



Grant agreement for: CIP-Best Practice Network

<b>Annex I - "Description of Work"</b>
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Project acronym: ARROW Plus

Project full title: " European Registries of Rights Information and Orphan Works "

Grant agreement no: 270942

Date of last change: 2011-03-21

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# A1: Project summary

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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One form per project

## General information

Project title <sup>3</sup>	European Registries of Rights Information and Orphan Works		
Starting date <sup>4</sup>	31/03/2011		
Duration in months <sup>5</sup>	30		
Call (part) identifier <sup>6</sup>	CIP-ICT-PSP-2010-4		
Objective most relevant to your topic <sup>7</sup>	:		
Free keywords <sup>8</sup>	diligent search, rights information, interoperability, right holders, Europeana, digital library, books, images, Orphan Works		

## Abstract <sup>9</sup>

Arrow Plus builds on and further implements the Arrow system, developed within the Arrow project (eContent Plus programme). Arrow is a system to facilitate libraries and other users in their diligent search for rightholders in works that are to be included in a digitisation programme of books, through querying a network of European data sources. Arrow Plus plans to extend the number of countries covered, delivering a genuinely pan-European infrastructure, closing the gap in book data quality between European countries. Arrow Plus will also analyse and pilot the extension of Arrow services to the image domain.

Interoperability of European book data sources, between countries and between domains - library catalogues, Books in Print (BIP) databases and Reproduction Rights Organisations (RRO) repertoire - is the primary deliverable of the project. Particular attention is paid to the establishment of new book data sources, including BIP and RROs repertoire databases, where these sources do not exist, so to allow a larger number of countries to be covered by the Arrow service.

A shared technical infrastructure for the management of BIP and RRO registries, which will also enable the management of a Registry of Orphan Works, will represent one of the core outcomes of the project.

The Arrow Plus consortium includes representatives of all relevant stakeholders: libraries, publishers, creators (both writers and visual artists), RROs, photo agencies, and book standards organisations. All are represented at the highest possible level, by the respective European or international organisations in addition to a number of national representatives. Users (libraries, in particular) and data providers (libraries, BIPs and RROs) are also closely involved in the project.

# A2: List of Beneficiaries

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## List of Beneficiaries

No	Name	Short name	Country	Project entry month <sup>10</sup>	Project exit month
1	ASSOCIAZIONE ITALIANA EDITORI	AIE	Italy	1	30
2	FEDERATION INTERNATIONALE DES ORGANISATIONS DE DROITS DE REPRODUCTION AISB	IFRRO	Belgium	1	30
3	FEDERATION DES EDITEURS EUROPEENS FEE ASBL	FEP	Belgium	1	30
4	KONINKLIJKE BIBLIOTHEEK	KB	Netherlands	1	30
5	MVB MARKETING UND VERLAGSSERVICE DES BUCHHANDELS GMBH	MVB MARKETING	Germany	1	30
6	CONSORZIO INTERUNIVERSITARIO CINECA	CIN	Italy	1	30
7	Editeur Limited	EDITEUR	United Kingdom	1	30
8	European Visutal Artists G.E.I.E.	EVA	Belgium	1	30
9	Coordination of European Picture Agencies Press Stock heritage	CEPIC	France	1	30
10	Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche	ICCU	Italy	1	30
11	THE IRISH COPYRIGHT LICENSING AGENCY LTD	ICLA	Ireland	1	30
12	Magyar Könyvkiadók és Könyvterjesztők Egyesülése	HPBA	Hungary	1	30
13	LIETUVOS LEIDEJU ASOCIACIJA	LLA	Lithuania	1	30
14	Boek.be - Huis van het Boek vzw	BOEK	Belgium	1	30
15	ETHNIKO IDRYMA EREVNON	EKT - NHRF	Greece	1	30
16	ASSOCIACAO PORTUGUESA DE EDITORES ELIVREIROS	APEL	Portugal	1	30
17	STOWARZYSZENIE AUTOROW I WYDAWCOW POLSKA KSIAZKA	PK	Poland	1	30
18	Ciela soft and publishing AD	CIELA	Bulgaria	1	30
19	DI.TECH SPA	DI-TECH	Italy	1	30
20	UNIVERSITAET INNSBRUCK	UIBK	Austria	1	30
21	LATVIJAS GRĀMATNIEKU ĢILDE	LBG	Latvia	1	30

## A2: List of Beneficiaries

No	Name	Short name	Country	Project entry month <sup>10</sup>	Project exit month
22	ORGANISMOS SYLLOGIKHS DIAXEIRISHS ERGON TOY LOGOY SYN PE (GREEK COLLECTING SOCIETY FOR LITERARY WORKS OSDEL)	OSDEL	Greece	1	30
23	EUROPEAN WRITERS' CONGRESS(FEDERATION DES ASSOCIATIONS EUROPEENNES D ECRIVAINS)	EWC	Belgium	1	30
24	CENTRO ESPAÑOL DE DERECHOS REPROGRAFICOS	CEDRO	Spain	1	30
25	DI.TECH RO SRL	DI-RO	Romania	1	30
26	LA MAISON DES AUTEURS ASBL	MDA	Belgium	1	30

# A3: Budget breakdown

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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One Form per Project

Participant number in this project	Participant short name	Personnel costs	Sub contracting	Other direct costs	Total costs	Max EU Contribution	Requested EU contribution
1	AIE	804,000.00	0.00	112,730.00	916,730.00	733,384.00	733,384.00
2	IFRRO	233,100.00	138,000.00	80,000.00	451,100.00	360,880.00	360,880.00
3	FEP	312,000.00	130,000.00	66,000.00	508,000.00	406,400.00	406,400.00
4	KB	408,870.00	0.00	64,000.00	472,870.00	378,296.00	378,296.00
5	MVB MARKETING	374,000.00	0.00	60,000.00	434,000.00	347,200.00	347,200.00
6	CIN	761,600.00	90,000.00	69,600.00	921,200.00	736,960.00	736,960.00
7	EDItEUR	178,600.00	0.00	48,300.00	226,900.00	181,520.00	181,520.00
8	EVA	165,000.00	0.00	10,500.00	175,500.00	140,400.00	140,400.00
9	CEPIC	129,000.00	0.00	9,000.00	138,000.00	110,400.00	110,400.00
10	ICCU	76,500.00	0.00	22,000.00	98,500.00	78,800.00	78,800.00
11	ICLA	75,000.00	0.00	25,500.00	100,500.00	80,400.00	80,400.00
12	HPBA	42,000.00	0.00	26,000.00	68,000.00	54,400.00	54,400.00
13	LLA	36,000.00	0.00	26,000.00	62,000.00	49,600.00	49,600.00
14	BOEK	54,000.00	0.00	12,500.00	66,500.00	53,200.00	53,200.00
15	EKT - NHRF	31,450.00	0.00	9,000.00	40,450.00	32,360.00	32,360.00
16	APEL	52,000.00	0.00	20,000.00	72,000.00	57,600.00	57,600.00
17	PK	68,250.00	0.00	21,750.00	90,000.00	72,000.00	72,000.00
18	CIELA	45,900.00	0.00	19,000.00	64,900.00	51,920.00	51,920.00
19	DI-TECH	115,000.00	0.00	8,100.00	123,100.00	98,480.00	98,480.00
20	UIBK	180,000.00	0.00	26,300.00	206,300.00	165,040.00	165,040.00
21	LBG	30,000.00	10,000.00	27,000.00	67,000.00	53,600.00	53,600.00
22	OSDEL	60,000.00	0.00	27,000.00	87,000.00	69,600.00	69,600.00

# A3: Budget breakdown

Participant number in this project	Participant short name	Personnel costs	Sub contracting	Other direct costs	Total costs	Max EU Contribution	Requested EU contribution
23	EWC	17,500.00	0.00	6,000.00	23,500.00	18,800.00	18,800.00
24	CEDRO	95,000.00	0.00	12,750.00	107,750.00	86,200.00	86,200.00
25	DI-RO	39,200.00	0.00	8,500.00	47,700.00	38,160.00	38,160.00
26	MDA	42,000.00	0.00	13,500.00	55,500.00	44,400.00	44,400.00
<b>TOTAL</b>		<b>4,425,970.00</b>	<b>368,000.00</b>	<b>831,030.00</b>	<b>5,625,000.00</b>	<b>4,500,000.00</b>	<b>4,500,000.00</b>

### **1. Project number**

The project number has been assigned by the Commission as the unique identifier for your project, and it cannot be changed. The project number **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

### **2. Project acronym**

Use the project acronym as indicated in the submitted proposal. It cannot be changed, unless agreed during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

### **3. Project title**

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

### **4. Starting date**

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry into force of the Grant Agreement (NB : entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a detailed justification on a separate note.

### **5. Duration**

Insert the duration of the project in full months.

### **6. Call (part) identifier**

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

### **7. Activity code**

Select the activity code from the drop-down menu.

### **8. Free keywords**

Use the free keywords from your original proposal; changes and additions are possible.

### **9. Abstract**

**10. The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.**

**11. The number allocated by the Consortium to the participant for this project.**



# Workplan Tables

Project number

270942

Project title

ARROW Plus—European Registries of Rights Information and Orphan Works

Call (part) identifier

CIP-ICT-PSP-2010-4

Funding scheme

CIP-Best Practice Network



# WT1

## List of work packages

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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### LIST OF WORK PACKAGES (WP)

WP Number <sup>53</sup>	WP Title	Lead beneficiary number <sup>55</sup>	Person-months <sup>56</sup>	Start month <sup>57</sup>	End month <sup>58</sup>
WP 1	Project Management	1	95.00	1	30
WP 2	Dissemination and network building	2	58.50	1	30
WP 3	Organising and coordinating national initiatives	3	201.50	1	30
WP 4	System enhancement and maintenance	6	267.50	1	30
WP 5	Product management of new registries	5	84.00	9	30
WP 6	Inclusion of visual material	8	44.00	1	15
WP 7	Validation	20	81.00	15	30
Total			831.50		

# WT2: List of Deliverables

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## List of Deliverables - to be submitted for review to EC

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Project operative workplan	1	1	2.00	O	CO	3
D1.2	Quality and evaluation plan	1	1	2.00	O	CO	3
D1.3	Statement agreement on IP Rights	1	1	2.00	O	CO	6
D1.4	Periodic Report	1	1	12.00	R	CO	11
D1.5	1st Payment request	1	1	1.00	O	CO	11
D1.6	Business model	1	1	6.00	R	CO	16
D1.7	Periodic Report	1	1	12.00	R	CO	21
D1.8	2nd Payment Request	1	1	1.00	O	CO	21
D1.9	Evaluation and assessing report	1	1	8.00	R	CO	30
D1.10	IP Rights agreement	1	1	6.00	O	CO	30
D1.11	Exploitation plan	1	1	21.00	R	CO	30
D1.12	Final report including public summary	1	1	21.00	R	PU	30
D1.13	Final payment request	1	1	1.00	R	CO	30
D2.1	Reviewed Arrow website	2	2	5.00	O	PU	3
D2.2	Guidelines on national groupings	2	2	2.00	O	RE	3
D2.3	Dissemination plan, updated annually	2	2	36.50	O	CO	5
D2.4	Report on relevant networks	2	2	5.00	R	PU	6
D2.5	Arrow conference	2	2	5.00	O	PU	29
D2.6	Final plan for dissemination	2	2	5.00	O	RE	30

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
	and use of project results						
D3.1	User requirements for Arrow deployment	3	3	145.50	R	CO	10
D3.2	National sustainability plans	3	3	56.00	R	PU	30
D4.1	Interim report on system maintenance and enhancement	4	6	68.50	R	PU	13
D4.2	BIP registry – release for the validation	4	6	48.00	P	CO	18
D4.3	RRO registry – release for the validation	4	6	47.00	P	CO	20
D4.4	Arrow Plus production system	4	6	104.00	P	CO	30
D5.1	System design and specification of new registries	5	5	56.00	O	RE	14
D5.2	Piloting roadmap	5	5	5.00	O	RE	18
D5.3	Product management report for registries	5	5	23.00	R	CO	28
D6.1	Pilot integration of visual artists' data	6	8	29.50	P	RE	12
D6.2	Feasibility study on diligent search of image rights	6	8	14.50	R	PU	15
D7.1	Validation roadmap	7	20	5.00	O	CO	18
D7.2	Report on data enrichment and stakeholders validation	7	20	76.00	R	PU	30
<b>Total</b>				<b>831.50</b>			

# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP1
Work package title	Project Management
Start month	1
End month	30
Lead beneficiary number <sup>55</sup>	1

## Objectives

- Managing and coordinating the entire work of the project, including relations with the European Commission
- Maximising integration and working efficiency among partners
- Monitoring and quality control of all the phases of work and managing their deadlines and dependencies
- Identification and mitigation of risks
- Definition of IPR policy and management within the consortium
- Definition of the final business model and exploitation plan

## Description of work and role of partners

Task 1.1. Project management - The task will provide comprehensive project management in accordance with the methodology described in detail in §3.3.

T1.2. Evaluation and assessment - Monitoring and evaluation, through continuing review of works and deliverables, will be an integral part of the project management (see also §3.3)

T1.3. IPR and sustainability plan - Having gathered data and stakeholders plans from the national activities (WP3), at Month 11 a working group will be formed to draft a business model for the Arrow Plus system (M16); then, in the final phase of the project, following the pilots and taking into account feedback from the validation, a sustainability plan will be finalised, according to the principles described in §2.2. Particular attention will be paid to the right equilibrium between the different possible revenue sources (libraries, publishers, RROs, bibliographic agencies, etc.) including an agreement covering the IP rights created within the partnership. To ensure smooth management before the final agreement, the key principles of the IPR policy will be anticipated by an initial "agreement on IPR" (M6)

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	56.00
2	IFRRO	13.00
3	FEP	4.00
4	KB	4.00
5	MVB MARKETING	4.00
6	CIN	4.00
7	EDItEUR	1.00
8	EVA	4.00
20	UIBK	4.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
23	EWC	1.00
	Total	95.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Project operative workplan	1	2.00	O	CO	3
D1.2	Quality and evaluation plan	1	2.00	O	CO	3
D1.3	Statement agreement on IP Rights	1	2.00	O	CO	6
D1.4	Periodic Report	1	12.00	R	CO	11
D1.5	1st Payment request	1	1.00	O	CO	11
D1.6	Business model	1	6.00	R	CO	16
D1.7	Periodic Report	1	12.00	R	CO	21
D1.8	2nd Payment Request	1	1.00	O	CO	21
D1.9	Evaluation and assessing report	1	8.00	R	CO	30
D1.10	IP Rights agreement	1	6.00	O	CO	30
D1.11	Exploitation plan	1	21.00	R	CO	30
D1.12	Final report including public summary	1	21.00	R	PU	30
D1.13	Final payment request	1	1.00	R	CO	30
	Total		95.00			

## Description of deliverables

D1.1) Project operative workplan: It defines the detailed workplan, including attribution of tasks and responsibilities. It may be subject to change when the Board would identify needs for doing so, in reaction to external event or internal issues. [month 3]

D1.2) Quality and evaluation plan: It defines methods and responsibilities for quality control during the project lifespan (see also §3.3) [month 3]

D1.3) Statement agreement on IP Rights: It defines the general principles for the rights management at the end of the project, in view of more detailed IPR agreement that can be defined only at the end of the project when IP entities and business models will be clearer [month 6]

D1.4) Periodic Report: It describes the activities done and the results achieved during the first project 10 months, following the due templates. The executive summary will be conceived as the tool to inform stakeholders of project progress and will be published in the project website [month 11]

D1.5) 1st Payment request: It will be prepared according to the programme templates. [month 11]

D1.6) Business model: It is conceived as a continuation of the analysis of the analogue deliverable in the Arrow project. The hypothesis set in the first project will be assessed against the evolution in digital library programme, with particular attention paid to leading use cases (presumably in France, Germany and UK). The model designed at the end of the first Arrow project will be tailored. A particular focus will be done to the identification of sources of revenues beyond the library environment. [month 16]

# WT3: Work package description

D1.7) Periodic Report: It describes the activities done and the results achieved during the months 11-20, following the due templates. The executive summary will be conceived as the tool to inform stakeholders of project progress and will be published in the project website [month 21]

D1.8) 2nd Payment Request: It will be prepared according to the programme templates. [month 21]

D1.9) Evaluation and assessing report: It describes the results of the quality control activities along the project life. [month 30]

D1.10) IP Rights agreement: It details the IPR management for the future of the project in coherence with the exploitation plan. It is the practical implementation of the general principle set in D1.3 [month 30]

D1.11) Exploitation plan: It describes the business model for long term sustainability of the system, including a medium term cost estimates and analysis of use-cases in place at that time. It consists of two parts: the exploitation plan for the Arrow system as a whole, and individual exploitation plans at national level in the countries where new databases (Books in print and/or RRO repertoires) will be launched. [month 30]

D1.12) Final report including public summary: It describes the activities done and the results achieved during the whole project, following the programme templates. Specific chapters will be dedicated to: system maintenance and enhancement, progresses on data enrichment and the stakeholders validation. The executive summary will be conceived as the tool to inform stakeholders of project progress and will be published in the project website [month 30]

D1.13) Final payment request: It will be prepared according to the programme templates. [month 30]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS2	Assessment of business model	1	16	The business model designed in previous ARROW project will be assessed against actual digital libraries environment.
MS4	Defining the future	1	29	All works should converge in a single long term view to be built in the last two months of the project



# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP2
Work package title	Dissemination and network building
Start month	1
End month	30
Lead beneficiary number <sup>55</sup>	2

## Objectives

- Promoting the understanding and use of the Arrow system in public and private institutions involved in digitisation projects;
- Enabling primary users involved in the identification and clearance of rights within relevant institutions to get an in depth knowledge of the benefit of using Arrow in their work;
- Enabling efficient and continued involvement of stakeholders in the implementation and enhancement of the Arrow system, in order to undertake demand-driven actions;
- Building a network of stakeholder groups and building their cooperation in the implementation and the enhancement of Arrow;
- Increasing awareness within the digital library value chain of the benefit of using Arrow;
- Disseminating project results and broadening the number of users benefiting from using Arrow.

## Description of work and role of partners

T2.1 Dissemination of project information and results. A dissemination plan will be developed with the view to providing the best possible dissemination of information about the Arrow system and the results of the project. The general strategy is described in §2.3 of part B and is based on clear identification of user groups in the European professional book world. There will also be a focus on providing adequate information to policy makers including key personnel in relevant European and Member States' institutions, as well as potential users of Arrow outside Europe. The Arrow website will be reviewed and revised, including making its News feed open for general access, and will play a key role in the dissemination plan. Furthermore, we envisage participation in existing events in the library and book industry calendar, the organisation of workshops for selected key users and a final conference for broader user groups.

T2.2 Network building. Network building will be another corner stone in project communication activities. While the primary focus will be on streamlining existing networks of national libraries, books in prints, RROs, authors and publishers associations and national Arrow groupings for the Arrow plus project, the WP will also be responsible for liaising with Europeana and its relevant groupings and, as appropriate, with other projects facilitating Europeana; and with other potential users both in and outside Europe. As a starting point, a document will be prepared describing the relevant networks which we can build on, as well as how to we can develop and maintain them for the purpose of Arrow Plus.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	11.00
2	IFRRO	24.00
3	FEP	2.00
4	KB	6.00
7	EDItEUR	4.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
10	ICCU	9.00
23	EWC	2.50
Total		58.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D2.1	Reviewed Arrow website	2	5.00	O	PU	3
D2.2	Guidelines on national groupings	2	2.00	O	RE	3
D2.3	Dissemination plan, updated annually	2	36.50	O	CO	5
D2.4	Report on relevant networks	2	5.00	R	PU	6
D2.5	Arrow conference	2	5.00	O	PU	29
D2.6	Final plan for dissemination and use of project results	2	5.00	O	RE	30
Total			58.50			

## Description of deliverables

D2.1) Reviewed Arrow website: The new version of the Arrow website ([www.arrow-net.eu](http://www.arrow-net.eu)) will be released taking into account the evolution of the Arrow Plus project. Also restricted areas will be re-designed. However, the continuity – important also for PR reasons – will be guaranteed, also in terms of graphical design. [month 3]

D2.2) Guidelines on national groupings: It includes general guidance and specific tools (“corporate image”, ppt templates, etc.) for the promotion of the project at national level, with particular attention to the general message and value propositions to be provided. [month 3]

D2.3) Dissemination plan, updated annually: Starting from the identification of target groups, plans for disseminating the project message will be detailed, with periodical up-dating. This will include participation at book-world events (Fairs, conferences, seminars, etc.), and activities towards policy makers at national and EU level [month 5]

D2.4) Report on relevant networks: It describes the relevant networks which we can build on, as well as how to we can develop and maintain them for the purpose of Arrow Plus. It will include streamlining existing networks at national levels and liaising with Europeana and its relevant groupings and, as appropriate, with other projects facilitating Europeana [month 6]

D2.5) Arrow conference: A final Arrow conference for broader user groups will be organised to communicate the sense of the crucial step from the nature of a EU co-funded project to a production system that should stay on the market providing value to specific users [month 29]

D2.6) Final plan for dissemination and use of project results: It is conceived as serving the Exploitation plan (D1.11). The objective is in fact to have a long term sustainability system in place, so that preparing dissemination will mean – to some extent – preparing marketing of the Arrow services. [month 30]

# WT3: Work package description

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
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# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP3
Work package title	Organising and coordinating national initiatives
Start month	1
End month	30
Lead beneficiary number <sup>55</sup>	3

## Objectives

- To co-ordinate the deployment of the Arrow system in new countries, ensuring full participation of national stakeholders and maintaining interoperability across borders. This is seen as a specific objective, separated from the general coordination of the project, since it requires continuous management of the relations with all the countries involved, so to ensure coherence among the national initiatives.
- To analyse the user needs in countries involved, in order to identify requirements and the ad hoc development pattern to join the Arrow system
- To take care of the relations between the national specification and technical development in WP4.
- To provide timely and regular information about the project evolution to all partners

## Description of work and role of partners

The first task (T3.1) assigned to each national reference partner is to analyse – with the involvement of national stakeholders, and under the coordination of the WP leader – the existing databases and alternative resources to use in the Arrow workflow, so to identify the ad hoc solutions at national level. This will include the analysis of existing contexts and possible scenarios, description of stakeholders strategies for the long run, as basis for the definition of user needs and actual specifications of the system requirements. The task will be completed with the definition of users requirements for such solutions.

After this, national contact points will interact initially with system designer (both in WP4 and WP5) and with technical developers to ensure correct implementation of the solutions (T3.2). During the validation phase, with the use of the system, the national working groups will ensure that the data resulting from the use of the system correctly populates the local Arrow resources.

Finally, at national level, sustainability plans will be prepared (T3.3) to identify business models for maintenance of the services created during the project after the end of it. This will be co-ordinated in particular with WP5.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	18.00
3	FEP	34.00
4	KB	10.00
5	MVB MARKETING	14.00
6	CIN	4.00
7	EDItEUR	12.50
10	ICCU	6.00
11	ICLA	9.00
12	HPBA	9.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
13	LLA	9.00
14	BOEK	5.00
15	EKT - NHRF	3.50
16	APEL	10.00
17	PK	13.50
18	CIELA	10.00
20	UIBK	8.00
21	LBG	8.00
22	OSDEL	7.00
24	CEDRO	5.00
26	MDA	6.00
Total		201.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D3.1	User requirements for Arrow deployment	3	145.50	R	CO	10
D3.2	National sustainability plans	3	56.00	R	PU	30
Total			201.50			

## Description of deliverables

D3.1) User requirements for Arrow deployment: It collects the definition of user requirements provided by the different national groups, based on the analysis of existing contexts and possible scenarios, and stakeholders strategies for the long run. It is the basis for the design of the system architecture of the tools for BiP and RRO database management [month 10]

D3.2) National sustainability plans: In each country that is interested in using the BiP and/or RRO tools the deliverable identifies business models for maintenance of the services created during the project after the end of it. This includes identification of entities in charge of the maintenance, and relation with the central Arrow infrastructure [month 30]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Definition of user requirements	3	10	The collection of user requirements in WP3

# WT3: Work package description

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
				should converge into the start up of design of actual specification (WP5)

# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP4
Work package title	System enhancement and maintenance
Start month	1
End month	30
Lead beneficiary number <sup>55</sup>	6

## Objectives

- Ensuring the maintenance of the service during the whole project lifespan
- Enhancing the existing functionalities and designing new technical modules as these are identified through the project
- To design tools for collaborative interaction by rightholders and users to be integrated in the workflow
- Improving the system taking into consideration emerging user feedback

## Description of work and role of partners

In the first phase (T4.1) system enhancement will be focused on improvements to the existing Arrow system as defined by the validation phase of the current Arrow project (see §B3.2a for comprehensive description). This will be particularly targeted at developing a more flexible infrastructure to facilitate the incorporation of further countries and data providers into the Arrow network in Arrow Plus, including the design of new tools for rightholders claiming of rights.

Subsequently, the consolidated national user requirements defined in WP3 will be analysed and translated into a comprehensive design and into an implementation roadmap for the inclusion of new countries into the system. As for the creation of new registries, such specification will be provided by WP5. On the basis of the roadmap and specifications, the build and implementation work of the new system elements will commence (T4.2 and T4.3). The work will involve piloting in the different countries, step by step, from Month 18. In parallel with the validation, new implementations and enhancements will be provided through to the end of the project as part of an iterative process. Experience within the current Arrow project has demonstrated that, for a system designed to manage interoperability between data sources and users, it is necessary to follow the pilot exercises with a continuous implementation and improvement model.

First pilot of the new system elements (D4.3 and 4.4) will be ready in sequence for the BIP and the RRO domains. In a later phase, each of these elements will enter a process of improvement following piloting and validation. Since each country may require a degree of customisation and implementation work at national level, the integration of new countries with the system will happen step by step. All this work will be finalised in a production system at the end of the project (D4.6).

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	18.00
4	KB	50.00
5	MVB MARKETING	8.00
6	CIN	104.00
7	EDItEUR	4.00
11	ICLA	3.00
14	BOEK	3.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
15	EKT - NHRF	5.00
17	PK	3.00
18	CIELA	4.00
19	DI-TECH	23.00
20	UIBK	12.00
22	OSDEL	3.00
24	CEDRO	3.00
25	DI-RO	24.50
Total		267.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D4.1	Interim report on system maintenance and enhancement	6	68.50	R	PU	13
D4.2	BIP registry – release for the validation	6	48.00	P	CO	18
D4.3	RRO registry – release for the validation	6	47.00	P	CO	20
D4.4	Arrow Plus production system	6	104.00	P	CO	30
Total			267.50			

## Description of deliverables

D4.1) Interim report on system maintenance and enhancement: It describes the work done in this area in the first year of the project, particularly emphasising the relation between emerging use-cases and system enhancements. It includes the design of new tools for right claiming [month 13]

D4.2) BIP registry – release for the validation: It is the first release of the BiP infrastructure, conceived as the “empty box” to be feeded in the validation process, as described above [month 18]

D4.3) RRO registry – release for the validation: It is the first release of the RRO registry infrastructure, conceived as the “empty box” to be feeded in the validation process, as described above [month 20]

D4.4) Arrow Plus production system: It is the evolution of the Arrow system incorporating the different elements planned in the Arrow Plus, and in particular the enhancements and customisations to better fit practical use-cases and the BIP and RRO registry infrastructures. [month 30]



# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS3	First pilot of new system elements (BIPs and RROs)	6	20	The system should be enhanced and ready for piloting and product management (WP5) and validation (WP7) should start

# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP5
Work package title	Product management of new registries
Start month	9
End month	30
Lead beneficiary number <sup>55</sup>	5

## Objectives

- Designing the system architecture for new registries to be created
- Translating the requirements gathered in WP3 into a product management roadmap for the new registries (BIPs, RRO repertoires and ROW)
- Providing guidance and the specification for data conversion required from existing sources to new registries
- Following up the implementation of tools for the management of registries and receiving the validation feedback to support specifications for upgrading them
- Identifying ongoing business models together with the partner in each country to be incorporated in WP3 national sustainability plans

## Description of work and role of partners

Consolidated national user requirements that have been defined in WP3 in respect of new registries will be analysed and translated into a comprehensive architectural design for the enhanced system (D5.1), with particular attention paid to the relations between the new registries that will be created (BIPs and RRO databases) and existing ones, within the general framework of Arrow. This architecture will include:

- Specifications for “basic BIP database” to be created. This will include basic functionalities (i.e. register, maintain, erase, import and export of book title metadata) to guarantee the professional management of title metadata to meet Arrow requirements;
- Specifications for “basic RRO repertoire database” to be created, in the same way as (and integrated with) the “basic BIP database”;
- Specifications for data conversion from existing data sources into the new registries;
- Specifications for data exchange between new registries and users (in particular publishers and other rightholders);

Then, first implementation of the BIP and RRO registries, including designing a complete workflow for the registration of titles. Once the first implementation has been successfully completed, the system will be piloted in the different countries, step by step, starting with data conversion from other sources in one country and proceeding along a sequential roadmap to be defined at Month 18. This roadmap will consider the requirement first to test the robustness of the system in a single environment before testing its scalability to include further countries. After the roll out of the basic BIP and RRO registries in different countries, a specific business model for the future will be defined in close collaboration between the national partners and the participants to this WP. The result of this activity will be incorporated into the general exploitation plan of the project (D1.11).

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	20.00
5	MVB MARKETING	33.00
6	CIN	21.00
7	EDItEUR	2.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
24	CEDRO	8.00
	Total	84.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D5.1	System design and specification of new registries	5	56.00	O	RE	14
D5.2	Piloting roadmap	5	5.00	O	RE	18
D5.3	Product management report for registries	5	23.00	R	CO	28
	Total		84.00			

## Description of deliverables

D5.1) System design and specification of new registries: It includes a complete set of specification for the BIP and RRO registry infrastructure, based on the requirements collected and integrated at national level. [month 14]

D5.2) Piloting roadmap: It is conceived as a product management report to plan the different steps for testing the system and proceed towards a user-driven production system. Being several countries involved, it defines the process (methodology and timeframe) to involve each country [month 18]

D5.3) Product management report for registries: It describes the activities done to implement the piloting roadmap with a view to future evolution in a market environment of the system developed. [month 28]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
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# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP6
Work package title	Inclusion of visual material
Start month	1
End month	15
Lead beneficiary number <sup>55</sup>	8

## Objectives

- Piloting the Arrow system with at least one database containing information about visual artists' and photographers' contributions to books which users wish to scan
- Preparing a feasibility study for the development of a system, based on Arrow principles and technologies, for facilitating diligent search for rightholders in images

## Description of work and role of partners

The first task (T6.1) is to study how to integrate the information about images contained in books within the current Arrow workflow. The study will include:

a) an analysis of the quality of data relating to images in the resources already in use within the Arrow system (i.e. how much visual art metadata is incorporated in library catalogues, books in print, and RRO repertoires that are already part of the Arrow network).

b) the identification of additional resources that available to query for further information, with particular attention to CMO and picture agency databases that may contain such data.

In order to be integrated with the Arrow workflow, such resources need to be able to match with a book record. In other words, they will receive information that a particular book is a candidate to enter a digitisation programme, and need to be able provide rights information about the images contained in that book. The impact that this stakeholder inclusion on the Arrow infrastructure will be also analysed.

This study will be concluded with the integration of at least one database containing visual artists' information in the Arrow workflow, to demonstrate the feasibility of the mechanism and to validate the reliability of the results. Since some initial analysis has already commenced as part of the current Arrow project, as elsewhere Arrow Plus will be in a position to build on Arrow's achievements.

T6.2 consists of preparing a feasibility study for the promotion of a more comprehensive project to explore the issue of image rights information looking beyond "images contained in books". This study will cover an analysis of image metadata databases (e.g. CMOs repertoires, databases of photo agencies, picture libraries, etc.) and their level of interoperability and the coherence with the possible objectives of a "Arrow-like" system in the image domain, to meet fully the Guidelines for diligent search for the audiovisual sector set by the HLEG on digital libraries.

T6.3 will conduct a review of existing persistent unique identification systems and the proposal for a standard unique identification system, which might result in a formal standardisation proposal to ISO TC46/SC9.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	2.00
6	CIN	3.00
8	EVA	20.50
9	CEPIC	18.50
	Total	44.00

# WT3: Work package description

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D6.1	Pilot integration of visual artists' data	8	29.50	P	RE	12
D6.2	Feasibility study on diligent search of image rights	8	14.50	R	PU	15
Total			44.00			

## Description of deliverables

D6.1) Pilot integration of visual artists' data: It reports the results of the integration in the Arrow workflow of visual artist's data coming from at least one database. It also reports the analysis of resources to be integrated to consider visual art rights and the data quality of them. [month 12]

D6.2) Feasibility study on diligent search of image rights: It contains all the elements of a project to fully exploit the Arrow potential to fully support diligent search of image rights. It also includes the evaluation of identifying systems for images and rights information. [month 15]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
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# WT3: Work package description

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## One form per Work Package

Work package number <sup>53</sup>	WP7
Work package title	Validation
Start month	15
End month	30
Lead beneficiary number <sup>55</sup>	20

## Objectives

- To test the new functionality of the system through internal piloting
- To manage data enrichment, including data conversion from different sources, in the new countries involved
- To validate the system with stakeholders involvement

## Description of work and role of partners

The first planned step is the definition of national roadmaps (T7.1), where the WP leader will define criteria for the following phases of the WP and create the validation tools for gathering feedback.

The actual validation will start with a phase of Internal testing (T7.2) of the functionalities implemented to allow further countries to join the system. A key step in this phase is data conversion and enrichment (T7.2) for the initial data feeds for the new registries, with data being imported from third party sources (e.g. the ISBN agencies); this implies an opportunity to test the registries and the consistency of the new infrastructure as a whole. Clear responsibility for this phase of testing is attributed to the WP5 leader.

Finally, a full stakeholders validation will commence (T7.3), to gather the feedback from the different communities of interest (libraries, rightholders, and data providers) and suggest improvements and further enhancements to the system.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	AIE	9.00
3	FEP	12.00
5	MVB MARKETING	9.00
8	EVA	3.00
9	CEPIC	3.00
10	ICCU	2.00
11	ICLA	3.00
12	HPBA	3.00
13	LLA	3.00
14	BOEK	1.00
16	APEL	3.00
17	PK	3.00
18	CIELA	3.00
20	UIBK	16.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
21	LBG	2.00
22	OSDEL	2.00
24	CEDRO	3.00
26	MDA	1.00
	Total	81.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D7.1	Validation roadmap	20	5.00	O	CO	18
D7.2	Report on data enrichment and stakeholders validation	20	76.00	R	PU	30
		Total	81.00			

## Description of deliverables

D7.1) Validation roadmap: It defines criteria for the following phases of the WP and develop the validation tools for gathering feedback. [month 18]

D7.2) Report on data enrichment and stakeholders validation: It reports on the progress of data enrichment process – with the initial data feeds for the new registries, with data being imported from third party sources – and feedback gathered from the different communities of interest. The whole process will be finalised to suggest improvements and further enhancements to the system. [month 30]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
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# WT4: List of Milestones

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## List and Schedule of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Definition of user requirements	WP3	3	10	The collection of user requirements in WP3 should converge into the start up of design of actual specification (WP5)
MS2	Assessment of business model	WP1	1	16	The business model designed in previous ARROW project will be assessed against actual digital libraries environment.
MS3	First pilot of new system elements (BIPs and RROs)	WP4	6	20	The system should be enhanced and ready for piloting and product management (WP5) and validation (WP7) should start
MS4	Defining the future	WP1	1	29	All works should converge in a single long term view to be built in the last two months of the project



# WT5: Tentative schedule of Project Reviews

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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## Tentative schedule of Project Reviews

Review number <sup>65</sup>	Tentative timing	Planned venue of review	Comments, if any
RV 1	11	Luxembourg	First intermediate review
RV 2	21	Luxembourg or Milan	Second intermediate review or PO visit
RV 3	31	Luxembourg	Final review

## Project Effort by Beneficiary and Work Package

Project Number <sup>1</sup>	270942	Project Acronym <sup>2</sup>	ARROW Plus
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### Indicative efforts (man-months) per Beneficiary per Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	Total per Beneficiary
1 - AIE	56.00	11.00	18.00	18.00	20.00	2.00	9.00	134.00
2 - IFRRO	13.00	24.00	0.00	0.00	0.00	0.00	0.00	37.00
3 - FEP	4.00	2.00	34.00	0.00	0.00	0.00	12.00	52.00
4 - KB	4.00	6.00	10.00	50.00	0.00	0.00	0.00	70.00
5 - MVB MARKETING	4.00	0.00	14.00	8.00	33.00	0.00	9.00	68.00
6 - CIN	4.00	0.00	4.00	104.00	21.00	3.00	0.00	136.00
7 - EDItEUR	1.00	4.00	12.50	4.00	2.00	0.00	0.00	23.50
8 - EVA	4.00	0.00	0.00	0.00	0.00	20.50	3.00	27.50
9 - CEPIC	0.00	0.00	0.00	0.00	0.00	18.50	3.00	21.50
10 - ICCU	0.00	9.00	6.00	0.00	0.00	0.00	2.00	17.00
11 - ICLA	0.00	0.00	9.00	3.00	0.00	0.00	3.00	15.00
12 - HPBA	0.00	0.00	9.00	0.00	0.00	0.00	3.00	12.00
13 - LLA	0.00	0.00	9.00	0.00	0.00	0.00	3.00	12.00
14 - BOEK	0.00	0.00	5.00	3.00	0.00	0.00	1.00	9.00
15 - EKT - NHRF	0.00	0.00	3.50	5.00	0.00	0.00	0.00	8.50
16 - APEL	0.00	0.00	10.00	0.00	0.00	0.00	3.00	13.00
17 - PK	0.00	0.00	13.50	3.00	0.00	0.00	3.00	19.50
18 - CIELA	0.00	0.00	10.00	4.00	0.00	0.00	3.00	17.00
19 - DI-TECH	0.00	0.00	0.00	23.00	0.00	0.00	0.00	23.00
20 - UIBK	4.00	0.00	8.00	12.00	0.00	0.00	16.00	40.00
21 - LBG	0.00	0.00	8.00	0.00	0.00	0.00	2.00	10.00
22 - OSDEL	0.00	0.00	7.00	3.00	0.00	0.00	2.00	12.00

# WT6:

## Project Effort by Beneficiary and Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	Total per Beneficiary
23 - EWC	1.00	2.50	0.00	0.00	0.00	0.00	0.00	3.50
24 - CEDRO	0.00	0.00	5.00	3.00	8.00	0.00	3.00	19.00
25 - DI-RO	0.00	0.00	0.00	24.50	0.00	0.00	0.00	24.50
26 - MDA	0.00	0.00	6.00	0.00	0.00	0.00	1.00	7.00
Total	95.00	58.50	201.50	267.50	84.00	44.00	81.00	831.50

## 1. Project number

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

## 2. Project acronym

Use the project acronym as given in the submitted proposal. It cannot be changed unless agreed so during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

## 53. Work Package number

Work package number: WP1, WP2, WP3, ..., WPn

## 55. Lead beneficiary number

Number of the beneficiary leading the work in this work package.

## 56. Person-months per work package

The total number of person-months allocated to each work package.

## 57. Start month

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

## 58. End month

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

## 59. Milestone number

Milestone number: MS1, MS2, ..., MSn

## 60. Delivery date for Milestone

Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

## 61. Deliverable number

Deliverable numbers in order of delivery dates: D1 – Dn

## 62. Nature

Please indicate the nature of the deliverable using one of the following codes

**R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

## 63. Dissemination level

Please indicate the dissemination level using one of the following codes:

- **PU** = Public
- **PP** = Restricted to other programme participants (including the Commission Services)
- **RE** = Restricted to a group specified by the consortium (including the Commission Services)
- **CO** = Confidential, only for members of the consortium (including the Commission Services)
- **Restreint UE** = Classified with the classification level "Restreint UE" according to Commission Decision 2001/844 and amendments
- **Confidentiel UE** = Classified with the mention of the classification level "Confidentiel UE" according to Commission Decision 2001/844 and amendments
- **Secret UE** = Classified with the mention of the classification level "Secret UE" according to Commission Decision 2001/844 and amendments

## 64. Delivery date for Deliverable

Month in which the deliverables will be available. Month 1 marking the start date of the project, and all delivery dates being relative to this start date

## 65. Review number

Review number: RV1, RV2, ..., RVn

**66. Tentative timing of reviews**

Month after which the review will take place. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

**67. Person-months per Deliverable**

The total number of person-month allocated to each deliverable.

# ARROW PLUS

## PART B

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## PROJECT PROFILE

The primary aim of Arrow Plus – in alignment with the ICT-PSP work programme – is to create a “*stable, sustainable infrastructure for rights information management including clearance of rights and a European registry of orphan works*”. Arrow Plus builds on and further implements the Arrow system, developed within the Arrow project (eContent Plus programme). Arrow is a system to *facilitate libraries and other users in their diligent search for rightholders in works that are to be included in a mass digitisation programme of books, through querying a network of European data sources*.

A key objective of Arrow Plus is to extend the number of countries covered, delivering a genuinely pan-European infrastructure, promoting interoperability and closing the gap in book data quality between European countries. Arrow Plus will also analyse and pilot the extension of Arrow services to the image domain.

The implementation and validation of the Arrow business model, developed as part of the current Arrow project, is a fundamental objective, in delivering a service that is sustainable for the long-term.

A network of stakeholder communities at national level, including libraries, publishers, creators, and collective management organisations, will be co-ordinated in defining individual national requirements for enhancing the Arrow infrastructure so as to facilitate the use of the system in each country that is involved in the project. Interoperability of European book data sources, between countries and between domains (library catalogues, BIP databases and RRO repertoire databases, including those managing rights in visual works) is the primary deliverable of the project. Particular attention will be paid to the establishment or improvement of book data sources including Books in Print (BIP) and Reproduction Rights Organisations (RROs) repertoire databases, to allow a larger number of countries to participate in the Arrow service.

A shared technical infrastructure for the management of BIP and RRO registries, which will also enable the management of a Registry of Orphan Works, will represent one of the core outcomes of the project.

As recommended by the ICT-PSP work programme, the consortium “*includes representatives of all relevant stakeholders*”: libraries, publishers, creators (both writers and visual artists), RROs, photo agencies, and book standards organisations. All are represented at the highest possible level, by the respective European or international organisations in addition to a number of national representatives. Users (libraries, in particular) and data providers (BIPs and RROs in particular) are also closely involved in the project.

The consortium is completed by partners with the specialist expertise necessary to undertake a challenging project like Arrow Plus. The co-ordinator has a long and successful history of leading large scale European projects. Technical partners include, among others, Cineca (a major IT centre belonging to the Italian university system), The European Library office hosted by the National Library of the Netherlands, MVB, the organisation running one of the leading BIPs in Europe and EDItEUR, a leader in global standards for the exchange of bibliographic and rights information messages along the content value chain.

Arrow Plus is designed to maximise impact in the three areas identified by Objective 2.4 of the ICT-PSP work programme by broadening the scope of the Arrow system. Arrow Plus will contribute to “*Enable to retrieve of information on the copyright status and data about European works and the identification of appropriate rights holders*” facilitating the establishment and the enrichment of information sources in many European countries to include them in the Arrow system. The key

concept is *interoperability*, which is the prerequisite for information retrieval from sources originally created for different purposes.

The second expected impact of Arrow Plus (“*Establish a registry of orphan works*”) is the natural outcome from the Arrow workflow. The system is designed to improve the search for rightholders and in those cases where the appropriate rightholders cannot be traced, a number of “candidate orphan works” will emerge. The data about those titles will be collected and will be the basis for the creation of an orphan works registry.

Finally, in the Arrow workflow those organisations which are candidates to act as clearing centres for out of print works (the RROs) are fully involved in the project and provide immediately access to licensing terms and conditions, in accordance with national legislation and rightholders mandates. Arrow Plus will further enhance access to this information by developing new collaborative tools for rightholders, to provide rights information and, when appropriate, to give mandates to RROs or to offer licences to libraries, therefore satisfying the third expected impact (“*Facilitate the clearance of rights for out of print works*”).

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## B1. PROJECT DESCRIPTION AND OBJECTIVES

### B1.1. Project Objectives

The objectives of the Arrow Plus project will focus on four main areas of activity:

1. Enhancing the Arrow system<sup>1</sup>, in order to make it more effective in meeting existing and emerging user needs in a larger number of countries.
2. Co-ordinating the involvement of a number of additional European countries, following an appropriately localised approach, starting from an analysis of existing data sources, as defined in the current Arrow project, and defining optimal strategies to enrich these resources.
3. Implementing the Arrow business model developed under the current Arrow project, to put a long term sustainable service in place.
4. Examining how Arrow can be used in relation to visual material when this is included in books that are to be digitised and made available.

Behind these specific objectives, the primary aim of Arrow and Arrow Plus – as defined within the ICT-PSP work programme – is to create a *stable, sustainable infrastructure for rights information management including clearance of rights and a European registry of orphan works*.

Arrow Plus builds on and further implements the Arrow system, which is in its beta version at the time of drafting of this project proposal (May 2010) and will be released as an initial production system by February 2011, after validation in a limited number of European countries.

Arrow is a system to *facilitate libraries or other users in their diligent search for rights, rightholders and rights status in a book prior to scanning and/or making available its content*<sup>2</sup>. It is based on a distributed approach: the system queries a number of databases in three domains (*library catalogues, books in print, RRO repertoires*) to discover *the best available information* about any book that is a

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<sup>1</sup> The Arrow system is the primary output of the Arrow project (Accessible Registries of Rights Information and Orphan Works toward Europeana, co-funded by the European Commission within the eContent Plus programme. See [www.arrow-net.eu](http://www.arrow-net.eu).

<sup>2</sup> Hereinafter we refer to this function as “diligent search”.



candidate to enter a digital library programme. Such information may include: the precise identity of the work; whether this work is or is not in the public domain; the commercial status of the work (whether it is in or out of print); identification of the rightholders in the work, and appropriate ways to contact them; information about organisations authorised to clear rights, including whether an RRO or other rights clearance centre is mandated by the rightholders to provide the appropriate licence.

A technological solution for the development of a Registry of Orphan Works (ROW), with either a centralised or distributed architecture, will also be available at the end of the project.

A key objective of Arrow Plus is to extend the number of countries covered, delivering a genuinely pan-European infrastructure, addressing relevant issues to allow extensive diffusion of the Arrow system. Arrow has been designed to be open to the participation of any country. However, as its operation is entirely dependent on the availability of data sources containing the relevant information, to join the system it is necessary for a country to meet some minimum infrastructural requirements; these are currently not fulfilled in some European countries. For example, in some countries there is lack of databases rich enough to provide consistent answers to libraries, in others databases exist as closed systems and their interoperability needs to be enhanced. Arrow Plus sets out to address these issues.

The experience in the Arrow project demonstrated that one area where information is lacking is in the capacity of CMOs (Collective Management Organisations) to retrieve rightholders' information for books published many years ago. CMOs have usually existed for a few decades: a very long period from any other viewpoint, but clearly not long enough when one is looking for data on *all* books in a library collection. Arrow Plus will create tools to facilitate rightholders (or their heirs) to claim their works.

Similar tools will be already in place within the ROW infrastructure as result of the current Arrow project when after all the steps and processing along the Arrow workflow rightholders remain not found or unknown. Arrow Plus plans to enhance the interaction with rightholders and users of the system by designing tools to collect and share information within communities of interest linked to the project from the early steps of the workflow and from different entry points. For example from a library catalogue, a user could access a service to declare rights or provide rights information starting from the bibliographic record. Those tools will be designed in a way to be ready to be developed whether a clear demand for it will emerge and in coherence with the findings of the business model.

The principle is that such tools will be designed as fully integrated in the Arrow workflow so to allow the reuse of information. Any declaration of the rightholder will be linked to a particular manifestation and a specific work, identified through the application of the Arrow methodology, matching with The European Library and possibly other relevant databases, and this information will not therefore remain within the sphere of the specific library, or BIP, or CMO that first receives it. Finally, the declaration will be as flexible as possible, for instance allowing the rightholder(s) to offer creative commons (or similar) licenses to the libraries to scan the books and make them available.

Further, Arrow Plus will extend the system in scope, towards the domain of visual images. During the project, the system will be piloted with a view to managing rights information about images that are published within books. If there are no mechanisms to identify and clear rights to include illustrations, photographs and other embedded images, book digitisation programmes may be limited to scanning only part of the works, leaving out the images.

Rights to digitise and make available such visual works are often necessarily cleared separately from the text. Arrow Plus will examine how this can be done through the Arrow system with the view to simplifying diligent search in the visual works domain. The system has been conceived as scalable to

cover images within books, when there are databases of book metadata containing rights information about photographers and visual artists. The Arrow Plus will exploit such scalability through piloting this use case in countries where such databases already exist, and will prepare a feasibility study for a more general broadening in scope of the Arrow system, or – as a minimum – of the Arrow concept and model.

To achieve these objectives, Arrow Plus plans to gather requirements from stakeholder communities (libraries, rightholders and clearing centres), and then to develop system enhancements in line with these needs (for detail see §B3.2).

All the planned activities are based on networking. The Arrow Plus network consists of stakeholder communities (libraries, rightholders, CMOs) and their reference data sources (library catalogues, Books in Print, RRO repertoires), some of which already exist and some to be created as part of the project. The project envisages significant technical input into making data sources interoperable and in providing technical tools and guidance to enrich or create data sources. Each national community of interest will have the opportunity to benchmark its activities with each other, to benefit from best practices: a WP has been devoted to the function of coordinating national initiatives to maximise networking opportunities.

Coordination between national initiatives is essential for the project because of the economics of future sustainability. The system as a whole should remain distributed to allow localised management of the system in the various member states, but the technical infrastructure should be unified to exploit economies of scale, otherwise it will prove difficult to cover operating costs.

Arrow Plus has been designed in line with the objective 2.4 of the call, the system being a facilitator for *“finding ways to clarify the rights status of orphan and out of print works so they can be cleared for digitisation and online accessibility across Europe”*, using the *“ongoing work at European level”* represented by the Arrow project to make the national initiatives more effective and interoperable with each other.

### ***B1.2 Contribution to the European Digital Library Initiative***

The resolution on “Europeana next steps” adopted by the European Parliament on 5<sup>th</sup> May 2010 supports Arrow saying that *“the EP welcomes and supports initiatives, such as the ARROW project, partnered by both rights-holders and library representatives, in particular since these seek to identify rights-holders and their rights, and to clarify the rights' status of works including whether these are orphan or out of print”*. The resolution makes clear the close relation between the future of Europeana and the growth of initiatives like Arrow.

In fact, millions of books published during the 20<sup>th</sup> century could be included in Europeana only if their rightholders have been identified and the necessary clearance has been undertaken. Librarians and other users of books have underlined the difficulty of clearing rights especially when the rightholders are not widely known. The initial Arrow project was designed to provide a simplified procedure to help determine whether a book is still in print (commercially available), is now out of print but with known rightholder(s), or orphan, as well as assisting in identifying the creators and publishers concerned and the copyright status of the work, whether in copyright or in the public domain.

To achieve this result, available resources (including the databases of Books in Print organisations and those of RROs) have to be searched to retrieve the necessary information.

The initial Arrow project was limited to selected countries in which comprehensive databases of books in print already exist. However, Europeana is an ambitious project which wants to provide access to all the collections of all European libraries (and other cultural institutions in Europe), not just those of the countries currently covered by Arrow.

Arrow Plus is designed to broaden the scope of Arrow to include other countries both this with databases of books in print and also those where such databases do not yet exist. In order to search for rightholders and rights status of copyrighted books, in some instances Arrow Plus will make use of other sources of information such as retailers' or wholesalers' databases. The ambition at the end of Arrow Plus is to extend the coverage of Arrow and gradually to cover the entire European region, in line with the strategy of making Europeana the portal for European cultural heritage resources including books.

Because books may also include images, it was agreed to open the Arrow Plus project to organisations representing visual artists and image agencies, to explore with them the best ways to clear rights on visual works. This is also important for Europeana as the goal is to provide access to as many works as possible; therefore any broadening of the scope of rights information and subsequently of rights clearance will be welcome.

Arrow and Europeana will be working side by side, as Arrow Plus sees itself as a provider of rights information for Europeana and its content providers. Thanks to Arrow Plus, Europeana will be in a position to offer more access to more books while fully respecting the intellectual property of creators and publishers.

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## **B2. IMPACT**

### ***B2.1a. Target Outcomes and Expected Impact***

The project contributes positively to the objectives of the ICT PSP Work Programme by implementing an innovative way to electronically identifying right, rightholders and rights status in copyright work. A wider implementation of the Arrow system is expected to contribute to the enhancement of competitiveness as it will enable to make a large amount of information available in a way that is compliant with copyright and respect for creators and publishers of copyright works.

As recommended by the Work Programme, the Arrow Plus project (i) ensures representation of all relevant stakeholders; (ii) ensures a true European dimension also because identification of rights, etc. requires a cross-border dimension to be comprehensive and credible; (iii) enables broad availability of the information on rights, rightholders and rights status also beyond Europe; and (iv) puts the user needs in the forefront with the aim to enabling the Arrow system to respond to user needs.

The Objective 2.4 of the ICT PSP Work Programme lists three expected impacts.

- *“Enable to retrieve of information on the copyright status and data about European works and the identification of appropriate rights holders*

- *Establish a registry of orphan works*
- *Facilitate the clearance of rights for out of print works in view of their digitisation and online accessibility”*

To illustrate how Arrow Plus will contribute to the **first expected impact** of the IST PSP Work Programme objective, it is important to understand the “state of the art” of the Arrow system. The Arrow project defined guidelines for a country to join the first release of the infrastructure. These include certain technical specifications, related to the databases that need to be queried, and some quality requirements for the data available in those databases.

The primary challenge of Arrow Plus is that the Arrow system is based on the retrieval of data from existing resources, and making them interoperable: how can Arrow be established in countries where the data infrastructure for books is insufficiently developed to provide the full Arrow service? Two complementary strategies need to be pursued: (i) to support the establishment or improvement of such data infrastructure, (ii) to identify and use alternative sources of information, when the optimal sources are not available. For example, in countries where no comprehensive Books in Print (BIP) service exists, strategy (i) implies supporting the creation of a BIP involving the local ISBN agency, the national Publishers Association, etc.; strategy (ii) implies using wholesaler catalogues or Internet bookshop databases, while recognising that these sources are likely to be less comprehensive, and may have data of the commercial status of a book that is not entirely coherent with the Arrow requirement: “not available in the trade” does not equate to “out of print” according the High Level Expert Group definition. The first approach is preferable in the long term, while the second strategy may be more practicable in the short term. The Arrow Plus strategy will be to pursue both approaches, identifying the most appropriate solution for each new country and combining them whenever possible.

The first strategic approach will exploit the involvement in the project consortium of The European Library representing the library domain, the ISBN International Agency (via EDItEUR) for the BIP community, and of IFRRO for the RRO repertoire databases. The starting point for the creation of new data infrastructure will however also imply the use of alternative sources. These different data sources can be integrated in the new data infrastructure through one core characteristic of the Arrow system: it has been designed to be “self-enriching” over time. When each search is done using Arrow, the system retrieves, processes, aggregates and outputs data that – because of the use of standard methodologies – will be reusable by the different organisations belonging to the Arrow network. Exploiting this feature, Arrow Plus resources at local level will accumulate information over time. Although initially they may have to use alternative resources (following a pragmatic short term approach), the objective is to gather data that – once standardised – will be reusable in the system (a strategic, long term approach).

To explain how this will work, it may be useful to come back to the concept of “*facilitating diligent search*” that is at the heart of the Arrow system. In practice, this means that (for example) a library wishing to scan and make available a particular collection of books can submit a file with all the information it has about these books. The Arrow system will provide complete information about, say, x% of the books, incomplete information about a further y% of the books<sup>1</sup>, and no information at all for the remaining z% (x+y+z=100). Two variables determine the results: the capacity of the system to

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<sup>1</sup> “Incomplete” information about some books is inevitable because of the nature of the data concerned. Some crucial phases of the workflow, in particular that related to the clustering of books containing the same work, are algorithmically based, and subject to statistical errors. The value of the system lies precisely in the fact that it manages such statistical errors, providing users with the data elements they need to make decisions.

gather existing information in the most effective way (governed by interoperability within the network); and the existence of the desired information within the queried resources.

In all the cases where the search conducted through Arrow needs to be complemented with additional searches to complete diligent search, possibly requiring human intervention, the system will build value from recording the outcome of these additional searches and will facilitate the storage of the new information within existing data infrastructures.

The whole system is designed to improve the quality of data about books in the country concerned, and will thus produce results which go beyond the core objectives of the project, in particular in the countries that have less sophisticated data sources already in place.

The process will be different in the three different domains involved.

- a) in the library domain, Arrow uses The European Library<sup>1</sup> central index as the primary source of national library catalogue data. Arrow is therefore fully scalable, within the library domain, to a pan-European level. Reaching full interoperability with Arrow would mean that The European Library is in a key position to promote Arrow as a core service for libraries across Europe
- b) in the Books in Print domain, when it does not exist at all, it is important to involve the local ISBN agencies (in many cases managed by National Libraries) and the national Publishers Associations to encourage the development of such resource. See §3.2a for further details on the approach to obtain this.
- c) in the RRO domain, it may be necessary to improve the integration of BIPs with RRO repertoire databases and Arrow will represent a use-case for the deployment of the ONIX-for-RROs, the standard – established and maintained by EDItEUR – created to provide interoperability between RRO repertoire and distribution databases.

In order to broaden the scope of the system to include images within books, a similar strategy will be followed. The first objective will be to integrate into the Arrow system the repertoires of at least one clearing centre with data about visual artists as contributors to books (i.e. illustrators or creators of images reproduced in books) that are requested to be digitised. This will allow the capacity of Arrow to serve this segment of rightholders to be piloted. At the same time, a study will be conducted to look at rights information on images in a more comprehensive way. The purpose of this study is to prepare a feasibility plan for a follow-up project focussing on this domain, in order to determine the best long term solution for clearing rights in this domain.

As for the **second expected impact** (the establishment of a Registry of orphan works), in the Arrow approach this is seen as a natural outcome of the Arrow workflow. The Arrow system is designed to improve search for rightholders, and the main value in facilitating rights clearance is in positive discovery of “parents” (i.e. rightholders), not the creation of “orphans”. However, the search for rightholders will not always be successful and a number of “candidate orphan works” will emerge. The data about those titles will be stored in an “Arrow-ROW” infrastructure, which therefore will initially manage information not about orphan works (i.e. works defined as such in any legal framework), but *works with rightholders that are unknown to Arrow*. Organisations entitled to administer the Registry at national, regional or European level will be able to modify the status of works, for example at the end of a further (manual) search, if the legislation provides an obligation to

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<sup>1</sup> Launched as an operational service in March 2005, The European Library provides a single point of access to the bibliographic and digital collections of the National Libraries of Europe. In spring 2010, 46 from the 48 national libraries in Europe have made their collections available in The European Library. For more information about The European Library please refer to: [www.theeuropeanlibrary.org](http://www.theeuropeanlibrary.org).

do so. Finally, rightholders will have tools to help them to identify their works through querying the ROW and, where appropriate, to claim their rights.

The current Arrow project implemented the technological infrastructure for administration of the ROW, with an architecture based on a single Registry at European level that however allows global or national views and administrations. Depending on decisions that will be taken at a political level (so exogenous from the project scope), such architecture would enable a series of interoperable national registries each conceived as a partial view of the Registry, or a single European Registry.

Arrow Plus will encourage the deployment of this infrastructure in the largest possible number of European countries, being aware that the level of use must depend on political decisions, which cannot be controlled within the project itself. For example, it is certainly conceivable that, following a political decision, in a particular country the Arrow-ROW could be used only for the initial steps involved in the identification of orphan works; when the orphan has been “officially” identified as such, the information about the orphan might then be stored in a different database, outside the scope of Arrow itself. However, Arrow Plus will implement the necessary functionality in the Arrow-ROW to distinguish between simple “unknown to Arrow” works and actual “orphans”, as may be defined in any national legislation.

As for the **third expected impact** (facilitate the clearance of rights), since clearing centres (the RROs) are data providers in the Arrow workflow, users will be immediately informed if the same RROs have mandates to clear rights for out of print or orphan works (again: whatever the legal framework will be in future). Equally, RROs will be helped in collecting book and rights information during the process. Arrow Plus will encourage the deployment of a networked infrastructure among RROs, fostering RRO interaction and interoperability, based on existing experience in the RRO domain.

The system will also allow rightholders to licence under non commercial schemes (such as Creative Commons) the scanning and making available of their works.

**European dimension.** The countries that could potentially be involved in Arrow Plus are all 30 states in the European Economic Area. However, it is important to balance two potentially conflicting requirements: involving the largest possible number of countries while still having a manageable project. 14 EEA countries have national representative partners in Arrow Plus. 19 countries are involved in the project either having joined the Arrow within the first phase (9) or through participating directly in Arrow Plus (additional 10, while 4 countries are in both projects). In another 2 countries relevant stakeholders have signed an “expression of interest letter” committing to following the project work and to elaborating strategies for joining the system. In the remaining 9 countries, relevant stakeholders will be fully informed including through their European federations. For all the 30 EEA countries, the system will be available, and use should be possible with only minor customisation, as and when there is a recognised need (for example when there are actual plans to launch a digitisation programme to include copyrighted materials in the digital library). In addition, even if a particular country has yet to participate in the Arrow system, libraries within that country will be able to use Arrow to clear rights for the use of books published in the other countries that are already participating in Arrow.

The express aim of the European Commission and the European Parliament is to make European cultural heritage accessible across Europe. This requires verification of copyright status and, when appropriate, identification of the rightholders concerned. Diligent search should be undertaken in the country of publication. This requires trans-border networking of resources and mechanisms to

redirect queries arriving for the use of a specific book to the relevant resources in the country of publication of that book. Without a European dimension and a system that manages such interoperability, identification would be uncertain and incomplete and the process therefore more time consuming and expensive. Interoperability is also a technical prerequisite for the recognition of the status of an “orphan”, as determined in one member state, by the other member states, since it creates a single pattern in a distributed network.

## **B2.2. Long Term Viability**

The basis for long term sustainability of the Arrow system is in the primary value that it offers to its stakeholders. The core value proposition of Arrow is in its role of “facilitating diligent search for rightholders”, which is envisaged by the *Memorandum of Understanding (MoU) on sectors specific diligent search guidelines* signed 27 stakeholder associations as a part of the work of the EC i2010 Digital Libraries High Level Expert Group<sup>1</sup>. The inclusion of copyrighted works in digital library programmes, both by the public sector and by private commercial companies, requires some form of identification of the rights status of works, and search for rightholders. Arrow is aimed at facilitating this: “facilitating” in this context equates directly with cost savings, through reducing the time as well as financial and other resources involved in the diligent search.

Arrow will offer services to the public sector and commercial users alike. Based on information that is available on large-scale digitisation projects, it is expected that the Arrow system will serve libraries in the public sector first. This includes library programmes that involve cooperation with commercial entities such as Google. The main categories of commercial entities identified as potentially interested in the use of Arrow to facilitate digitisation programmes are search engines (to offer books content as search results) and e-book retailers (to expand their catalogues); this can nonetheless apply more in general to all kinds of players engaging in digitisation programmes involving works for which they need to negotiate with rightholders. Recent developments – in particular in France – envisage new business models involving publishers. All those new opportunities in using the Arrow system will be analysed during the project lifespan.

This core value proposition identifies the demand for services provided by Arrow and the range of possible prices for these. When users carry out a rightholder search, if they do not use Arrow, they will sustain a cost = A. If Arrow is properly able to facilitate this search, the cost will decrease to B (<A), and thus users will have an interest in using Arrow if the price of doing so is lower than (A-B). Of course, there will not be any obligation to use Arrow, and the users’ decision will be based on the actual value they derive from the system.

Long term viability will depend on two factors:

- The scale of plans (by the public sector and/or by commercial companies) to include European copyright works in digital libraries, in particular those works for which the identification of rightholders is difficult or impossible
- The capacity of the Arrow system genuinely to reduce the costs for diligent search for rightholders.

The objective of including copyright works in digital libraries is clearly defined as a priority at European and national level. This is essential to reduce the ‘black hole’ of twentieth-century European cultural heritage that is missing from today’s digital libraries. However, Arrow does not have any influence on national digitisation programmes or in enabling budgets beyond offering a

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<sup>1</sup> See [http://ec.europa.eu/information\\_society/activities/digital\\_libraries/doc/hleg/orphan/mou.pdf](http://ec.europa.eu/information_society/activities/digital_libraries/doc/hleg/orphan/mou.pdf).

system that will make such projects run more smoothly and cost efficiently. The Arrow Plus project is conceived as increasing preparedness for this deadline through having increased the quality of the service and its capacity to respond to demand in every European country, creating a more cost-effective solution.

It should be emphasised that the system is designed to be neutral in respect of the legal framework adopted at national level. It simply provides “rights information”, which includes elements that are useful in rights clearance. For example, the settlement between Google and US publishers and authors associations applies only to out of print works and, in the amended version (Feb 2010), only to works published in certain countries or registered with the US Copyright office. Also to manage such a simplified scheme there is a plan to establish an infrastructure in the USA with a purpose similar to Arrow, if and when the settlement has been approved by the court. Arrow would be in a position to serve similar agreements. In the same way, digitisation projects based on the so-called “Extended Collective Licence” (ECL) model<sup>1</sup> would benefit from using Arrow – for example at any particular point in time to provide verification of whether a work is in or out of copyright or in or out of commerce, etc. The determination of “out of print” status at work level is one of the key steps in the Arrow-enabled process. Without tools like those developed within Arrow (including for example the clustering methodology which allows the definition of commercial availability status at work level rather than at the level of a particular edition of the work, in other words, taking into account all the editions of the same work), the determination of the commercial status of a work is difficult and time consuming. Arrow will therefore facilitate right clearance in every case.

The neutrality of the Arrow infrastructure also implies a high level of scalability of the system, so that it can also be used in contexts outside Europe. A great interest in adopting the same model has already been expressed both in Latin America and in the Middle East;<sup>2</sup> this could ultimately result in demand to access services and/or technologies offered by the project from outside Europe.

The Arrow Plus sustainability plan will be finalised as a result of the project itself, based on the work already done within the current Arrow project, which has allowed the definition of the key economics of the service:

- a) The Arrow business model will be based on its core service: *facilitating diligent search*. Revenues can be expected to be based on the following models:
- Payment for each search or, perhaps better, for each positive result<sup>3</sup>. In this scheme, Arrow would be paid for every title for which it is able to provide appropriate information.
  - Blanket subscription payments for access to the service, i.e. libraries or commercial users pay a certain sum to submit batch requests to the system.

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<sup>1</sup> The Google settlement agreement has been compared to an Extended Collective Licence, not in the legal basis but in the economics, since one user and rightholders representatives defined a license that – for certain categories of books – is “extended” to all rightholders unless they opt out. Currently, negotiations are under way in Denmark and Germany, where again simplified license models would apply to categories of books defined according certain variables, including commercial availability and the year of (last?) publication. They are all schemes that Arrow can serve perfectly, reducing the cost of data management and increasing accuracy.

<sup>2</sup> As a significant example, at the seminar on “Digitisation of cultural material. Digital libraries and copyright” organised by the Spanish EU Presidency in Madrid (12-13 Apr 2010), Trevor Clarke, director at the World Intellectual Property Organisation (WIPO) cited Arrow as a best practice that the WIPO is looking at, considering the possibility of promoting the same model at international level.

<sup>3</sup> A service of this type has been recently launched in Spain by Cedro, a participant to the Arrow pilot, who is integrating the service within the Arrow infrastructure, combining automatic functionalities provided by Arrow and manual search. See: [www.conlicencia.com/Conlicencia/OtrosServicios/LocalizacionTitulares.html](http://www.conlicencia.com/Conlicencia/OtrosServicios/LocalizacionTitulares.html)



- When the search is finalised, signing a digitisation and usage licence will often imply some remuneration; the Arrow service can be seen as the facilitator of such licence deals, and could thus be remunerated through a proportion of the licence payment.
  - The public sector in a particular country could decide to support Arrow, and allow libraries in that country to use the system for free. This is a variation of the first two models. The rationale may be to negotiate better conditions and to create an incentive for use of the system, which would then have zero marginal costs for the user. This model could be combined with the other three, which might remain appropriate for commercial users.
- b) Since Arrow provides value for the entire book world, it is conceivable that it would be able to create additional revenue streams. However, it is worth anticipating that such revenue might complement but would never substitute those that will be derived from the core business. Among the additional services, there may be the ISTC registration and use, in agreement with the forthcoming ISTC agencies, and, more in general, validation and improvement of the rights data created during the Arrow workflow. Recently, some BiPs have expressed particular interest in the clustering facilities in order to group together all the manifestations of the same work. Some of these services might produce cost savings for Arrow, in place of revenues, but the results would be the same. For example, if the BiPs are interested in receiving enhanced information resulting from the Arrow service, it would be realistic that Arrow licenses the BIP data on more favourable terms, so decreasing costs.
- c) On the other side, the main categories of costs are:
- Hosting, ordinary and evolutionary maintenance and amortisation of the technical system. Maintenance can be internalised or provided by external companies, including existing partners. Amortisation is currently zero, since the system has been co-funded by the EC and several institutions that are not seeking to recoup their initial investment. However, since the system is – by its nature – dynamic and will require continuing new development investments, amortisation will be relevant in the future.
  - Personnel necessary to provide a help desk for users, such manual intervention as may be necessary in some phases of the workflow, support for partners participating to the network, marketing and promotion, etc.
  - Licensing of third party data, in particular books in print databases.
  - Software and other licences.
- More accurate determination of likely operating costs is one of the elements of the current Arrow project; this will be validated in the Arrow Plus project, providing additional data related to the increase in the number of countries involved.
- d) The sustainability of the system also requires a stable and sustainable governance model. The current Arrow project has the task of identifying appropriate governance structures and this may result in the establishment of a new legal entity, in the form of a not for profit organisation, after the completion of the Arrow project. In this case, the new legal entity will be the custodian of the IP rights created as a result of the Arrow project and ultimately the Arrow Plus project, although we anticipate that some elements of the deliverables (e.g. some software) will be issued under open source or similar licensing schemes. Arrow Plus will co-ordinate its governance with the governance of this legal entity, if and when it has been established.

The Arrow system as resulting at the end of Arrow Plus will also contain tools for the management of BiPs and RRO repertoire databases, to be used at national level. A task in the project is to define a

long term sustainability for such tools. This task will analyse the existing BIP business models in the countries where they are more successful, but customised paths will be defined taking into account the national contexts where they will be used. BIP business models are normally based on the combination of different revenue sources, including:

- a) revenues from publishers, according to an “Yellow Page” business model (all titles are listed in the BIPs, but publishers pay for having richer information inside, with promotional value)
- b) Sales of licenses to access the database for information reasons. Typical customers are libraries, booksellers and again publishers
- c) Sales of licenses on the whole database to be integrated in customers’ IT systems. Typical customers are internet bookshops, distributors, web portals, search engines, etc.
- d) Sometimes, public funding also support the BIP creation.

The sustainability plan for this part of the system will consist in the identification of the best combination of such revenue sources in each specific context of use. This part of the sustainability plan will be integrated in the general plan for the whole system.

During the Arrow Plus project a specific task will be devoted to the monitoring and validation of the Arrow business plan. The goal is to collect data relating to future demand for Arrow services and to model the Arrow’s cost profile in the medium to long term.

### **B2.3. Wider Deployment and Use**

Arrow is a project that gained very high visibility during its life. Its crucial role in the development of Europeana is widely recognised<sup>1</sup>. So the key objective for Arrow Plus is to move from “speaking about” the system to using it, and developing a roadmap to increase such use.

So, there should be little need for “promoting” the project as such, in the sense of “making the project known”. Instead, we need to promote the right messages about the project: how will the Arrow system help the communities of interest? And how users can get value from it?

Starting from this context, communication policy and day-to-day work with stakeholders are designed to be highly interconnected. Arrow is a system that aims to serve book professionals, along a chain, as an interactive tool that will facilitate the retrieval of information about rights. Arrow Plus adds a layer through providing tools to establish and manage new data sources.

So, the first element of our strategy is networking among stakeholders. This is also aimed at “creating a demand” for Arrow services, following the *pull strategy* described below (§B3.2a). Stakeholders involvement starts from the definition of the requirements of each element of the system. Since the beginning of the project, stakeholders have been involved through two layers of networking:

- At national level between the different stakeholder organisations and data providers (authors, publishers, CMOs, ISBN agencies, BIPs, libraries...);
- At trans-national level within the individual communities of interest.

It is crucial, for the success of this strategy, that the European (or international) organisations representing the stakeholders are all in the consortium. FEP for publishers, IFRRO for RROs, EWC for authors, the Conference of European National Librarians (CENL) for libraries, represented in the project by The European Library Office, hosted at the National Library of the Netherlands, the ISBN

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<sup>1</sup> We already cited the recent Resolution of the European Parliament encouraging the continuation of Arrow (§1.2). This was anticipated by the Communication from the European Commission on *Copyright in the Knowledge Economy*, where Arrow is cited as “an important first step” for facilitating discovery of rights information. The Communication explicitly recommends to extend the country coverage of the Arrow system (p. 6).

International Agency and EDItEUR to cover the book standards community, EVA for the visual artists, and CEPIC for the photo-agencies and picture libraries.

This covers the whole value chain involved: a *library* that wishes to scan and make available a book requests information about the rights status and rightholders (*authors* and *publishers*), including whether there is a *clearing centre* (typically an *RRO*) mandated to authorise scanning; rightholders in the book may include also *visual artists* or *photo-agencies*. All the players along this chain are represented in the consortium by their European representatives. To provide the service, Arrow uses *library* catalogues, *Books in Print*, and *RRO* repertoires. Books in Print databases have their networking organisation in EDItEUR, so from the data providers viewpoint, all the networks are represented in the consortium at the highest level.

This allows the involvement in the project of all European countries in a stable way, simply through the existing networks and information tools that each of these organisations uses. The communication will be interactive during the meetings of those organisations, when the main achievement and issues of the project will be regularly discussed (as it is already in the current Arrow project). This will also create the basis for expanding the use of the system beyond the countries that are covered in Arrow Plus.

At national level, the consortium includes at least one partner in each country where we aim to pilot the system. This partner is the representative of (or is well connected with) one category of stakeholders in that country, and has the responsibility for involving the others. In most European countries forums for discussing the key issue that Arrow is designed to facilitate (how to include copyrighted works in Europeana) already exist. Where this is so, Arrow partners are already involved. So, for them, it will simply be a matter of bringing Arrow results into existing discussions.

To manage the double layer of networking, the “member only” sections of the existing website will be used, being opened up to non-members when they participate to working groups at national or domain level. This will be also the starting point for tailoring the Arrow promotional messages, through simple documentation that will illustrate the project objectives, what users can expect from the project, concrete use-cases, etc. The website will become a tool for immediate benchmarking between countries, and between domains.

To a large extent, wider deployment and use of Arrow will depend on the user groups understanding how it can facilitate their daily work in diligent search. The strategy will initially be based on a *push approach*, i.e. presenting Arrow and its benefits to key users who can subsequently become Arrow champions in their communities. In this way, there will be a close relationship between dissemination (WP2) and validation (WP7): users asked to validate the system, and in the process interacting with the project working groups, will become the “Arrow champions”. This phase will be followed by a pull approach where new users will request the presentation and use of Arrow based on interest created by information from others who are using the system.

The networking strategy is designed to communicate the project to stakeholder communities while interacting with them. However, Arrow is often at the heart of political discussions so that a communication strategy beyond the book professional environment is also required.

Our strategy here is the same: to bring the Arrow message into existing events (e.g. bookfairs, conferences, etc.) rather than creating specific “Arrow events”, although we plan to organise a final conference at the end of the Arrow Plus project. We will develop standard presentations to be used by consortium representatives when invited to present the project, and clear information material stressing the key concepts and expected results.

The high political visibility of Arrow has also brought considerable attention from the press, not only the professional media. The key “Arrow messages” and standard documentation will be the basis for reacting to press requests in a rapid and effective way. Press releases will be issued at the project milestones.

The strategy described is aimed at broadening the use of the system. Clearly, demand should be there (see §2.2). If this is the case, all the players involved will be ready to use the system on the scale determined by the digitisation programmes in every country. The key aspect of the project approach is that we are not planning to create a system that users are subsequently invited to use. Rather, we start from the users (i.e. the different players that need to exchange right information along a chain) to create a system based on their consensus.

The system is based on collaboration. Since the idea is to facilitate information exchange, it can work only if information providers collaborate and users demand that information. It will be necessitate some work for every user (the objective is: “*less work than without Arrow*”), and thus a real commitment is needed, and real commitment can be better achieved if every stakeholder is involved from the beginning.

Target user description	Needs	Involvement & Role	Country coverage
Libraries	Reduce costs for right management in digitisation programmes	Through TEL: definition of requirements; data management in library domain. Through UIBK: set up of use-case and validation. Through ICCU: promotion in library environment. Through national groups: co-definition of national requirements	Fully European, through TEL and links with CENL. Two further partners (Iccu and Uibk) coming from this environment are responsible of particular phases of the work
Book trade supply chain in countries with poor book data infrastructure	To improve the book data infrastructure as prerequisite to join Arrow	In every country with this characteristics a national group will be set up with the task to provide user requirements and to define long term sustainability plan at national level. The whole supply chain is expected to be involved at national level	National groups will have this task in Poland, Latvia, Lithuania, Greece, Hungary, and Portugal. Consultation in the other European countries, through FEP and Editeur are envisaged
Book standard community	To better serve the book community approaching three issues: a) improve the link between ISBN data collection and books in print management b) collecting data about ebooks c) start deploying the ISTC	Editeur – in the position of ISBN International managing agent – will coordinate the involvement of national standard bodies in national groups and will promote the project in the international book standard community.	International through Editeur. National ISBN agencies are involved in Italy, Germany and Portugal. Further agencies will be involved at national level. ISTC community involved at European level through the ad hoc group already established in Arrow
Collective management organisations	To serve their members through clearing rights in the field of digital libraries	Through IFRRO: definition of the CMO roles in the emerging use-case in terms of right information management and right clearance	Fully European through IFRRO. Cedro in Spain will have a key role in the tasks dedicated to CMOs. In Poland, Greece and Ireland

			the RROs are national leaders. Further RROs are involved as supporters in the Arrow project
Visual art community	To pilot the Arrow tools for images contained in books. To prepare a feasibility study for further broadening the Arrow scope to visual art	A WP is dedicated to the task and is lead by representatives of the field. For piloting the concept, CMOs in the field (EVA members) will be involved.	Fully European through EVA and CEPIC

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## B3. IMPLEMENTATION

### **B3.1. Consortium and Key Personnel**

As recommended by the ICT-PSP work programme, the consortium “*includes representatives of all relevant stakeholders*”: libraries, publishers, creators (both writers and visual artists), RROs, photo agencies, and book standards organisations are all represented at the highest possible level, by the respective European or international organisations: FEP for publishers, EWC for authors, the Conference of European National Librarians (CENL) for libraries, represented in the project by The European Library Office, hosted at the National Library of the Netherlands, IFRRO and EVA for CMOs, EDItEUR for ISBN Agencies and ONIX groups. These partners have the primary role in facilitating networking and dissemination of project results.

Users (libraries, in particular) and data providers (the same libraries, BIPs and RROs) are also closely involved in the project. The library participation is coordinated by the CENL and the EDL Foundation (Europeana) via the TEL office, i.e. the group of the European national libraries, who are all the primary potential users of the system in the library community. Although only few further library representatives (ICCU, UIBK and the national library of the Netherlands, KB, the same legal entity than TEL, but a different team) are members of the consortium, other two national libraries (in France and Bulgaria) signed a letter of support anticipating their direct commitment in the project. Further libraries are involved both through their previous participation to the Arrow project and in every national group that will be established in the new countries involved. All in all, libraries are represented in the project by the European Conference, four consortium members, two supporters and further five libraries (UK, Spain, Norway, Slovenia, and Germany) already involved in the Arrow project.

The consortium is completed by partners with the specialist expertise necessary to undertake a challenging project like Arrow Plus. The co-ordinator has a long and successful history of leading large scale European projects (see profile below). The co-ordinator will be supported by the WP leaders, which will also form the Management Board. This group of leading partners has been formed after the experience of the current Arrow project, during which they created a very committed team. MVB, FEP and IFRRO are also WP leader in the current Arrow, the TEL Office within the National Library of the Netherlands has been co-opted in the Arrow MB because of the important role in the Arrow workflow of the TEL central index, which implied a close involvement of the TEL Office in the

implementation work. EVA will represent the visual art domain in Arrow Plus, which is one of the fields of extension of the scope of the system.

A group of partners have the task of co-ordinating the activities at national level: publishers associations of Portugal (APEL), Lithuania (LLA) and Hungary (HBPA); RROs in Ireland (ICLA), Poland (Polska Książka) and Greece (OSDEL); the Latvian Book Guild in Latvia; CIELA in Bulgaria; BOEK and MDA in Belgium participate to the project with this specific role. Other partners will also have this task together with others: CEDRO for Spain, ICCU for Italy, UIBK for Austria and KB (the same legal entity, but not the team at the TEL office) for the Netherlands.

A second group will have the task of receiving local requirements, preparing the technical specifications and implementing the new elements of the infrastructure that are required to achieve the project objectives. This group is led by Cineca (a major IT centre belonging to the Italian university system) for WP4 and by MVB (the organisation running one of the leading BIPs in Europe) for WP5. The European Library Office will lead the work in the library domain.

Support to the implementation work of the Cineca will be provided by Di-Tech and Di-Ro. EKT will offer the same to TEL as far as the library domain is concerned. The design of the system, the analysis of interoperability issues and the development of standard message formats will also involve the AIE team and EDItEUR, a leader in global standards for the exchange of bibliographic and rights information messages along the content value chain. CEDRO will support MVB in the design of registries in the RRO domain.

Finally, UIBK has a specific coordination task in designing and implementing the collaborative tools for rightholders to provide rights information.

## Consortium description

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### ***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. 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 the Federation of European Publishers. AIE counts around 420 members, which represent around 95% 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; participation to national and international book-fairs; publications (the *Giornale della Libreria*, the Italian leader book-trade magazine, a book series, a monthly newsletter and a website). 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 chair the ISBN International Agency and the Standard and Technology of IPA, and seat in the IPA council, IPCC – *International Publishers Copyright Council*, the Executive Committee of FEP; the Board of International DOI Foundation, the International Digital Publishing Forum and EDItEUR. 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, eTEN, eContentPlus, eLearning, mainly in key roles as Coordinator or WP leader: Currently AIE is coordinator of the ARROW project funded under eContentPlus programme.

### **CVs of key personnel**

**Pierfrancesco Attanasio** got a degree in economics at the University of Bologna. He works in publishing sector since 1986. Since 1996 he directs the European projects of AIE and is currently the Director of ARROW project. 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); chairman of ISBN International, and Standards and Technology Committee of the IPA.

**Cristina Mussinelli** got a degree in philosophy at the Catholic University in Milan. She works in the publishing sector since 1982. Since 1992 she works as a consultant in the field of electronic publishing for major Italian publishers and is responsible on digital publishing in AIE. She is the only European member of IDPF (International Digital Publishing Forum) Board, the international trade and standards association for the digital publishing industry.

**Paola Mazzucchi** got a degree in Philosophy at the University of Milan and a post degree in Culture Economics and Management at the SDA Bocconi Management School. She works in the publishing industry since 2000, with a particular focus on the role of technology and innovation. Since 2004 she has been involved in mEDRA DOI-related activities and in several European projects at AIE. Currently she is in charge of the coordination of the technical WPs within the ARROW project.

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### ***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 123 member organisations, 71 are involved in the licensing of reprographic reproduction and certain digital uses. These are referred to as RROs (Reproduction Rights Organisation) members. To obtain an RRO membership 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. The IFRRO Associate Members also comprise 52 national and international authors' and publishers' associations. 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 2008, RROs in membership of IFRRO administered € 617 million for reprography, out of which more than half of it in the Europe, and similar use of printed copyright material.

### CVs of key personnel

**Olav Stokkmo** is Chief Executive and 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. He is an author of the book *Management by Commitment*, and of articles on copyright and collective management in different journals. He has been a regular speaker at WIPO conferences and seminars since 1995.

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### **FEP - Federation of European Publishers – Belgium**

The Federation of European Publishers (FEP) is an independent, non-commercial umbrella association representing 26 national associations of book publishers of the European Union and of the European Economic Area. FEP is therefore 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; it acts on behalf of its members in discussions and negotiations with the Institutions of the European Union particularly concerning legislation, regulation and taxation. FEP works in close collaboration with the European Institutions to ensure that high quality European content is available to European consumers. FEP encourages the Institutions of the EU 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. In Europe, where functional illiteracy is still affecting more than 10 % of the population, FEP members plead for effective reading policies which could reduce social divisions. FEP has been involved in a number of European projects, including the ARROW project under the eContentPlus Programme.

### CVs of key personnel

**Anne Bergman-Tahon** is graduated at Université Libre de Bruxelles as Historian. After working for a PR agency and newspapers as a freelance journalist, she joined FEP where she is now the Director. She is member of the International Publishers Copyright Council. She has been coordinator for FEP on a number of European projects, including the ARROW project. Publications: *Observatory on Rights Management for eLearning in Europe*; *Guidelines for the drafting of licences*.

**Enrico Turrin** got a degree in Economics at the Bocconi University of Milan in 2000 and a Master's degree in International Affairs at the Institute for International Political Studies (ISPI), Milan, in 2001. After internships at the Italian Embassy in Madrid and at the UN Global Programme against Money Laundering in Vienna, in 2002 he became Project Manager in the Training Area at ISPI. In 2008 he was hired as an Economist by FEP, where he has been involved in the ARROW project.

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### **KB - Koninklijke Bibliotheek – The Netherlands**

The National Library of the Netherlands (KB) fosters the national infrastructure for scientific information and plays an important role in the permanent access to digital information at an international level. As a national library in a smaller country with an international orientation, the KB is uniquely positioned to serve as a trustworthy steward for the scholarly record. Next to its national deposit collection, the KB maintains the e-Depot for its digital collection. The KB has been involved in many international research projects in the field of digital libraries and hosts the offices of The European Library and Europeana.



**CVs of key personnel**

**Sally Chambers** is Collections and Metadata Manager for The European Library where she has been working since 2005. She worked as Electronic Library Projects Coordinator at the University of London Library. Her work in European projects began in 2001 and she has played a major role in several European projects for The European Library, including ARROW. Sally has a degree in literature and postgraduate qualifications in cultural studies and information services management.

**Nuno Freire** is an Interoperability Architect at The European Library. He holds an Msc. in Informatics and Computer Engineering from the Instituto Superior Técnico of the Technical University of Lisbon. He has participated in many European projects including NEDLIB, TEL, LEAF, MALVINE, DIGMAP, TELplus, Europeana Connect and ARROW. His more than 20 publications have been focused on digital libraries, metadata, catalogues and bibliographic records.

**Andreas Juffinger** is Technical Manager at The European Library. He graduated from the Technical University Graz. He has worked on several European projects as technical and project manager. He was key researcher at the Austria's Competence Centre for Knowledge Management for graphs. His PhD work focuses on graph pattern analysis in large graph databases and complex networks. He has published more than 20 articles on journals or high level conferences like NIPS, WWW and ECDL.

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***MVB Marketing- und Verlagsservice des Buchhandels GmbH – Germany***

MVB is the leading service company for the German book industry. The company is a wholly-owned subsidiary of the Börsenverein des Deutschen Buchhandels – The German Publishers & Booksellers Association. MVB provides a wide range of electronic, publishing and marketing services for publishers and booksellers. Core products are the online platform libreka! and the VLB, a complete directory of all German-language books in print. Apart from a wide range of publishing products the company offers a portfolio of additional services ranging from sales promotion to the ISBN and DOI agency for the German-language market. In 2010 MVB has been appointed as ISTC Registration Agency.

**CVs 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 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. Before Ronald Schild moved to MVB as CEO, he directed the third party business at Amazon.

**Michael Vogelbacher** - After his studies of the Jurisprudence in Mannheim, he was employed in several publishing houses in different positions. In 2001 he became Managing Director at “LEGIOS” in Frankfurt. From 2007 on, he was Project Leader for Strategic IT-Major Projects at “empolis” in Kaiserslautern. Since February 2008 he is Member of the Management board and leads Information Services at MVB. He has an Attorney Registration at several District Courts in Germany.

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***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](http://www.medra.org)), the European DOI registration agency. Cineca is also the technological partner of the ARROW project.

### **CVs of key personnel**

**Gabriella Scipione:** She is Project manager at the Information Management and Analysis group at CINECA and led the development team for the Arrow project. In 2008 she got the Project Management Professional PMP® certification. Since 2002 she was involved in European project like mEDRA and Eleonet and is technical manager of mEDRA srl, the European DOI Registration Agency. In 1995 she got a PhD in Physics from the University of Bologna.

**Celso Belli** got a degree in Computer Science. He works in the Information Management and Analysis Department of CINECA since 1998. Since 2001 he is following a project with the aim of developing an Extranet of the Italian embassies for the Ministry of Foreign Affairs. Since January 2005 he is coordinating the Cineca Search information Sub-Department (15 people) to which the Arrow project belongs.

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### ***EDItEUR – United Kingdom***

EDItEUR is the international group coordinating development of the standards infrastructure for electronic commerce in the book and serials sectors. EDItEUR provides its membership with research, standards and guidance in such diverse areas as EDI and other e-commerce standards for book and serial transactions: Bibliographic and product information; The standards infrastructure for digital publishing; Rights management and trading; Radio frequency identification tags.

Established in 1991, EDItEUR is a truly international organisation with 90 members from 17 countries, including Australia, Canada, Japan, South Africa, United States and most of the European countries. A leader in global standards for the exchange of bibliographic information and of e-commerce messages in the book and journal supply chains, EDItEUR is also engaged in shaping key national and international projects aimed at developing rights and permissions expressions.

EDItEUR provides management services for the International ISBN Agency on behalf of the International ISBN Board. Published as an international standard (ISO 2108) and in wide use since 1970, ISBN has been adopted in over 160 countries, including of course throughout Europe. Assigning an ISBN enables not only each publication to be uniquely identified but also rich product metadata to be associated with a particular publication record as well as the accumulation of sales data by specific title, edition and format. The International ISBN Agency coordinates the ISBN system worldwide based on a network of local ISBN agencies. All local ISBN agencies are encouraged either

to establish and maintain their own publication database or to work with booksellers and data aggregators who provide that facility in their markets.

### **CVs of key personnel**

**Brian Green:** Executive Director, International ISBN Agency: until the beginning of 2009 Brian was also Executive Director of EDItEUR. He managed BIC, the UK book trade standards body (1991-2006) and was Director of Technology and Publishing Management at the UK Publishers Association after working in the publishing industry for many years. Brian was Chair of ISO TC46 SC9, the ISO committee responsible for identifiers in the information community, from 2003 until 2008.

**Mark Bide:** Executive Director, EDItEUR: Appointed as Executive Director in 2009, Mark is also the Project Director for the ACAP Project, and a Director of Rightscom, the specialist media consultancy. He has worked in and around the publishing industry for nearly 40 years, having been a Director of the European subsidiaries of both CBS Publishing and John Wiley & Sons. He is a Visiting Professor of the University of the Arts London.

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### ***EVA, European Visual Artists - Belgium***

European Visual Artists (EVA) was set up 1997 and represents the interests of authors' collective management societies for the visual arts. 25 European collecting societies for visual creators are gathered under this roof as members and observers. They manage collectively authors' rights of nearly 60 000 creators of works of fine art, illustration, photography, design, architecture and other visual works. EVA members manage primary rights, such as reproduction and distribution as well as secondary rights, such as reprography remuneration and public lending and the resale right. In 2002 EVA members founded OnLineArt an international one-stop-shop for multi-territory licences for digital uses of works of art. EVA is permanent observer of WIPO.

### **CVs of key personnel**

**Carola Streul:** is a German copyright lawyer. From 1991 she worked as head of the legal sector of the German copyright collecting society VG Bild-Kunst. During this period she was in charge with all legal matters of the society and of representation of interests towards the European institutions. Since 1998 she is secretary general of EVA. She is also managing director of OnLineArt, the world wide one stop shop for licenses of digital uses of fine arts work and took part in its creation.

**Silvia Mera Cendrowitz:** holds a law degree of the Madrid University for European law and was stagiaire to the European Commission. She worked in Brussels at different international and European bodies as lawyer and personal assistant. She works in the copyright field and for EVA since 2009 where she clears legal questions and is head of the communication sector. She speaks and writes fluently Spanish, English and French.

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### ***CEPIC - Coordination of European Picture Agencies - Germany***

CEPIC, the Coordination of European Picture Agencies, is an international federation of picture agencies and libraries. CEPIC represents over one thousand photo agencies and picture libraries in 19 countries across Europe, both within and outside of the European Union. CEPIC's membership includes large and smaller stock photo agencies, major photo news agencies, some of the most distinguished art galleries, museums libraries picture libraries, and historical archives. We estimate

that these agencies represent approx. 50,000 photographers worldwide. These photo agencies and picture libraries produce content, and as copyright holders, collect and distribute rights on behalf of the photographers they represent, their agents abroad, and finally market this creative material at home and all over the world through a professional network for publications on-line, advertising, magazines and book publishing, as book covers or as illustrations within the books.

### CVs of key personnel

**Dominique Delouis** was in charge of a number of innovative IT projects within France Telecom Group. Within Museums On Line, he managed the Multimedia European Network for High resolution Image Registration. He was CEO of Cultural Heritage On Line and involved the company in various European projects (OpenHeritage, CHERI, Media-Alp and Recover). He is also a consultant for UNESCO and an expert for the European Commission.

**Sylvie Fodor** is CEPIC's executive director. She started her career in the picture business at AKG-Images in Berlin (1995-2005). She joined CEPIC in 1996. She was key to the development of the association, developing an extended network in the picture industry worldwide. She followed closely the developments in international copyright legislation. Since 2006, she has been closely following Orphan Work legislation in the USA and in Europe.

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### ***ICCU - Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche – Ministero per i Beni e le Attività Culturali - Italy***

The Central Institute for the Union Catalogue of Italian Libraries and Bibliographic Information was created in 1951 with the task of producing the entire national bibliographic record. ICCU is an Institute of the Ministry of Cultural Heritage and Activities. ICCU manages the National Library Service and union catalogue of over 3500 libraries, and is responsible for providing the standard rules and regulations for cataloguing all types of materials ranging from manuscripts to multimedia documents. In 2009 ICCU became the ISIL Registration Agency for Italy; this implies the responsibility of giving to the Italian libraries an official code structures according to ISO15511 and recognised at international level. ICCU is in charge, together with three national libraries of Rome and Florence and CNR, for the implementation of NBN – National Bibliographic Number, the standard for the persistent identification of the digital resources of the Italian libraries. ICCU has a deep expertise in digitisation standards and guidelines, collaboration for integrated access to CH resources; in fact, on behalf of the Ministry of Cultural Heritage and Activities, it coordinates major digital cultural heritage projects on the national level, for example, Internet Culturale (launched in 2001), which developed an integrated access portal to the digital resources of Italian libraries, archives and other cultural institutes, and on the European level, such as MINERVA, MICHAEL, ATHENA and DC-net:

- Digital Cultural Heritage Network (DC-net): 2009-2011, ERA-NET, involves ministries and national institutes from Italy, Belgium, Estonia, France, Greece, Hungary, Slovenia and Sweden in the coordination of digital CH research programmes; DC-net will be extended to Mediterranean partner countries in the INDICATE project;
- ATHENA – Access to Cultural Heritage Networks across Europe: 2008-2010, eContent+; enables the delivery of content from museums across Europe to Europeana;
- MICHAEL and MICHAELplus: 2004-2008, eTen programme; developed the MICHAEL portal that provides multilingual access to major European cultural collections;

- MINERVA – Ministerial Network for Valorizing Activities in Digitization projects: 2002-2008, FP5, FP6 and eContent+; coordination of European digitization and online access strategies.

### CVs of key personnel

**Patrizia Martini:** ICCU- Department of standards, cataloguing rules and training. Head of the Section of Descriptive Standards of Cataloguing of all types of materials. She is member of the National Administrative Metadata Management Committee (MAG) and she is delegate of the IFLA Cataloguing Section since 2009. She is involved in several EU projects, as Europeana 1914-1918, World Digital Library (WDL), Judaica Europeana, dealing with metadata standards, digitisation and online accessibility of cultural heritage.

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### ***ICLA - Irish Copyright Licensing Agency Limited - Ireland***

The Irish Copyright Licensing Agency was set up in 1992 by Clé, the Irish Book Publishers Association and the Irish Writers' Union to protect the interests of publishers and authors with regard to the reprography of their works. ICLA sells licences, which allow users to photocopy limited extracts of copyright material. ICLA is a non-profit-making organisation and the money thus collected (minus administration costs) is distributed to the authors and publishers whose works have been photocopied. Licences were first sold in 1993 and the first distribution of royalties took place in 1994. Irish legislation provides for a voluntary licence scheme and supports a mandatory licence for educational institutions since 2002. ICLA is committed to obtaining fair compensation for publishers and authors alike. At the same time, it provides users with an easy method of obtaining permission to photocopy. The Irish Copyright Licensing Agency is the only agency in Ireland, which deals with licensing for photocopying of literary copyright material (books, journals and periodicals). ICLA is a member of the International Federation of Reproduction Rights Organisation.

### CVs of key personnel

**Samantha Holman:** has been CEO of the Irish Copyright Licensing Agency (ICLA) since 2001. She is the Chair of the IFRROO European Development Committee. She is also on the Board of Copyright Association of Ireland and of the Irish Visual Artists' Rights Organisation. She is the national representative to the Executive Committee of ALAI and a member of the steering committee for Dublin City's bid for UNESCO City of Literature designation.

**Jorid Lindberg:** has been the Assistant Director of the Irish Copyright Licensing Agency since 2004. She is also a board member of the Irish branch of IBBY (International Board for Books for Young People).

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### ***HPBA - Hungarian Publishers' and Booksellers' Association - Hungary***

The market organisation of Hungarian publishing and bookselling is one of the oldest trade associations in Europe and certainly the non-governmental organisation with the longest tradition in Hungary. It was established half a century earlier than the Hungarian Academy of Sciences. Its first legal predecessor, the Committee of Pest Booksellers, was set up in 1795. In 1878, it changed its name to Hungarian Booksellers' Society, which was modified to Hungarian Publishers' and Booksellers' National Society in 1919. It operated under this name until 1952, when the totalitarian regime—as it did with the other non-governmental organisations—banned the activities of the

organisation representing the interests of the publishing industry. As Hungarian Publishers' and Booksellers' Association (MKKE) it could be re-established in 1968. It gradually regained independence from the state, which had already been declared in MKKE's articles of incorporation prior to the political and economic transformation. The Hungarian Publishers' and Booksellers' Association was the first of its kind in Central Europe that could renew its full membership—originally dated 1912—with the International Publishers Association in 1988. From 1998, it was first accepted as an associated member of the book trade organisations of the EU, the Federation of European Publishers and the European Booksellers Federation, and then became a full member of both in 2001. We have suspended our membership with the latter for the time being. The members of the Association, membership in which is voluntary, are publishers, booksellers and agencies, including joint ventures that are based in Hungary, Hungarian enterprises based in the neighbouring countries and foreign enterprises. Currently, 130 enterprises are members of MKKE. The Association's supreme decision-making body is the General Assembly consisting of the enterprises' chief executives. The 12 members of the Management Board, among them MKKE's Director, are elected by secret voting. The President, the Vice-president and the Members of the Management Board are elected for 3 years; the Director is elected for 5 years. The 5 members of the Supervisory Board and the 5 members of the Ethics Committee are also elected by secret voting by the Management Board.

### **CVs of key personnel**

**Anna Juhász** got a degree in Hungarian Literature at the University of Eötvös Lóránd - Faculty of Arts. Between 2002-2005 she continued her studies at the University of La Sapienza (Rome), made research at the Bibliotheca Vaticana and worked at the Hungarian Cultural Academy in Rome. In 2005-06 she was Art Director and Secretary Manager at the István Farkas Foundation. From 2006 she works for the HPBA as program-coordinator, international and public relations referee.

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### ***LLA - Lithuanian Publisher Association (Lietuvos leidėjų asociacija) - Lithuania***

LLA was founded in 1989. Its functions include the representation of the public opinion of its members on the national level and the introduction of their production on the international level. At the moment the Association gathers 50 active Publishing Houses as well as non-governmental organizations (NGO) mostly concentrating on specialised publishing. The LLA believes that publishing is a very important sector as it directly influences and introduces the national culture, politics, education, art, leisure, tourism, etc.

The Association is a non-governmental organisation not seeking to make any profit. The main aims of LPA encompass:

- Protect and represent the interests of its members in the national and international area;
- Stimulate the development of highly cultivated publishing culture;
- Increase the competence level of the publishers;
- Collaborate with the national and EU institutions in preparing standard acts related to the publishing sector;
- Stimulate the reading of valuable literature;
- Initiate scientific researches;
- Organise and promote cultural events;
- Coordinate, organise and support the participation of Lithuanian publishers in the international book fairs.

Since 1999 the LPA has been a full and equal member of the International Publishers Association (IPA) and the Federation of European Publishers (FEP) since 2003.

### CVs of key personnel

**Aida Dobkevičiūtė-Džiovėnienė** - She got two Master's degrees as Journalist at Vilnius University, and as Social pedagogue at Vilnius Pedagogical University. Since 2007 she is Executive Director of the LLA. Before, she was Chief Specialist of Information Society Development in the Lithuanian Ministry of Culture. Since 2006 she is a Member of Committee of International Vilnius Book Fair and in 2007 was a Member of Committee of Implementing the National Program of Reading promotion.

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### **BOEK - Boek.be – Huis van het boek vzw - Belgium**

Boek.be is the umbrella organization of the book trade in Flanders, the Dutch speaking part of Belgium. Boek.be represents both book publishers (Vlaamse Uitgevers Vereniging – VUV), book importers (Verenigde Boeken Importeurs – VBI) and booksellers (Vereniging Vlaamse Boekverkopers – VVB). It is also home to a collecting society (Ruit), an in-print title data base (Boekenbank, which is also the B2B application for publishers, importers and booksellers, as well as being an ISBN portal), an e-book portal ([www.e-boek.org](http://www.e-boek.org)) and a website offering online access to textbook material (Knooppunt). Boek.be organizes a variety of actions, events and prices in and for the Flemish book trade. It also hosts and organizes the Antwerp Book Fair, which draws a crowd of over 180,000 visitors each year. Moreover, the Boek.be Center of Excellence (Kenniscentrum) gives economical/legal advice and training sessions to its members, as well as providing the sector with trade statistics. It is constantly monitoring the book market and new developments therein too. Ruit is the collecting society of the Flemish book publishers. It will deal with the administration of orphan works' related rights on a national level. However, as far as the Arrow+ scheme is concerned, Boek.be will be the main Contracting Partner at European level.

### CVs of key personnel

**Kurt Van Damme:** Master in Laws (graduated in 1995, Ghent University); Managing Director of Ruit - Collecting Society of the Flemish Publishers (since 2008); Legal Adviser of Boek.be (since 2006) Judicial Trainee, Court of First Instance Oudenaarde (2002-2006); Lawyer Brussels bar (Linklaters De Bandt: 2001-2002) and Oudenaarde Bar (1995-1999); Policy adviser to the Order of Flemish Lawyers, Brussels (2001); Assistant Civil Procedure Law, Ghent University (1997-2001)

Annika Buysse got a Master in German Languages (2002, Ghent University) and a Master in Information and Library Science (2006, Antwerp University). Since 2008 she is Project Manager at Boekenbank vzw where she is in charge of management of the Belgian Books in print database. She was previously Project Manager for the project 'Religions of the Book', Department of Book Science, Antwerp University (2006-2007), and Project Coordinator at GE Power Controls (2005-2006).

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### ***MdA - Maison des Auteurs - Belgium***

The Maison des Auteurs is a non-profit-making organization created in order to offer authors, professional organizations and copyright collecting societies a place where to come and discuss, to have meetings or simply a place to get their office settled.

The Maison des Auteurs is the main office of the SACD, the SCAM, the SOFAM and DeAuteurs, companies specialized in the management of authors rights. Internationally, these represents some 80,000 members. Collectively or individually, they protect, collect, manage and allocate the rights of their members, active creators in all artistic disciplines. In Belgium, the SACD has over 2,050 members, authors of films, TV-drama, theater, dance, music or multimedia fiction. The 1900 members of SCAM are authors of audiovisual documentaries, radio documentaries, multimedia works of nonfiction, literary or pictorial. These (nonprofit) individual and collective management societies were founded (from 1777 for the SACD) by authors and for authors. They advise them in their career, including the legal and taxation matters, as well as the defense of their status and interests in political and cultural debates. They also develop a policy of cultural activities aimed at supporting artistic creation and promotion of works of their members. Besides the many reciprocal agreements spread across the world, they collaborate actively with other European authors' societies to promote and share the ethics and the philosophy of solidarity of their founders, adapting to all the technical developments that have marked the evolution of artistic creation and its dissemination, disinterested or commercial. The Maison des Auteurs is also in charge of Bela (<http://www.bela.be>) as well as of many other services for authors.”

### **CVs of key personnel**

**Frédéric Young** is the Director of the Belgian branch of the SACD and of SCAM. He's an expert in author's rights. He is member of the "Conseil Supérieur de l'Audiovisuel" and of the "Conseil du Livre" of the French speaking community of Belgium. He was founder and director of Auvibel and of Reprobel, Belgian CMOs in the field of private copy and reprography. He was director at SACD (2004-07) and at IFRRO (2000-03) and founder of the SACD-SCAM Luxembourg, 2008/2009

**Benjamin Scraeyen:** Documentalist graduated in 2002, he began his career at the Archives et Musée de la Littérature and since 2005 has been working at the SACD/Scam Belgium. He is currently Head of the Documentation Department. Lecturer in information retrieval and in charge of the internships at the Institut Lallemand (Librarian-Documentalist Department) since 2004. Substitute at the Reprobel and Auvibel Directors Board. Member of the Council Private Archives.

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### ***EKT - NHRF - National Documentation Centre/ National Hellenic Research Foundation - Greece***

The National Documentation Centre /National Hellenic Research Foundation (EKT /NHRF) provides documentation, information and support services on science, research and technology issues to the research, business, government and wider community. Founded in 1980, EKT /NHRF is part of the National Hellenic Research Foundation (NHRF). EKT/NHRF is an organization of the Hellenic Ministry of Education and Religious Affairs and is supervised by the General Secretariat for Research and Technology.

Enabled by highly qualified staff and a robust and constantly evolving computational infrastructure, EKT is a long-standing IT technology provider to the Greek academic community and libraries that develops and operates large-scale systems and national scale infrastructures, such as:

- The Hellenic National Archive of Doctoral Dissertations.



- The Serials Union Catalogue of the Greek Science and Technology libraries (roughly 250 libraries, including universities, research centres, etc.)
- A library automation software product (ABEKT) that has been developed in-house by EKT (first release: 1984) and currently has more than 2.200 installations in libraries in Greece and Cyprus.
- Institutional and subject repositories (e.g., HELIOS repository of our parent organisation NHRF - <http://helios-eie.ekt.gr>, Pandektis thematic repository for the Humanities including scientifically documented cultural data - <http://pandektis.ekt.gr>).
- Scholarly electronic journals.

EKT acts also as the Greek National Contact Point for FP7 in several subject areas and is also particularly active in the areas of innovation and technology transfer, being the co-ordinator of the Greek branch of the Enterprise Europe Network. EKT has a significant track record and experience in executing large scale projects, both EC-funded (FP5, FP6 FP7) and national.

### CVs of key personnel

**Evi Sachini** is Head of the Strategic Planning and Development Department of the EKT/NHRF. She is the coordinator of the National Information System for Research and Technology, a large-scale project with the aim to create a nationwide knowledge infrastructure. She was Research Director and, subsequently, Technical Director of a Technological Center. She holds a B.Eng. and a Ph.D. in Chemical Engineering from the National Technical University of Athens.

**Nikos Houssos** works for EKT/NHRF since 2006 as Head of the Software Development Unit. He is the software architect of the Greek “National Information System on Research and Technology” (EPSET). He is a euroCRIS ([www.eurocris.org](http://www.eurocris.org)) Board Member. Nikos has obtained a Ph.D. in Computer Science from the University of Athens (2004). His experience also includes working in various EU FP5 and FP6 IST projects related to mobile computing (1999-2004).

**George Stavrou** is Head of the development of ABEKT (Library Automation Software of EKT), the information systems department of EKT since 2006. His main responsibility is the development of tools managing and distributing bibliographic metadata providing at the same time support to the network of Greek libraries that utilize ABEKT – more than 2.200 libraries as of May 2010. He holds a Diploma in Mechanical Engineer from NTUA (1995).

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### ***APEL- Portuguese Publishers Association – Portugal***

APEL is the Associação Portuguesa de Editores e Livreiros (Publishers and Booksellers Portuguese Association). Under its present designation APEL exists since 1974. However, under different names it has been in existence since 1923, when it started as an association of booksellers, but including from the start among its members several publishers and publishers-booksellers. APEL is since 1989 the Portuguese Agency for the international ISBN organisation. In 1985 APEL had published for the first time the Catalogue of Portuguese Books In Print and the next year it initiated the publication of reports on book reading and buying habits in Portugal and statistics on the production and sales of books in Portugal. As representative of a very large part of the Portuguese book sector, and being the only institutional voice that can speak on behalf of the Portuguese book industry, it has worked in very close collaboration with the Portuguese official bodies in charge of legislative and policy matters related to the publishing and distribution of books as well as the promotion of reading. It has been very much involved in international industry organisations, such as the FEE and the IPA. A former Presidents of APEL is one the few Honorary Presidents of IPA and the present President of APEL's Board of Directors is a member of the IPA Executive Committee. APEL is also responsible for

organising the collective presence of Portuguese publishers in international book shows as the Frankfurt and Bologna Book Fairs. APEL has at present 278 members, for the most part publishers (210) but including also booksellers (46, including the three largest chains of bookshops in Portugal), old book sellers (10) and distribution companies (12).

### CVs of key personnel

**Henrique Mota** holds degrees in law from the Portuguese Catholic University and in International Relations from the Johns Hopkins University. Currently is chairman of the International Relations Council of APEL (Associação Portuguesa de Editores e Livreiros) and CEO and publisher of Principia Editora, a Portuguese independent publishing house. Before he was vice-president of APEL and professor at the Law Schools of the Portuguese Catholic University and the University of Lisbon.

**João Espadinha**, specialized in systems analysis, is a member of the current Board of Directors of APEL and chairs the Book Fairs Council. He has been active in APEL affairs for some time and he has relevant assignments at *Presença*, one of the most important independent publishing houses in Portugal.

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### ***PK - Stowarzyszenie Autorów i Wydawców "Polska Książka" (Society of Authors and Publishers "Polska Książka") - Poland***

"Polska Książka", set up in 2002, was intended as a an organization taking care of authors' and publishers' rights in the field of copyright law. It is a legal person working in the form of an association, i.e. a nongovernmental non-profit organization. On 10<sup>th</sup> March 2003 a status of collective management organization (i.e. managing copyrights to printed works in the extend that is possessed by publishers) was given to "Polska Książka" by the Minister of Culture. As a result on 1<sup>st</sup> July 2003 "Polska Książka" started to collect levies from reprographic equipment sold by producers and importers. Since that time also fees from copy shops have been charged. The organization takes half of both types of fees (yearly an average 500 K€) – the other 50% is dedicated to the other RRO Polish organization called "Kopipol". "Polska Książka" as a fees operator divides collected sums between publishers following the strict internal regulations on repartition. The method of repartition is based on the statistic research and statistic data (from National Library); as a result collected money is given to all publishers (not only members of the organization) as a kind of a remuneration for permissible private use in the field of printed works. "Polska Książka" has a Board consisted of 9 people and hires 5 employees. Members of the organization could be: autors (creators), publishers and other people related to books or press publishing market and other organizations working in that field. Currently member organizations are: Polish Chamber of Books (Polska Izba Książki), Polish Society of Book Editors (Polskie Towarzystwo Wydawcow Książek), Society of Publishers "Repropol" (Stowarzyszenie Wydawców "Repropol") and Chamber of Press Publishers (Izba Wydawców Prasy). "Polska Książka" is also an associate member of International Federation of Reproduction Rights Organizations (IFRRO).

### CVs of key personnel

**Andrzej Nowakowski** is director (from 1994) and vice-president of Scientific Papers Authors and Publishers Society Universitas, president of the board of "Polska Książka" from 2002, and general director from October 2008. He was commissioner of the Minister of Culture responsible for reading

case (2000), president of Polish Chamber of Books (2001-2003), director of Book Institute (2004-2005), professor and research worker of Jagiellonian University (at Polish Philology Faculty).

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### ***CIELA - Soft and Publishing - Bulgaria***

CIELA was established in January 1991 as a business consulting company and a publishing house of guides and monographs in the field of law sciences. In 1996 Ciela focused in the development of software for legal information systems. The company attracted highly qualified computer specialists and editors in the field of law, economy and finance thus establishing Ciela software department. As a result of the work of this team the first Legal Information System Ciela was created, maintaining legal information on normative and non-normative documents. In 1997 the publishing and software business of Ciela was established as an independent company and the international leader in legal and academic literature and software Wolters Kluwer purchased a majority share. At the end of 2000 as the business was vigorously growing in terms of scope and activities the company transformed into joint-stock company Ciela Soft and Publishing. Wolters Kluwer sold their shares to Bulgarian and international investors. Since 2005, by winning several public procurement procedures, Ciela has been the national leader in legal and reference information, providing for all the State Administrative bodies. There are already 16 information systems with the trademark Ciela and more than 70 000 clients use them on a subscription basis. Since 2006 CIELA became a software services provider and developer. In 2006-2007 the company created the "National Educational Gateway" under a procurement of the Ministry of the Education and Science. In 2007 CIELA successfully fulfilled its obligations to the project "Developing and Operation of the Pilot Integrative system of Electronic District". This project is a part of creating electronic government of The Republic of Bulgaria. In 2008 "Voice Recognition of Bulgarian Language" system was developed in coordination with scientists from Bulgarian Academy of Sciences. CIELA is engaged with all big projects for the development of Bulgarian electronic government, including Integration System for the Electronic Government, Portal of the National Company Registry, Digitalization of the National Company Registry, Portal and Database for Distribution of the Verdicts of the Bulgarian Courts, Human Resource Management System for the Judiciary, Management System for the Judiciary System Experts. CIELA publishes more than 250 new titles per year. Nowadays more than 60 % of the law books are published by CIELA. At every university where law and public administration are being studied teaching is carried out with textbooks, training aids and manuals published by Ciela. Nearly all practicing jurists in this country use normative acts and court practices, done by Ciela. Textbooks in the field of economics and accountancy are extremely popular among all students and professionals in Bulgaria. The Supreme Cassation Court (SCC) put its trust in the publishing house by choosing it as partner in publishing court practice of SCC, thus proving the strong positions CIELA has in the judicial system. CIELA maintains a chain of specialized legal literature bookshops in the largest Bulgarian cities.

### **CVs of key personnel**

**Svetlozar Zhelev** is Director of Publishing at Ciela where he works since 1998. Since 2006 he works at Mobilis Ltd where he is currently the manager. He got a MA in History at Sofia University and a Diploma in Management Studies at the Open University in London. From 2007 he is Member of the board of E. Kostova Foundation for creative writing, and of the board of Foundation Program Access to Information. He was Board Member of Bulgarian Book Association (2006-09).

**Hristo Filipov:** got a MA in computer System and Control at Technical University in Sofia. He is the head of IT Department at Ciela Soft and Publishing AD where he work since 1999 where he became

Head of the Internet Development Department, position covered until 2006. He is involved in many project as System Administrator and Software Developer on the project Ciela 4.0, Ciela Info 4.0 and Ciela Net 4.0

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***DI-TEC - Di.Tech s.p.a. - Italy***

Di-Tec was born in 1991 in Bologna in Italy and is a leader in information systems and strategic and operational consultancy in retail area, logistics and manufacturers of consumer goods. Di.Tech is present in Italy with two headquarters, in Bologna and Bari, and has about 150 resources. A powerful investment strategy in innovation led to the development of a portfolio of software solutions and original instruments, customizable and integrated, to support the activities of the entire supply chain, focusing on the enhancement of supply chain integration between Headquarters and suppliers and between Headquarters and stores. A large number of designers, software architects and developers with expertise on the major platforms (Java and .NET), database (Oracle and SQL Server) and architectures (SOA and Web Based) allow us to manage projects of system integration and development of software solutions by putting together technological and process skills. The main activities are:

- analysis of business processes;
- design and implementation of software solutions;
- check-ups of the computer system;
- selecting the most suitable hardware and software;
- training for the use of programs and technologies.

**CVs of key personnel**

**Franco Lenzi:** Degree in Computer Science from the University of Pisa. Since the mid-80ies to all 90ies focused on design and development of software solutions, taking care of the technological aspects, project management and the coordination of team development. Over the past 8 years he has been the coordinator of Di.Tech technological structure, managing mainly the methodological policies and directing the adoption of design standards and platform within the SOA paradigm.

**Alberto Acinapura:** Senior Software Architect at Di.Tech. Ten years of experience in designing and software development and project management to technology, with particular focus on client-server architectures and web-based, and the coordination of development team. Excellent knowledge of Java with particular interest in distributed architectures with J2EE standards, frameworks as Alfresco, Spring, Hibernate, tools for optimizing the development process and application servers.

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***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.

### **CVs of key personnel**

**Guenter Muehlberger** - Head of the UIBK Dept for Digitisation and Digital Preservation. He was coordinator of several projects from the 4th and 5th EFP, e.g. LAURIN (1998-2000) that worked out a model agreement with Kopinor (Norwegian RRO) for digitisation of newspaper clippings; reuse that created model agreements with publishers to collect digital versions of current publications. Currently he is coordinator of a multinational network for a "Digitisation on Demand" service.

**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.

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### ***LBG - The Latvian Book Guild - Latvia***

The Latvian Book Guild was founded in February, 2007 with the following aims:

- to create positive environment for development of publishing as a creative industry in Latvia;
- to promote reading, especially among young readers;

- to follow up the trends in publishing both in Latvia and abroad promoting information exchange and cooperation with publishers, booksellers and professional organizations in other countries;
- to support the conservation of Latvian cultural heritage;
- to develop and extend life-long learning in Latvia.

Founding members of Latvian Book Guild are several Latvian companies operating both in publishing and bookselling: *Janis Roze*, *Jumava*, *Valters & Rapa*, *Zvaigzne ABC*, as well as several private persons. Since summer 2008, Latvian National Library is also a member of Guild.

Since 2007 LBG member publishers are jointly publishing the series *Golden Classics* – works of various Latvian and foreign authors – labelled by the similar design and common marketing activities. There are almost 40 titles published within the series until September 2008.

Since March 2008 Latvian Book Guild participated with the common stand and cultural program in the Baltic Book Fair.

In 2008 Latvian Book Guild was among the supporters of International Reading Conference in Riga; in the same year, member company *Janis Roze* and Latvian Book Guild in cooperation with Latvian Booksellers Association has organized the seminar for Latvian booksellers and publishers run by board members of European Bookseller Federation. In 2009 Latvian Book Guild has organized the visit of European publishers and booksellers to Latvian parliament to discuss necessity to renew reduced VAT rate on books.

### **CVs of key personnel**

**Dainis Ruduss** is Project Manager of Valters un Rapa JSC with experience in administration and management of projects, sales, training and market research since 1993. As a Training Subproject Leader he participated in Implementation of Master Tariff System (EU PHARE project). After joining Valters un Rapa 4 years ago he was involved in sales and new product promotion. Last year activities are related to company's e-reader sales and e-book online shop development activities.

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### ***OSDEL - Organisation for the Collective Management of Literary Works - Greece***

OSDEL is a non-profit association of authors and publishers of books, periodicals and other publications. The association collectively protects and manages members' intellectual property rights (copying, processing, public disclosure and distribution). OSDEL was incorporated for its role by the Hellenic Ministry of Culture in 1997, under the Intellectual Property Act (Law 2121/1993). Members of OSDEL are the Greek writers, translators of literary or scientific works and the major part of the Publishing houses for Greek or Foreign Language books. OSDEL's mission is to represent and defend the legitimate interests of authors and publishers of books and periodicals by authorising and endorsing the legal use of their works. OSDEL is managed by an 11 member Board of Directors in which are represented equally the individual categories of copyright holders.

OSDEL's main roles and services are:

- to collect and pay out to authors and publishers the royalties due to them for use of their works
- a social role: to educate, inform and raise awareness among the public of the principles of copyright
- to carry out collective management of private copying rights
- to grant authorisations and licences for the use of works in its repertoire
- to defend members' (as whole) interests before the courts and other national and international institutions

Also, OSDEL offers the service of right-holders localization (writers, translators and publishing companies) to users that request it with different ends. OSDEL collectively manages the rights held by its partner associations in other countries, and is a member of the International Federation of Reproduction Rights Organizations (IFRRO).

### CVs of key personnel

**Costis Akritidis:** Member of ACM/SIGGRAPH, IEEE, EACG and FAST Committee. Founder of three companies in the fields of video computer application and image processing, he hold patents in the same fields and developed the software for the first complete 3D full motion TV commercials in Greece. He won in 1999 the 1<sup>st</sup> Prize in New Technologies (HAAA). From 2001 he is the IT director of OSDEL, where developed the Aspida™, a Digital Platform for Licensing in Greece.

**Aris Petropoulos** is a Graduate of Mathematics from the University of Athens. He spent his career in periodical publishing (including *Playboy*, *La Redoute*, *Auto Week*, *Domh Encyclopedia*, *Men*, *Georama*). Today he is chief editor of *Passport* magazine. Since 2001 he is the General Director of OSDEL representing the Organism in IFRRO and Member of the Equipment Levy Group of European Commission, representing Greece.

**Antonios Papadakis-Pesaresi** is a researcher in Computer Networks, Telecommunications, Distributed Systems and Databases. He has a M.Sc. in Communication Systems from the University of Wales, a Bachelor Science Degree in Computer Science from the University of Crete. He is Research assistant in Ontogrid project (EU 6th FP) and the main developer for the implementation on the Digital Platform for Licensing of OSDEL.

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### ***EWC - The European Writers' Council-Belgium***

EWC is an International Non-Profit Association under Belgian law, «Association internationale sans but lucratif» AISBL. Since The European Writers' Congress was founded in 1977 as the Federation of European Writers' Associations it has evolved into an organisation of more than 120.000 individual writers, belonging to 60 member organisations, currently spanning 32 countries of Europe. The EWC facilitates trans-European cultural & literary co-operation, the realisation of common projects and the professional exchange of experience & good practice among writers' associations in Europe. The EWC advocates the promotion and support of the literatures of Europe – South and North, East and West – and of the creators of literature: poetry, fiction and non-fiction, juvenile and children's literature, drama, screenplay, multimedia works and translation of all forms of literary works, while contributing to the debate on the role of creators, culture and cultural policy in the ever growing European Union. The EWC champions the diversity of literatures while raising awareness for both the role of creators & culture and the common need of creators to have their moral and economic rights respected in the digital age. The EWC stands up for the democratic principles of freedom and equality, in particular the Human Rights to Freedom of expression and Freedom of information. The EWC disseminates the results of its cultural networking to the wider public via its website, a newsletter and the publication of a variety of books, resolutions, and conference papers under The European Writer, ISSN 1560-4217. The EWC receives financial support through the multi-annual operational grant for European networks active in the field of culture from the European Commission DG Education & Culture. It works closely with Members of the European Parliament, the Council of Europe, and collaborates with European networks. It has an official observer status with the World Intellectual Property Organisation (WIPO).

## CVs of key personnel

**Myriam Diocaretz** is the EWC Secretary-General since April 2006. In 2007 she was awarded the Socrates Extraordinary Chair in Humanism and Digital Society, and since 2009 she is Socrates Professor at the Centre for creative Computing at Tilburg University. She was a member of the i2010 digital libraries High Level Expert Group - Copyright Subgroup (INFSO & Media, 2006-2008) and a member of the Steering Group of the Civil Society Platform for Intercultural Dialogue (2006-2008).

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### ***CEDRO - Centro Español de Derechos Reprográficos - Spain***

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 as RRO by the Spanish Ministry of Culture in 1988, under the Intellectual Property Act.

**CEDRO's mission** is to represent and defend the legitimate interests of authors and publishers of books and periodicals by authorising and endorsing the legal use of their works.

CEDRO's main **roles and services** are:

- to pay out to authors and publishers the royalties due to them for use of their works
- to grant authorisations and licences for the use of works in its repertoire
- to carry out collective management of private copying rights
- to manage public lending right on behalf of authors
- to provide benefits, training and promotion to authors and publishers
- to defend members' interests before the courts and other national and international institutions
- to inform and raise awareness among the public of the principles of copyright.

Also, CEDRO offers the service of right holders localization (writers, translators and publishing companies) to users that request it with different ends.

Currently, CEDRO is made up of 18.333 members, between authors (16.717) and publishers (1.616). CEDRO collectively manages the rights held by its partner associations in other countries (33), and is a member of the [International Federation of Reproduction Rights Organizations](#) (IFRRO).

## CVs of key personnel

**Alfonso del Real Soldevilla:** Alfonso del Real Soldevilla is presently IT Manager of CEDRO, he joined the organization after more than 24 years of experience in IT sector, including 15 years in senior roles as Business Development Manager, IT System Manager... Alfonso got IT Degree by Universidad Politecnica of Madrid in 1997, he also completed a Master Executive MBA Instituto Empresa in 1998.

**Susana Checa Prieto** is presently the Head of the Membership Department of CEDRO. She joined Cedro in 2001 after a few years of experience as a lawyer in a legal firm and in a multinational company. As the Head of the Membership Department her main targets are adapting existing mandates to the digital management of the RRO. Susana got a Graduate in Law at the Universidad Pontificia Comillas where she completed a Master degree in legal aspects of Information Technology.



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**DI-RO THE ROMANIAN COMPANY DI.TECH RO SRL - Romania**

Di.Tech Ro, is present since many years on the European market. The Romanian company was born in 2004 with headquarters in Iasi, with the involvement of public and private organizations and academic institutions. Today, the Romanian company represent a solid center of excellence in software design and development, help desk and telemarketing for companies operating in IT area. With a professional structure of approximately 70 highly qualified resources, recruited in Italy and Romania, the structure located in Iasi, provide to its clients professional resources, in flexible number based on clients needs, at highly competitive costs.

Our resources offer:

- expertise in designing and implementing software applications in Java technology and .NET
- specific expertise in ERP and SAP Business One
- development services of web application and communication architectures
- experience in designing and managing complex computer networks
- expertise in Microsoft Business Solution

Romanian resources can fit at all stages of project development. Software applications can be developed working at distance and taking into account the specific needs of language, time zone and the specificities of client business. We have a qualified Quality Assurance department. We have an adequate technological infrastructure that allows us to access our clients' systems under conditions of maximum safety and efficiency.

**CVs of key personnel**

**Victor-Adrian Ichim** is Java senior developer experienced in Java, C++, SQL, UML, JEE technologies (web, enterprise, web services) JEE IDE. His main experiences has been in software development for supermarkets, infrastructure utilities for database synchronization, performance stats, deployment. Attributions: software architect for JEE1.4, JEE5 projects; migration from JEE1.4 to JEE5 3. application server management for JBoss; business and web service developer

**Sava Tudor** is Java senior developer experienced in J2SE 1.4 & 5.0, JDBC, JSP, Servlets, Struts, Hibernate, iBatis, EJB, and Web services. She was involved in the strategic project for distribution of consumer products, and web sites for Italian distribution companies. He was freelance programmer for a company from USA, and was involved in projects concerning web surveillance. Foreign languages: English: advanced level; French: basic level; Italian: medium level.

**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 .

**EDL - Europeana Foundation – The Netherlands**

The Europeana Foundation is the governing body of the Europeana service. Its members are the presidents and chairs of European associations for cultural heritage and information associations. The Foundation promotes collaboration between museums, archives, audiovisual collections and libraries so that users can have integrated access to their content through Europeana and other services. The Foundation is incorporated under Dutch law as Stichting Europeana and is housed within the Koninklijke Bibliotheek, the national library of the Netherlands. It provides a legal framework for the

governance of Europeana, employing the staff, bidding for funding and enabling the sustainability of the service.

### **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 19<sup>th</sup> 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*.

### **CopyDan - Copydan Writing Information – Denmark**

Copydan 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 8 Universities (100% of the universities) and 8 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 2000 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.

### **LBA - Latvian Booksellers Association – Latvia**

Latvian Bookseller's Association is a public organization, which unites businesses dealing with sales of books, other printed issues and office supplies. It was founded in April 1993 and unites big, medium and small size enterprises. Among the members of the Latvian Booksellers Association are representatives of all regions of the country.

The main aim of the association is to promote the development of bookselling and improve professionalism of bookstore employees. The main objectives and tasks of organization are:

- to protect professional interests of booksellers
- to represent interests of booksellers in relations with state, governmental, municipal institutions, official representatives of publishers, libraries and other bodies of book development sector
- to negotiate with state governing institutions on possibilities to reduce value added tax on books sold in Latvia
- to improve professional skills and acquirements of booksellers organizing different type of training courses
- to collect and spread out information important for the specialists of bookselling
- to promote book reading habits, especially among young generation

As a professional organization, Latvian Booksellers Association takes an active part in processes of reading promotion both in Latvia and on the international level. Latvian Booksellers Association is a member of European Booksellers Federation. Latvian Booksellers Association together with Latvian Book Guild takes part in organizing the Latvian Book fair that yearly takes place at the end of the February. To maintain good customer service as one of the basic needs for booksellers is necessity for easy obtainable information on books available in the market. From 1997 Latvian Booksellers Association compiles information about new available books for sale in our country. Now there are more than 28 000 titles in our data base and we provide to our subscribers a weekly newsletter *Grāmatu Jaunumi* (Book News). The chairwoman of Latvian Booksellers Association is Ināra Beļinkaja.

### **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.

### **St Cyril and Methodius National Library – Bulgaria**

St Cyril and Methodius National Library is the biggest library in Bulgaria and is the oldest cultural institution in Bulgaria. It is deposit library since 1897 and its most important task is to preserve the

Bulgarian documental heritage. The library collects document, does bibliographical processes, preserves and provides the use of printed and audiovisual documents. As an archive of Bulgarian books the national Library publishes the National bibliography of the country. The national library is ISBN and ISSN agency. The library is the biggest storage of Slavic manuscript, of old printed books and of Bulgarian historical and archive documents. In its found are kept manuscript in Bulgarian and other languages. His Oriental archive is one of the biggest. Special collections include audio tapes, graphic creation and maps. The national library is beneficent and partner in many different national and international projects ad programmes in the field of digitalisation and preservation of the written legacy of Bulgaria. The national library is partner to national institutions and is a joint member of the union of library and information service in Bulgaria. The library is a member of CENL and IFLA.

### **CENL - The Conference of European National Librarians – The Netherlands**

CENL is a foundation that gathers national librarians of the member states of the Council of Europe. The conference currently consists of 48 members from 46 European countries forming the CENL Board. CENL aims at reinforcing the role of national libraries in Europe, in particular with respect of their responsibilities from maintaining the national cultural heritage and ensuring the accessibility of knowledge in that field.

The list is completed by the letters of support of **Polish Chamber of Books** (Polska Izba Ksiazki) and the **Polish Association of Book Publishers**.

### **B3.2a. Chosen Approach**

A key Arrow concept is the “Rights Information Infrastructure” (RII), which is the result of such modular approach. The idea is to replicate, for rights information, what has historically happened for book data management: people all over the world use the same identifier (the ISBN), interoperable metadata schemas (MARC in the library domain, ONIX in the trade), agree on messages and protocols to exchange (or more recently to harvest) data, and so on.

This gave rise to the creation of library catalogues, books in print databases and RRO repertoires that can exchange information between themselves across borders, though they are not yet fully interoperable. The Arrow approach is to further improve interoperability between existing resources, adding unprecedented layers of complexity related to rights information.

The RII is based on the existing book metadata infrastructure. In some countries this is not as well developed as in others. The differential development is related to the economics of the BIPs and RRO repertoire databases. In some countries the market is not large enough to allow national initiatives in these areas to break even.

In order to extend the number of countries covered, Arrow Plus will work within this fragmented landscape, promoting a unified European approach while maintaining distributed systems and supporting the establishment or improvement of data infrastructure for books in the countries where they are insufficient. We will address the economics of BIPs and RRO repertoires from the cost side: sharing knowledge, software and hardware infrastructure allows the exploitation of economies of scale -- and thus the reduction in costs. In every country, the Arrow Plus plan involves making an analysis of existing resources, defining an appropriate solution after careful stakeholders consultation and specification of local user requirements. These national user requirements will be implemented in a common technical specification, implementing a modular infrastructure to allow the variability

essential for the management of national resources, where user interfaces will later need to be customised for national use. Differences in user requirements will be approached through the use of different modules within a unified scheme, without ad hoc (and unsupportable) system customisations. The approach is particularly clear for the BIPs. Among the countries involved, there are cases (like Portugal, Poland, Latvia or Lithuania) where a proper BIP does not exist, and countries (like Bulgaria or Greece) where BIPs have significant needs for improvement. Arrow Plus will develop the modules necessary to meet these different situations.

1. The first module necessary for the first group of countries consists of the creation of a basic BIP database infrastructure. Such a database will be fully ONIX compliant, to facilitate future interoperability within the Arrow system and with any similar initiative anywhere in the world. Initially, this will be created as a sort of “empty box”, and tested with just a small number of records. It will have a technical structure which allows separate administration of different partitions of the database, which in turn will allow each country to have its own BIP (and to control its own IPR in books in print metadata) despite using a single technical infrastructure.
2. Modules for managing the workflow to feed the BIP database with data coming from different sources are also planned, which may serve both groups of countries which we have identified.
  - 2.1. The initial task is to interconnect the BIP with the ISBN agency. ISBN agencies are the first point of management of book metadata from publishers, and they have comprehensive bibliographic databases. The tools will allow transfer of data from the ISBN agency to the BIP. The key feature of these tools will be data conversion from existing formats to ONIX.
  - 2.2. Tools to collect bibliographic data from publishers are also planned, providing B2B interfaces enabling both single record and batch request handling.
3. The main difference between any ISBN agency database and a BIP is that ISBN agencies do not normally collect commercial data about books, particularly variable data elements such as “price and availability”; however, these are crucial in the Arrow workflow for the determination of out-of-print status. Tools to collect and maintain this type of data from publishers (or their distributors, or wholesalers) are the third element of the proposed approach. Since “price and availability” data are subject to continual change over the time, the difference between these tools and those described in 2.2 is in the need to handle dynamic data. Also in this case, there is a need of two different tools:
  - 3.1. The first is designed for initial feeds of information, taking into consideration the data sources available at national level (primarily wholesalers), and will be based either on automatic or semi-automatic tools to connect third party data sources to the new BIP infrastructure or on interfaces to facilitate manual up-loading of such information, which may be more practicable and less expensive in certain circumstances.
  - 3.2. The second will allow collecting price and availability data, once the BIP has been established, and will be integrated in the tool described under 2.2

A key issue for books in print databases is the correct treatment of bibliographic records for digital books. Over the next few years, this will be crucial for the determination of the “in print” status of a book. This is an issue for every BIP in Europe, and Arrow Plus will stimulate benchmarking in order to define common strategies. It is to be noted that once metadata about digital books published in Europe is managed by BIPs, it will be easy to make this data searchable within Europeana, so enabling integration between public and private collections through the adoption of the common standards that have been designed for the purpose.

The whole process is underpinned by two important steps in the Arrow workflow: (i) the identification of the “work” starting from a physical book, and (ii) the clustering of all the books that contain the same literary work. As part of this process, the ISTC for the identified work will be registered, in order to declare in a standard environment the relations between books (ISBNs) and works (ISTCs). The current Arrow system already allows this. However, ISTC agencies are still only in place in a very few countries. For this reason, Arrow Plus will develop a module to allow the creation of ISTC agencies, strictly connected with BIP / ISBN management. ISTC agencies can be set up at national level (e.g. within the ISBN agencies) or trans-nationally. The module will support any of these solutions. Finally, the project will agree with the ISTC-International Agency Board a strategy for accelerating the assignment of ISTC and consider whether to encourage one ISTC Registration Agency to take on the task of being the “Arrow Registration Agency” for the assignment of ISTCs in countries where there is no agency.

RRO repertoires are usually created on top of the BIPs. Essentially, a RRO repertoire is a database containing book records (coming from the BIP) enriched with associated right information (e.g. rightholders' details, mandate terms, etc.). Such information is collected when the RRO receives a mandate from the rightholder or must distribute royalties. Also in this domain, RRO repertoires in the different countries are at different level of sophistication and comprehensiveness, may be not fully interoperable with other data sources, or can be totally absent.

Arrow Plus will create tools to facilitate the integration between BIPs and RRO repertoires, to allow the Arrow system to retrieve information from RRO repertoires, and to manage the workflow to allow rightholders to declare their rights. Again in this case, an initial feed of data is planned into the new technical infrastructure through either automatic or semiautomatic processes or with assisted manual procedures.

A key value of the system is in its capacity to enrich data through use. The tools for managing feedback from diligent search processes are therefore very important. For example, when a library searches for data about a particular book, the system is expected to produce the following rights information:

- The unambiguous identification of the underlying work:
- The cluster of books containing the same work:
- The unambiguous identification of the rightholders' names (authors and publishers):
- The commercial status (“availability”) at work level;
- Information about rightholders in the work.

In different national contexts Arrow Plus will manage two different approaches: (i) when the required information is found, Arrow Plus will feed this back to the appropriate participant databases; (ii) when information is not found, or is incomplete (for example, the work is out of print, the name of author has been identified, but it has not proved possible to find contact information), it is probable that a further manual search will be undertaken. It is currently unclear who will conduct such a further search. The system will be sufficiently flexible and scalable to receive data generated in this additional search.

Within the same methodological approach, tools will be designed to allow rightholders and other users to declare their rights or provide rights information from different entry points, and in particular from library catalogues. Once this will happen, Arrow processing starts so that the new information collected through users collaboration will be permanently linked with the underlying works (and the

various manifestations of the work) as recorded in the key bibliographic database in Europe in the different domains.

This last feature is closely connected to the Registry of Orphan Works (ROW). One of the values of the ROW as part of the Arrow workflow is precisely that of being a tool for the collection of feedback from rightholders during the claiming process. The approach of Arrow and Arrow Plus is to offer tools to help discovery of information, not to create a static point of storage of the assertion that “there is no information available for this work”. The Registry of Orphan Works itself -- i.e. the list of works that have been *legally declared* to be orphans in the appropriate jurisdiction (so, not the Arrow-ROW per se, but the list of “official orphan works”, possibly resident within the Arrow-ROW) -- will have value for users, since it is likely that they will be allowed to use orphan works under specified conditions. However, this use will depend on variables that are exogenous to the project (political decision, at European and national level) and Arrow Plus is limited to offering services in accordance with those political decisions, without seeking either to influence or to anticipate them.

In the image field, the Arrow Plus project will use a similar approach. Stakeholder involvement (through trade associations and CMOs) is crucial both in the analysis of user requirements and in defining solutions. The pilot in this domain will be limited to the search of rightholders on visual works embedded in the same books for which users have requested rights information on the text works. This will imply the analysis of the need for modifying the Arrow workflow in order to query multiple resources for the same books, including the need for changing the workflow itself, the messages formats between the system and the RROs, etc.

Finally, the Arrow Plus approach is complemented by enhancing the Arrow system in order to better fit user requirements. Some areas where improved functionalities are envisaged are:

- a) Tools and user interfaces, to support a wider range of standard bibliographic formats in use in libraries (e.g. UNIMARC) and to extend the range of methods that allow libraries (and other users) to submit the bibliographic records of the books they wish to digitise and use to use the system
- b) Software to match and cluster bibliographic records, beyond the library domain, along the Arrow workflow. This work will build on the matching and clustering technologies developed in the library domain, as a result of the Arrow project and will extend this work to provide similar functions for the data sources in the other domains within the Arrow workflow
- c) Mechanisms to enrich the data sources, along the entire Arrow workflow, with the information that has been gathered through the use of the Arrow system
- d) Improved flows of information from Arrow to international identification systems in use in the book value chain, e.g. ISTC, ISNI, ISBN, VIAF etc.
- e) New value added services and/or improvement of interface ergonomics that the Arrow validation phase will point out to increase the potential and the commercial appeal of the system.
- f) Interoperability between the RRO repertoires, within the existing IFRRO initiatives, supporting individual RROs to deploy the ONIX-for-RRO to better interoperate with the Arrow system.
- g) Management of multiple national workflow starting from a single library request. In fact, the cluster created from one record submitted by a library may contain manifestations published in different countries, so that multiple BIPs and/or RROs must be queried.

- h) Maintenance of Arrow message suite: the messages developed for Arrow will require continuing maintenance throughout the period of the project, as new requirements are identified with new countries and partners joining the project
- i) Development of simplified versions of Arrow messages: the messages developed for Arrow are all expressed in XML. In some of the countries proposed as participants in Arrow Plus it is likely that simplified expressions of some of these messages (for example in the form of standardised Excel spread sheet formats) may be helpful in encouraging implementation. If the case, tools for the conversion from such new allowed formats into XML based Arrow formats will be implemented.

The final work plan for these developments will depend to a considerable extent on the results of the final phase of the Arrow project and in particular on the validation phase, which has the responsibility for identifying and prioritising additional system enhancements in ways that are coherent with the overall Arrow business model and sustainability plan. The results of the current project will thus be adopted at the first Management Board meeting as the basis for developing a detailed technical implementation workplan.

### **B3.2b. Work Plan**

The work plan is structured in seven Work Packages: WP1: Project management; WP2: Dissemination and network building; WP3: Organising and coordinating the national initiatives; WP4: System enhancement and maintenance; WP5: Product management of new registries; WP6: Inclusion of visual material; WP7: Validation.

The lifecycle of the project will pass through three main phases:

- With a view to preparing and exploring the basis for Arrow Plus implementations, the first 12 months of the project will be devoted to analysis of individual national contexts (WP3) and of image data (WP6); this will provide input to specifying the necessary system enhancements (WP4). From Month 9, interim results of this analysis will also be used to begin the design of the architecture for registries (WP5.1). In parallel, the technical team will focus on some enhancements of the Arrow system itself (T4.1).
- The second phase (lasting until Month 18) consists of the design (WP5) and implementation (WP4) of the different modules of the registries.
- The validation phase will start at Month 19, including the preliminary step of internal testing, followed by external validation by the stakeholders.

The three phases are reflected in the WP3, which is the core WP because of its role in coordinating the best practice network, facilitating benchmarking and accompanying each of the countries through the different phases of the project, managing the coordination between national initiatives and the rest of WPs, in particular the technical work packages (WP4 and WP5).

It is planned that the major part of the work on visual material will be undertaken in the first 15 months of the project, since the expected output will be a plan for further actions in this field that will be continued outside of the Arrow Plus project. At the same time, WP6 will provide the basis for piloting and validating Arrow Plus functionality in this domain. Following this, the pilot of visual image data will be managed as if it were a country pilot, entering the validation process (WP7) in the same way. To some extent, integrating rights information about book images in the Arrow workflow is no different from integrating a new country. In both cases, it involves integrating new data sources. Since the rights in images need to be cleared at the same time and for the same books as those for which there



is a request to clear text rights, the validation of the pilot in this domain will be conducted in a way that is fully integrated with the validation of the clearance of text rights.

Three “transversal WPs” complete the project plan:

- *WP1. 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.
- *WP2. Dissemination and network building*, with the task of inter-connecting the internal best practice network to broader communities of users, at national and domain level.
- *WP4. System enhancement and maintenance*, which is conceived to serve the network of interested players on a continuous basis

The criteria used to plan the partners’ work effort depends on their role in the work plan. Some person months have been allocated to every WP leader within the **WP1**, to take into consideration their specific tasks in supporting the project management work of the co-ordinator. In **WP2** the IFRRO will be supported by the other partners for dissemination in their respective communities: FEP for publishers, The European Library (KB) and ICCU for librarians, EWC for authors, and EDItEUR for the standards community. Furthermore AIE, as co-ordinator, will contribute by being involved in project presentations when needed.

In the individual countries, networking and dissemination activities are included in WP 3, because they are so tightly connected with national activities. A group of partners has the role of co-ordinating the work at national level: APEL in Portugal, PK in Poland, CIELO in Bulgaria, OSDEL in Greece, ICLA in Ireland, BOEK and MDA in Belgium (for the two linguistic communities), LBG in Latvia, LLA in Lithuania, HPBA in Hungary. Similar roles will also be undertaken by CEDRO in Spain, MVB in Germany, UIBK in Austria, and ICCU in Italy, although for these partners this role is also associated to other tasks. FEP, as **WP3** leader, will co-ordinate all these initiatives, and will be supported by EDItEUR; and by MVB for the activities related to the BIPs, by CEDRO for that related to RROs and by the The European Library (KB) for those activities related to the library domain. Finally, the AIE and Cineca technical team will make a contribution to the technical analysis of user requirements.

Technical implementations (**WP4**) will be led by Cineca, who will undertake most of the work on the system with the collaboration of AIE in the phase of drafting specifications and Di-Tech and Di-Ro for technical implementation. The technical integration of the National Library catalogues, metadata pre-processing required for the Arrow system and the tailoring of the matching and clustering algorithms to the bibliographic data of new countries joining Arrow will be led with The European Library Office (KB). EKT will provide focused support in areas of data integration and compliance with metadata standards, in particular regarding handling and transformation of UNIMARC. UIBK will have the task of coordinating the implementations of the new tools for allowing rightholders to declare their rights. MVB will support Cineca in the system design for the BIP implementations, and CEDRO have a similar role in the RRO environment. PK, ICLA and OSDEL (from the RRO side), BOEK and CIELO (from the BIP side) planned some implementations within their own IT system to facilitate the integration with Arrow.

**WP5** will be closely co-ordinated with WP4. The creation of new registries at national level is a crucial element of the project and this is the reason why it requires a dedicated WP. Since a central role in this development is in the creation of BIPs, the leadership of this WP has been given to MVB, the most experienced company in BIP production and management in the world, having entered the business more than 40 years ago. MVB will be supported in this work by EDItEUR, in this case in its

role as Managing Agent of the ISBN International Agency. EDItEUR, in particular, will support the design of the new BIP infrastructure particularly providing its expertise to ensure appropriate data exchange with local ISBN agencies. AIE and Cineca staff will join the working group, to contribute their particular expertise in the field and to ensure coherence with the Arrow system in general. Finally, CEDRO will provide guidance on the integration of RRO repertoire databases.

**WP6**, for the inclusion of visual materials, will be undertaken mainly by EVA (WP leader) and CEPIC, who will involve their respective members. However, to guarantee the coherence with the rest of the project, technical support for the analysis will be provided by Cineca and AIE.

Finally, the validation phase (**WP7**) will be led by UIBK, who will prepare the validation roadmap and then will work on testing and assessing the product results in collaboration with FEP with respect to the involvement of national activities, and with MVB and CEDRO for the new registries. Individual partners responsible for national activities, as well as partners involved in WP6 will participate in the validation, piloting the system in their respective environments.

### Performance indicators

The core objective of ARROW Plus is to integrate in the system a larger number of data sources about books throughout Europe. To achieve this, a prerequisite is the involvement of stakeholders communities at national level. Finally, in countries where data sources are not in place, we aim at stimulating their establishment.

The indicators of success in this strategy should be defined against these objectives. How many stakeholders communities will be involved in the initial work? How many sources of bibliographic data will be integrated in the system? How many new registries will be established containing data about books and right information? These three questions are at the heart of the project and can be defined at the present stage.

Indicator No.	Relating to which project objective / expected result?	Indicator	Method of measurement	Expected Progress		
				Year 1	Year 2	Year 3
1	Increasing networking in stakeholders communities	Number of stakeholders associations involved	Active participation to the national groups	20	30	40
2	Integrating data sources in the system	Number of data sources made interoperable in Arrow	Data sources that Arrow is able to query	1	10	18
3	Improvement of book data infrastructure	Number of new "registries" created in Europe	Initial feeding of the BIP and/ or RRO infrastructure	-	3	6

Additional indicators, more related to actual performances of the system, are referred to the accuracy of the system in fulfilling the key objective of the project, i.e. to facilitate diligent search made by library. The experience in the Arrow project emphasised that the main elements of the system for providing correct information are that described as "matching" (i.e. the identification of the record of the book the library is wishing to digitise within the record(s) stored in the different databases) and "clustering" (i.e. the identification and retrieval of the different editions of the same work, starting from the matching

results, in order to pass from information on a single book, manifestation level, to information on the work). These two phases are the key for determining the correctness of the answer that Arrow will provide and thus are the best success indicators for the system<sup>1</sup>.

Indicators	Expected Progress		
	Month 19-24	Month 25-36	Month 36-48
Capacity of identifying the book by matching the query record from the library with record(s) stored in the queried resources	> 60%	> 80%	> 90%
Capacity of providing the publishing status of works (in print / out of print status) by clustering the individual editions stored in the queried resources	> 60%	> 80%	> 90%

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<sup>1</sup> This was also evident in the analysis of the Google Settlement database, made during the first Arrow project, concerning a sample of significant Italian authors of the XX century. The rate of errors in the correct determination of the out of print status at work level was as high as 81% and was due to lack of capacity of correctly matching and clustering metadata records (cf. AIE - Associazione Italiana Editori, 2009, *Analysis of commercial availability of important Italian authors' works in the Settlement Database*, Sept. 2009, [http://dx.doi.org/10.1389/090907\\_aie\\_hearing](http://dx.doi.org/10.1389/090907_aie_hearing))

**GANTT**

PROJECT GANTT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>WP 1 Project management</b>																														
T 1.1. Project management																														
T 1.2. Evaluation and assessment																														
T 1.3. IPR and sustainability plan																														
<b>WP 2 Dissemination and network building</b>																														
T 2.1: Networking																														
T 2.2: Dissemination and awareness																														
<b>WP 3 Organising and coordinating the national initiatives</b>																														
T 3.1. Analysis of national contexts																														
T 3.2. Coordination with WP4 and 5																														
T.3.3. National sustainability plans																														
<b>WP 4 System enhancement and maintenance</b>																														
T 4.1. System maintenance and enhancements																														
T 4.2. Implementation of BIP infrastructure																														
T 4.3. Implementation of RRO infrastructure																														
<b>WP5: Product management of new registries</b>																														
T 5.1. System design and specification of new registries																														
T 5.2 - Product management for new BIPs registries																														
T 5.3 - Product management for new RRO registries																														
T 5.4 - Long term analysis for product management																														
<b>WP6: Inclusion of visual material</b>																														
T 7.1 Analysis of data sources																														
T 7.2 Piloting "book images" integration																														
T 7.3 Towards comprehensive solution																														
<b>WP7: Validation</b>																														
T 6.1. Definition of national roadmaps																														
T 6.2. Internal testing																														
T 6.3. Data enrichment																														
T 6.4. Stakeholders validation																														

**Risk assessment**

Description of possible risk	Impact	Probability of occurrence	Remedial Actions
<b>Risks derived from events internal to the project</b>			
Conflicts of political nature emerge in the MB that delay or impede decision making	Decision making process halted resulting in delays	low	The MB will refer and apply strictly the management rules set at the beginning of the project that include regulation of voting and decision making for the purpose of the management of project activities. Agendas of MB meeting will be set by Coordinator merely on technical topics.
A WP leader is not effective in co-ordinating the work	Project achievements incomplete; quality of work of other WPs jeopardized	low	Monthly reports by WP leaders will make it evident soon. Depending on the particular case the MB can (i) agree a new plan with the WP leader, which may imply a broader role of another partner within the WP or major intervention of the coordinator or (ii) change WP leadership assigning to another partner. If required, the coordinator will prepare the request of contract amendment to the EC according to management rules set at the beginning of the project
One partners fails in respecting deadlines, or provides poor results or is unable to provide adequate documentation. Because of the number of partners this is a risk we consider very seriously	Depending on the role of the partner. Lower quality of deliverables; delays in the workplan	medium	Interim report by WP leaders are designed to detect such type of problem as soon as they appear. The co-ordinator will propose counteraction, which may involve changes in the tasks and related budget assigned to that partners in compliance with rules set by the EC contract. The proposals will be approved by the MB in accordance with management rules set at the beginning of the project. If necessary, this can imply a change of partner to be requested to the EC
Non coherent communication and information about Arrow both at national and domain level	Misleading or uncorrect perception of Arrow objectives and advantages for users	low	The WP2 leader will identify discrepancies and inconsistencies in the communication and related sources/responsibilities and give assistance to restore correct flow of information referring to communication strategy and tools agreed (Standard presentation of Arrow, key messages, communication plan)
Possible disalignments between schedule of development of technical work at national level and schedule of work on general infrastructure	Possible technical conflicts and problems in the testing and running of the system	high	Iterative process of design-test-implementation at different stages of development of technical work (central and local infrastructure) to ensure full consistency of the system and allow timely adjustments
<b>Risks derived from events external to the project</b>			
Sustainability analysis for BiP shows lack of sustainability of the BiP infrastructure in certain countries in the absence of continuing external funding	Difficult sustainability after project end of one crucial element of the system, affecting the whole	high (limited to few countries)	Plans for adjusting the infrastructure so to incorporate other sources of information will be designed. Plans for additional fund raising for the countries that need elaborated
Inability to gain comprehensive in-	Difficulty to set up a pilot in the	low	The MB will address international organisation that represent the

**Arrow Plus**

country consensus on participation involving all relevant stakeholders to form appropriate Arrow grouping	country since Arrow information workflow lacks necessary actors and/or consensus		different communities in the consortium to reach positive resolution of disputes. If the case, "second best" solutions for the pilots will be set up
Lack of in-country consensus on requirements	Delays in implementation and reduced performance of the system	medium	The technical group will set the minimal requirements needed to ensure efficient running of the system that must be implemented; bench-marking will be exploited to foster consensus on enhanced requirements that can be implemented progressively
Lack of accuracy and/or comprehensiveness of data in a participating country	Reliability of response by the system is weakened, possible licences issued by RRO on the basis of wrong/incomplete data	medium	The level of reliability of the responses provided by the system will be made clear to possible users, and disclaimers will be set to limit and clarify liability of Arrow and RROs in case of licenses issue on the bases of wrong information. Long term plans to improve data quality will be prepared within the national sustainability plans.
Non contracting partners will not invest on technical development	Incomplete technical development at national level	medium	The MB will explore the possibility to include the organisation concerned as a new partners with a re-allocation of budget or on subcontracting basis.
Uptake of Arrow use is low	Difficult sustainability after project end	medium	The project should remain tailored to users needs. Using the close link with the communities of users, the services developed will be tuned with actual market opportunities
RROs lack mandates to licence orphan works or out of print works and /or there is no RRO	Users willing to digitise must address directly rightholders; digitisation schedule slowed and contract negotiation more complex	medium	Where rightholders are not reachable through RROs, Arrow will anyway offer tools that facilitates direct rights administration by rightholders for the digitisation and making available their works; at the same time, the cooperation between RROs established within the project may foster development of their mandates
No digitisation plans by libraries including copyright works on the short term	No implementation of arrow pilot based on real activities	medium	Existence and interest of other organisation different than libraries with digitisation activities in place will be investigated; as for the pilot with libraries, a simulation of samples for digitisation may be used to demonstrate the benefit of using Arrow

### **B3.3. Project Management**

Because of the large number of partners and supporters, drawn from different communities of interest, the complexity of this project will be a challenge from a management viewpoint. The political value for participants and for their respective communities of interest, and the high level of expectation for the project results, increase the pressure on the project and thus the difficulties in maintaining control.

To cope with this challenge, the strategy is to create a strong and hierarchical governance structure, based on the concentration of the responsibility in the Managing Board (MB), the governance body that will be created at the very beginning of the project. The MB will include all the WP leaders and may co-opt additional members to represent the communities of interest, including data providers.

The MB will have the responsibility for all decision making through the project lifespan: to approve and (when necessary) change detailed workplans for each task, to approve deliverables, to resolve possible conflicts, etc. The MB will convene on regular basis (generally monthly), using conference calls and, when necessary, face to face meetings.

The co-ordinator will lead the day by day execution of the work plan, acting as the “executive office” of the MB. The WP leaders will have delegated power to carry out the tasks described in the work packages. The table below lists the partners that will have WP leadership:

<b>Workpackage</b>	<b>WP leader</b>
WP 1 Project management	AIE
WP 2 Dissemination and network building	IFRRO
WP 3 Organising and coordinating the national initiatives	FEP
WP 4 System enhancement and maintenance	CINECA
WP5: Product management of new registries	MVB
WP6: Inclusion of visual material	EVA
WP7: Validation	UIBK

A set of management rules will be developed, to be approved by the Management Board. Those rules will include a project management tool clearly indicating elements such as tasks, activities, milestones, deadlines, dependencies and responsibilities. This will allow the project management team to have a complete overview of project development within each of the WPs. This will be combined with a mechanism for internal project quality control and the identification of alternative strategies and activities in respect of Critical Success Factors (CSFs), i.e. elements which are crucial to the achievement of the project objectives.

Monitoring and quality control will be under the responsibility of one member of the MB (IFRRO), deliberately different from the project co-ordinator. IFRRO will appoint a “Quality Manager” (QM) who will be responsible for the continuing monitoring of the project work, on the basis of a “Quality plan” that he or she will prepare by Month 3 and that will be approved by the MB. The function of the QM is to act as a *reviewer* of the project work, with particular attention paid to the coherence between interim results and planned outcomes, to identify any problems promptly and to suggest remedies. So, the QM will play a key role in risk management, providing alerts when negative events appear, although the final decision on actions to be taken remains with the MB. The QM may appoint reviewers for specific deliverables or project phases.

The project will be based on a broad network of communities of interest, which may be defined by two variables: the countries where the Arrow system will be developed and validated; and the different domains of the stakeholders and data providers.

As far as national groupings are concerned, for every country ARROW Plus partners will have the task of involving the stakeholder communities (libraries, rightholders associations, CMOs and other data providers) in defining at national level the best strategy for joining Arrow. As far as sectoral domains are concerned, stakeholder communities will discuss their approach and solutions at European level. It is to be noted that in both cases working groups will include (as has been already tested in the Arrow project) organisations that are not members of the ARROW Plus consortium. Non-member commitment is facilitated by the great interest in the project in the different communities. In most cases, the opportunities for meetings with these communities already exist, so Arrow will become an agenda point for those meetings.

In every country involved, there is (at least) one ARROW Plus partner that will act as the promoter of the national WG. Domain-based networks are represented in the consortium by FEP for publishers, EWC for authors, Conference of European National Librarians (CENL) for libraries, represented in the project by The European Library Office, hosted at the National Library of the Netherlands, IFRRO and EVA for CMOS, EDItEUR for ISBN Agencies and ONIX groups. The BIP community does not have similar organisation, though usually BIPs are closely connected to ISBN agencies and/or publishers' associations, which are both represented in the ARROW Plus.

In this broad network, communication management is essential. The key tool will be the project website, in the "members only" section, which will be opened to non-partner participants. All the documentation of the project, including interim versions of the deliverables and minutes of meetings, will be posted to the website to ensure that members of the network are constantly informed in the appropriate way.

The link between the network of national initiatives and the general governance of the project work is the main task of the WP3, which has been created to support the co-ordinator in finalising the activities in the different countries to produce the expected results (definition of state of the art and user needs in the first phase, validation in the second, and preparation of national sustainability plans at the end). This is crucial to the entire project, so that the decision was to reinforce the control.

The entire project management, indeed, is based on a balance between the search for consensus in stakeholder communities and the effectiveness of decision making. The first is essential, since it would be useless to create a system that stakeholders are not prepared to use. However, the search for consensus must not create delay in the workplan. The approach adopted is to limit discussion in the national and domain working groups to technical aspects of the project, on the basis of a precise grid of technical questions to be asked and answered, not allowing a more general debate to influence the decision making timeframe. Benchmarking between countries is also useful as a mechanism to finalise discussions. For example, since the user requirements expected in the first phase need to converge in a single architectural design, if a country is running behind, interim results and minutes of the discussion will be interpreted by the co-ordinator in the light of the results emerging in other countries. This will also create an incentive for any country to provide their requirements in a timely manner, since this is the only opportunity for them to influence the next phase of the work..



**B3.4. Security, privacy, inclusiveness, interoperability, standards and open source**

The development, use and promotion of standards is at the very heart of the Arrow Plus project. Since Arrow is a system for the exchange of rights information within a complex network, standards are particularly relevant in the areas defined according the following grid:

		Functions	
Scope		Identification	Metadata
	Works	ISTC	ONIX for ISTC
	Manifestations	ISBN	ONIX, MARC formats
	Names	ISNI	ISNI metadata - VIAF

How deeply the Arrow Plus is rooted in the standard environment is shown by the presence in the consortium of ISBN agencies, members of the ISTC international consortium and of ISO working group on ISNI, and – above all – of the most authoritative standard setting organisation in the book trade, EDItEUR, responsible for the creation and management of the ONIX standard and managing agent of the ISBN International agency.

The Arrow Plus approach is always to promote the use of standards to achieve interoperability. Supporting the different players in the use of standards for managing the different steps in the workflow is a key value of the project.

For the identification function, this will mean:

- For the identification of book manifestations, the use of the ISBN is entirely “natural” in the book trade, though problems emerge to the extent that digitisation programmes include (as usually happens) books published before the creation of the ISBN standard (1970). A debate has already been stimulated within the ISBN world about whether it is appropriate to assign ISBNs retrospectively to old books. In the meantime, Arrow will continue to use an internal numbering system, which may be turned into ISBNs if the community makes a decision that this is the appropriate way forward. Finally, the assignment of ISBNs to the new “products” resulting from digitisation, which is appropriate in accordance with the standard, is an issue that is also being debated within the ISBN international community. The Arrow Plus project, which includes The European Library as the single point of access to the bibliographic and digital collections of the National Libraries of Europe and libraries-domain aggregator for Europeana, could be the perfect use-case for analysing this need and stimulating decision making for a common policy within the ISBN community.
- For the identification of works, since the ISTC has not yet been widely adopted by the book community, we will continue to foster its adoption, both triggering ISTC registration when an ISTC agency is in place, and promoting the creation of new ISTC agencies where those do not exist yet. Also in this case, the internal numbering system used in Arrow Plus is designed to be ready to be transformed into ISTCs as soon as a scheme to do so exists.
- The ISNI, for the identification of rightholders names, is still under preparation within the ISO. Arrow Plus will remain in contact with the ISNI working group in order to design possible integration within the Arrow workflow.
- For the identification of images, standard identifiers do not yet exist; the project plans to prepare a study that may result in a proposal to ISO to create such a standard numbering system.

As far as metadata schemas and messaging are concerned:

- In the library domain, MARC 21 is the most widely used bibliographic metadata standard for national library catalogues within Europe. The support for this library metadata standard was

already built into the system in the original Arrow project. However, other standards, and in particular UNIMARC, are also significantly used within National Libraries in Europe (ca. 33%). There is therefore a significant need within the library domain to extend the ARROW system to support a wider range of standard bibliographic formats within the Arrow plus project.

- In the Books in Print domain, the use of ONIX is widely accepted. The new databases that Arrow Plus aims to create will be fully ONIX compliant from the outset. In cases where these new registries are not used, the project will support interoperability between the existing resources and ONIX; this will have an impact far beyond the scope of Arrow Plus.
- Similarly, in the RRO domain, interoperability with ONIX-for-RROs standards is key, following the same approach: when creating new databases, they will immediately be fully compliant; if existing databases are used, interoperability with the system will be provided by implementing ONIX-for-RROs.

The direct involvement of EDItEUR in the project consortium is crucial, and EDItEUR will be in charge of guaranteeing that all the technical solutions adopted by the project will be compliant with the relevant standards.

**Privacy.** Dealing with rightholders information can often imply delicate private issues. However, the Arrow system is a network of information sources, each of in which has operated in its marketplace over a long period and is well used to coping with this challenge. Arrow Plus, in this respect, adds nothing to the complexity. We will simply continue to apply the existing policies that members of the network apply, since the Arrow system acts essentially as a simple carrier of information. When a library asks for information about a certain rightholder, it is possible that the appropriate RRO will be able to provide an answer *via* Arrow. It is under the RRO's responsibility (in this example) to manage the implied privacy issues.

### ***B3.5. Resources to be committed***

Most of the resources committed in the workplan are internal resources of the partners, as a consequence of the nature of best practice network of the project, which gets its value precisely from networking partners' expertise and resources. The consortium is highly representative of the players involved both as potential users and as data and technical providers of the system. Additional organisations support the project, providing additional resources that will not be financially reported in the project but will nevertheless contribute towards it achieving its objectives. Because of this characteristic of the project, **subcontracting** is very focused. In Latvia, following a model that is already in place regulating the relation between the association and its members, the Latvian Book Guild will subcontract to one or more of its members part of the work, in particular for what concerns the definition of requirements for the BIP.

A further subcontracting budget has been allocated within the IFRRO and FEP budget, to allow these two partners to reimburse costs that their members (when these are not themselves members of the Arrow Plus consortium) would sustain in joining the system, for example in making RRO databases ONIX-for-RRO compliant. There will be an extensive promotion of the system within these communities, and – depending on the evolution of the demand for “Arrow like” services – RROs or PAs may be willing to join. In these cases, IFRRO or FEP will sign subcontracting agreements with their members, on the basis of covering the costs encountered by their members.

A specific subcontracting is related to the aim of Arrow Plus to create new registries for BiPs and RROs databases, ensuring interoperability among them and with the Arrow system.

For this purpose, CINECA will subcontract the company Medra (Multilingual European DOI Registration Agency) to complement the internal technical staff with specific expertise in designing, developing and managing bibliographic databases based on standards for the publishing sector. Medra's experience in integration of standards and in implementation of services supporting interoperability for data exchange in the book trade for the publishing sector allowed to build an exclusive know how in the field.

In addition to its activity as DOI Registration Agency managing back office services of other Registrations Agencies such as OPOCE and Nielsen Book Data, Medra has expertise particularly relevant for the project:

- the provision of **back office service for the management of the Italian ISBN Agency** including the management of publishers-prefix registration process, maintenance of publishers database and connection with the PIID (Publishers International ISBN Directory), management of the title ISBN database and connection with ALICE, the Italian Books in Print database.
- the creation of the **ISBN-A** (actionable ISBN), which consists of the integration at syntax level of the DOI and the ISBN. This allows to exploit the DOI functionalities associated to the ISBNs, in particular through enabling network resolution (including multiple resolution) directly into the ISBN number.

Medra will be involved specifically in WP4 and in WP5 on tasks devoted respectively on implementation of BIP and RRO infrastructure (Tasks 4.2 and 4.3) and system design and specification of new registries (Task 5.1).

Similarly to what envisaged for the relations between FEP, IFRRO and their members, being Medra a company controlled by CINECA and AIE (both consortium members), subcontracting will include only the recovery of actual costs directly sustained by Medra.

Other resources that may be employed as subcontracting refers to existing framework contracts established by partners of the project with a third party to carry out specific tasks. These are the usual practice of the beneficiaries for a given type of task, and therefore form part of partners' available resources.

Partners will identify in their planning the amount of resources to be allocated to these framework contracts for the fulfilment of project-related tasks and inform the Coordinator accordingly.

IFRRO	138,000
FEP	130,000
LBG	10,000
CINECA	90,000
<b>Total</b>	<b>368,000</b>

A key aspect of the project is the acquisition of data from third parties, when this is not at the disposition of the relevant partners. This will be represented, for the most part, by data owned by wholesalers, internet bookshops or BIPs that are not partners of the project. We have included a total €214,250 in the category "**other costs**" for licensing third party data. According to the results of the preliminary studies, some of the funds allocated for licensing data may be moved to manual data entry for the same data, if this proves to be cheaper and more effective.

The following table shows the breakdown of this funding between partners. Budget allocated to AIE, IFRRO and FEP can be also used to cover any possible discrepancy between current

allocations and actual needs, which will be clear only after the preliminary phase. In particular, this could be used for ISTC registrations, having considered the importance of this standard in the project.

AIE	40.000	ICLA	13.500
IFRRO	19.000	BOEK	3.500
FEP	13.000	MDA	4.500
KB	30.000	HPBA	14.000
APEL	11.000	LBG	14.000
PK	12.750	LLA	14.000
CIELA	10.000	OSDEL	15.000
		<b>Total</b>	<b>214.250</b>

Other cost items included in the category refer to dissemination activities and meeting so including the organisation of meetings, promotional events, ad hoc information materials, upgrading of ARROW website. The distribution of these costs among partners is reflected in the table hereunder:

AIE	24.730
IFRRO	30.000
FEP	8.000
KB	10.000
CIN	18.600
ICCU	10.000
UIBK	8.300
<b>Total</b>	<b>109.630</b>

Finally, as typical of any networking activity, significant travel costs – a total of 515,150 euro – have been planned. The following table reports the breakdown:

AIE	48.000	ICCU	12.000
IFRRO	40.000	ICLA	12.000
FEP	45.000	DI-RO	8.500
KB	24.000	BOEK	9.000
MVB	60.000	UIBK	18.000
CIN	51.000	MDA	9.000
EDI	48.300	HPBA	12.000
APEL	9.000	LBG	12.000
PK	9.000	LLA	12.000
CIELA	9.000	OSDEL	12.000
EKT	9.000	CEDRO	12.750
EVA	10.500	EWC	6.000
CEPIC	9.000	DI-TECH	8.100
		<b>Total</b>	<b>515.150</b>

**B3.6. Dissemination / Use of Results****List of Events & Meetings**

<b>Meeting</b>	<b>Date</b>	<b>Participants</b>	<b>Location</b>
Kick off meeting	M 2	All partners. Supporters and previous Arrow partners will be invited to join	Milan
Technical reviews	M 11, 21	Board members and PO + external evaluators invited by the Commission	Luxembourg or Milan
Clustering meetings	TBD	Depending on the needs of specific meeting	
Frankfurt bookfair participation	Oct 2011, 2013, 2013	WP leaders to promote the project in book community as a whole	Frankfurt
National book fairs	Various	Partners and national groups	Various
FEP Annual meetings	2 times per year	Project coordinator, FEP staff and other partners to promote the project within the European publishing community	Brussels and other cities decided over the time
IFRRO Annual meetings	1 a year	Project coordinator, Ifrro, FEP and other partners to promote the project within the international RRO community	TBD
Presentation to European political stakeholders	At least 1 a year	Project coordinator and other partners as needed to meet EC officers and policy makers	Brussels
Presentation to library community	At least 1 a year	Project coordinator and/or other partners as needed to promote the project within the European library community	TBD
ISBN International annual meeting	1 a year	Project coordinator, Editeur and other partners as needed to promote the project in book standard community	TBD
Final Arrow conference	M 30	All partners and stakeholders in the different communities involved (authors, publishers, CMOs, libraries)	TBD