. This is due mainly to three factors: the high number of partners, their heterogeneity, and the strategic importance of the project for all of them. On the other side, the value of the project derives from such complexity: the wideness of the consortium provides genuine European dimension; the collaboration between key players along the digital library value chain is a key element for the achievement of the project objectives; the relevance of the project for the participants is a guarantee for their commitment. Therefore, the challenge of project management is to gain the value from this complexity taking under control the risks implied.

The management policy is designed starting from the awareness of this complexity, which can be seen in respect to three layers: **(a)** strategy, **(b)** actual management, and **(c)** administration. Monitoring and risk management is also to be considered.

(a) As for the first, in the consortium there are representatives of the three communities of relevant players: rightholders, RROs and national libraries. Publishers and RROs are involved through their umbrella organisations (FEP and IFRRO respectively) .. They will be asked to form the project **Steering Committee (SC)** together with authors representatives, that the European Writers Congress will be asked to nominate; national libraries will be in the same way represented through the EDL Foundation. The SC will thus consist of one representative of each European organisation plus one additional member invited by each of them. The value of this choice is that such organisations have constantly dialogue with their own members and are used to represent them, and thus can bring in the project the views of the different communities involved. A representative of the eContent-Plus programme – the project officer or another person indicated by the Commission – will also be invited to join the Committee.

The main task of the SC is to design and adapt the general strategy of the project taking into consideration the evolution of the European and international context as far as digital library and econtent availability programmes are concerned.

The model is similar to that of the High Level Expert Group nominated by the European Commission, where stakeholders were widely represented, which demonstrated efficiency in addressing issues (e.g. orphan works or out of print works) that had been on the table for years. However, there is also a risk that must be taken into consideration if the SC would become a room for political contest instead of effective decision making. To limit this risk the SC will not act as a separate body from the Management Board but will perform its strategic function through specific sessions of the MB enlarged to key representatives of all stakeholders invited specifically by the European organisations involved together with a representative of the eContent-plus programme.

These special sessions will be convened in occasion of milestones where a broad consensus is needed or when new developments in the field of digital libraries or digital content should be considered in the implementation of the project.

The agenda will be set by the project Management Board (see below), which – if the case – will ask for limiting the discussion to actual project agenda, so to leave out of the door any possible reasons of disagreement (see also below, § 8.3).

(b) As for the actual **management**, two governance bodies will be set up: the project General Meeting (GM), where all partners and external supporters will be represented and the Management Board (MB), in charge of day by day progress of the project, composed by one representative for every WP leader. The project co-ordinator will lead the project work as "*primus inter pares*" within a group of partners, appointed for the management of each WP. There is a precise rationale for sharing project responsibilities among the partners and this is why the co-ordinator does not lead any technical phase of the work. Management of the individual working groups is delegated to WP leaders, but the co-ordinator will monitor overall progress and will be ready to replace the WP leader whenever it is needed, after having informed the MB and with the MB's approval.

In principle, decisions will be taken on the basis of general consensus; however, when it is impossible to reach unanimity a vote will be cast by each person present at the relevant meeting and a simple majority will decide the outcome. The MB will convene at least 2 times per year, and can be convened at any time by the chairman or 1/3 of the members, or 1/5 of the GM members. The co-ordinator, also after request by any MB member, may invite other partners to join meetings as observers.

Main tasks of the MB are:

- To take the relevant decisions related to project work organisation, including detailed workplan, attribution of tasks to individual partners, etc.;
- To solve possible conflicts within the project consortium;
- To discuss and approve the agreement on IP rights on project results (see WP1, T1.3) as regards the exploitation plan (WP1, T1.4);
- To control the co-ordinator, who will report to the MB on project progress on a regular basis;
- To appoint peer reviewers for evaluation activities.

The project GM will convene at least three times during the project (including the kick off meeting) and is the occasion for discussion with all partners and liaison organisations about the project progresses, on the basis of reports from the MB and SC. Further stakeholders interested in the project may also be invited.

Scheduling is an important aspect of project management. The project plan includes some degree of flexibility. In particular, experience with many European projects demonstrates that the start up phase is very delicate: all partners should review the internal working plan, allocating the right people to the project by a specific date, etc.; however the start date is not totally controlled by the project partners but depends on negotiations with the Commission. It can happen, in such circumstances, that some delay is accumulated at the start of the project, and this can cause serious problems during the rest of the project lifespan. For this reason, the start up is planned with some prudence, lasting three months, which may appear as redundant only if one does not consider the complexity of the project.

(c) As for **administration**, the main responsibility is up to the co-ordinator, in collecting and checking the documentation from all partners. However, in the countries where there is more than one partners, one of these will be appointed as coordinator of the national group, with the task of supporting the AIE staff in this respect. This is an aspect that must not be under-evaluated, since some of the partners – though used in international co-operation – are not very familiar with the administration of European projects and thus need advice and guidance from the co-ordinator.

8.2 Project communication mechanisms

During the project, most work, and in particular within the three governance bodies, will be done from a distance. At the beginning of the project a web-based **cooperative working area** will be set up in order to facilitate the exchange of information and project documents during the working phases (drafts, interim reports, internal documentations, final deliverables, etc.).

The working area will provide forms of versioning control and tools to monitor access from participants. Access to this working area will be governed so that people involved in the project at different levels will access different sub-areas, which will be devoted to SC activities, relations with the Commission, the seven WPs, etc.

Face to face meetings will also have a role for communication, but they risk to be ineffective as far as information exchange on actual working activities are concerned. Because of the high number of participants, meetings will have a role for high level decision making, on one hand, and on the other hand for reinforcing the cohesion of the Arrow community. Other Internet tools with this purpose will be launched during the project, using techniques based on social networking. This part of the communication strategy, however, will be much more informal than the first.

8.3 Risk Analysis and Risk Management

Monitoring and risk management is a task first assigned to the co-ordinator, which will report to the MB. The web cooperative working area will be used for monitoring the progress of the work in the different WPs and from each individual partner, though the main information flow to promptly identify problems will be the relation between the WP leaders and the co-ordinator.

The following table describes possible risks, instruments for monitoring and mitigation strategies.

Risk	Monitoring tool	Mitigation strategy
One or more partners fails in respecting deadlines or there are problems in the documentation provided (e.g.: lack of coherence between activity and financial reports),	Cooperative working area Reports from WP leaders	The co-ordinator will propose counteraction, which may involve changes in the tasks and related budget assigned to that partners, and – if required – preparation of request of contract amendments to the European Commission. The proposals will be first agreed with the partner involved and then approved by the MB, through online communication. If the decision implies budget reduction or other measures not accepted by the partner(s) involved, the co-ordinator will submit the decision to a nominated "Proviriri Council", appointed during the kick off meeting and including representatives of the three stakeholders categories.
A WP leader is not effective in co-ordinating the work	Claims from individual partners involved in that WP Analysis of interim reports and draft deliverables	The general co-ordinator will first contact the WP leader to analyse the problem and will convene (in person or on distance) the MB for taking consequent decision, which may imply change of WP leadership and – if required – preparation of request of contract amendments to the EC In case of lack of agreement between the MB decisions and the WP leader, the Proviriri Council will take the final decision
The co-ordinator is not effective	Claim from individual partners to respective WP leader Analysis (by MB members) of interim reports and draft deliverables	The MB will convene upon request of any of its member to take appropriate decision and, if necessary, to appoint another co-ordinator and prepare contract amendment to the EC
A political conflict emerges between the stakeholders involved, affecting the decision making capacity within the governance bodies	Impasse in the Steering Committee or in other project bodies	The co-ordinator will set the agenda of any meeting, including only mere technical matters and asking members to keep away any further issues
Uncertain development of the standard landscape relevant for the project (e.g.: ISTC use does not grow as planned, stakeholders do not agree on metadata standard, etc.)	Monitoring on these aspect are specifically included in the WP4	If the case, the MB will prepare a report on that to be submitted to the SC. The SC will take final decisions, including change of workplan, if required, to ensure consistency in respect to project objectives
Indicators show that the objectives are not fully achieved	Analysis of interim reports	The MB is convened to analyse data and to interpreter them in order to identify the reasons. The MB prepares a report to be submitted to the SC. The SC will take final decisions, including change of workplan, if required, to change strategy for achieving the fixed objectives or to review the objectives themselves.
Reviewers of deliverables do not accept them according the evaluation criteria	Internal to monitoring and evaluation plan	The WP leader, in collaboration with the co-ordinator, will ask the partners responsible of the deliverable to review and, if the case, to provide additional work on that. If the case, the co-ordinator refers to the project officer about the problems arising in order to agree possible changes to the workplan

8.4 Quality Assurance

A detailed "**Evaluation plan**" (T1.2) will be approved by the GM during the kick off meeting and a partner will be appointed for the leadership of this function. Evaluation is here separated from monitoring (§ 8.3). While the latter is focused on the formal respect of tasks and deadlines, the former is devoted to the assessment of the quality of the project results.

The basic criterion of the evaluation plan is distributing the responsibility for the evaluation across the categories of partners. Each deliverable will be evaluated, against predefined criteria, by a partner belonging to a different category than the main responsible for that deliverable.

The Evaluation plan will identify, for every deliverable:

- The primary responsible of the quality assurance
- The partner appointed for the peer reviewing. Names of actual reviewers will be communicated in advance to the co-ordinator
- The general criteria for the evaluation and the procedure to establish detailed criteria, which will be always agreed between the reviewer and the co-ordinator. In case of disagreement, the MB will take final decision.

9 Dissemination and awareness

Dissemination and awareness activities will run through the whole project lifespan. This is due to the particular importance of dialogue between the working team and potential users in a project that arises directly from stakeholders needs. It is not only a matter of promoting a new product or service to potential customers: the whole project should be developed *within the context* of the relationships between libraries and rightholders.

A key aspect will be the creation of an ad hoc team, with broad involvement of representatives of the different communities represented in the project to form a strategy, reference and editorial group with the aim to ensure the necessary flexibility and broadest possible involvement, and to ensure that the strategy is sufficiently dynamic. For this purpose a reference group will be established immediately after the signature of the contract with the Commission.

The team will also consider the involvement of the Commission and representatives of the external supporters¹ as well as the integration and co-operation with other related projects, first of all Europeana and the European Library.

A structured communication strategy will be defined through the preparation of a consolidated dissemination plan that will be agreed by the consortium. An information package will be worked out including articles, fact-sheets, project description, and a PowerPoint presentation to be used to present the project

One of the key strategies of the dissemination will be to maintain contacts with authors, publishers, collective management organisations, and libraries. As said, the European associations of the respective stakeholders are members of the consortium (FEP and IFRRO in particular) or in any case connected with the working team: the European Writers Congress was involved since the beginning in the launch of the project, and will be invited to join the Project Steering Committee. The first element of the dissemination strategy is thus to use such federations as multipliers to communicate with the individual national associations in all the EU countries. To do this, the main instruments will be:

- Promotion of the project concept and results during the existing meetings of the associations;
- Organisations of ad hoc events devoted to the project, in line with the practice already in use within such organisations: for instance the IFRRO "Senior managers forums";
- Use of websites and newsletters of the organisations to disseminate key information about the project.

Dissemination will follow the project lifespan, but will be modified according to the different phases of the workplan. It will start by **promoting the project concept** to professional target groups: rightholders (i.e. authors and publishers), intermediaries, and libraries. In this phase the focus is on raising awareness of the main issues addressed by the project: the problem of orphan works; the need for interoperability between existing resources; the identification of rightholders; the importance of shared metadata schemas; the use of standard identifiers in the new digital environment, etc.

The channels that will be used are the existing relationships that all the project partners and external supporters have in their own countries and, as said, the multiplication effects generated by the international associations. In each country members will promote the project concept through their own website,

¹ Apart formal partners, a number of organisations [see list in § 11.2.1] declared their interest in the project and the willingness to participate to the Arrow development, in particular as intermediaries with the relevant target groups.

magazines, newsletter, meetings with stakeholders, etc. A project website will be created, linked to the existing and well established websites of the partners. In order to make this instrument more effective, news provided within the project will be frequently replicated in the partners' websites, which are already widely used by target groups.

After the end of this first phase (thus at month 12), the dissemination will change its nature, focusing on **dissemination of project results**. At that time some first deliverables (in form of reports) will be ready for dissemination, and specific activities will be organised to promote them, always using existing and well established instruments¹. Again, target audiences will be two-fold: experts and professionals in countries not directly involved in the project, and national stakeholder groups. For the first, it is planned that presentations will be held within the EDITEUR Steering Group, the FEP Copyright Committee, the IFRRO Digital Strategy Working Group, Copyright Industry Focus Group (CIFG), the IFLA conferences, etc. Some of these events will take place during the main international book fairs (in particular Frankfurt, London and Paris) and London Online, where some of the partners (the Italian and Spanish Publishers Associations, MVB, and frequently others) have stands or organise open meetings (like FEP). Fairs will be also used for distributing promotional and informational materials. Further conferences (like ELAG / European Library Automation Group, ECDL / European Conference on research and advanced technology for Digital Libraries, etc.) will be also exploited.

Similarly, at national level the dissemination strategy will be based on maximising the use of existing occasions: bookfairs, conferences, meetings, seminars, etc. Only when the project results are more mature, and thanks to the increased awareness established in the first phase, it will be possible to organise ad hoc meetings and workshops. Within every target group, two types of dissemination will be carried out: the first addressed to decision makers (e.g. senior managers in publishing houses, RROs and libraries) and the second addressed to technical staff, in order to show how, in practice, users may benefit directly from Arrow. This strategy will allow **marketing to early users**, i.e. professionals, even external to the partnership, wishing to join the validation phase. Target groups will remain the same (rightholders, RROs and libraries), however the messages will change, focusing on the direct benefits that all the players in the value chain may have from the project in their activities for clearing rights to digitise books or make own econtent collections interoperable within the system.

The final phase of dissemination will run in parallel with the validation. In this phase the messages will be the same for all the target groups, and will focus on the open nature of the system: professionals and readers will be invited to use (or to increase use) the system through providing evidence of success stories. The whole system is based on network effects: usage will demonstrate utility and at the same time will enrich content. This network effect is a key aspect of the project strategy.

¹ Such strategy is particularly important in this phase: the project approaches subjects like metadata interoperability, identification standards, etc. that are seen as very boring by most authors, publishers, and librarians. We need to enter rooms where people are already in, discussing related agendas, to maximise the effectiveness of our message.

9.1 Events and Meetings

List of Events & Meetings

This list includes all the meetings pertaining to Project Management and a list of indicative events where ARROW could be presented in different ways, from structured events during book fairs or other international initiatives to presentations within conference panels or speeches in professional meetings.

This list is to be considered provisional and may be varied and/or integrated once the dissemination plan has been discussed and approved and will be updated yearly.

Meeting	Participants	Date (Project month)	Location
Kick-off	all partners and invited stakeholders	M3	Milano, Italy
General Meeting (GM)	all partners and liaison organisations and invited stakeholders	M12, M24, M30	To be defined
Management Board (MB)	partners elected members of Board	M6, M12, M18, M24, M30	To be defined
Technical Review	Coordinator and WP leaders, EC officials	M13, M30	Luxembourg/ coordinators' premises (Italy)
IFRRO European Group Meetings Organised alternately as workshop and conferences (Presentation)	All European IFRRO members (RROs, national and European creators and publishers association)	April 08 October 08 Spring 09 Fall 09 Spring 10 Fall 10	Reykjavik Montego Bay Lisbon Tbd Tbd Tbd
IFRRO Digital Issues Forum Information exchange (Presentation)	All IFRRO members + invited guests (which includes FEP, PLS, EWC, EVA, in addition to RROs)	June 08 October 08 Spring 09 Fall 09 Spring 10 Fall 10	Rome Montego Bay Tbd Tbd Tbd Tbd
"Putting Digital libraries solutions into practice conference" (Presentation/Event)	RROs involved in Arrow + invited stakeholders	Fall 08 Winter 09	Tbd Tbd
Frankfurt BookFair (Presentation/Event)	EU and international Publishers+ invited stakeholders	October 2008 October 2009 October 2010	Frankfurt (Germany)
London BookFair (Presentation/Event)	EU and international Publishers	March/April 2009 March/April 2010	London (UK)
World Library and Information Congress: 75th IFLA General Conference and Council (Presentation/Event)	Representative of International Libraries	August 2009	Milan (Italy)
38th LIBER Annual General Conference (Presentation/Event)	European Research Libraries	2009	Toulouse, France

European Conference on Research and Advanced Technology for Digital Libraries (Presentation)	researchers, developers, content providers, and users in the field of digital libraries	September 2008 2009 2010	Aarhus (Denmark) To be defined To be defined
Conference Globalization and the Management of Information Resources (Presentation)	Libraries, information managers, archivists, museum professionals	November 2008 2010	Sofia (Bulgaria) To be defined
European Library Automation Group - ELAG Conference (Presentation/Event)	Libraries, information managers, archivists	2009 2010	To be defined To be defined
FEP Annual General Meeting (Presentation)	Publishers Associations	June 2008 2009 2010	Warsaw (Poland) To be defined To be defined
"Più Libri Più Liberi", small and medium publishers bookfair	Publishers and invited stakeholders	Dec 2008 Dec 2009	Rome (Italy)
"Salon du livre"	Publishers and invited stakeholders	Mar 2009 Mar 2010	Paris (France)
ONIX international steering committee	Professionals in book standard field	Oct 2008 Mar 2009 Oct 2009	Frankfurt London Frankfurt
IDF Annual meeting	Professionals in book standard field	Jun 2008 2009	Brussels Tbd
ISBN International annual meeting	Professionals in book standard field National libraries	Sept 2008	Vilnius

10 Other Contractual Conditions

10.1 Subcontracting

The reasons why some activities will be sub-contracted are related of the need to acquire very exclusive competences that are not present in the consortium.

This occur alternatively for two reasons:

- they are related to the work of standard setting organisations, which by definition have exclusivity in the development of the standard concerned;
- they concern specific phases of the work that are currently externalised in the production process of the partners

The first case concerns the non-profit organization EDItEUR, the standard setting organisation responsible for ONIX for Licensing Terms, that will be involved in the project phases devoted to metadata issues and in particular will be in charge of supervising and assessing the work on the metadata specifications for Rights expression so to ensure high level integration between the project results and general international development

A second type of subcontracting will concerns the validation of the system within the EoD network, whether members of the network will be called to test the system and sustain costs in terms of expertise and adaptation of internal data models.

Finally, other items of subcontracting will be legal consultancies related to IP agreements and legal issues.

Here's following the preliminary break-down of subcontracting among participants:

Partner	Subcontracting Total	Editeur	Legal consultancy	EoD network
AIE	17.500	9.000	8.500	
BNF	9.468	9.468		
IFRRO	7.064	7.064		
FEP	2.000	2.000		
BL	0			
NUK	0			
BNE	0			
DNB	0			
MVB	11.500	9.000	2.500	
FGEE	11.500	9.000	2.500	
NUMILOG	0			
CIN	0			
CLA	11.500	9.000	2.500	
NLN	0			
UIBK	25.000			25.000
KB	0			

10.2 Other specific costs

Other specific costs involve two categories of items:

- licences
- costs related to registration of standard identifiers
- promotion and dissemination

The first item covers the cost for both software licences and licences for use of bibliographic databases when they are not owned by participants.

The second item covers costs associated to the registration of standard identifiers (namely ISBN, ISTC and DOI) to the relevant registration agencies or authorities.

The third item covers all costs for promotion and dissemination including organization of events, promotional materials, project website and other dissemination tools.

Here's following the preliminary break-down of subcontracting among participants:

Partner	Other costs - Total	Promotional costs	Licences (software and data)	Registration of identifiers
AIE	57.054	24.024	25.000	8.000
BNF	37.246	30.246		7.000
IFRRO	13.000	13.000		
FEP	12.749	12.749		
BL	23.750	17.750		6.000
NUK	22.000	19.000		3.000
BNE	42.514	33.000		9.514
DNB	21.540	15.540		6.000
MVB	21.500	13.500		8.000
FGEE	17.000	17.000		
NUMILOG	10.100	5.100		5.000
CIN	11.167	7.000	1.167	3.000
CLA	19.000	19.000		
NLN	15.000	15.000		
UIBK	11.000	11.000		
KB	9.000	9.000		

10.3 Indicative budget distribution & pre-financing schedule

The following table provides the indicative costs and maximum financial Community contribution for the project. The maximum financial Community contribution might be reduced in accordance with the provisions set out in Article 8 and Article II.17 of this grant agreement.

Part No.	Participant Short Name	Total Costs	Community Contribution	Community pre-financing	
				First instalment	Second instalment
1	AIE	1,041,250	520,625	208,250	208,250
2	BnF	426,268	213,134	85,254	85,254
3	IFRRO	308,900	154,450	61,780	61,780
4	FEP	280,750	140,375	56,150	56,150
5	BL	187,750	93,875	37,550	37,550
6	NUK	139,300	69,650	27,860	27,860
7	BNE	156,000	78,000	31,200	31,200
8	DNB	339,590	169,795	67,918	67,918
9	MVB	371,800	185,900	74,360	74,360
10	FGEE	257,434	128,717	51,487	51,487
11	NUMILOG	163,507	81,753	32,701	32,701
12	CIN	541,150	270,575	108,230	108,230
13	CLA	315,138	157,569	63,028	63,028
14	NLN	182,550	91,275	36,510	36,510
15	UIBK	278,250	139,125	55,650	55,650
16	KB	110,260	55,130	22,052	22,052
Maximum Community Contribution			2,549,948	1,019,979	1,019,979

The coordinator may request the payment of the pre-financing instalments subsequent to the first according to the following schedule:

- Second instalment as of month 18

11 Appendices

11.1 Consortium description

AIE - Associazione Italiana Editori - Italy

The AIE (Italian Publishers Association) is the trade association for Italian and foreign publishers operating in Italy or who publish books, magazines and digital products in Italian. The Association was formed in 1869 under the title ALI. Abolished during the Fascism period, the present association was born in 1946. In 1896 AIE became member of the association that nowadays is IPA (the International Publishers Association) and in 1967 it was one of the founders of FEP, the Federation of European Publishers. Today the AIE is a non-profit trade organisation that is part of the General Confederation of the Italian Industry and represents the most important book and multimedia publishers in the country. AIE counts around 400 members, which represent around 90% of the total national book production. In last years AIE couples the more traditional activities related to the representation of the interests of Italian publishers with a wide range of services provided to publishing world. These services includes market surveys, particularly on digital publishing; training activities; management of databases (particularly the database of text book market); participation to national and international book-fairs with collective stands; publications (the *Giornale della Libreria*, the Italian leader book-trade magazine, a series of "Reports of the Research Department", a monthly newsletter and a website). A particular attention is paid to the development of publishing standard; in this field AIE manages the Italian ISBN agency and is one of the two shareholders of mEDRA, the multilingual European DOI Registration Agency. AIE representatives seat in the IPA council, IPCC – *International Publishers Copyright Council*, the Executive Committee of FEP; the Executive Committee of ISBN International; the Board of International DOI Foundation. Since 1996 AIE is involved in a number of European and national projects concerning training, technological innovation and equal opportunities. In this framework AIE have participated since 1996 to EU programmes such as Adapt, Adapt Bis, Info2000, Mlis, Educational Multimedia Task Force initiative, Leonardo, eContent, Culture 2000, and eTEN.

CVs of the key personnel

Ivan Cecchini (born in 1948 in Gemona, Italy) got a degree in philosophy at the Catholic University "Sacro Cuore" in Milan. In 1983 he arrived at the AIE, where he was appointed director in 1995. In particular, he follows the areas concerning copyright. He takes care of the relationships with Italian and European authorities and takes part in the activities of International Publishers Association (IPA) and Federation of European Publishers. He is a member of IPCC (International Publishers Copyright Council), of the "Intellectual Property" Group of Confindustria (which he represents at the Working Group on Copyright of UNICE), of the Permanent Consulting Council on Copyright of the Presidency of the Council of Ministers, and of the National Books Committee of the Ministry of Culture.

Pierfrancesco Attanasio born in 1961 in Castrovillari (Italy) – got a degree in economics at the University of Bologna. He works in publishing sector since 1986 and was marketing director of two small academic publishing houses. Since 1996 he directs the European projects of AIE. He is author of several articles and monographs on economic issues of publishing sector. He is lecturer in the post graduate course for publishing of the University of Milan. He is currently CEO of mEDRA (the European DOI agency); Secretary general of AIDRO (the Italian RRO); chairman of ISBN International, International DOI Foundation, and Editeur; chairman of the Standards and New Technology Committee of the International Publishers Association; member of the three ISO working groups for DOI, ISPI, and interoperability among ID standards.

Cristina Mussinelli was born in 1957 in Milan (Italy). She got a degree in philosophy at the Catholic University "Sacro Cuore" in Milan. From 1982 to 1992 she worked at Tramontana, a leading schoolbooks publisher. Her final position was director of the editorial department. Since 1992 she works as a consultant in the field of electronic publishing for major Italian publishers. In this context she co-ordinates the planning, design and development of multimedia products (mainly CD Rom) and deals with personnel organisation and definition of editorial strategies in multimedia. At present she is also responsible on new technologies and multimedia for AIE and has been the project manager for the AIE activities in European projects concerning the introduction of new technologies in educational publishing.

BNF - Bibliothèque Nationale de France - France

The Bibliothèque nationale de France (BnF) is one of the largest public and research libraries in the world. Its digital library *Gallica* (<http://gallica.bnf.fr>) contains 90,000 printed and 80,000 iconographic materials, obtained through the library's commitment to the digitisation of selected items of its collections. The current 19th Century Newspaper Digitisation Project is bringing more than 3 million pages available both in image and text mode. Moreover, 100,000 materials per year during 3 years will be added. In preparation for the new version of *Gallica*, planned for late 2007 with new and modern functionalities drawing upon the most recent Web 2.0 experience, more than 60,000 documents (out of the 90,000 presently available) will be converted to text mode through OCR software. The experience gained through *Gallica* has led the BnF to develop *Europeana*, a mock-up, followed by a prototype of a European digital library, which has been put online on March 2007. Although developed in only five months, this prototype has provided interesting experience on full-text indexing and customised services as well as cooperative work with the two national libraries of Hungary and Portugal. At a national level, the BnF is an active member in the *PIN* working group which aims to look at all the technical, normative, methodological, organisational and legal issues related to perpetuating information in a digital form. The BnF co-ordinates the International Internet Preservation Consortium which aims at sharing experiments and developments for selecting, harvesting, collecting and preserving as well as providing access to internet content now and in the future. In 2007, 25 national libraries as well as the American foundation Internet Archive are involved in this programme. The BnF is a founding member of The European Library consortium. The BnF is also involved in the *TELplus* project, in which it will explore the high quality OCR, full-text indexing and subject multilingual issues, as well as in the network *EDLnet*.

CV of key personnel

Françoise Bourdon - Deputy Head of National Bibliographic Agency. The NBA is in charge of the maintenance and consistency of the metadata and authority files used in the BnF databases, and of the data mappings. Within AFNOR, the French Organization for standardization, Françoise Bourdon is Chair of the Commission in charge of "Modelling, production and access to the resources".

Elisabeth Freyre - Project manager for European Affairs in the Department of International Relations since 1999. In charge of managing the European projects in which the BnF is involved, especially within the framework of TEL/The European Library and related projects (TELplus, EDLnet).

Valérie Game - Head of Legal Affairs and Procurement Contracts division. Specialized in Intellectual Property and public legislation. In charge of all legal issues in relation with the enhancement of collections as well as their access (in the reading rooms, online, for the exhibitions, cultural events, etc.).

Sophie Sepetjan - Head of Legal Affairs division since January 2006. Member of the BnF Legal Affairs division since 1998. Solicitor (*avocat au barreau de Paris*). Specialized in Intellectual Property. In charge of all legal questions in relation with the activities and missions of the BnF.

Harold Codant - Member of the Legal Affairs division since 2001. Specialized in Intellectual Property : in charge of all Intellectual Property matters (publishing and exhibitions agreements, acquisition and assignment copyrights agreements, ...) and sponsoring agreements. Counsellor in all these matters for the BnF departments.

Valérie Vesque-Jeancard - Chief Operating Officer since February 2006, in charge of legal, finance, human resources and operations. Head of the working group in charge of proposing, along with the French association of publishers, a business model for the inclusion of material under copyright in the European digital library. Experience of private - public partnerships, business models appraisal.

IFRRO - International Federation of Reproduction Rights Organisations - Belgium

IFRRO represents several hundred thousand creators and publishers in the print media sectors in Europe and worldwide. Of the 110 member organisations, 64 are involved in the licensing of reprographic reproduction and certain digital uses. There are 50 national RRO (Reproduction Rights Organisation) members. These organisations are referred to as full members of IFRRO. To obtain an RRO status with IFRRO, the organisation ought to be a Collective Management Organisation (CMO) which represents creators and publishers alike. It must be mandated to administer reproduction and other relevant rights including certain forms of digital uses in copyright text and pictorial works on behalf of creators and publishers. These rights are normally referred to as reprographic rights. In addition, 14 CMOs which have the status as Associate Members with IFRRO licence reprographic reproduction and certain forms of digital uses of copyright works. The IFRRO Associate Members also comprise 46 national and international authors' and

publishers' associations, such as FEP (Federation of European Publishers), EVA (European Visual Artists), EWC (European Writers Congress), ENPA (European Newspaper Publishers Association) and IFJ (International Federation of Journalists) on the European level. IFRRO works to increase on an international basis the lawful use of copyright works and eliminate unauthorised copying by promoting efficient Collective Management of rights through RROs. IFRRO facilitates co-operation among RROs as well as with and among authors, creators, publishers and their associations. Through this work and its persistent fight against copyright infringement, piracy and other forms of unauthorised use of published works IFRRO stimulates creativity, diversity and investment in cultural goods as a useful tool for rights holders, consumers, the economy and society as a whole. IFRRO represents a network through which information flows between the creators, publishers and CMO members. A substantial part of the work is carried out by committees and working groups. In 2006, RROs in membership of IFRRO administered € 548 million for reprography, out of which more than half of it in the Europe, and similar use of printed copyright material.

CV of key personnel

Olav Stokkmo is Secretary General of the IFRRO since December 2004, a position he also held from 1998 to 2000. Stokkmo has a Master's degree in Modern History and Political Science and a Bachelor's degree in Business Administration and Economics. Prior to joining IFRRO Stokkmo worked 8 years as the Deputy Executive Director of KOPINOR, the Norwegian RRO and 4 years as Director of Operation at the Norwegian publishing house Det Norske Samlaget. He is an author of management literature, *inter alia* the book *Management by Commitment*, and of articles on copyright and collective management in different journals and magazines. During 1993-98 he served as a member of and chaired IFRRO working groups and committees. He has been a regular speaker at WIPO conferences and seminars since 1995 and is a guest lecturer at the University of Buenos Aires (Argentina).

FEP - Federation of European Publishers - Belgium

The Federation of European Publishers (FEP) is an independent, non-commercial umbrella association representing 26 national book and learned journal publishers' associations from the European Union Member States and from the European Economic area. Thus FEP is the voice of the great majority of publishers in Europe. Founded in 1967, FEP deals with European legislation and advises publishers' associations on copyright and other legislative issues. FEP works in close collaboration with the European Institutions to ensure that high quality European content is available to European consumers and also to international markets. Publishers play a vital role in ensuring that content has a high standard. FEP encourages the Institutions of the European Union to implement positive policies for European publishing, to promote the competitiveness of European publishing and to underpin European educational standards and Europe's cultural identity by ensuring by every means the widest availability of books and learned journals. In a Europe, where functional illiteracy is still affecting more than 10% of the population FEP members and the publishers they represent, plead for effective reading policies which could reduce social divisions. This could help Europeans better to access the information society, employment opportunities and the advantages of the electronic world. FEP represents the publishers' association of: Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Norway, The Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, United Kingdom.

CV of key personnel

Anne Bergman-Tahon - Born in Namur (Belgium) on 1962, she graduated at Université Libre de Bruxelles as Historian (specialisation in medieval history). After working for a PR agency and newspapers as a freelance journalist, she joined FEP where she is now the Director. In 2003, she passed the postgraduate diploma in UK, European and US law of copyright and related rights. She is a member of the International Publishers Copyright Council and of the Belgian section of ALAI.

Olga Martin Sancho Born in Barcelona (Spain) on 1977. In 1999 she graduated in Law with specialization in European Law at San Pablo CEU University, Madrid (Spain). In 2000 she completed a postgraduate course in European Business studies at *University for applied Sciences Mainz* (Germany) with specialization in Foreign Trade within the EU and WTO. In 2002 she took a Master's Degree at the Europa-Institut. Saarbrücken (Germany) in European studies with focalization on the protection of Intellectual and Industrial Property in EU, Competition Law and European and German Media Law. After working for Fidal, Société d'Avocats specialized on EU law matters, since 2004 she works at the Federation of European Publisher as legal advisor with emphasis in EU Copyright issues.

BL – British Library – United Kingdom

The British Library is the legal deposit library of the UK and one of the largest libraries in the world with over 150 million items in all formats known to man. The Legal Deposit Libraries Act 2003 has extended the Library's legal deposit entitlement to digital items. The British Library has an ex officio seat on the Legal Deposit Advisory Panel which was established in 2005 to advise the Secretary of State on the content and timing of Regulations under the Legal Deposit Libraries Act. The Library has also played a leading role, in anticipation of Regulations, in the work of the Joint Committee on Legal Deposit (whose members include all six legal deposit libraries and seven trade associations representing publishers) in testing the technical infrastructure, mechanisms and procedures relating to the deposit, storage and preservation of electronic publishing formats. The Library is currently in the process of building a digital object management system to host e-legal deposit material. In addition to its own digitisation projects it has also worked with a number of private and public organisations to digitise part of its collections. Most recently it has announced an agreement with Microsoft to digitise 25 million pages of 19th century literature. The British Library also sits on the High Level i2010 Group

CV of key personnel

Richard Boulderstone is Director of e-Strategy and Information Systems at the British Library. Prior to this appointment, he held senior positions in a number of international information providers, working both in the UK and US. Between 1984 and 1993 he worked at Knight-Ridder Financial where he was Senior Vice President responsible for Technology. Subsequently he worked at Reed Elsevier plc and Thomson Financial before spending two years as Senior Vice President Engineering at Looksmart Ltd, the world's largest search and web directory business.

Benjamin White is the Copyright Compliance and Publisher Licensing Manager at the British Library. He has a background in publishing having worked for Pearson Education internationally, as well as for Ordnance Survey, the national mapping agency of the United Kingdom. He is involved in intellectual property advocacy work for the British Library and is active in the Intellectual Property field within the UK sitting on a number of bodies including the BBC's Creative Archive Advisory Board, the UK Government's Creative Economy Programme (Competition and Intellectual Property) as well as the Institute of Public Policy Research's Advisory Board on Intellectual Property and the Public Sphere.

NUK - Narodna in Univerzitetna Knjiznica - Slovenia

National and University Library collects documents, preserves and archives the written cultural heritage of the Slovenian nation and country. It advances new knowledge by offering support and guidance to its users to enable them to locate, critically assess, manage and use information resources in different formats, forms and languages. With its collections and services, it strives to support research, teaching and learning at the University of Ljubljana, and other higher education institutions. It has an active and effective participation in the Slovenian library system in line with the demands of the modern information society, providing support for a further update of the system. Moreover it serves as a centre of knowledge for the encouragement and promotion of lifelong learning, for raising cultural and educational level, and for the development of the information literacy skills of the Slovenian people. Through research, development and education in the field of librarianship, it has become leader in the development and delivery of library services across the country, striving to make significant contributions to theory and practice of library and information science. In the function of the Slovenian parent library, NUK strives to provide users at home and abroad access to information on library material by producing and publishing current and retrospective Slovenian national bibliography and other databases. Moreover it collects, processes and mediates statistical data on the operation of libraries, and keep the record of libraries. Its main strategic goals comprise the creation of digital collections with texts of national importance /development and maintenance of databases from the library material housed in NUK; the maximum possible increase in use of the NUK library collection and other information resources making them as easily to use as possible; the active and equal participation in the development of the concept of the European and world virtual e-library.

CV of key personnel

Alenka Kanič - Working as a cataloguer at the National and University Library in Ljubljana (Slovenia) since 1980, Alenka Kanič set up the Slovenian National ISBN Agency in 1992. In 1998 she was elected member of the ISBN Executive Board and since then she has together with her colleagues taken the decisions on the future development of ISBN. She is currently vice-president of the ISBN International. In 1999 she established Slovenian National ISMN Agency. Both agencies work within the Cataloguing Department at the

National and University Library she is the head of. Besides everyday work she translates manuals and standards on librarianship, she also does all the translations regarding ISBN and ISMN systems. She was the initiator for introducing CIP program in Slovenia twenty year ago. She is active as a lecturer in the field of cataloguing in a number of courses organized for Slovene librarians by the National and University Library. As a result of her professional activities in Slovenia she was granted the Čop's award in 1997, the highest decoration by the Slovene Library Association.

Zoran Krstulović – Musicologist by profession. He is employed at the National and University Library in Ljubljana, Slovenia, as the Deputy Director for Library Programs. He has published a number of bibliographies and the critical editions of the compositions by L. F. Schwerdt and J. K. Novak. He is also the creator and project manager of the Digital Library of Slovenia (www.dlib.si).

BNE – Biblioteca Nacional de España - Spain

The National Library of Spain was founded in 1712 as the Royal Public Library and it became a deposit library due to the Legal Deposit law of 1957. The Library holds a remarkable collection of more than 23 millions of pieces, including books, magazines, drawings, engravings, posters, music scores and other materials, and it has become the most important library of the Hispanic culture. The National Library digitization policy started in 1997 in order to preserve its holdings and it is now about to launch the Hispanic Digital Library project aiming to integrate all digital collections available in a new technological environment. In 1999 the Library started the systematic digitization of more than 400 mastheads of the Spanish contemporary press; as a result, nowadays it holds more than 50.000.000 digitized pages. OCR has been applied since 2004.

Recently, The National Library has launched the Newspaper Digital Library (*Hemeroteca Digital*) giving access to 500.000 pages of the historic Spanish press, corresponding to 143 titles of completed periodical publications appeared between 1772 and 1933. The Newspaper Digital Library will reach the four millions pages in the next two years. The OCR has been applied to all historic press images enabling full text searches. The National Library of Spain is a full member of The European Library since July 2007 and participates in other European projects (MichaelPlus, EDLproject, TELPlus and EDLnet). Currently, it is starting to develop a project aiming to preserve the Spanish cultural works published in electronic format and the web archiving of the .es domain.

CV of key personnel

Milagros del Corral Beltrán - PhD in Philosophy and Humanities (Complutense University of Madrid), Diploma in Library and Information Sciences (University of Pittsburgh, USA) and State Librarian (Archives, Libraries and Museums Curators). Deputy Director of the Law Faculty Library, Director of the Communication Sciences Faculty Library and Deputy-Director of the overall Library System (some 80 libraries and documentation centers) of the Complutense University of Madrid. From 1978 till 1983 she has been Chief of the Executive Office of Books and Libraries and Deputy-Director General for Libraries (both at the Ministry of Culture of Spain) also responsible for copyright policy. Member of the legal Commission that drafted the Spanish Copyright Act (Law 22/1987). She has been elected member to the Legal and Legislation Committee of CISAC (International Confederation of Author Societies Organizations). She represented Spain in numerous international copyright meetings at WIPO, UNESCO and the European Union. Chairperson of the Intergovernmental Committee of the Berne Convention (1979-1981). Coordinator of the Diplomatic Conference that adopted the UNESCO/WIPO Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties, held in Madrid (1979). One of the 6 international experts who advised the U.S. Congress to adhere to the Berne Convention, administered by WIPO. From 1983 till 1989 has been Secretary-General of the Publishers Association, Madrid and of the Federation of Spanish Publishers, In 1990 has been appointed by UNESCO as Director of the Book and Copyright Division (D-1). In 2000 Deputy-Assistant Director General for Culture (D-2) as well as Director of the Division of the Arts and Cultural Enterprise and Director of UNESCO's International Fund for the Promotion of Culture. Since 2000, also UNESCO's coordinator for the Universal Forum of Cultures (Barcelona-2004). From September 2007 she has been appointed Director-General of the National Library of Spain.

M^a Encarnación Iglesias Frías - Graduate in Law (Complutense University of Madrid), PhD in Legal Data Processing (Complutense University of Madrid), and State Librarian (Archives, Libraries and Museums Curators). She has been Director of the Law Faculty Library at the Complutense University of Madrid and Deputy General Director at the Government Secretary and at the Ministry of Justice. She was member of the Council Working Party on Legal Data Processing of the EU between 2002-2007. She has several publications on electronic management, data protection and legal data processing. In 2007 she was

appointed as Organization and Planning Director at the National Library of Spain and she is responsible for legal matters and institutional relations.

DNB – Deutsche Nationalbibliothek - Germany

The German National Library is the central archival library and national bibliographic centre for the Federal Republic of Germany. Its task is to collect, archive, document and bibliographically record all German and German-language publications including sheet music and recorded music (published both in Germany and abroad), as well as foreign works about Germany, and translations of German-language works into other languages - from 1913 up to today - and to make them available to the public. It was preceded by several institutions: the Deutsche Bücherei Leipzig founded in 1912, the Deutsche Bibliothek Frankfurt am Main founded in 1947, to which the Deutsches Musikarchiv (German Music Archive) in Berlin has belonged since 1970. On the occasion of the political reunification of Germany, these institutions were brought together to form "Die Deutsche Bibliothek", which in 2006 obtained both an expanded legal mandate and a new name: Deutsche Nationalbibliothek (German National Library). It currently holds around 23.5 million items, of which some 13.9 million are held in Leipzig, approx. 8.2 million in Frankfurt am Main and roughly 1.4 million by the German Music Archive. The German National Library maintains external relations on the national and international level. It is the leading partner in developing and maintaining rules and standards in Germany and plays a significant role in the development of international standards. It co-operates with national and international library institutions and collaborates in the corresponding specialist organisations. In this context, it is an active partner in a multitude of committees and working groups (e.g. IFLA, ICABS, CLIR, ECPA, CENL, LIBER). Moreover, the German National Library has been involved in a number of projects devoted to the development and use of technical and communication infrastructure for the Information Society. The aim of these projects is to provide more efficient access to documents while at the same time making them easier to use. This applies both to publications collected by the German National Library and to collections of other libraries throughout Germany and other countries. Current project participations include Michael+, nestor, Bernstein, the European Digital Library (EDL), and EDLnet.

CVs of key personnel

Dr. Elisabeth Niggemann is Director General of the German National Library. Her library career started in 1987 at the German Central Library for Medicine as head of the acquisitions department. In 1989 she became head of the cataloguing and subject indexing department at the University and State Library at the Heinrich-Heine University in Düsseldorf. In 1994, she became director of the Düsseldorf University and State Library. She is in her present position since 1999. She has been involved in many national and international working groups and committees, among them CENL (Conference of European National Libraries) where she is chair. She is a member of the Board of Trustees of OCLC (Online Computer Library Centre), a Board member of the "Stiftung Buchkunst", a member of the "Kuratorium" of the Kulturstiftung der Länder and editor of the "Zeitschrift für Bibliothekswesen und Bibliographie".

Thomas Jaeger holds a Master in European Cultural Heritage. He has worked as lecturer for book and library history and as project coordinator (World Heritage Studies, Cottbus University). Lately he was involved in a digitization project aiming at the virtual reconstruction of a former university library. Since July 2007 he has been working for the German National Library.

MVB – Marketing- und Verlagsservice des Buchhandels - Germany

MVB was (as Buchhändler-Vereinigung GmbH) founded in 1947 as a service and publishing company for the German Publishers & Booksellers Association (Börsenverein) and the corresponding territorial subdivisions. The total turnover of the company in 2005 was approx. 17.5 million Euros. Key products result from maintaining various databases and applications, as e.g. German Books in Print, Directory of the German Booktrade, and from the publishing of Börsenblatt (publishers and booksellers news magazine) and Buchjournal (magazine for the customers of the booktrade). MVB also publishes the German National Bibliography (printed and electronic editions). The company holds the German ISBN Agency and acts as group agency for the German language area. In the framework of a Book Industry Standard Agency the company offers DOI services and supports the booktrade in applying international standard identifiers, e.g. ILN, EAN, ONIX.

CV of key personnel

Ronald Schild – He studied business economics in Germany, France and Great Britain. After a first professional career as product manager in the consumer products sector in London, Ronald Schild moved to

Frankfurt, where he set up and directed the e-business sector for a leading IT producer. After this he took over the managing directorship of a medium-sized management consultancy for e-business and customer relationship management. Before Ronald Schild moved to MVB as CEO, he directed the third party business at the e-tailer Amazon.

Manfred Gravelius – He joined MVB in 1980. He was involved in numerous projects and activities which are mostly dealing with standardisation in the booktrade, as there are Information Brokering in the booktrade, German Books in Print database, Music in Print, East European Books in Print databases (in collaboration with Poland, Czech Republic, and Hungary), Directory of the German Booktrade, VTO. He is head of the National ISBN Agency since 2004 and working on various booktrade relevant standards in the framework of the book industry standard agency Germany, as there are DOI, ILN, EAN, ONIX metadata. He was Authorised Signatory of MVB until 2003. In 2006 he became member of the Board of Directors of the International ISBN Agency.

FGEE – Federación de Gremios de Editores de España - Spain

The Federación de Gremios de Editores de España (FGEE) (Spanish Association of Publishers Guilds) is a non-profit, trade association created in 1978 to represent, manage, enhance and defend the general common interests of the Spanish publishers on a national, European and international level. At the same time it is an export association, recognised as such by the Spanish Treasury Ministry. Activities program of the Federación entails a direct relation with all public institutions with jurisdiction in the field of culture, education, economy, trade and media, and a regular collaboration with other fellow professional associations closely linked to the book sector. The FGEE regularly carries out monographic, statistical and market reports of interest for the Spanish publishing sector and to inform Spanish publishers about changes and legislative innovations that might be relevant for the book sector. Particularly those relative to education, technology, economic, financial, fiscal and labour policies put forward by government, civil and public administrations and institutions. The Authors, graphic sector professionals, booksellers, distributors, press and magazine publishers are professional groups related to the book publishing with which the Federación, through its various associations, works together in every matter that might be of mutual interest. Information, gathering and organisation of data and information exchange with book professionals from other countries constitute an essential task which contributes to shape the policy of the Federación and which allows us to keep the Spanish publishers well informed about the news and situation within the book sector.

CV of key personnel

Antonio M^a Avila Álvarez is doctor in Law (1994) and Economic sciences (2004). He has been an associate teacher of Constitutional law until 1986, associate teacher of Foreign Trade (University Carlos III) from 1994 to 1996 and from 1997 teacher of the same matter in TPGA of the Autonomous University of Madrid. CECO's teacher, he gives classes of the Master of Foreign Trade and Trade policy in the University Carlos III, Santiago de Compostela, Alcalá de Henares and University Institute Carlos V of the Autonomous University of Madrid. Author of numerous publications on the matter in ICE, BISE, News of the European Union, etc and books: Practical Manual of Foreign Trade (Tecnos, 1986), Regulation of the International Trade after the Round of Uruguay (Tecnos, 1994), Trade policy of the European Union (Piramide, 1997), Politics of competition and trade policy (IMADE-COCIM, 2004), The intellectual Property in Economy International relationships (IMADE-COCIM, 2007). He has been Adviser of the Secretary of Public Finance (1992-1997) and now he is currently working as Executive Director of the FGEE.

Inés Miret Bernal has ample experience in projects related to Culture, Education, and IT. For the last six years, after founding the firm Neturity SL, she has managed projects in this area for the Spanish Ministry of Education, Ministry of Culture, the FGEE, Fundación Germán Sánchez Ruiperez, Fundación Residencia de Estudiantes, Fundación Bertelsmann, REDES (Ministry of Industry), CEDRO (Spanish Reprographic Rights Association) among others. Before joining Neturity, Ms. Miret was Manager for Content in the Interactive Materials Department at Grupo Anaya. Previously, she worked for the Spanish Ministry of Education in different positions related to schools libraries programs, curricula design and others.

Luis González Martín is graduated in Laws at the Autónoma University of Madrid and Master of financial laws. In 1992 joined the civil service as Superior Administrator of the Spanish Civil Administration. Since then to 2004 he has been working in different senior posts of Ministries of Home Office, Administrative Organization and the Ministry of Industry, Trade and research. From 1999 to 2004 he has been the Chief of Book, Reading Promotion and Spanish literature at the Ministry of Education and Culture. Since 2004 he

has been working as Director General Adjunto of GSR Foundation, the main institution devoted to the promotion of books and reading in Spain.

KB - Koninklijke Bibliotheek – The Netherlands

Founded in 1798, the **National Library of the Netherlands** was named **Koninklijke Bibliotheek** in 1806 and was declared the National Library in 1982. The main mission of the National Library of the Netherlands is to preserve the national printed and written heritage. As a depository library the KB collects and preserves all publications that are issued by officially registered Dutch publishers, and in addition a good deal of Dutch grey literature. As a scholarly library the KB serves the academic community and individual scholars. The KB carries out special tasks relating to the national information infrastructure, library cooperation, library research and the application of technology in information systems. The European Library is an activity of CENL, run by The European Library Office within the KB. It is the operational result of the TEL Accompanying Measure, a former FP5 project that successfully completed its work early in 2004. The European Library was launched as a public service of CENL at the beginning of 2005 providing access to the founding partners' collections. The European Library has a staff of full time experts and administrators (The European Library Office) located at the National Library of the Netherlands in The Hague. A management board consisting of the founding partners and the Chair of CENL governs the European Library.

CV of key personnel

Jill Cousins is Programme Director for The European Library and The European Digital Library. She took over from the TEL project and created the operational service The European Library. The success so far of this service has led to the European Union giving their strategic backing to The European Library for the creation of the European Digital Library. She has a strong web publishing background, having worked for VNU as their European Business Development Director and then transferred the lessons learnt from commercial business-to-business publishing to scholarly publishing working for Blackwell Publishing and several other academic publishers in the UK. Prior to a publishing career, she worked in the online environment for many years, first as a researcher with her own company specialising in providing business information to large corporate companies. The company still exists 20 years later, owned by Thomson Financial and known as Thomson First Contact. After selling this company Jill worked as the Marketing Director for Online Information. Her main interests lie in making sites as usable as possible for the uninitiated and she is a firm believer in user driven design and open standards. She has been involved in several international publishing industry bodies aimed at achieving this, such as CrossRef and COUNTER. She holds a Geography degree and a Ph.D in 16th Century Arabic and Turkish Sea Charts.

CINECA - Consorzio Interuniversitario per il Calcolo Automatico dell'Italia Nord Orientale - Italy

Cineca is the Consortium (born in 1969) consisting of 31 Italian Universities and CNR - National Research Council. Its mission consists of promoting use of the most advanced computing systems to support scientific research; providing a computer processing service to universities, public organisations and private companies; designing and managing data network at European level. In terms of supercomputing performance, Cineca is ranked among the most powerful centres in the world and among the first ten centres in Europe. The experience achieved in over thirty years of activity in R&D allows Cineca to provide a number of high value services to support activities and to increase efficiency of complex organisations (universities, health authorities, public administration and private companies). Today, more than 60 Universities and 15 research centres draw on the services provided by Cineca for many purposes.

Cineca is remarkably involved at the European level, through more than 20 EU-funded R&D projects. The Consortium takes part in the projects making its expertise in semantic web, high-performance computing technology and network systems available to European partners. Cineca is among the founders of mEDRA (www.medra.org), the European DOI registration agency. Cineca also has a large experience in managing secure databases and has developed innovative access model to scientific databases. An example of such services is provided within the EINS (European Information Network Service) initiative. EINS is a Europe-wide system delivered in collaboration with institutions such as the British Library, DIMDI and ESA.

CV of key personnel

Salvatore Rago was graduated in Physics in 1974 at the University of Bologna. He is responsible for the Information and Knowledge Management Services department in CINECA, since 1978. He carried out activities on information technology knowledge among the universities, mainly in the domain of Biomedicine,

Health Care, Economics, Sociology, holding many workshops and courses. He is responsible for IT for the EEIG EINS (European Information Network Services), coordinated by the British Library (UK). He has been the coordinator of the Scientific Association "Data Analysis Group", between 1980 and 1995, with the aim of spreading knowledge in Data Analysis. Since 2002 he is responsible for the mEDRA project founded by the EC within the eContent programme. Since 2004 he is responsible for the knowledge management activities to develop an ontology on administration and finances for the European Space Agency.

Gabriella Scipione got a PhD in Physics from the University of Bologna in 1995. She is currently working with the Information Management and Analysis group at CINECA. From 1998 to 1999 she was involved in the development of tools for the quality measure of Internet sites and for the monitoring of the internet user behaviour. Since 1999 she has been involved in the EINS project, for the management and development of the system and for the hosting of databases. Since 2002 she is coordinating the EDRA project for Cineca to provide all the technological services for the mEDRA DOI Registration Agencies. She is also involved in the Eleonet (European Learning Object Network) project of common interest in the field of trans-European telecommunications networks (eTen)

Celso Belli got a degree in Computer Science. Working in the Information Management and Analysis Department of CINECA since 1998, he was initially involved in the NIR project for the development of standards based on XML for the publication of laws produced by the principal Italian institutions. He is currently working in the development of a specialized search engine and in the implementation of the URN prototype to allow the persistence of the references. Since 2001 he is following a project with the aim of developing an Extranet of the Italian embassies. Since January 2005 he is coordinating the Cineca Search information Sub-Department (15 people).

CLA – Copyright licensing Agency - United Kingdom

The Copyright Licensing Agency Ltd. was incorporated as a non-profit-making company limited by guarantee in 1983. CLA is an agency that acts on behalf of authors, illustrators, photographers and publishers. It is a facilitator in making widely available, under the terms of reprographic and digitisation licences, excerpts from a huge repertoire of over 16 million publications (books, journals and magazines). The development of digital licensing became CLA's top priority in 1998 after its members, the Authors' Licensing and Collecting Society and the Publishers Licensing Society, agreed that the future lay with digital licensing. By 2003, CLA had distributed a total of € 293 million in fees for copying from published works for onward distribution to many thousands of writers, publishers and illustrators around the world. In 2005, income from CLA's 1,725 blanket reprographic licences and from 2,800 blanket scanning licences resulted in payments of € 42.87 million in fees to UK rights owners; distribution to overseas rights owners totalled € 8.33 million via CLA's network of bilateral agreements. CLA has been an active member of IFRRO since 1988. Peter Shepherd, CLA's Chief Executive Officer, was elected President of IFRRO in 2003; his mandate was further extended in Oct 2005.

CV of key personnel

Michael Orchard joined CLA in June 2005 as Chief Operating Officer, bringing his considerable experience of collective licensing gained through his successive roles as Director of Operations and International Director with the MCPS-PRS Alliance (an operational alliance of the Mechanical-Copyright Protection Society and the Performing Right Society – the UK society administering mechanical and performing rights in copyright music). He was responsible for the registration of musical works and publishing contracts and for the analysis of music use in the UK market. While in this post, Orchard was elected chairman of a number of international working groups designing new systems to improve the efficiency of data exchange on music use and royalty payments internationally.

Kanchen Shah, is CLA's IT Director having joined in October 2000. She previously worked for in publishing and telecommunications. Whilst at CLA she has been responsible for the management of a number of important IT projects and has significant experience in dealing with intellectual property metadata in a commercial context. She has a BSc in Management and Computer Science from Aston University.

NLN – National Library of Norway - Norway

The National Library of Norway shall be the premier source of information about Norway, Norwegians and Norwegian culture, and it is to be Norway's main resource for the collection, archiving and distribution of Norwegian media. Its functions include establishing, preserving and making available a wide variety of collections. The National Library owns and manages several unique collections. All are available for research and documentation, and most are accessible to the public through the National Library's general library

services or via the Internet. These include: Unique manuscript collections (including handwritten manuscripts), special book collections, music collections, radio broadcasts from the 1930s up to the present day, film collections, theatre collections, map collection, posters, photographs, newspapers. A main pillar in the collection of materials is the Legal Deposit Act. It ensures that everything that is published in Norway can be found at the National Library. In addition, the National Library purchases or otherwise receives historical material, in part to make its collections complete, in part to maintain lending collections.

CV of key personnel

Svein Arne Brygfjeld - holds a MSc degree in Computing Science from the University of Tromsø, Norway. He has a long experience ranging from health care and telecom to digital libraries. At present he is responsible for the digital library services (NBdigital) at the National Library of Norway, and he is involved in collaboration with publishers and rightholders. In the digital library field he has during the last years been focusing on long term preservation, multi-media services, trusted repositories, access control and architecture.

Maria Jongers – holds a degree in Law from the University of Oslo, Norway. She got her legal specialisation in Intellectual Property Law, with emphasis on Copyright Law, Privacy and Data protection. Her work experience covers, among other things, two years as a research assistant at The Norwegian Research Center for Computers and Law, Faculty of Law, University of Oslo. During that time she wrote her Master's thesis about Own Image Rights, supervised by professor Jon Bing. At present she is a legal adviser at the National Library of Norway, where her main focus is Copy Right, Privacy and Data protection, the Legal Deposit Act and contract law.

UIBK - Universität Innsbruck - Austria

The foundation of the University Library of Innsbruck is marked by the year 1745. The University of Innsbruck is about 100 years older, and had been installed as a so called "full" university (covering all scientific disciplines). Today the library is ranking 4th in Austria concerning the dimension of stored media: c. 2.8m volumes (including c. 1,100 manuscripts and 2,000 incunabula), 6,500 scientific journals and periodicals, a wide range of online-databases, electronic journals and a growing number of full-text electronic resources which are made available campus-wide. More than 35000 subscribers are currently using the library, 25% of them external library users. The Library is a member of the Austrian Library Consortium (AGBA), a network of 22 scientific libraries in Austria (among them the National Library and all university libraries). In January 1999 the first libraries of this consortium (among them the University Library of Innsbruck) switched to the Ex Libris library system ALEPH500. Aleph is used both locally both as a network solution in Austria. Innsbruck is playing an important and leading part in the development and testing of the new programme features. The electronic catalogue has about 20.000 requests per day, more than 4 Mill. per year. Apart from supporting the University's research and teaching across a full range of subjects, the Library functions as the regional centre library for the Province of Tyrol. The strategic plans of the University Innsbruck Library are based on the assumption that libraries need to take the shift from the analogue to the digital age. In order to cope with this change libraries need to pro-actively find answers and to develop new user-friendly and financial sustainable services. Among others, digitisation will be an important addition to the service portfolio. Since 80% of the libraries holdings are copyright protected it is of vital interest to the library, to be able to digitise out-of-print and orphan works and to make them available to its patrons. The library has the strongest experience in digitisation in Austria. Since 1997 books and journals are digitised, at first within several grant projects, and since 2002 on a regular basis with a dedicated department (Department for Digitisation and Digital Preservation). UIBK hosts the largest digital library with general contents in Austria, the Austrian Literature Online repository. Nearly 8000 digitised and 6000 born digital documents are available for free in the Internet. Besides that UIBK is currently managing some internal mass-digitisation projects, e.g. the digitisation of 216.000 German thesis as well as the digitisation of the Innsbrucker Zeitungsarchiv (800.000 newspaper clippings). In all cases the whole workflow from scanning, image processing, OCR, application and database development, and website design has been done by the Department for Digitisation and Digital Preservation of UIBK. Besides that UIBK has initiated and co-ordinated three EU R&D projects in the 4th and 5th framework. All projects led to practical results which are now used and distributed worldwide. Since 2006 UIBK is coordinator of the "Digitisation on Demand" network. 14 libraries from nine European countries are offering the service "eBook on Demand". With this service millions of public domain books become potentially available to interested readers. UIBK is also partner of the Sun Center of Excellence for Trusted Digital Repositories, together with the Humboldt University at Berlin, the University Library Graz and XiCrypt, an Austrian software company.

CV of key personnel

Gunter Muehlberger - He is Head of the Department for Digitisation and Digital Preservation of the University Innsbruck Library Role in the project: Team leader UIBK Professional experience: Coordinator and project manager of several R&D projects from the 4th and 5th EU Framework Programme. E.g. Project coordinator of LAURIN (1998-2000) where we already worked out a model agreement with KOPINOR (Norwegian RRO) in order to allow the digitisation of newspaper clippings. Gunter Muehlberger coordinated also the eContent project reUSE where model agreements with publishers were created in order to be able to collect the digital versions of current publications. Publications and lectures on digitisation and digital preservation issues. Initiated several national projects, e.g. Austrian Literature Online (one of the largest digital repositories in Austria). Currently also acting as coordinator of a multinational network with 14 partners from 9 European countries for a "Digitisation on Demand" service. This service will play an important role as test case for the clearance mechanisms proposed by the ARROWs project.

Silvia Gstrein – She is Project manager of the "Digitisation on Demand" network. Professional experiences: Project coordinator of several national and international projects dealing with e-learning and digitisation issues.

NUMILOG - France

Numilog is a French private company, founded in 1999. Since that date, it was focused on the creation and distribution of ebooks and is now the main French private actor of this sector. Numilog is both an e-retailer, through its websites in French and in English and an aggregator since it distributes the ebooks to Libraries and also through other e-retailers websites. Numilog offers also services focused on digital publications, such as conversion services in order to create ebooks in various formats and Digital Rights Management services in order to protect by technical measures the rights over the ebooks or over any kind of e-documents. On its retail sites, Numilog offers more than 35.000 ebooks, in French and in English. More than 50% of these titles result from direct rights agreement between Numilog and more than 100 publishers. Among these publishers, distributed by Numilog, are well known French language publishers such as Gallimard, Editions Eyrolles, P.O.L., Masson, Belin, Hermès Science, Presses Polytechniques Universitaires Romandes, Editions Complexe or publishers from the two main French groups Editis (e.g. La découverte, Perrin, Univers Poche) and Hachette (e.g. Dunod). Numilog has also direct agreements with major English Language academic publishers such as Springer-Kluwer, Taylor and Francis, or Oxford University Press. Since 2003, Numilog has developed specific business models and technical platforms for digital libraries, where the ebooks can be lent to patrons or members of any organization. These models are successful since more than around 50 libraries have chosen Numilog's digital library system at the present time. In 2007, Numilog has been designated by the French National Library (BNF) and the French Publisher Association (SNE) in order to propose an economic model for the collaboration of publishers to the French contribution to the European Digital Library Project ("Europeana"). The recommendation of Numilog was adopted by the BNF and the SNE and is now the basis of an active implementation process. Numilog will also be one of the first copyrighted content providers of *Gallica 2*, the next step of BNF for contributing to EDL project.

CV of key personnel

Denis Zwirn is the founder, President and CEO of Numilog. Born in Marseille (France) on 1959, he graduated at Institut d'Etudes Politiques d'Aix en Provence (specialisation in economics and finance). He obtains a Degree, Master and Master 2 ("DEA") of Economic Sciences and a degree of Philosophy at the University Paris I. As a researcher associated to Ecole Polytechnique, he is author of several articles in the field of epistemology and cognitive sciences. After working as a teacher of economics and in finance and information systems functions in private companies, he created Numilog in 1999. He has developed the company such as to become progressively the main partner of French publishers for experimenting the emerging ebooks market. He conceived the economic models for the e-retails and the digital libraries offerings and all the functionalities of the corresponding platforms. In 2007, Denis Zwirn realized two studies for the BNF and the SNE: the study which recommended the economic model already mentioned and a quantification of the number of titles published in France still under copyright and of the potential digitization costs of these titles. He is also member of the group BNF/SNE in charge of proposing the technical standards related to metadata harvesting, file formats for indexation and architecture of access to ebooks within the French contribution to EDL.

Thomas Gerbig, is the IT manager of Numilog since 2001. Born in Creutzwald (France) in 1980, he is a specialist of web applications. He developed since 2001 all the websites, data bases and technical platforms for managing, hosting, and delivering the ebooks of Numilog through secure download processes. For instance, he developed Numicontent, a platform dedicated to manage the usage of Numilog's ebooks metadata's on other retail sites, e.g. traditional bookstores, implemented adapted DRM solutions on other websites and created in 2007 Numilog Reader, an online reading solution ensuring the protection of copyright.

11.2 Background and reference documents

11.2.1 List of External Supporters

We provide a non exhaustive list of the organisations that already ensured their support to the project, through direct involvement, in particular in the validation phase .

The support to the project given by EDL and CENL contribute to the pan-european dimension of the project

EDL Foundation – Stichting European Digital Library – The Netherlands

The Stichting European Digital Library is a cross domain foundation, under Dutch law, set up for the purpose of fostering collaboration between Museums, Archives, Libraries and Audiovisual archives in Europe. It aims to produce access to Europe's cultural heritage by facilitating formal agreement across museums, archives, audio-visual archives and libraries on how to cooperate in the delivery and sustainability of a joint portal. It also provides a legal framework for use by EU funded projects to bring their research or content into the European Digital Library. Its current Board of Participants is made up of pan-European Associations from the 4 sectors able to represent and mobilize their members to contribute and form part of EU funded projects aimed at realizing a European Digital Library. These are EURBICA, FIAT, ACE, EMF, ICOM Europe, CENL, CERL, LIBER, MICHAEL and the Koninklijke Bibliotheek. The Board of Participants has elected an Executive Committee which is responsible for making decisions on behalf of the Board of Participants and for the legal and financial running of the Foundation.

PLS- Publishers Licensing Society – United Kingdom

The Publishers Licensing Society (PLS) is a not-for-profit organisation limited by guarantee and was established in 1981. It promotes the copyright of UK publishers, and administers rights and royalties for copying of books, magazines, and journals. PLS and the Authors' Licensing and Collecting Society (ALCS) together co-own the Copyright Licensing Agency (CLA), and together with DACS (Design and Artists Collecting society), are responsible for overseeing the CLA. These three rightholders societies provide CLA with their mandates enabling it to administer photocopy and scanning licences throughout the UK.

COPYDAN - Copy-Dan Writing Information – Denmark

Copy-Dan Writing is a non-profit organisation founded in 1980 by rightholders organisations, and is a member of the IFFRO. COPYDAN represents authors and publishers regarding reproduction rights. There are 8 authors' societies and 9 publishers' societies who are members of COPYDAN. Each of them appoints one representative to the board. COPYDAN activities are based on the extended collective licence system (since July 1985). Extended collective licence according to the Danish Copyright Act may be invoked by users who have made an agreement on the exploitation of works in question with an organisation comprising a substantial number of authors of a certain type of works which are used in Denmark. The extended collective license gives the user right to exploit other works of the same nature although the authors of those works are not represented by the organisation. Under the extended collective licence system, COPYDAN grants blanket licences to authorise the reprographic reproduction of extracts of protected works to primary and secondary schools, universities and higher education, further education, businesses and non-profit organisations, local and central government and other public bodies. COPYDAN has signed photocopying licences with 12 Universities (100% of the universities) and 150 higher education institutions (100% of the HE institutions). Photocopying licences has also been signed with more than 200 public and private secondary schools and more than 2500 public and private primary schools, hence 100% of primary and secondary schools in Denmark. More than 2000 Private and public institutions and companies also got licences with COPYDAN.

ALCS – Authors' Licensing and Collecting Society - United Kingdom

The Authors' Licensing and Collecting Society (ALCS) represents the interests of all UK writers and aims to ensure writers are fairly compensated for any works that are copied, broadcast or recorded. Writers' primary rights are protected by contract, but it is the life of the work over the following decades that needs to be monitored and fairly rewarded. It is with secondary rights that copyright has an important role to play in protecting writers and creators from unpaid use and moral abuse of their work. Secondary use ranges from photocopying and repeat broadcast transmission in the UK and overseas to reproduction in journals and repeat use via the internet and digital reproduction. Run by writers for writers, ALCS has distributed over £130 million to writers since its inception in 1977. It is the largest writers' organisation in the UK, with over 53,000 members, and in the last financial year ALCS paid out a total of £14 million to over 40,000 writers. ALCS represents writers of all genres, from text-book authors and freelance journalists to poets and radio dramatists. ALCS is recognised internationally as a leading authority on copyright matters and authors' interests. We are committed to fostering an awareness of intellectual property issues among the writing community. We maintain a close watching brief on all matters affecting copyright both in the UK and internationally and we make regular representations to the UK government and the European Commission on behalf of writers.

KOPINOR - Norway

KOPINOR was established on 30 of April 1980. Membership is in principle open to any association representing copyright holders of published works. Today Kopinor has 22 member organisations - 5 publishers' associations and 17 authors' associations. This broad representation is the backbone of Kopinor, and allows Kopinor to offer licenses in regard of photocopying of published works (reprographic reproduction) to users based on a portfolio of rights to all relevant types of works. Kopinor is empowered by its member organisations to negotiate and conclude collective agreements on photocopying and similar uses of copyright protected works in all areas of society. Since 1980 Kopinor has collected more than NOK 2,9 billion in reprographic fees. By law or through bilateral agreements with Reproduction Rights Organisations in other countries, Kopinor also represents foreign rightsholders. Today, Kopinor collects for approximately 80 % of the copyright protected material photocopied in Norway. In 2006, Kopinor reported total revenues of NOK 173.3 million, compared with NOK 195.0 million in 2005. Kopinor's ordinary operating expenses was NOK 27.3 million in 2006, which is comparable to 15.7 per cent of revenues. The member organisations received a total of NOK 107.5 million in collective remuneration from Kopinor in 2006. In addition, NOK 1.4 million was paid to Sami rightsholders. Some 20 per cent of the remuneration Kopinor distributes is based on the copying of foreign works and paid to foreign rightsholders. Altogether, Kopinor's payments to rights holders abroad totalled NOK 31.0 million in 2006.

CEDRO - Centro Español de Derechos Reprográficos - Spain

The Centro Español de Derechos Reprográficos (CEDRO – 'Spanish Reproduction Rights Centre') is a non-profit association of authors and publishers of books, periodicals and other publications in any medium. The association collectively protects and manages members' intellectual property rights (copying, processing, public disclosure and distribution). CEDRO was authorised for its role in 1988 by the Spanish Ministry of Culture under the Intellectual Property Act. CEDRO helps to improve the working conditions of the creators of written culture in Spain (writers, translators, journalists and publishers) and mitigate the economic damage caused by mass illegal copying of their work. CEDRO's main functions and services include: paying out to authors and publishers the royalties due to them for use of their works; our social role: providing benefits, training and promotion to authors and publishers; collectively managing private copying rights; granting licences for the use of works in our repertoire; defending members' interests before the courts and other national and international institutions; raising public awareness among of the principles of copyright. EDRO manages its members' rights worldwide. CEDRO operates under reciprocal representation agreements with similar bodies in other countries, and is a member of the International Federation of Reproduction Rights Organizations (IFRRO).

CFC - Centre Français d'exploitation du droit de Copie - France

CFC is the French Reproduction Rights Organisation, member of the International Federation of Reproduction Rights Organisations (IFRRO). CFC is a non-profit member-owned organisation created in 1984 to represent authors and publishers for the reproduction rights collective management of books, newspapers and other periodicals. CFC associate members counts 8 authors and authors' societies, 107

book publishers and 230 press publishers. CFC activities range from compulsory collective management for the reprographic reproduction rights and voluntary collective management for the digital reproduction rights. The French legislation introduced in 1995 a compulsory collective management for the reprographic reproduction. CFC has been approved by the Ministry of Culture to operate as the Reprographic Reproduction Organisation for books and periodicals. The agreement is renewed every five years. Therefore CFC mandatory represents all books and periodicals rightsholders. It is the only organisation entitled to authorise reprographic reproduction of books and periodicals in France. CFC database includes bibliographic and rightsholders related data on French 95540 works between books and periodicals (mainly scientific and professional). CFC database also feature bibliographic data on an equivalent number of foreign works. Under the compulsory collective management system, CFC grants blanket licences to authorise the reprographic reproduction of extracts of protected works to primary and secondary schools, universities and higher education, further education, copy shops, businesses and non-profit organisations, local and central government and other public bodies. 100% of Universities and Secondary schools has signed photocopying licences with CFC. CFC signed a direct agreement with the French Ministry of Education to authorise reprographic reproduction for educational purpose within all primary schools. CFC manages digital reproduction rights of newspapers and periodicals on the basis of voluntary mandates from press publishers. 130 French publishers have given a mandate to CFC to licence digital reproduction of press cuttings. CFC represents more than 750 newspapers and other periodicals. Under the voluntary collective management system, CFC grants licences to authorise the digital reproduction of press clippings to businesses, non-profit organisation, government and other public bodies. More than 500 private and public organisations have signed a licence for the digital reproduction of press clippings. Besides, CFC has already entered into negotiations with the rightsholders and the Ministry of Education to licence digital reproduction of books, newspapers and other periodicals for educational purposes. CFC should start licensing on the basis of voluntary mandates from publishers in 2006.

FNL Finnish National Library - Finland

The National Library functions as a service and development centre for Finnish libraries with a duty to promote both national and international co-operation. It is also responsible for acquiring and preserving the national heritage in form of publications as well as maintaining its collections of research material and for providing access to them. A Library for the Entire Nation. The library is responsible for the preservation of the national published heritage, acquiring material for research mainly in the field of arts and humanities and a service and development centre for other research libraries. Helsinki University Library has today some 2.6 million books and periodicals and the same amount of special materials, such as manuscripts, maps, printed music, posters, and ephemera. Of the special collections one could mention the A.E. Nordenskiöld Collection kirjasto, famous for its maps, the Monrepos Manor Library, and the Jean Sibelius Music Manuscripts. From 1982 the Library gets legal deposit copies of recordings and is now building a National Archive of Recorded Music. The collections of music literature and recordings are complemented by a continuously growing collection of musical manuscripts. Electronic publications and collection catalogues are today's reality in the Library and the duties of the national library have grown considerably, especially in the electronic publication sector. The Finnish academic libraries have a unified library system, which makes it easier to use their collections and services. On the web it is easy to use the library collections of other countries. Extra joint funding from the Ministry of Education has made it able to buy electronic periodicals and reference services for joint use by scholars. This has offered an economic and functional way of acquiring materials for the information society's research work. The Library is preparing to take over the long-term preservation of deposits of electronic publications, so that they can be used in the whole country on the web.

SNE - Syndicat national de l'Édition - France

The French Publishers Association (SNE) is France's trade association of book publishers. It represents approximately 400 member companies whose combined business endeavors account for the bulk of French publishing. The SNE's missions include :advocating publishers' interests, supporting creativity by defending freedom to publish and promoting the respect of intellectual property rights, promoting and defending the fixed book price, promoting literacy. The SNE represents the French publishing profession as a member of both the Federation of European Publishers (FEP) and the International Publishers Association (IPA). The SNE defends freedom to publish in France and abroad and is undertaking several actions in this area: Advocacy for a relaxing of French regulations concerning child-oriented publications or those likely to be harmful to minors, raising awareness of judges about the risks of judicial harassment in the publishing sector,

State publishing Interventions at the international level via the Freedom to Publish Committee of the International Publishers Association (IPA).

KOPIOSTO - Finland

Kopiosto was founded in 1978 and began to act as a RRO by collecting individual mandates from near 40.000 rights holders all over Finland. Kopiosto holds mandates from individuals in all the fields of creative work such as authors, photographers, performing artists and publishers. The organisation currently manages the distribution and selling of several reprographic licences to many players in the higher education and school environment, vocational adult education field, companies as well as public bodies. Kopiosto is a project partner in Elektra, originally a library pilot project which is testing the network delivery of Finnish scientific articles via controlled copyright system. Today the database contains 7 000 articles from 45 scientific publications with over 4 000 authors. The first site-licence contract was made with all of the 20 universities in Finland. In addition to reprography, KOPIOSTO licenses retransmission of broadcasts and recording of domestic radio and television programmes and distributes revenues from blank tape levies.

11.2.2 Letters of Support



copydan

From:

25.09.2007

Copydan Writing

Østerfælled Torv 10

2100 København Ø

Denmark

Letter of support

Copydan Writing hereby extends its full support to the objects of the ARROW econtentplus call 2007.

As an external supporter Copydan Writing acknowledges the project work plan and is willing to be involved in the work necessary in order to carry out the project work packages.

Copydan Writing follows the project with great interest and hopes to find relevant opportunities to cooperate with fellow partners and supporters during the project lifespan.

Yours sincerely

Anders Kristian Rasch

Head of Development

Copydan Writing

SYNDICAT NATIONAL DE
L'ÉDITION



European Commission
Information Society and Media Directorate General
The eContentPlus programme
Jean Monnet Building
Rue Alcide de Gasperi
L-2920 Luxembourg

Friday, September 28, 2007

Ref.: Letter of Support ARROW Project Proposal - eContentPlus call 2007

Dear Madam, dear Sir,

The French Publishers Association (SNE) is France's trade association of book publishers (<http://www.sne.fr>). It represents approximately 400 member companies whose combined business endeavors account for the bulk of French publishing. The SNE's missions include: advocating publishers' interests, supporting creativity by defending freedom to publish and promoting the respect of intellectual property rights, promoting and defending the fixed book price and promoting literacy. It represents the French publishing profession as a member of both the Federation of European Publishers (FEP) and the International Publishers Association (IPA).

On behalf of the SNE we are writing to confirm that we support the general and specific aims of the ARROW project proposal presented by AIE, Associazione Italiana Editori, as coordinator.

For several months, the French Ministry of Culture and French publishers have had discussions under the auspices of the French national library (BNF) about the creation of a "European digital library" including digitized cultural heritage works in the public domain as well as copyright protected works. In this purpose, a study was undertaken which recommended that for the integration of protected content within the French branch of the European digital library, libraries should perform the role of information mediators. The working group also made technical recommendations, which should lead to experimentations with books in the coming months. Moreover, French publishers are also involved in working groups at national level aiming at taking into account the discussions at European level on orphan and out-of-print works, in order to determine solutions adapted to the French context.

115, boulevard Saint Germain 75006 Paris
Tél. : 01 44 41 40 50 - Fax : 01 44 41 40 77

Against this background, we find the ARROW project of great interest as it aims at developing technical and social infrastructures for the exchange of rights information and the creation of clearing mechanisms about literary works and for interoperable access to digital content offered by public institution and private organisations. We believe that such an initiative will certainly contribute to the development of the European Digital Library, through the creation of a more predictable and sustainable environment.

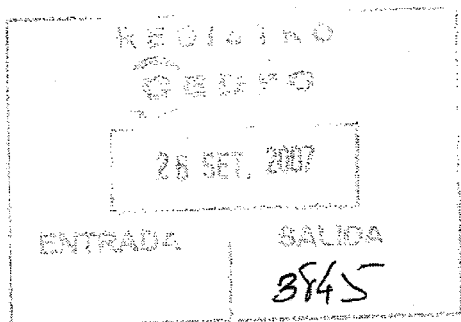
We further state that were this project funded by the EC eContentPlus programme, we would offer support through our organisation and we would be prepared to collaborate in areas and activities at a European level.

Yours sincerely,



Christine de Mazières

Director



European Commission
Information Society and Media Directorate General
The eContentPlus programme
Jean Monnet Building
Rue Alcide de Gasperi
L-2920 Luxembourg

Madrid, 26 September 2007

Ref.: Letter of Support ARROW Project Proposal - eContentPlus call 2007

Dear Madam, dear sir,

On behalf of Centro Español de Derechos Reprográficos (CEDRO), the Spanish Reproduction Rights Organisation (RRO), we are writing to express our support to the ARROW project proposal presented by AIE, Associazione Italiana Editori as coordinator.

CEDRO is a non-profit association of authors and publishers of books, periodicals and other publications. We collectively protect and manage certain intellectual property rights in the works of more than 12.000 Spanish rightholders. We also represent in Spain authors and publishers associated to RROs in other 28 countries, and are an active member of the International Federation of Reproduction Rights Organisations (IFRRO). CEDRO was authorised for its role by the Spanish Ministry of Culture in 1988, under the Intellectual Property Act.

CEDRO's mission is to help improve the working conditions of the creators of written culture in Spain (writers, translators, journalists and publishers) and provide the public with legal access to books, periodicals and other publications in any medium.

Given this, we firmly believe that the ARROW project will very significantly contribute to facilitate legal access to the European cultural wealth through specific mechanisms and facilities that, at the same time, will take into account the need to respect copyright as a basic foundation for cultural creation.

We would also like to state that, were this project funded by the EC eContentPlus programme, we commit to support it and we would be prepared to collaborate in areas and activities at a European level.

Yours sincerely,

Victoriano Colodrón
Director Técnico



European Commission
Information Society and Media Directorate
General

The eContent Plus programme
Jean Monet Building
Rue Alcide de Gasperi
L - 2920 Luxembourg

Paris, October 1st, 2007,

Ref : Letter of Support ARROW project Proposal – eContentPlus call 2007

Dear Madam, Dear Sir,

The Centre Français d'exploitation du droit de Copie (CFC) is the French organisation handling the right of reprographic reproduction for books and periodicals. Besides, CFC is largely involved in digital rights management : it was given mandates by a large number of publishers in these fields.

It is owned by authors of texts and images – through their collective organisations -, book publishers and press publishers (newspapers, magazines, professional, medical and scientific periodicals, etc.).

On behalf of CFC, I am writing to you to confirm that we support the general and specific aims of the ARROW project presented by AIE, Associazione Italiana Editori as coordinator.

CFC is particularly involved in the specific, but strategic question of orphan works. It is prepared to develop a solution for printed works in conjunction with the rights owners and the users.

We further state that if this project is funded by the EC eContentPlus program, we would offer support through our organisation and we would be prepared to collaborate in areas and activities at a European level.

Yours sincerely

Jean Lissarrague
Directeur général

CENTRE FRANÇAIS D'EXPLOITATION DU DROIT DE COPIE
20 rue des Grands-Augustins 75006 Paris - Tél.: 01 44 07 47 70 - Fax : 01 46 34 67 19

Société de perception et de répartition de droits de propriété littéraire, agréée par le Ministre de la Culture
Société civile à capital variable - RCS PARIS D 330 285 875 - TVA n° FR 18 330 285 875



The Reproduction Rights
Organisation of Norway

The ARROW Project
c/o AIE – Associazione Italiana Editori
Att.: Maria Loi
Corso di Porta Romana 108
I-20122 MILANO
Italia

Address
Telephone
Telefax
E-mail
Internet
Org. no.

Executive Director Yngve Slettholm
Stenersgata 1A, N-0050 Oslo
+47 22 17 94 17
+47 22 17 94 22
kopinor@kopinor.no
<http://www.kopinor.org/>
964250340

Oslo, 25 September 2007

Letter of Support

Kopinor is pleased to be an External Supporter of the eContent*plus*/ARROW project.

We are committed to follow up on the project and maintain a common interest with the main participants in supporting the goals of the project as described in the objectives and work plan.

We look forward to co-operating with you.

Sincerely yours
KOPINOR

Executive Director

KOPIOSTO

COPYRIGHT SOCIETY

European Commission
Information Society and Media Directorate General
The eContentPlus programme
Jean Monnet Building
Rue Alcide de Gasperi
L-2920 Luxembourg

1st of October 2007, Helsinki, Finland

Ref.: Letter of Support ARROW Project Proposal - eContentPlus call 2007

Dear Madam / Sir,

Kopioisto is a Finnish copyright organization for authors, publishers and performing artists, representing a wide range of people in creative fields. Kopioisto has 44 member organizations representing people working in the fields of culture and communication. Through these member organisations, Kopioisto represents by proxy about 50.000 Finnish copyright owners in creative fields.

Kopioisto administers licences for reproduction and distribution of copyrighted material for example for educational institutions, corporations, state and municipal administration and church administration. Kopioisto collects remuneration for re-use of copyrighted material and forwards this remuneration, after deducting its administrative expenses, to copyright owners.

On behalf of Kopioisto as external supporter we are writing to confirm that we support the general and specific aims of the ARROW project proposal presented by AIE, Associazione Italiana Editori as coordinator.

The project will enable Kopioisto to update our knowledge, to follow up the standards, the tools, the registers and the services already available in other countries and to co-operate with other participants. On the other hand we will be able to gain visibility to our existing digital library service. Kopioisto follows the joint project with great interest.

Yours sincerely,



Jukka-Pekka Timonen

Executive Vice President

Kopioisto, Hietaniemenkatu 2, FI-00100 Helsinki, Finland, www.kopioisto.fi



Marla Loi
Associazione Italiana Editori
c.so di Porta Romana 108
I-20122 Milano
Fax: +39 02 89280860

Confirmation of support

The establishment of rights clearance mechanisms for copyright protected works and the enhanced interoperability of public and private collections with the European Digital Library is an important task and has been an urgent demand among the stakeholders.

The Conference of European National Librarians (CENL) therefore strongly endorses the aims of the project proposal "ARROW - Accessible Registries of Rights information and Orphan Works towards the EDL" and supports the project consortium in its efforts to realize the project.

This confirmation of support however does not imply any financial commitment towards the project on the part of CENL.

Frankfurt am Main, 1 October 2007

A handwritten signature in black ink, appearing to read 'Elisabeth Niggemann', is written over a printed name and title.

Dr Elisabeth Niggemann
CENL Chair

The Conference of European National Librarians (CENL) is a foundation under Dutch law with the aim of increasing and reinforcing the role of national libraries in Europe, in particular in respect of their responsibilities for maintaining the national cultural heritage and ensuring the accessibility of knowledge in that field. Members of CENL are the national librarians of the member states of the Council of Europe. The conference currently consists of 47 members from 45 European countries.

CENL Secretariat

Deutsche Nationalbibliothek - Adickesallee 1 - 60322 Frankfurt am Main - Germany
Telephone +49 69 1525 1541 - Fax +49 69 1525 1010 - E-mail cenl@dnb.de
The CENL is registered at the Chamber of Commerce Haaglanden, NL, # 27177490



Publishers Licensing Society | Anniversary

37-41 Gower Street London WC1E 6BT

Tel: +44 (0)20 7299 7750

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Email: pls@pls.org.uk

September 28, 2007

Maria Loi
Associazione Italiana Editori
c.so di Porta Romana 108
20122 Milano
ITALY

Re: ARROW

Dear Maria,

Many thanks for sharing a copy of the ARROW bid with us. The Publishers Licensing Society is very keen to support the success of the initiative described therein.

The Publishers Licensing Society was established 25 years ago by the UK publishing industry. Its role is to:

- oversee a collective licensing scheme in the UK for book, journal, and magazine copying
- stimulate innovation and good practice in rights management
- clarify the relationship between traditional copyright management practices and those needed in the digital age

PLS represents the interests of publishers in the collective licensing of photocopying and digitisation. Together with the Authors' Licensing and Collecting Society, PLS owns and directs the Copyright Licensing Agency and works in partnership with the Design and Artists Copyright Society.

With best wishes,

Dr Alicia Wise
Chief Executive

EDL Foundation



Finding the pieces of the puzzle



Stichting EDL
c/o Koninklijke Bibliotheek
Prins Willem-Alexanderhof 5
PO Box 90407
2509LK The Hague

European Commission
Information Society and Media Directorate General
The eContentPlus programme
Jean Monnet building
Rue Alcide de Gasperi
L-2920 Luxembourg

The Hague, 29 July 2008

Ref.: Letter of Support for ARROW project

Dear Madam / Sir,

The Stichting European Digital Library (EDL Foundation) aims to provide cross-domain access to Europe's cultural heritage by facilitating formal agreement across museums, archives, audio-visual archives and libraries on how to cooperate in the delivery and sustainability of the Europeana portal.

The EDL Foundation fully supports the general and specific aims of the project ARROW – *“Accessible Registries of Rights Information and Orphan Works towards Europeana”* - coordinated by AIE, Associazione Italiana Editori.

The project will enable EDL Foundation to stay in close touch with outcomes relevant for the development of Europeana and to cooperate with project participants and supporters. EDL Foundation will follow the project with great interest.

This letter of support does however not imply any financial commitment towards the project on the part of EDL Foundation.

Yours sincerely,

A handwritten signature in cursive script that reads 'Jill Cousins'.

Jill Cousins
Executive Director EDL Foundation