

Part C - RTD Proposals:
**Description of contribution to EC policies, economic development,
management and participants.**

Cultural Heritage in Regional Networks

REGNET

5 May 2000

Proposal No. IST-2000-25011



*5/5/2000
Commercial in confidence*

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C3 Community added value and contribution to EC policies.

REGNET intends to reach some basic aims:

- The dissemination of the European Culture Heritage facilitating to European citizens the access to catalogues of intellectual, cultural and scientific heritage stored in archives, libraries and museums and galleries
- Integration of e-business into the information systems used in Cultural Institutions
- The development of new and exploitation of existing cultural infrastructures
- The use of standards in the field of information structure, retrieval and e-business
- The interoperability between systems (interoperable access to distributed resources/catalogues: cultural & scientific content and products & services) based on the complementarity of the capabilities of each partner (group).
- The establishment of a service infrastructure which allows to develop a network of (cultural) service centres throughout Europe.

Besides the relevance to EC policies in the area of science and research two initiatives have to be mentioned:

a) "eEurope - An Information Society For All":

In this initiative (progress report; Lisbon, 23 and 24 March 2000) it is stated: "...There is increasing evidence that a 'new economy' or e-economy is emerging, mainly driven by the Internet. The European response to these opportunities and challenges has been rather slow, partly because the logic of the traditional industrial economy remains strong in Europe". This is also valid for cultural industries and institutions. REGNET will support the service infrastructure of cultural industries and institutions but this needs a restructuring of business organisations which normally is a long-run process. It is essential to identify the possibilities to incorporate the internet throughout the production and distribution chain. This will be addressed by several 'building blocks' of the REGNET system: the (distributed) search system, the electronic publishing subsystem, and both connected to the e-business component. Another aspect relates to the access to 'service centres' constituting the REGNET (European wide) network: the mobile phone penetration in the EU has passed in 1999 already the number of 150 Mio subscribers. REGNET has recognised a potential for broad access to cultural heritage related data and services and will integrate WAP access into the system.

b) "Draft Recommendation No.R(98) ... on cultural work within the information society - New professional profiles and competencies for information professionals and knowledge workers operating in cultural industries and institutions".

Within this context 'cultural institutions' are identified as 'public, semi-public or private institutions, which perform a mission beyond the commercial interests, consisting in providing cultural products and services and making them accessible to a large public. In the new electronic environment, cultural institutions are in the process of fully digitising their services, both at the stage of production and distribution to users.' This last sentence is not valid for most of these institutions, since very frequently those organisations are not aware that a WEB-site could also be a portal to business. REGNET will change this attitude and enable those institutions to sell products and services over the internet as well as enable cooperative work amongst themselves and other industries and partners.

On the technical side, REGNET will build upon distributed databases for a global search and retrieval and e-business components supporting business to business (B2B) and business to customer (B2C) relationships. In that way the effect of a common search and retrieval throughout different types of cultural & scientific and business oriented information must result in an increasing access to the resources of archives, libraries and museums.

To achieve a critical mass of products (digital as well as physical) and services it is necessary to bundle the capacities of different stakeholders coming from the cultural institutions and industries. REGNET will achieve this target by setting up an European wide demonstration initiative including

three types of organisations: Content providers, service providers, and organisations providing 'access points' to the REGNET network. To get realistic results from a trial service (included in the REGNET demonstration phase) a remarkable number of organisations spread all over Europe have to work together. For that reason REGNET has an extensive number of partners coming from 12 European states and grouped into 6 regions (each region has at least one technical centre, running the REGNET system and a 'regional pole' which is responsible for the organisation of the network). The REGNET service centres can be considered as the kernel of a future network which should be able to grow fast by integrating additional institutions at all partner levels. This network will be open and accessible to different users like experts, students, home users, tourists, etc via different means, one of them the emerging wireless communication facility enabled by the still fast growing mobile telephone market.

To be in line with these objectives REGNET has set up a large European Consortium based on different types of organisations (mainly cultural industries and institutions), both users and (content & service) suppliers, with different approaches to the problem of distributing information, products, and services through Internet. They represent a wide range of expertise (libraries, archives, universities, new media, data bases, etc.) in processing documentary and electronic information (meta data and digital surrogates), and in developing and implementing software applications and solutions.

C4 Contribution to Community social objectives.

Introduction (as outlined within the framework of IST-projects)

"The great strength of the cultural heritage industry is its ability to provide content for educational purposes, for leisure and entertainment and for enhancing the quality of life. In Europe, the diversity of its cultural heritage content makes it an enormously rich content provider. A strong European content industry improves competitiveness in this field, thereby creating job opportunities. Seamless access to the content of the three domains provides access to an unrivalled and rich tapestry of information."

REGNET addresses several of the major social issues included in the IST programme and other initiatives (like the recommendation to the European Parliament, outlined in the previous section):

1. Quality of life in addressing some of the key actions of IST Programme:

Quality of life is the major theme in the 5th FP of the EU to create 'a user-friendly information society', to improve the accessibility, relevance and quality of services, to build a true multilingual and multicultural information society. In the IST Programme some of key actions defined are specially relevant for REGNET, *Systems and services for the citizen* and *Multimedia content and tools*

REGNET has the aim of meeting the needs and expectations of European citizens, enabled by Internet, to access the catalogues, (cultural, intellectual and scientific, business oriented) contained in cultural institutions like archives, libraries and museums. REGNET will focus specially in the field of access to digital and cultural content and enabling business based on that data. This will also have strong influence in further applications in the field of education and training, and, above all, in self-education or long-life education, beside the effects on democratisation of the access to culture and information.

2. Employment: Information society is the place where employment will come from in the future. So, any contribution to advances of the Information society will contribute to employment. In addition, there are specific factors that contribute to employment as far as REGNET is concerned:

- European Information Competitiveness: improving information society technologies to compete in the global information market, supplying information not easily accessed and using standards and technologies that are considered of great impact in immediate future.
- European Cultural Competitiveness: Contributing to make visible the potential of European culture and creativity as well as cultural diversity
- Implementation and extension of information processing standards

3. The structural challenge: "Public powers, cultural industries and cultural institutions need to

react to the tendency towards a conversion of traditional cultural agents beyond established sector-specific boundaries. The future professional model for the digital sector will be the 'interface manager' who has responsibility for the co-ordination of different steps in the production chain from the idea to the (digital or physical) product. So far, cultural industries and institutions subcontracted many of the tasks fulfilled by such profiles to external parties". If they want to take up the challenge offered by the information society, they should now look for new models for cooperation or perform internally different business processes. The technical infrastructure provided by REGNET will support both possibilities and enable especially the cultural institutions to take over an active part within the supply chain delivering digital (or physical) products and services.

C5 Project management

5.1 PROJECT MANAGEMENT STRUCTURE AND CO-ORDINATION

The management structure, techniques and procedures to apply in the project have the following objectives:

- To manage and control the project's resources, schedules and activities.
- To ensure the integration of the business and software related tasks.
- To check the consistency between the developments and the strategic objectives of the partners.
- To ensure the overall quality of all systems results.
- To coordinate the REGNET-network on a European scale.

The management structure will be based on a small number of committees and members, with the objective of improving the overall flexibility and swiftness of the decision processes:

- **Project Control Group (PCG).** - Formed by the co-ordinator (AIT) and the Project Manager (TZ). These two partners are responsible for the administrative procedures as well as for the Technical Management of the REGNET Project.
- **Project Management Group (PMG).**- Formed by the Project Control Group and five Work Area Managers (WA-A: Content Engineering (SPAC); WA-B: Platform Engineering (ZEUS); WA-C: Enterprise Engineering (VALT); WA-D: Domain Management (IMAC); WA-E: Region Management (TARX)) plus two Technical Group Managers (Interface/End User Devices: MOT; Object/Catalogue Management (SI)). It will be responsible for the overall management (co-ordinating legal and ethical issues), technical management (major decisions regarding work contents, configuration & change control, QA & self-assessment), revision of internal documentation and dissemination, and relationship with EU officers and third-party organisations. PMG will join at least every 3 months.
- **Extended Project Management Group (EPMG).** - Formed by the PMG plus all other contractors of the REGNET Project (that means one management representative from each partner). This group convenes on the occasion of main project events (kick-off, milestones, contingency, etc). It is possible to delegate a voting right to another partner in advance and written form to the co-ordinator.
- **Project Team Group (PTG).** - Formed by partners working together on task level either within the development phase (I) or demonstration phase (II). These meetings - if necessary - are announced by the Work Area Managers on request by work package or task managers, who will be responsible for the organisation of meetings.
- **Exploitation Committee.**- Formed by one management or marketing representative from the commercial partners, and will be responsible for exploitation plan and approval of dissemination activities. Other partners will occasionally participate in the meetings.
- **Users Group.**- Formed by partners acting as Content Providers or Regional Poles. Other partners can be nominated on request. It is intended to extend the group by partners external to the project to enable the growth of the network.
- **Task Leaders.**- Each Task will have a responsible of its specific actions (controlled by task briefs) and results. For each work package, one of the Task Leaders will also act as **Workpackage Leader** for common WP issues.

A Steering Committee composed by one senior representative of the partners could be settled for decisions in case of problems at lower levels. A Consortium Agreement will be signed by the partners not later than six months from the start of the project, detailing management, responsibility and exploitation issues, including intellectual property and commercialisation rights.

Quality assurance procedures

The following quality assurance procedures will be implemented:

- A **project electronic repository** will be accessible to the consortium members, where all common project information and shareable code of the project will be stored and updated. The Coordinator, Project Manager and the Task Leaders will provide and maintain all information at the project, task and deliverables levels. All project documentation will be prepared and stored in the Electronic Repository by the corresponding responsible in a common format. All generic documents (deliverable, minutes, common reports, . . .) will be normalised to maintain homogeneity in the project. The deliverables will be issued by the Task Leaders after a QA revision procedure, and released by the Project Manager.
- The **meetings** will be organised by the concerning group, committees or Task Leaders, according to the needs of the project, and will require pre-agenda and the meeting minutes, for comments and approval of the attendants. All project milestones will produce a meeting with the EPMG and the involved Task Leaders.
- A collection of **software engineering** (Change Management, Configuration Management and application program interfaces standards) will be agreed in order to ensure the correct integration of the modules developed by the different partners. A support responsible will be identified to provide the necessary support to the users. The **validation of the Designs, the Integration and Validation plans and the results of the tests** are key issues of the QA, so there will need to be formally approved by the PMG.
- A document detailing contact data, responsibilities nomination and related information (e.g. escalation procedure for problem resolution) will be issued at the project kick-off meeting and maintained by the Coordinator (AIT).

Allocation of management responsibilities

Angewandte Informationstechnik GmbH (AIT) as Co-ordinator and responsible for the **Administrative Management** will delegate responsibility for the **Project Management** to Techno-Z (TZ). Both partners form the **Project Control Group**.

The **Project Control Group** will be responsible of the performance of the following tasks:

- * Production & consolidation of periodic progress reports, and co-ordination of the project final ones. Cost statements consolidation, and financial co-ordination.
- * Scheduling of project resources and surveillance of resources and work-content deviations.
- * Interfacing with EC officers and external reviewers. Co-ordination of the periodic progress reviews.
- * Internal storage and dissemination of the information (communication strategy), plus any other common effort related to project co-ordination.

Each **Deliverable** and **Task** will have a **Leader (TL)**, nominated by the corresponding partner (see part B). He/She will have technical responsibility for:

- * Task specific actions and results and the adequate progress towards its functional and quality goals.
- * Co-ordinate task level meetings and compile all required information from the Task participants and produce/review/approve the final Deliverables and reports for the Management Groups.

TL will define the structure and overall index of the Task deliverables, complying with the management guidelines and set up 'task briefs' which lay down the work to be done within a task. TL will distribute the responsibilities required to adequately accomplish the Task between the participant partners considering their profile, experience and assigned manpower.

Each partner will also nominate a person (a member of the EPMG or a Task Leader), responsible of recording and reporting the partners' details regarding spent resources, changes in the key persons, . . .

Internal Reporting will include the management and exploitation reports produced by the **PMC** and the **ExC**, plus a Partner Monthly report including for each partner or cluster consortium:

- Partners and involved Tasks identifications Achievements & deliverables in the reported period

- Status of any conflict affecting the task
 - Resources spent in the reported activity period
 - Percentage of technical advance of each task
- Deviations & team changes from original plan
Technical and resources forecast for the next

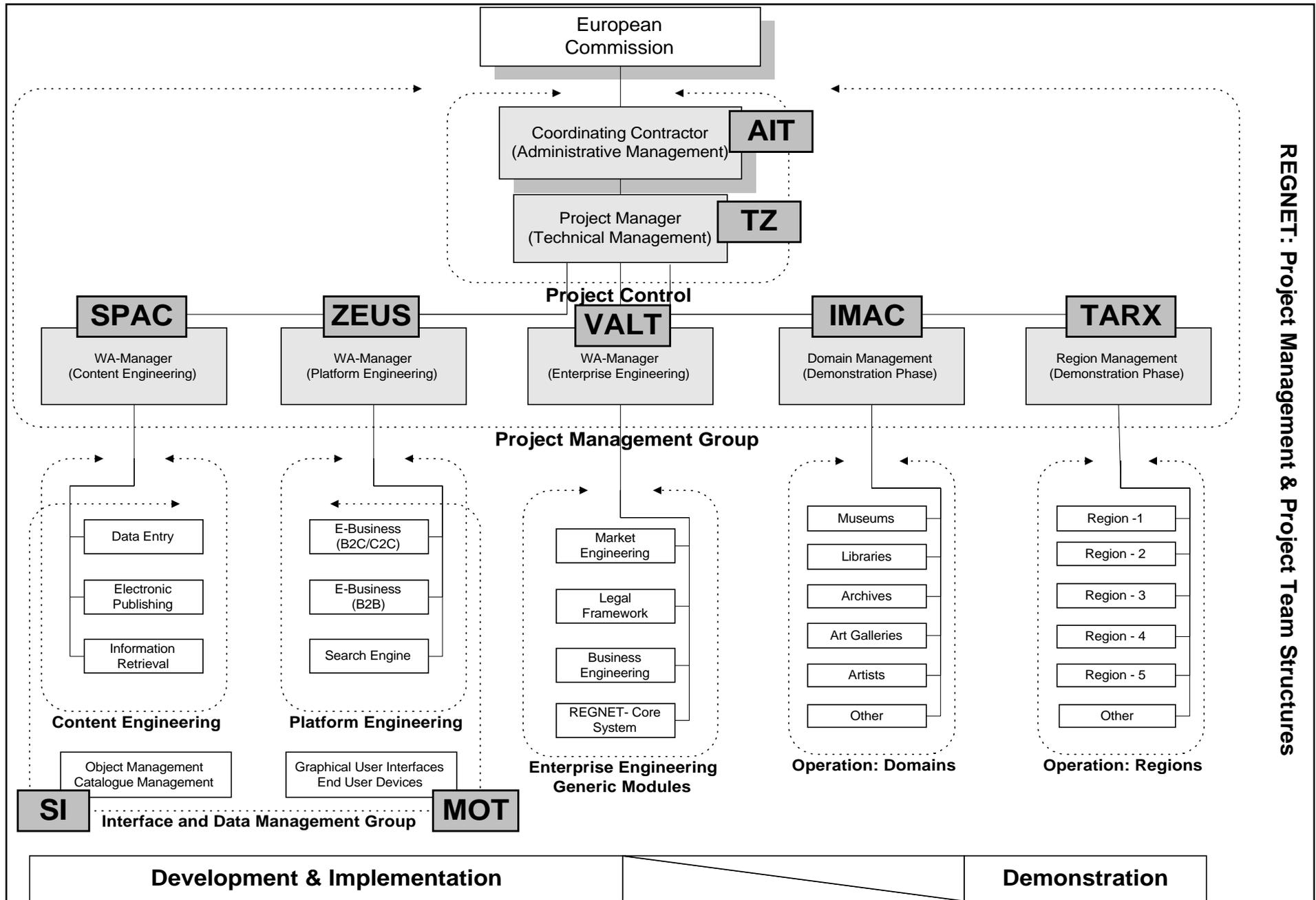
External Reports and Reviews

External reports will be produced by the Project Control Group and reviewed by the PMG according to the EC contract rules, including:

- The **Quarterly reports** will include a brief summary of the internal monthly reports.
- The **Progress reports** (6-month periods) will include more detailed summaries of the monthly reports, overall project status plus the cost-statement reports from each partner.
- The **Final report** will include summaries of all points above mentioned, plus summaries of technical works, achieved objectives and conclusions.

The Consortium will propose periodic Six-Months Review Meetings with the EU officers and external experts, but will be open to any other schedule proposed by the Commission.

The structure of the overall management structure can be taken from the following figure:



C6 Description of the consortium

The REGNET Project includes a series of partners of different nature since it covers development and demonstration activities. Another reason to have a wide range of different partners is that the REGNET Project is the starting point of a European wide network of service centres in the field of Cultural Heritage. The partners are coming from 12 European countries including non-EU member states.

- **Content Providers (C)**

8 Partners provide content of different nature: library material, surrogates of museum objects and photographs, posters, art work. Most of them are famous and well know like the Alinari Photo-Collection, the Austrian Portrait Collection or the Linne-Collection from Sweden. Some of them are running museum shops which provide data for the REGNET e-business system. The REGNET data entry facility (Data Generation) subsystem enables the content providers to input meta data and digital content into their repositories. The clientele of these organisations act as end users to the system. The content providers are: ONB, LMG, NRM, KVA, ALI, MECH, RCM, GRAN.

- **Developers (S)**

The building blocks of the REGNET system are developed by several specialised IT companies. They are experts in the creation of cultural heritage related information systems, distributed search systems, e-business systems, WEB portals, electronic publications, etc. One partner (MOT) is developer of mobile phones and provides access to the REGNET System via the WAP protocol. Most of them have been or are involved in relevant European Research projects in the 4th and 5th FP. The developers are: TZ, SIE, SI, ITI, VALT, TINC, MOT.

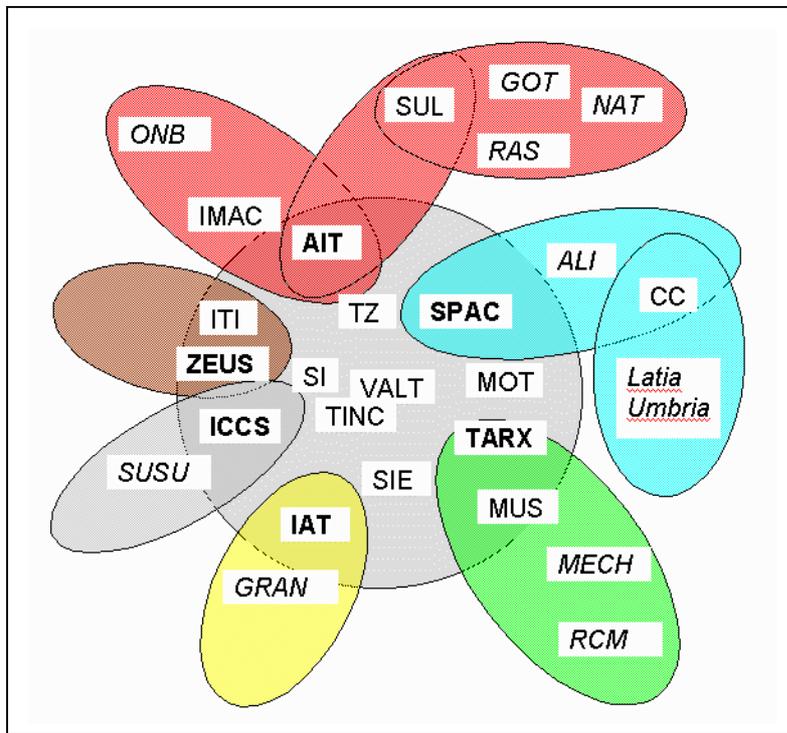
- **Regional Poles (B)**

To provide access to the REGNET network coordinating organisations (also providing access to the network) are needed as well as technical partners who provide the infrastructure necessary to run a REGNET system. They are called 'business access points' and are: SUL, MUS, CC, SUSU, IAT.

- **Developers/Regional Poles (S, B)**

There are some partners who have two- or many fold roles. They are acting as developers as well as 'regional poles'. Some of them are also offering data bases like a Suisse Poster collection catalogue or the Datenbank Schweizer Kulturgüter. These organisations are: AIT, IMAC, TARX, SPAC, ZEUS, ICCS.

Some of the partners (CC, ICCS) already have arrangements with regional associations (eg. museums, artists) which provide a basis for further extension of the REGNET network of service centres.



Due to the real European dimension of the REGNET partners this project has the potential to be the kernel of a fully functioning network of service centres in the field of Cultural Heritage. The partners are coming from following countries: Austria, Belgium, Bulgaria, France, Germany, Greece, Netherlands, Italy, Russia, Spain, Sweden, UK.

The majority of partners are grouped to provide services within a region:

Region-1: AIT, ONB (Austria), IMAC (Germany), SUL, LMG, NRM, KVA (Sweden)

Region-2: TARX, MECH (Belgium), MUS (Netherlands), RCM (UK)

Region-3: SPAC, ALI, CC (Italy)

Region-4: IAT, GRAN, SIE (Spain)

Region-5: ZEUS, ITI, SI (Greece)

Region-6: ICCS (Bulgaria), SUSU (Russia)

As a summary, the roles for each consortium partner are as follows:

REGNET Consortium				
Nr.	abbr.	Name	Ctry	Role(s)
1	AIT	Angewandte Informationstechnik GmbH, Graz	A	S
2	ONB	Austrian National Library	A	C, B, S
3	TZ	Techno-Z Forschung & Entwicklung GmbH	A	S, B
4	IMAC	Information & Management Consulting, Berlin	DE	C, S
5	SUL	Stockholm University Library	SE	C
6	LMG	Lansmuseet pa Gotland	SE	C
7	NRM	Naturhistorika Riksmuseet	SE	C
8	KVA	Royal Swedish Academy of Science (Kungl. Vetenskapsakademien)	SE	C
9	TARX	TARX N.V., Hofstade	BE	C, S, B
10	MECH	Regional Museum, Mechlin	BE	C, B
11	MUS	Museon, Den Haag	NL	C
12	RCM	Royal Cornwall Museum	UK	C
13	SPAC	SPACE S.r.l.	I	S
14	ALI	Fratelli Alinari SpA, Florence	I	C
15	CC	Consorzio Civita, Rome	I	C, B
16	SIE	Sistemas Expertos SA, Madrid	ES	S
17	GRAN	GRANOLLERS CITY COUNCIL, GRANOLLERS	ES	C, B
18	IAT	Instituto Andaluz de Tecnologia, Sevilla	ES	S, B
19	ZEUS	ZEUS Consulting S.A., Patras	EL	S
20	SI	Systema Informatics SA, Athens	EL	S
21	ITI	Informatics and Telematics Institute, Thessaloniki	EL	C, S
22	ICCS	Institute of Computer and Communication Systems, Sofia	BUL	C, S
23	SUSU	Southern Ural State University / Regional Centre of FREEnet, Chelyabinsk	RU	C, S
24	VALT	ValTech, Toulouse	F	S
25	TINC	Terra Incognita Ltd., London	UK	O
26	MOT	MOTOROLA, Turin	I	S

C7 Description of the participants

7.1 ANGEWANDTE INFORMATIONSTECHNIK

7.1.1 Presentation of Angewandte Informationstechnik GmbH

Originally founded and registered in 1979 in St.Veit/Glan in the Austrian member state of Carinthia (Kärnten), AIT moved to Graz, the capital of Styria, in 1983. During the first phase of operation (1979 - 1983) AIT did very well in the saw-milling market with its product SAMIS: Sawmill Management Information System.

From 1983 onwards AIT specialized in information engineering and development of information systems tailored to the complex environments for clients in very different markets. We developed automation systems for numerous projects in the fields of public administration and industry management applications. Due to our comprehensive experience we also successfully carried out change management of IT-environments.

Our customer base comes from the industry as well as from the public administration. One of the main customers is the local administration of Graz (Magistrat Graz). Dedicated Information Systems based on midrange computers (UNIX-style) have been developed for more than a dozen departments and AIT provides ongoing support services for the clients. Other governmental customers come from the regional government (workflow management system), political parties (newspaper archive) or the Ministry of Education (Database and publication of the "Österreichische Schulstatistik" (Statistics on Austrian Education) in co-operation with the Austrian publisher Druckservice Styrian).

Industry projects include for example the automation of the production process of a window producing company, sawmills or automation of the administration of sales departments at a newspaper company, a record distributor or a jeweller's shop.

Multimedia projects include an information system for jewellery, for audio-visual archives, an image documentation system for law related iconography and a management system for a collection of various types of documents referring to computer history.

An integration project in cooperation with the Austrian branch of the Computer Science Corporation has led to the redesign of the IT-infrastructure of the community of Graz a medium sized Austrian town.

Research work is focussing on the application of interoperability standards in world-wide search and retrieval of cultural information (Z39.50).

From 1997 to 1998 the company also participated as 3rd party assistant for the project MOSAIC (Museums Over States and vIrtual Culture) of the European Union TEN-Telecom Programme.

Recently AIT has been involved in the national project MODOK (Modular Documentation System) of the Austrian federal ministry of Science and Traffic in which a digital archiving software for collections is being developed.

Currently AIT is partner in the EU-funded project COVAX - Contemporary Culture Virtual Archives in XML (Start of the project: 1.1.2000, work programme: IST-Programme - Information Society Technologies). The purpose of COVAX is to analyse and draw up the technical solutions required to provide access through the Internet to homogeneously-encoded document descriptions of archive, library and museum collections based in the application of SGML/XML. The project will demonstrate its feasibility through a prototype containing a meaningful sample of all the different types of documents to build a global system for search and retrieval. It is based on the assumption that in libraries, archives and museums an enormous number of descriptions could be made available over the Internet by converting existing records or by creating new ones to specific SGML/XML DTD's.

AIT is also involved in the establishment of a database containing posters (Basler Plakatsammlung). Within this project the whole poster collection (approximately 40.000 posters) has been digitized and converted to a (Z39.50) searchable database containing texts, card images and digital surrogates of the posters.

7.1.2 Project Involvement

Co-ordinator, **Supplier**, Service Provider and System Integrator

7.1.3 Curricula vitae

Dr. Walter Koch

Dr. W. Koch received a PhD in Mathematics and Physics from University of Graz in 1970. He is shareholder and director for AIT Ltd. (Angewandte Informationstechnik Ges.m.b.H.), and is an Associate Professor at the University of Graz and Guest Professor at the University of Krems.

Prof. Koch's relevant experience includes:

- From 1976 to 1998: Head of different research institutes at JOANNEUM RESEARCH Ltd. In Graz:
- Consultant to different national and international organizations (eg UNESCO, DFG, EC, Austrian ministries, Graz municipality)
- Member of several international and international scientific associations (eg. ICOM, ÖGDI, ONORM, VÖB, UNESCO)
- Project experience: bibliographic information, information systems, IT-management, EU Projects (TAP, Raphael, TenTelecom, IST), ESA, CIMI

Prof. Koch has published more than 70 papers and technical reports, and presented papers in four continents at least at 100 conferences, seminars and workshops.

Bernd Gollesch

Bernd Gollesch finished the College for aircraft engineering at Langenlebarn and a postgraduate studies in automation technique. Since 1994 he is working for AIT, Applied Information Technique Ltd., where he is in charge of the company's network technologies. As an expert for INFORMIX-Databases and UNIX-Systems he has realised several projects on information administration systems for the local municipality (eg. social assistance office, housing office, home for old aged, highway board department...). He has also worked in the development of a database publishing system for the Austrian Statistics on Non-University Education, and a digital archiving software for newspaper archives and audio-visual archives.

Mag. Gerda Koch

Mag. Gerda Koch received a Master of Arts in English with a combination of studies in Economics and Law at the University of Graz, and also received an academic degree in a course of studies on Multimedia at the University of Graz. Since 1991 Mag. Koch is employed at AIT, Applied Information Technique Ltd. There she worked for diverse informatics projects as eg. a production automation system for a window-producing company, or the database publishing production of the yearly published Austrian Statistics on Non-University Education. She also collaborated in the European Union TenTelecom project MOSAIC (Museums Over States And vRtual Culture) for the Austrian partner of the project. Since 1998 Mag. Koch is managing director of AIT Ltd. She now focuses on cultural digital content provision as she works for the national project MODOK (Modular

Documentation System) for the Austrian Ministry of Science and Traffic and the EU-project COVAX (Contemporary Culture Virtual Archive in XML).

7.2 AUSTRIAN NATIONAL LIBRARY

7.2.1 Presentation of Austrian National Library - Österreichische Nationalbibliothek

ONB maintains and administrates a rich heritage from antiquity to the 20th century: the department of photography and print art administrates and gives access to ca a 2 million pictorial objects of various types (print art, paintings, photographs, art books). Photographs are made available to science, publishers, film, TV, educational and commercial purposes- World wide orders. Ca 1,4 Mio index cards enable access to the catalogue. The card catalogue has been converted in machine readable form in summer 1999, due to a software ANB developed for conversion of its library catalogues (http://www.onb.ac.at/online_s/onkafr.htm).

7.2.2 Project Involvement

Associate Partner, **User**, Content provider, **Service Provider** and System Integrators, **Business** and Service Access Point

7.2.3 Curricula Vitae

Hans Petschar

Hans Petschar, Dr. phil., Historian, Librarian, New Media Designer. Fellowship at the Austrian Academy of Science, lectures at the University of Salzburg and Vienna. Since 1986 at the ONB: 1994-1996: concept, scenario and project management for the Multimedia encyclopedia of the ONB (Österreichische Nationalbibliothek-Multimediale Enzyklopädie. 3 CD-I Wien 1996); 1996-1997 project manager for the INTERNET-presentation of the ONB. Since 1998: Ad joint director of the Portraitsammlung, Bildarchiv, Fideikommißbibliothek at the ONB, project management for the reorganization plan of the archive and the development of a digital image-archive.

7.3 TECHNO-Z FORSCHUNG & ENTWICKLUNG GMBH

7.3.1 Presentation of Techno-Z Forschung & Entwicklung GmbH

Note that the name of the organisation will be changed to „Salzburg Research Forschungsgesellschaft m.b.H.“ on May 15th, 2000. Techno-Z Forschung & Entwicklung GmbH (referred to as „Salzburg Research“ within this document) is a non profit research organisation which is 100% owned by the State of Salzburg. It is located at the Salzburg Techno-Z, the regional technology park, which is one of the largest information technology incubators in Europe.

Salzburg Research, which employs about 50 researchers, provides support and scientific evaluation in the development towards a knowledge society. Its mission is to analyse the impact of new media & information and communication technologies on society and economy, as well as to provide guidance for best practice. Activities of Salzburg Research include:

- Studies on the social and economic impact of new media & information and communication technologies

- Market analysis and strategic developments
- Organisation of educational programmes in using ICT
- Awareness raising and knowledge transfer activities
- Organisation of events (seminars, conferences, workshops)
- Multimedia production and application development
- Participation in thematic networks
- SalzburgNewMediaLab: competence centre for multimedia technologies (applied research and development)

Salzburg Research offers its services to local, national and European organisations. Clients are mainly public bodies such as governments, public administration, libraries and other educational and social institutions.

Salzburg Research co-operates with private companies in pre-competitive research & development projects. Partners include Informix Software, Telekom Austria and Sun Microsystems. Together with partners, it has developed the SalzburgNewMediaLab, a competence centre for multimedia technologies.

Selected Projects

COVAX

Contemporary Culture
Virtual Archives in XML
(IST-1999-11820)
(2000-2001)

The purpose of COVAX is to analyse and draw up the technical solutions required to provide access through the Internet to homogeneously-encoded document descriptions of archive, library and museum collections based in the application of SGML/XML. The project will demonstrate its feasibility through a prototype containing a meaningful sample of all the different types of documents to build a global system for search and retrieval. It is based on the assumption that in libraries, archives and museums an enormous number of descriptions could be made available over the Internet by converting existing records or by creating new ones to specific SGML/XML DTD's.

COVAX is an RTD project in key action line III.2.4 (digital preservation of cultural heritage) of the IST programme. The consortium is lead by the Spanish „Residencia de Estudiantes“. Amongst the principal contractors there are: Software Ag Espana S.A. (E), University of Karlskrona/Ronneby (S), Universitat Oberta de Catalunya (E), Biblioteca Menendez Pelayo (E), ENEA (I), LASER (UK), Angewandte Informationstechnik GmbH (A)

MAGNET

Report on the Multimedia
Market in Austria
(1999)

A national survey examining the structure of the sector for interactive digital media, conducted in 1998/1999 as a supporting action for the ESPRIT Multimedia domain. Questionnaire survey among Austrian multimedia companies and a report on the regulatory framework for multimedia in Austria.

InfoWin / InfoBridge
(1996 – 1999)

As a Horizontal Action project, InfoBridge (the "ACTS Multimedia Information Window") has set up a network for publishing information about the ACTS projects. Services provided include the biweekly Headline News, the quarterly Hybrid Bulletin (a publication containing a floppy disc or CD-ROM as well as it points to the Internet) and special thematic issues. Infobridge also supports an Intranet for the ACTS community.

<p>Digital TV in Germany and Austria (1998-2000)</p>	<p>Contribution to a European Commission study on digital TV, lead by IDATE (France). Salzburg Research contributes the market surveys for Germany and Austria.</p>
<p>Austria's Content Industry (1997)</p>	<p>Report on the "Content Industry in Austria" (1997). The report estimates the market volume of the content industry, describes the main players and their business models, and draws conclusions and recommendations on how to improve the environment for the content industry (regulatory issues, market development, user behaviour).</p>
<p>The Content Challenge. <i>Electronic Publishing and Information Engineering</i> (1997)</p>	<p>Report on the challenges of the interactive digital services industry for Information Engineers. The study analyses the market structure of Austria's content industry and develops a competence model for the strategic positioning of industry actors. Based on this analysis, recommendations are given for a positive industry development.</p>
<p>Strategic Developments for the European Publishing Industry towards the Year 2000 (1996)</p>	<p>Together with Andersen Consulting (Germany). European Commission study (DG XIII) analysing the impact of the emerging interactive media markets for the traditional publishing industries. The study was published in the context of the INFO2000 programme in November 1996.</p>

Central to the findings are the developments in the field of online publishing and the explosion of Internet-based services that use the World Wide Web. The study outlines the options for strategic positioning to enable the European publishing industry to remain ahead of its competitors as we approach the 21st century.

7.3.2 Project Involvement

Associate Partner, **Supplier**, Service Provider and System Integrators

7.3.3 Curricula vitae

Prof. Dr. Peter A. Bruck

Senior Researcher, Head of Research

Peter A. Bruck was born 1950 in Vienna. He studied law, economics and sociology at the University of Vienna. After his first Doctorate he went to the US and Canada where he completed degrees in sociology at the University of Iowa and in Communications at McGill University. He taught at universities in Canada, US and Europe and has been as visiting Professor to Israel and Poland. He has over 20 years of consulting experience in the area of communication and information technologies in Austria, Switzerland, Germany, Poland, the US and Canada. Peter A. Bruck is currently Head of Research of Salzburg Research. He is also Honorary Professor of Information Economy and New Technologies at the Institute of Economics, Faculty of Law, at the University of Salzburg and Research Professor of Communication and Journalism at Carleton University, Ottawa, Canada. Peter A. Bruck has published and edited numerous books, research reports and scholarly as well as professional articles in the fields of communication studies, media and information economics, telecommunication development, cultural study and sociology.

Georg Güntner

Senior Researcher, Head of SalzburgNewMediaLab

Mr. Güntner studied informatics at the Technical University in Vienna and finished with a diploma in theoretical informatics in 1985. He worked at an Austrian software company developing software in the field of computer graphics, computer aided design and workflow management. Later he joined Salzburg Research as the leader of SalzburgNewMediaLab which is the Austrian center of excellence

for new media technologies. He specialized in online databases, web publishing and multimedia database technologies as well as document exchange technologies based on recently developed document models (XML and ongoing research). Further studies covered the optimization of the multimedia production process.

Robert R. Mulrenin

Researcher, Senior System Analyst

Mr. Mulrenin is an applications and database designer and developer with experience in the insurance industry, the biotechnology research and medical fields. He co-developed a mission critical Cash Flow management system early in his career for a major US insurance company. He has diverse training in systems design, business applications development, research statistics, molecular biology, medical clinical research including software and database development for clinical studies. He was a Systems Manager and evaluated research proposals for a national GCRC (General Clinical Research Center) in the United States. He was a scientific researcher, he cloned insulin gene fragments with GFP fluorescent markers, studied their expression in developing zebrafish embryos, and created multimedia databases for further studies. He is also a technical expert with strengths in internet-related technologies, web database and print catalog solutions for IPR (intellectual property rights) and multimedia, XML applications research, data standards for EDI and multimedia. Degrees: B.S. and M.S.

Alexandra Köckerbauer

Researcher, Software Developer

Ms. Köckerbauer has joined Salzburg Research in February 1999 and is now working as a database administrator and developer in SalzburgNewMediaLab, the Austrian Competence Centre for multimedia. She brings in knowledge of database and unix system administration as well as experience in testing database applications during the process of development and training their users.

In her current position she is responsible for installation, upgrades, monitoring, performance and storage tuning, creating databases and data migration. Additionally she deals with various aspects of design and development of front-end applications and relating tools. The main emphasis on her work is put on the administration and development of multimedia database applications. Project involvement

7.4 INFORMATION & MANAGEMENT CONSULTING

7.4.1 Presentation of IMAC Information & Management Consulting

IMAC was founded in March 1995 as a Steinbeis Transfer Center - with the purpose to promote a direct knowledge transfer of science in organisations of the information economy. In 1998 the transformation in an independent partnership under the direction of Dr. Josef Herget took place (Trade Register n° 973, Amtsgericht Konstanz).

Today IMAC employs approximately 20 co-workers (employees, freelancers, trainees) at 2 locations in Germany: Constance and Berlin, whereas Constance is the head office, Berlin just a branch (since August 1999). For the Swiss activities around the take-over of the "Datenbank Schweizerischer Kulturgüter" (DSK) and the development and application of new media services for art and culture the subsidiary Art & Media Consulting (AMC) was founded in 1998. The location of this subsidiary is Kreuzlingen (Switzerland).

The following subjects characterise the main activity of the company:

- Internet Services
- E-Commerce
- Information Management

- Knowledge Management
- Knowledge Transfer (Training)

The primary object is to advise all kinds of enterprises on possibilities and potentials of new information and communication technologies and support them during the introduction / implementation process (project coaching, technical advise etc.). Only the effective application of new technologies will ensure the availability of information and knowledge and will decide on the future business success.

Global know-how in different application fields, which is constantly extended in numerous projects of national and international adjustment, was united in a broad service spectrum Consultation, conception, Web Design and training are part of the Internet-based services. Besides the conception and operation of several online communities (e.g. www.arte24.ch, www.arte24.net, www.senioren24.net, www.dika.net) and the participation in Internet-based e-commerce activities (e.g. SET) play an important role.

The Consulting area is specialised on information and documentation topics (e. g. information systems for libraries, information and knowledge management). Economical, technological and methodical knowledge enables us to develop suitable strategies for the introduction of information and knowledge management, to support the evaluation and selection of new information systems (library systems, content management systems, knowledge management systems) and to handle technical problems.

The following are some examples for projects in which IMAC was involved in the past years:

NBE (1997-98) / NBE-BIS (1998 - 2000) New Book Economy / Building of the Information Society (www.nbe.de)

Analysis of user demands according to electronic publishing products. Development of a market study for the online market. Development of a database for the central resources of the project (www.nbe.de/bookmarks). Execution of a Delphi study in order to forecast the development of the content industry. Conception of co-operation models between key players of the publishing industry and new players on the market (e. g. content providers and service providers).

ETTN - European Technology Transfer Network (1999)

Execution of a market study for the planned ETTN in co-operation with the institute TNO-STB, Delft, Netherlands on behalf of the EU. In detail: Study on the State-of-the-Art of technology transfer systems, determination of requirements of potential users, development of a marketing plan for the introduction of the system.

DeMes, Development of Media Services (1998)

E. g. Analysis of the demand for intelligent tools for the orientation of users in complex media markets.

A special project to be emphasised is Arte 24 (a project of the Swiss subsidiary Art & Media Consulting). In continuation of the ideas and objectives of the "Datenbank Schweizerischer Kulturgüter" new media are made an integrative part of a new approach in order to support the preservation and availability (search) of cultural properties. Museums of all kinds and size are merged into an Internet-based network, a central database of "Malerei und Skulptur in Schweizerischen Sammlungen", which covers today approximately 10000 collection objects, is available through the Internet. The communication and information platform, which are constantly developed in co-operation with different partners, is the online community Arte24 (www.arte24.ch).

7.4.2 Project Involvement

Associate Partner, **Supplier**, Content provider, Service Provider and System Integrators

7.4.3 Curricula vitae

Dr. Josef Herget

Born 16/11/1957 **Languages:** German, English, Czech

Diploma in Business Administration, MSc in Administration Science, MSc in Information Science, PhD in Information Science in Small and Medium Sized Companies. From 04/1995 to date: Transfer Center Information Markets & Management Consulting / since 1997: IMAC, Constance. Managing director. *Tasks:* Managing a research based consultancy in the field of new media and information systems, services and markets. Project leader in several EU and national projects). Consulting on information management is provided to all kinds of companies. Member of the international task force on Telematics in the EUREGIO Bodensee. the main fields of activities are: 1) consulting on information management, 2) consulting on information markets, 3) consulting on multimedia systems, 4) providing of information services to sme's, 5) provision on training in the field of new media. Other tasks: Evaluator for the EU in GD XIII in the field of Telematics and GD XVI in the field of regional information society. Member of the EU research panel on information engineering (1994-1996). Project Head in several European Union Projects.

Silke Grossmann

Born 5/7/1969 **Languages:** German, English, French

Diploma in Librarianship, Graduated in Information Science. From 01/1998 to date: IMAC, Constance. Project Manager / Consultant *Tasks:* 1) Project manager, responsible for the field of electronic markets 2) Consultant in the field of information and knowledge management 3) Training: Themes: Information delivery in online services, Internet-Information systems, Intranets and in the use of new media. She participates in the following projects: building of an online community in Switzerland (Arte 24), Consultation of museums on the application of new media, development of a software system for museums (Museums Access), creating a variety of projects in the area of Online-Services (information needs analyses, conception of information services and systems, evaluation of information services and systems). Realization of an empirical study in the field of regional and specialized electronic markets, conception and realization of different types of electronic markets (needs analysis, definition of a portfolio for an offer, creation of a business plan, project management in the realization and application of a marketing strategy). Participation in EU-Projects: NBE-BIS, ETTN, DeMes.

Dr. Petra Weckel

Born 9/9/1965 **Languages:** German, English, French

Graduate in Administrative Sciences, M. A. in Political Science, Social and Economy History and History of Art, Scientific Documentalist (IID Potsdam), PhD in History (Institute of History, University of Potsdam) From 2000 to date: IMAC, Constance. Project Manager. *Tasks:* 1) Product Manager "Museums Access" 2) Product Manager Arte 24 3) Consultation of museums in the field of new media and collection management. Development of information services for museums professionals She has several years of experience in the area of art and culture as well as documentation. Projects: kARTell, Hamburg, Developpement of an eventmanagement with Fachhochschule Potsdam, Fachbereich KulturArbeit.

Diana Betzler

Born 22/9/1970 **Languages:** German, English, French

Graduate in Administrative Sciences From 2000 to date: IMAC, Constance. Project Manager. *Tasks:* 1) Project Manager Internet Services 2) Training: Internet and information services, e-commerce in

sme's. She has experience in the consultation on new information and communication technologies, especially on network solutions.

7.5 STOCKHOLM UNIVERSITY LIBRARY

7.5.1 Presentation of the Stockholm University Library

Stockholm University is a city university in close connection with today's rapid societal development. The university offers undergraduate and graduate education and research within four faculties: Humanities, Social Sciences, Law and Natural Sciences. Stockholm University has 65 departments and 20 institutes and centres. Approximately 34 000 students are enrolled at the university, and the staff are approximately 6 500, temporary teachers included.

Stockholm University Library is one of the largest university libraries in Sweden with around 2 million visitors a year. The library is well advanced in IT and networking the library catalogue, a large amount of databases and electronic journals over the campus and to 12 branch libraries over the Internet. A key component in the strategic plan of the library is the building of the Digital Library. The library is involved in a number of national and international research projects. It is the coordinating partner of the EU-projects ELVIL and ELVIL2000 and is currently partner in the EU projects EQUINOX and the Tempus Phare project. Stockholm University Library has also taken part in EU-projects CAMILE and EQLIPSE.

The library has approximately 2.400.000 volumes of books and 9.700 current journals. The library issues around 625.250 local loans and 24.000 Interlibrary loans per year.

1. The literature collections mirror the research areas of the university. The rare books collection in the Natural Sciences can be mentioned as a collection of excellent standing and value, nationally and internationally. There is for instance a comprehensive collection of Carl von Linné's publications including works that he himself donated to the library of the Royal Swedish Academy. A large collection of mathematical history, a collection by and on Swedenborg and a collection called Bergianska Biblioteket containing approximately 5.340 works on natural sciences are part of the national cultural heritage that should be available internationally. Another interesting collection would be the collection of Praesidialdissertationer (that is dissertations from the 18th and 19th centuries. The rare books collection is deposited at Stockholm University Library by the Royal Swedish Academy.

7.5.2 Project involvement

Partner, **User**, Content provider, **Business** and Service Access Point

7.5.3 Curricula vitae

Dr. Gunnar Sahlin

Dr. Gunnar Sahlin has been Library Director at Stockholm University Library since 1996. Before then he was Head of the Bookprocessing Department and the Circulation Department at Stockholm University Library (1989-1993). He held the same position Uppsala University Library, Swedish Department (1994-95). Since 1998 he is vice president in The Swedish Library Association. He holds a Ph. D. in History of Literature and was a lecturer at the Department of History of Literature, Stockholm University (1981-1989).

Most of Dr. Sahlin's publications deal with the literary system and the bookmarket, especially about the eighteenth century. He has also published articles about performance and quality in libraries, for example *Evaluation and Quality in Library Performance. Changes in the Libraries during the 80'*

90:s, and library development, for example *New organisational and financial models for Academic Libraries*.

Christer Wijkström

Christer Wijkström is Senior Librarian at Stockholm University Library and Head of the Library at Center for History of Science, Royal Swedish Academy of Sciences. He has been Head of the Circulation Department at Stockholm University Library and is now Keeper of Rare Books within the Natural Sciences. He is a member of the Linnaeus link since 1999.

Ingrid Cantwell

Ingrid Cantwell is Senior Librarian and has been Head of the Departments of the Social Sciences and IT in Stockholm University Library for fifteen years and head of cataloguing for 12 years. She has managed a number of IT-projects in library environments such as a study-project with IBM on multimedia, a referral database for Swedish Social Science information and NYRIB - a Nordic database on Youth Research. She was the coordinator of the EU-project ELVIL and is currently coordinating ELVIL 2000. She is also working as project advisor to the library.

7.6 LÄNSMUSEET PÅ GOTLAND

7.6.1 Presentation of LÄNSMUSEET PÅ GOTLAND

The County Museum of Gotland comprises

The Historical Museum of Gotland

The Gotland Museum of Natural History

Fenomenalen

The Art Museum of Gotland

Fenomenalen

The Historical Museum of Gotland is one of the largest museums, attracting most visitors in the country. Here you will meet 8 000 years of the island's rich history – from the Stone Age to the Viking Age, from the Medieval Period present day.

The basis of the newly-opened Museum of Natural History is the exhibition which invites you to explore the unique nature of Gotland, with its rich flora and fauna, limestone and fossils, the well-preserved agricultural landscape, its shores, and the environmental threat to the Baltic Sea.

Fenomenalen is a science centre where everyone can embark on a journey of exploration.

The Art Museum of Gotland exhibits contemporary international, national and Gotlandic art.

The merchandise in the Museum shop reflects the collections of the museum and the interesting nature, handicraft and art of the Gotland region.

7.6.2 Project Involvement

Associate Partner, **User**, Content provider, **Business** and Service Access Point

7.6.3 Curricula vitae

Stig Englund

Stig Englund is 1st Antiquarian and head of the IT-department of Läns museet in Gotland. He has worked with the IT development and strategy of the museum for ten years.

Maria Herlin-Karnell

Maria Herlin-Karnell is 1st Antiquarian and Head of the Information department of Läns museet in Gotland. She has also worked as a lecturer at the museum for the last fifteen years.

7.7 NATURHISTORIKA RIKSMUSEET

7.7.1 Presentation of the Naturhistorika Riksmuseet

The Swedish Museum of Natural History is an authority under the Ministry of Culture. The museum, which is the largest of its kind in Sweden is additionally responsible for the field of natural history and one of the world's leading research institutions within the field of natural history. The vision of the museum is to work for the living environment of the present and future generations.

During its more than 250 years history the museum has collected several million items which are available for international research. The collections range from millions of items within Botany, Geology, Palaeontology, Zoology from the polar regions to the equator and also mirror the history of the great Swedish scientific expeditions. The museum has many educational activities and Seminars in Natural History for the general public as well as for the research community. There is also the "Cosmonova" an appreciated film Encounter in the Third Dimension. The museum shop reflects the museum collections and has around 3.000 items for sale.

7.7.2 Project Involvement

Associate Partner, **Supplier**, Content provider, **Business** and Service Access Point

7.7.3 Curricula vitae

Susanne Wadeborn

Susanne Wadeborn is head of Marketing and Information at the Swedish Museum of Natural History. She was formerly Head of Information and Marketing at Umeå museum and has also been working with marketing in IKEA, Sweden for fourteen years.

1990 - Marknadsteam AB, Östersund (an advertising bureau. She worked as copyrighter.)

1992 - 1998 Jämtlands läns museum (a regional area museum in Östersund. She was Manager of Customer Service and was responsible for the cafe, the museum shop etc.)

1998 - Swedish museum of Natural History . She was Manager of Customer Service and was responsible for the cafe, the museum shop etc. Before 1972 she went to Journalist school, and did some law studies

7.8 ROYAL SWEDISH ACADEMY OF SCIENCE

7.8.1 Presentation of Royal Swedish Academy of Science (Kungl. Vetenskapsakademien)

The Royal Swedish Academy of Sciences is an independent, non-governmental organization founded in 1739. The major aims of the Academy are to promote research in mathematics and the natural sciences.

The Academy participates in and promotes international scientific cooperation through its seven scientific institutes by publishing scientific journals; by distributing scientific information and by promoting contacts between scientists and society.

Prizes and grants are awarded annually from funds held in trust by the Academy. The Nobel Prizes in Physics and Chemistry have been awarded by the Academy since 1901 and the Prize in Economic Sciences in memory of Alfred Nobel since 1968.

The Academy has extensive scientific cooperation with academies of sciences in Bulgaria, Estonia, Israel, Japan, China, Latvia, Lithuania, Poland, Rumania, Russia, Slovakia, United Kingdom, South Africa, Czechia, Ukraine and Hungary. SEK 10 million a year is allocated to projects run jointly by researchers in Sweden and in former Soviet Union republics. The Academy serves Sweden in international research bodies such as ICSU (the International Council for Science), ALLEA (the All-European Academy Conference), IAP (the Inter-Academy Panel on International Issues) and IASC (the International Arctic Science Committee). The Academy has also established some 20 national committees that are responsible for contacts with the scientific unions within ICSU. Other organisations and projects in which the Academy takes an active part are ICSU Press, IFS, ESF, IAP and TWAS.

The Academy runs two museums of history of science; the Observatory Museum at Observatoriekullen in the central parts of Stockholm, and the Berzelius Museum in the Academy's localities in Frescati.

In both museums parts of the Academy's extensive collections of instruments and other scientific equipment mainly from the 18th and 19th century are on display. This collection mainly consisting of instruments within mathematics, physics, astronomy, chemistry and old Swedish standards of length, weight and volume, is remarkable by international standards and important for the natural scientific and cultural heritage of Sweden. Many of the instruments, used on the numerous Swedish expeditions to the Arctic and the Antarctic during the 19th century and the first half of the 20th century have been preserved and included in this collection. In the autumn of 2001 the Scientific Instrument's Commission (SIC) will have its XXth international symposium at the Academy, then several of the Academy's scientific instruments will be exhibited.

7.8.2 Project Involvement

Associate Partner, **Supplier**, Content provider

7.8.3 Curricula vitae

Tore Frängsmyr

Tore Frängsmyr is Director of the Centre for the History of Science, The Royal Swedish Academy and Professor in History of Science at Uppsala university since 1982. Before then he was Associate Professor of ideas and learning since 1969 and Professor in the Program of Technology and Social change at Linköping University. Professor Frängsmyr has received many awards, such as: The Royal Society's European Programme Fellowship for research in Cambridge, England, Prize from King Oscar II's Jubilee Donation Fund for the book *Woffianismens genombrott*, 1975, Letterstedts Prize from the Royal Swedish Academy of Sciences for the books *Upptäckten av istiden* and *Ostindiska*

kompaniet, 1977, Karing Gierow's Prize from the Swedish Academy, 1981. Professor Frängsmyr is Member of the Royal Academy of Arts and Sciences of Uppsala, Member of the Royal Academy of the Humanities at Uppsala, Fellow of the Royal Swedish Academy of Sciences, Fellow of the Royal Swedish academy fo Engineering Sciences, Member of Academia Europaeae, Member of the International Academy of History of Science, Member of the American Philosophical Society. He is also chaired The Scientific Advisory Committee of the Swedish National Encyclopedia 1986-96, The Center for History of Science at the Royal Academy of Sciences since 1988, the Committee for Scandinavian conferences in History of Science 1985-88. Professor Frängsmyr is editor of many scientific journals and monograph series, he is also the editor of Les Prix Nobel/the Nobel Prizes since 1988, has authored and edited some 25 books and had articles published extensively within the History of Science area.

Karl Olov Grandin

Karl Olov Grandin is Assistant Director of the Center for History of Science, the Royal Swedish Academy of Sciences. Dr Grandin was before then Doctorate Candidate at the Swedish Council for Research in the Humanities and Social Sciences of the Office for History of Science, Uppsala University, 1993-1998. He holds a Ph. D. In History of Science, and has published extensively within the field.

7.9 TARX N.V

7.9.1 Presentation of TARX N.V

Established in 1993.

Contact: Bordekensstraat, 30 Tel; +32 15 621405, Fax +32 15 620335, 1981 Hofstade; Belgium; E-mail info@tarx.be

The two main activity lines of Tarx are Information and Communication Technologies (ICT) and Multimedia Content. In both lines, consultancy- and development-services are carried out.

The Information Communication Technology side focuses on project management of e-commerce applications for SMEs, proposal and project evaluation and guidance for the choice of technological architectures. For development purposes, mostly as a subcontractor, Tarx uses mainly platform independent and object oriented tools such as C++, Java, and Corba.

The Multimedia line is emphasising especially on art & culture and consists of two activities: own research on specific cultural themes and advising museums/archives in entering the digital age. Most multimedia realisations are based on tools from Macromedia and Corel.

Multilingual script- and scenario writing are two very important supporting services to both main activity lines. Tarx possesses also a rich experience in searching and applying the right music theme corresponding with a specific topic or event.

Key persons of Tarx are highly experienced in co-ordinating medium to large, multidisciplinary projects (e.g. electronic distribution channels and international dealing rooms in the financial world), research initiatives in the cultural sector and multimedia projects.

Some references:

Manufactuur De Wit nv	e-commerce project
Sint-Angela Instituut	multimedia projects
TEIN nv	script writing
Verbruikersunie cv	consultancy

Museum Tervuren	project evaluation
Belgian Art & Antique Dealers	software package evaluation
European Commission	proposal and project evaluation
Own research:	Database on Flemish Heritage Tracks in South East England
	Study of appropriate thesauri concerning art and culture
	Music themes database
Studies	Archives of Colchester, Norwich, Canterbury and Maidstone UK

7.9.2 Project involvement

Partner, **Supplier**, Content provider, Service Provider and System Integrators, **Business and Service Access Point**

7.9.3 Curricula Vitae

Vic Haesaerts

Vic Haesaerts has a degree in Electronic Engineering. He possesses a large experience in the management of innovative projects in the telecommunications and banking sector. His research activities were mainly focused on artificial intelligence techniques and electronic distribution channels. At this moment he is managing director of Tarx and expert-evaluator for European projects.

Rosette Sermeus

Rosette Sermeus is a qualified teacher Dutch and English. She has experience in a variety of multilingual multimedia realisations with a special focus on art, culture and religion. She is also active in a lot of cross-cultural initiatives mainly with the United Kingdom. At this moment she is one of the directors of Tarx.

7.10 MUNICIPAL MUSEUM OF MECHLIN (STEDELIJKE MUSEA MECHELEN)

7.10.1 Presentation of Municipal Museum of Mechlin

The municipal museum of the Flemish city of Mechlin is a museum for history and art. The collection, which contains a great variety of objects (from the early Gallo-Roman time till now), was built out during the last two centuries.

The museum has two main objectives. Firstly the traditional care: to collect, preserve, restore, investigate and display objects which can inform the present generation about the social, institutional, artistic, economical, religious, juridical and military history of the city. Secondly the more recent trends, joining in with libraries and cultural centres: the development of public action, the high scientific study of the objects and the dynamic functioning in the municipal society.

Being a municipal museum, it has a very specific task. The objects have to be historically and artistically situated in their municipal context, within the rough town-life. The past is made actual by an active participation to the cultural actuality of the present town.

To realise these objectives, the management works very hard on the expansion of the museum and the collection. The development of a museum-axis through the old town centre is the new challenge. Four locations are in scaffolding: 1. The old town gate, Museum Brusselpoort, where the archaeological collection is placed; 2. the former aldermen's house, Museum Schepenhuis, where the 15th and 16th century objects find a place; 3. Museum Hof van Busleyden, the heart of the axis where the public working and the research is concentrated and the modern history of the town is displayed; 4. museum of modern and applied art in the old brewery Lamot.

By visiting the four museums, the history of the town in all his aspects, being very typical for the Northern and Southern Netherlands, can be discovered and gone through.

Joining in with this development, the museum management started a project to disclose the eight historical churches of Mechlin, each with a very rich and special collection of paintings and sculptures.

Exhibitions and catalogues of the last four years:

1997: - *Faydherbe '97*: special exhibition on the baroque sculptor Lucas Faydherbe

1998: - *800 jaar gasthuis*: special exhibition on the very rich collection of the Mechlin hospital-nuns and social welfare offices (OCMW)

- *Van brigand tot held. Franse revolutie en boerenkrijg*. Exhibition about the influence of the French Revolution in the Austrian Netherlands

1999: - *Tijdgenoten van Van Dijck*: Exhibition about the contemporaries of Anthony Van Dijck

2000: - *Het Mechelse Meubel 1500-2000*: Exhibition about the Mechlin's furniture industry, from wood carving to design.

7.10.2 Project involvement

Associate Partner, **User**, Content provider, **Business** and Service Access Point

7.10.3 Curricula Vitae

Heidi De Nijn

Heidi De Nijn, historian, director-curator

Studied history at the Universities of Antwerp and Ghent.

1987- 1996: assistant at the archives of Mechlin

1997: curator of the municipal museum

1999: director of the municipal museum

Specialisation: Mechlin history of the 18th and 19th century with many publications

Decorative art of the 16th-18th century

Frank Huygens

Frank Huygens, art-historian, curator

Studied history of art at the university of Leuven.

1992-1997 : assistant at the university of Leuven

1998: assistant municipal museum

1999: curator at the municipal museum

Specialisation: - 17th century Dutch paintings
- Dutch Tapestry (16th-20th century).

Lieve Lettany

Lieve Lettany, archaeologist , church-co-ordinate

Lieve Lettany took her degree of Licentiate in History of Art and Archaeology at the University of Brussels. She has a proper experience in organising educational projects while she was teaching history and Dutch during several years. During the period of ‘Antwerp ’93, Cultural Capital of Europe’, she was responsible for the organisation and co-ordination of cultural-historical guided visits through all historical and art-historical exhibitions in the town and for the training of the guides. For the Department Art and Patrimony of the province op Antwerp, she started up an inventory-project to locate all archaeological sites in the province of Antwerp in co-operation with the GIS-department of the province.

At this moment she is co-ordinator of the project ‘Torens aan de Dijle (= Towers at the river Dyle)’ to unseal the historical churches in the centre of Mechlin. By this project the rich and almost unknown contents of the churches will be exposed and explained to the public.

7.11 STICHTING MUSEON

7.11.1 Presentation of the Stichting Museon

The Museon in The Hague dates from 1904. It was established as a museum of industry, with a main purpose to stimulate students to become craftsmen. It developed however quickly into a multi-disciplinary institute with collections in the field of physical science and technology, natural history, history, archaeology and ethnology. The museum started as a private institute, but was taken over by the municipality of The Hague 1920.

Education remained an important service throughout the museum’s existence, expressed by its previous name that was “Museum for education”. At the moment it offers over eighty different museums lessons to primary and secondary education. The educational character is also reflected in the current building, which dates from 1986: smaller rooms that can be closed for museum lessons surround the central part of the exhibition space.

The staff consists of 71 regular and about 35 temporary employees. The number of objects in the collection is 300,000, excluding all different species of the natural history collections.

A few examples of our collection areas:

- Indonesia: Indo-javanese bronzes, textiles, Batak
- Tibet: Tankas, Drugpa nomad handicraft
- Greenland: Inuit
- Niger: Peuls
- Scientific instruments of the 18th, 19th and 20th centuries
- Photographic equipment
- Archeological objects
- Minerals and fossils
- Natural history objects in it broadest sense

The building that is established in 1986 contains 5,000 square meter of exhibition space. The number of visitors is about 250,000 per year. Each year two large en a number of smaller temporary exhibitions is organised, covering all domains that are represented within the museums.

Since January 1997 the museum is privatised again and registered as a foundation.

Next to the museum lessons the museum offers a broad variety of lectures, courses, demonstrations and workshops.

The museum is expanding it efforts on delivering digital images of the collections. The museum is

The museum has participated in various projects eg. EMN, RAMA and SIMILE.

7.11.2 Project involvement

Associate Partner, **User**, Content provider

7.11.3 Curricula Vitae

Hub Kockelkorn

Function: IT project leader

Background: historian. University subjects: contemporary, social and economic history, cultural anthropology, sociology

Specific experience within the museum:

1992-1995: RAMA project

1996-1997: SIMILE project

Participation to management board, research concerning user and museum requirements, organisation of usability trials. Organisation of collection registration at the history department

Rob Schouten

Function: Head department of Collections

Background: Biologist. University subjects: research projects on: Toxicology trails; Botany; Phylogeny of insects.

Specific experience within the museum:

1987-1999: educational activities, design of permanent exhibition, as regards content; Project-leader for internal and external Museon projects

1996-1999: chairman of Museon's representative advisory board

1999: Head department Collection. Member of the Management Board

Miscellaneous: Editor for the Journal of Entomology 1990-1999. Position in several committees

Publications: Various publications in the field of phylogeny and systematics on insects.

7.12 ROYAL CORNWALL MUSEUM, TRURO

7.12.1 Presentation of Royal Cornwall Museum, Truro

Founded in 1818 by the Royal Institution of Cornwall, the Royal Cornwall Museum is the largest and most comprehensive museum in Cornwall. It occupies a complex of superb granite buildings in the centre of Truro and houses excellent collections of fine and decorative art, archaeology, local history, costume, natural history and an internationally important collection of Cornish minerals. The museum also houses a private reference library, open to the public, with a very significant archive.

The museum is an independent charity, partly funded by Cornwall County Council on the basis that it acts as the County Museum for Cornwall. The museum has an absolute imperative to operate as economically and efficiently as possible and to maximise its earned income. To this end a trading company was formed by the museum in 1990 to run a shop and café, and all proceeds are used to fund museum activities.

In addition to its curatorial functions, the museum runs a programme of temporary exhibitions based on its own collections and also hosts loan exhibitions and touring exhibitions. It receives regular requests to co-operate with other museums in devising and circulation exhibitions and loans material from its collections both nationally and internationally, as well as images of its collections for publications. The institution is also a publisher in its own right.

The museum has a very active education service which is used by over 90% of the 247 primary schools in Cornwall and it also organises workshops and special events for secondary schools, colleges, adults and families.

The collections held by the Royal Cornwall Museum include, most importantly, collections of Old Master Drawings, British art, British and world ceramics, Japanese decorative art, pewter, Cornish minerals, Cornish archaeology, social history, Cornish natural history, Egyptology, numismatics and has a collection of over 40,000 photographs.

The museum attracts in the region of 60,000 visitors per year.

7.12.2 Project involvement

Associate Partner, **User**, Content provider, **Business** and Service Access Point

7.12.3 Curricula Vitae

Miss Tamsin Daniel

Miss Tamsin Daniel, Curator of Art & Exhibitions

1989-1992 Warwick University BA (Hons) History of Art (Upper Second Class)

1992-1993 Leicester University MA (Museum Studies)

1993-1996 Victoria & Albert Museum Curator

1996 to present day Royal Cornwall Museum Curator

Awards January 2000 awarded AMA by the Museums Association

Positions held July 1998 to present day Lead Organiser for Cornwall Curators' Network

July 1999 to present day Lead Organiser for CHAIN project

January 2000 to present day Cornwall County Representative for the South Western Federation of Museums and Art Galleries

7.13 SPACE - ADVANCED APPLICATIONS IN COMPUTING AND ENGINEERING LTD.

7.13.1 Presentation of SPACE

SPACE is a multimedia engineering company that operates in the sector of information technology, design and communication. SPACE offers products and services for use in interactive and scientific publishing and the world of *edutainment*, promotes the development of state-of-the-art engineering solutions and participates in strategic research initiatives in collaboration with national and international partners (numerous universities, the Tuscany High Technology Network, the CNR (National Research Council), the Città dell'Innovazione of the Moratti Group, the METRO Group, the Giunti Group and many others).

SPACE draws on its experience and *know-how* to offer products and services in a number of primary sectors:

- Integrated solutions for museums informatics, digital libraries and multimedia archives
- Multimedia publishing on artistic and cultural themes, *edutainment*, scientific documentation
- Interactive TV and WebTV systems and advanced applications for set-top multimedia terminals
- Intranet/Internet solutions for the cultural heritage
- Solutions for business communications, the publication of electronic catalogues, and the establishment of *e-commerce* systems
- Multimedia consoles for management control, decision support and business process reengineering
- Multimedia engineering for biomedicine: picture acquisition and communication systems (PACS), DICOM-compliant solutions, digital video editing systems, multimedia databases, 3D simulation and virtual reality systems
- Solutions for systems integration, security and connectivity
- Interactive multimedia systems for education and professional training
- Consultancy services on planning and design for innovation and systems integration, in Italy and Europe

SPACE has developed a range of off-the-shelf products and solutions based on advanced technology and capable of meeting the principal requirements of primary market sectors:

- **CULTURAL HERITAGE:** museums, libraries and archives that intend to take on the challenge of innovation by making use of interactive multimedia technologies, the working methodologies of digital libraries and the information resources of digital document systems:
 - **MuseumWare.** Modular system for setting up multimedia digital museums and providing local and remote fruition (developed in cooperation with Etruria Innovazione S.c.p.a.)
 - **DLStation.** Multifunctional workstation for digital libraries and multimedia archives (developed in cooperation with the Pisa Research Consortium)
 - **PhotoWare.** System of database management, information retrieval and multipurpose delivery for the digital management of photographic archives and media brokering centers
 - **TextProcessor.** System for the hypermedia management of large collections of texts

- **MediaProcessor.** Digital system for the creation and management of high-quality digital archives
- **ArchiveTNG.** Multimedia system for integrated management of the new generation of historical, documentary, photographic, graphic and cartographic archives
- **MULTIMEDIA PUBLISHING:** production, with the assistance of a sophisticated authoring system, of multimedia CD-ROMs and Internet web sites with a high level of visual quality and interactivity, intended chiefly for use in the world of historical, artistic and scientific documentation:
 - **MediaForge.** Modular application format and authoring system for the creation of interactive multimedia applications for the cultural heritage and scientific documentation
- **TERRITORY:** multimedia presentation, for local and remote access, of territories, tourist areas, nature reserves and theme parks:
 - **SiteWare.** Modular application format and authoring system for the documentation and virtual exploration of tourist regions and areas
 - **Parkware.** Modular system of services and applications for the logistical organization and multimedia exploitation of territorial systems (developed in cooperation with Etruria Innovazione S.c.p.a.)
- **BUSINESS:** the world of company communication, business monitoring, electronic catalogues and electronic commerce through 'virtual shops':
 - **CPWare.** Modular system for the production and publication of interactive multimedia corporate presentations
 - **CatalogueWare.** Modular application format and authoring system for the generation and publication of interactive multimedia catalogues of industrial products
 - **InfoManage.** Integrated system of support for managerial work in an Intranet environment, based on interactive management consoles
 - **VShop.** Modular system for the creation of electronic shop windows on the Internet with functions permitting virtual visits and electronic commerce
- **BIOMEDICINE:** communication with medical analysis laboratories and the public health system by means of simple and efficient systems of information exchange:

LabWare. Software system in Intranet/Internet environments for remote access to tests carried out by public and private laboratories (developed in cooperation with Etruria Innovazione S.c.p.a.)

7.13.2 Project involvement

Partner, **Supplier**, Service Provider and System Integrators

7.13.3 Curricula Vitae

Flavio Tariffi

Flavio Tariffi, 37, holds a degree in Information Science and humanistic studies, deals since several years with ICT for Cultural Heritage topics and is in particular responsible for the analysis and project management of high-tech solutions in the fields of database management systems, digital imaging, library and museum systems, advanced telecommunications applications and interactive multimedia publishing both on CD and *on-line*. He is Chief Technology Officer of SPACE S.r.l. and project leader of the Innovation Citadel in the field of European RTD. He has been in charge of several major projects (LIBRARIES "BAMBI", INFO2000 "MEDIA68", ACTS "MUSIST", TELEMATICS "ARIADNE2", and more).

Francesca Romana Conti

Francesca Romana Conti, 37, holds a degree and a Ph.D. in the Humanities. Since several years, she deals with Information Science topics and is in particular responsible for the analysis and project management of high-tech solutions in the fields of database management systems, digital imaging, library and museum systems, advanced telecommunications applications and interactive multimedia publishing both on CD and on-line. She is the project leader for SPACE in the field of Cultural Heritage, and has been in charge of several major projects (Italian Ministry of Research and Tuscany Region projects; LIBRARIES "BAMBI", INFO2000 "PALIO", ACTS "MUSIST", ESPRIT "MENHIR" and more).

7.14 FRATELLI ALINARI

7.14.1 Presentation of Fratelli Alinari

Established in Florence in 1852, Fratelli Alinari is the world oldest firm operating in the field of photography, that is in the fundamental sector of images and communication.

The history of Alinari coincides with the very history of photography: the activity of the dynasty of Alinari photographers is at the heart of the huge photographic heritage housed in the present Alinari Archives.

Alinari is today the leader in traditional and multimedia photographic publishing and is a synonym for the highest quality in the production of artistic prints.

Alinari represents an irreplaceable landmark for preserving, cataloguing, making known and handing down, through photography, Italian and European history, society, art and culture. The unique heritage of the Alinari collections gives life to one of the biggest international centers of photographic and iconographic documentation with over 3.5 million vintage images from the 19th and 20th century from all over the world. Today Alinari is a modern reality operating in the wider field of image and communication: a brand name which guarantees an age-old fund of experience combined with state-of-the-art technological skills. Shortly over 180.000 images will be online!

Alinari has taken part of several EC projects like: Aquarelle, Victor, Rama, Imprimatur, Artline and Migrator 2000. Alinari main focus on those EC projects has been to provide the data content for the Consortiums as well as providing feedback and acting as beta tester during the online trials.

Alinari main focus on EC projects has been:

Watermarking and IP rights, cultural heritage matters, content provider, high speed communication, security and user authentication, ecommerce solution, data compression, picture retrieval/pattern recognition.

The main areas of activities of Alinari are:

- Photographic Archive
- Museum of History of Photography
- Photographv Editor and Publisher
- Fine Art Printer
- Conservation and restoration laboratory
- Multimedia Dept.
- Watermarking and Intellectual Property Rights

7.14.2 Project involvement

Partner, **Supplier**, Content provider

7.14.3 Curricula Vitae

Andrea De Polo

Manager and director.

Coordinated and oversaw computer training for over 25 Alinari employees including word processing, Internet applications and computer security issues. Built technological infrastructure for the company in a 19th Century building, while preserving historical archeological structures. Conduct beta testing for companies as contracted. - Eastman Kodak and LivePicture: FlashPix application. - Pitango Team,(a subsidiary of Scitex Corp.), for multimedia application; ClickWorks. Selected to become permanent beta tester for any future new software. - Signum Technologies; SureSign watermarking technology.

Coordinate and supervise multimedia and digital projects. - Lead "Alinari 2000 Consortium responsible for cataloging and digitization of image archive for online retrieval for Finsiel (second largest European Software Company). Worked collaboratively with Opificio delle Pietre Dure (Italian Conservation Institute). Developed the Photographic Conservation Laboratory. Oversee photographic restoration contracts for companies and institutions. Coordinator for the European Community technological and experimental projects. Evaluate objectives and develop proposals to market and promote Alinari's products and services.

Designed the Alinari Internet Web Site which includes an on-line book shopping section. Negotiated a collaborative association between Alinari and Signum Technologies Limited for development of a sophisticated image

7.15 CONSORZIO CIVITA

7.15.1 Presentation of Consorzio Civita

Consorzio Civita is a research no-profit Consortium founded under law n° 46 of 17/02/1982 and whose aim is to promote and develop the application of innovative technologies in the fields of cultural and environmental heritage.

Consortium Civita's members are made up of the most important research institutes (CNR, ENEA, University of Tuscia) as well as internationally recognised high-tech businesses (IBM ITALIA, INFOBYTE, ISMES, FINSIEL, TELECOM ITALIA)

Consorzio Civita serves as a meeting point for public and private bodies who wish to promote and economically support the cultural and environmental heritage in an effort to protect and conserve it.

Consorzio Civita's goals are achieved through an integrated approach to developing, demonstrating and transferring the most advanced technologies available today. To this end Consorzio Civita has planned and executed large projects taking care of the most important details to ensure that they would be a success: these range from feasibility studies, to management models, to legislative initiatives, to coming up with financing.

The main themes, that interest Consorzio Civita are:

- museums
- historic centres and smaller art cities

- cultural and archaeological parks
- environmental monitoring systems
- overall quality of the urban and territorial environment.
- information and multi-medial systems

In addition to this the Consortium has been praised for its high level of expertise in the planning and execution of projects on the European Community. Level-among which the following, may be included:

HYPERMUSEUM- European Cultural Network-

CICERO “Cultural Information Computer Exchanged and Routed”

CD.NET- updating CDs over a Network :

InTourismSME : “ Building an Internet -based Tourism Constituency for SMEs in the Less Favoured Regions of Europe

GOTHERE ! :Global Travel, Hotel and Entertainment Resources

7.15.2 Project involvement

Partner, User, Content provider, Business and Service Access Point

7.15.3 Curricula Vitae

Michaela Michilli

Born in Macerata, 13/09/1968 Languages: Italian, English, French

Jan. 1996 - now: Consultant to Consorzio Civita with reference to European Community activities .Role: responsible of the international projects department as promoter of R&D projects and as coordinator of the telematics project: Hypermuseum #AD4005 : about the creation of a European cultural network among the most important International Museums, i.e. Galleria degli Uffizi (IT), National Museums of Scotland (UK), Kunsthistorische Museum (AU) and Musée Calvet (FR) ; GOTHERE ! # 25416-Esprit Multimedia Pilot : about the creation of Internet-based multimedia services to tourism operators, CICERO #UR1002 about creation of personalised itineraries for tourists on the Web), CD-NET #INFMM-1010 : about Internet-based dynamical update of CD-ROMs on cultural themes)

Dec. 1996 - now Consultant to Omicron LLC, an American consultancy firm specializing in Finance and Business consultancy for European IT companies. Role: Consultant on the economic and financial viability of exploitation plans for EC-funded collaborative projects. Market researcher for the preparation of marketing and business plans for Hi-Tech SMEs in the IT sector. Most relevant market research fields covered: embedded systems, set-top box, cultural heritage- museums sector.

7.16 SISTEMA EXPERTOS SA

7.16.1 Presentation of Sistema Expertos SA

SiE was formed in 1986 with the purpose of carrying out work mainly in the fields of Artificial Intelligence and Advanced Information Processing Technologies. The company commercialises

turnkey systems and applications resulting from developments including a combination of third party products and internal research. This line of activity is complemented with commercialisation of informatics and communication products (internal and external) and services and consultancy in areas related to information technologies, communications, artificial intelligence, and environment. The company is active in fields including: healthcare, tourism, GIS systems, publicity and advertising, transport, services and banking.

SiE's experience and skills include:

- user requirements capture
- formal specification and algebraic modelling
- Web based applications
- multidatabase systems. Distributed information retrieval
- middleware products
- multimedia graphical user interfaces
- object-oriented databases
- client/server applications
- Intelligent Agents
- symbolic and non-symbolic AI techniques
- pilot applications implementation and evaluation
- project management

SiE is an active member of the Committee for European Normalisation (CEN), the IEEE Computer Society, the ACM, the OII and ISO.

Partnerships are established with:

- Microsoft. Member of the Microsoft Developers Network
- SUN. Partner of SUN Systems Ibérica, SA
- Silicon Graphics. Partner of Silicon Graphics Ibérica
- Symbol Technologies. Partner of Symbol Technologies, SA

In 1996, SiE received the prize EUROPE, an award established by the Spanish Association of Chambers of Commerce and University Enterprise Foundation granted to the firm with the best records in R&D and in the collaboration with European institutions.

SiE has been awarded with the professional merit prize for Madrid SMEs in 1998. Award established by the prestigious publication 'Actualidad'.

7.16.2 Project involvement

Partner, **Supplier**, Service Provider and System Integrators

7.16.3 Curricula Vitae

Belen Martinez

High Degree in Marketing and Enterprises Management by the Autonoma University of Madrid in 1992. She joined Sistemas Expertos External Relations Department in 1994 where was working in

exploitation and marketing activities and customer support. She has been working in a number of EC projects for DG XIII and III.

Jose Luis Lopez

B. Tech in Computing, North London College (1987). Technical Engineer in Computing by the Pontificia University of Salamanca (1991). After his graduation, he started working as program developer joining Sistemas Expertos in 1996 as Director of projects. He has large experience in advanced information processing technologies, multidatabase systems, information storage and retrieval systems, multimedia graphical user interfaces and Web based applications. He has been working in a number of EC projects for DG XIII and III.

7.17 THE MUNICIPALITY OF GRANOLLERS

7.17.1 Presentation of the Municipality of Granollers ,PEG (Strategic Planning of Granollers)

Pla Estrategic de Granollers (PEG) was promoted by the major of Granollers in 1996. After the initial activity, the city council left the initiative and its conduction and impulsion to a Director Council (14 organizations) constituted by the most representative organizations in the city: economic organizations (chamber of trade, trade unions), cultural associations, health institutions, social institutions, educational institutions and to a General Council composed of 84 non-profit organizations. The Director Council is the executive board of Pla Estrategic. The team of this second level is formed by different experts: sociologists, demographers, economist and political scientists.

Pla Estrategic main tasks are:

- Managing the strategy of the city
- Economic development and planning
- Social welfare
- Citizens participation and diffusive governance by third sector organizations. Pla Estrategic is strongly rooted in democratic and participative processes taking part in Catalonia Region and this element is of vital importance for the management of the project. On 1998, the expert team of Pla Estrategic designed and implement a knowledge management system for managing the strategy of the city that involve a environmental strategic analysis unit. The experience has been presented in several international conferences on cities.

Department of Culture

The department developedts activity through several programmes: popular and traditional culture, scenic art and music , plastic and visual art, reading promotion activities and cultural heritage as well as the management of the equipments for carrying on these activities. For its importance as tools as keeping the cultural heritage are remarkable the local museum, Josep Mora Library (newspaper and periodicals library), and the project of the local photographic archive. Since 1999 one of the main projects at the service is Libraries of Granollers that has as one of the main objectives to create a telematic network with possibilities for accesing to all cultural heraitage information and documentation (Public libraries, Photographic archives, Josep Mora library, Local museum,..)

7.17.2 Project involvement

Associate Partner, **User**, Content provider, **Business** and Service Access Point

7.17.3 Curricula Vitae

Ramon Maspons Bosch

Born in Granollers, Spain 20.4.67; married two children. Strategic Planning Director of Granollers City Council since 1997. Visiting researcher of technology monitoring and knowledge management at University of Zaragoza, University Carlos III (Madrid) and University of Girona since 1997. Assistant Lecturer of innovation and technology management at Business Administration Department, Polytechnical University of Catalonia (UPC) 1993-97. At the present the main research activities are related with "Competitive intelligence and knowledge management" and "strategic planning". In the last two years was participating in the following European projects: "Reveil, Innovation programme on technology watch" (DGXIII) and TSER " Networks, Collective Learning and RTD in regionally-clustered high-technology SMEs". He is now participating in the project "RASTEI- Regional Adjustment strategies to technological change in the context of European integration"

Lluís Noguera

Lluís Noguera is cultural manager and art critic. He got the university degree on philosophy from Autonomous University of Barcelona in 1991 and a background in culture and education management as well as a university degree on management of cultural institutions. He initially held a position of cultural manager at Fundació "la Caixa" carrying on projects on cultural heritage and territorial programmes: he is with Granollers City Council since 1999 as manager of the culture department.

7.18 IAT INSTITUTO ANDALUZ DE TECNOLOGÍA

7.18.1 Presentation of Instituto Andaluz de Tecnología

IAT is a private non-profit Technology and Innovation Centre, located in Seville (Spain), whose main fields of activity are:

- Technological and Organisational Training
- Knowledge Management
- Management of Innovation
- Quality Technologies
- Certification and Quality Audits
- Technology and Strategic Audits
- Services for Transport sector companies
- Information Technology Services
- Computing and Telematics Services
- Technological Broker
- Technology Watch
- Sector Studies

Although IAT was set up with the objective to improve the competitiveness of Andalusian companies, its activities have been developed all over the national territory and Europe. Within these activities, IAT has been an active member (co-ordinating, alone or in collaboration with other institutions) in technological projects focused on facilitating the acquisition of new technologies in Spanish companies (mostly SMEs).

Most of these projects and activities have been developed with the participation in several national organisations such as: FEDIT network (a Spanish Federation of Innovation and Technology Organisations), AEC (Spanish Association for Quality Control), AENOR (National Agency for Standardisation and Certification), EOI (Industrial Organisation School) or CLUB GESTIÓN DE CALIDAD among others.

IAT is the co-ordinator of the **ANDALUSIAN INNOVATION NETWORK**, a network of 100 Andalusian Enterprises (SMEs), and takes part in the CESEAND (Southern Europe Innovation Relay

Centre - Andalusia). Because of its regional dimension, IAT is linked to Public Regional Authorities, Agencies and Universities.

Specifically regarding Information Technology, IAT's fields of activity include:

DEMONSTRATION OF THE ADVANCED TELECOMMUNICATIONS SERVICES

This is aimed at developing the use of the following services between companies, institutions and professionals: Local Area Networks, Remote Accesses, Internet / Intranet Servers, Video Conferencing, Multimedia Development and Telework.

IT DEVELOPMENT UNIT

Multimedia products

Multimedia products have been developed, which are mainly aimed at training in specific courses. The IT Unit has participated (and is at present involved) in international projects related to Multimedia Technologies.

Designing and Implementing Electronic Commerce Systems

IAT has its own model to implement Electronic Commerce Systems in order to boost the spread of the use of this new and powerful marketing channel amongst small and medium-sized companies. IAT itself is using it as a demonstration application.

TRAINING IN INFORMATION TECHNOLOGY

Activities to spread and promote Information Technology and its use in the small and medium-sized companies.

DIAGNOSTIC SERVICES

For the companies that request so, IAT performs tasks of Information System Diagnosis, which could include the development of action plans.

ISP (New services)

TAKING PART IN EUROPEAN AND NATIONAL PROJECTS

Support Services for the Taking Part in Project and Technological Supply and Demand Service.

It provides a measurement mechanism in order to set up associations of companies, and in particular with regard to the small and medium-sized companies, acting as a link between the different elements that constitute the Science-Technology-Industry System, and advising companies with regard to their participation in regional, national and European projects (mainly the Fifth Framework Programme of the European Commission).

7.18.2 Project involvement

Associate Partner, **Supplier**, Service Provider and System Integrators, **Business and Service Access Point**

7.18.3 Curricula Vitae

Miguel Luque

Industrial Engineer, specialized in Industrial Organization, of the Escuela Superior de Ingenieros Industriales, Sevilla (Higher School of Industrial Engineers). Graduation, 1983

Technical Director of the Instituto Andaluz de Tecnología, in charge of technological and innovative studies and projects. Vice-President of the Centro para la Promoción de la Calidad en Andalucía (Centre for Quality Promotion in Andalucía).

Relevant PROFESSIONAL EXPERIENCE

- B.L. y R. Consultants. Analyst (outside collaborator), Organic and Functional Analysis - (1 year).
- INSTITUTO DE PROMOCION INDUSTRIAL DE ANDALUCIA. Projects technician, (outside collaborator), feasibility studies - (1 year).
- AUDIAN, S.A. Analyst, feasibility and sectorial studies - (1 1/2 years).
- SODIAN, S.A. Project Leader, Planning and Development Department, for sectorial studies, feasibility studies, development plans, quality plans - (3 years).

María Fernández

Industrial Engineer, specialized in Industrial Organization, graduated by the Escuela Superior de Ingenieros Industriales, Sevilla (Higher School of Industrial Engineers) in 1994.

Relevant PROFESSIONAL EXPERIENCE

January'95 to July'95 : Development of Projects management System for the IAT.

September'95 to December'98: Technician of the Programmes Department in IAT. Since January'99: Coordinator of International Programmes in IAT.

Miguel Granero

Industrial Engineer, specialized in Industrial Organization, graduated by the Escuela Superior de Ingenieros Industriales, Sevilla (Higher School of Industrial Engineers) in 1990. Additional training in Computing (University of Sevilla).

Relevant PROFESSIONAL EXPERIENCE

- Instituto Andaluz de Tecnología. IT Dpt. Director. (Since December 1997).

- Instituto Andaluz de Tecnología. (Mars 96 to Dec. 97). Programmes Dpt. Executive.

- Landis & Gyr Española, S.A. (Oct. 90 to Oct. 91). Industrial Engineer/ Working on the Costs System.

- Instituto de Fomento de Andalucía. (Dec. 91 to Dec. 92). Technical Assessor in Industrial Quality.

- Seville City Hall.(Sept. 94 to June 95). Automobile Technology Trainer. (Free professional).

Manuel Jiménez

Industrial Engineer. Specialisation in Industrial Organization. Escuela Superior de Ingenieros Industriales, Sevilla (Higher School of Industrial Engineers).

Relevant PROFESSIONAL EXPERIENCE

December-1995 to December-1996

Design engineer in EDEGATRANSAC (Enterprise for Transport Development and Management). Seville.

June-1997 to May-1998.

Project Manager in SECURITAS SPAIN S.A. Systems Division. Andalusia office.

Project Design and work manager in security and safety installations.

June-1998 to June-1999.

Consultant and Project Engineer in ITSEMAP, MAPFRE Technological Services. Madrid.

Industrial safety audits. Work management in hydraulic and electronic equipment installations. Training activities. Security management courses in Spain and abroad.

Since June-1999.

Department of International Programmes. IAT.

7.19 ZEUS CONSULTING S.A

7.19.1 Presentation of ZEUS Consulting S.A

ZEUS Consulting S.A., is a leading company located in Patras, Hellas, specialised and activated mainly in two sectors:

A. Consulting Services:

- Provision of information, technical assistance and services to public and private bodies as well as to SMEs
- Participation and implementation of National and European projects, initiatives and programmes related to various European Union strategies
- Joining and co-operation with numerous European-wide networks
- Co-operation with highly qualified experts, regional authorities, SMEs, Organisations, EDI Centres, UETPs, EICs, Consumer Federations and non-profit organisations which undertake social work (e.g. teleworking and handicapped people association)

B. ZEUSnet Information Technologies

The information Technologies sector is the competitive edge of ZEUS Consulting SA. More specifically, specialised information technologies laboratories have been established in the company premises. The following areas are covered:

- Teleworking
- Electronic Commerce
- Network solutions (Internet, Intranet, Extranet)
- Multimedia
- IT support

Besides, ZEUS Consulting SA has experience in technical, procedural and managerial issues concerning projects. Numerous projects has been implemented by the company, within the framework of different European Union programmes, such as ESPRIT, Telematics Application Programme, Leonardo Da Vinci, TIDE, Brite Euram and Craft, PHARE, MED Invest etc.

ZEUS Consulting SA keeps strong links with "Western Greece & Epirus UETP" which is a non-profit making organisation (University-Enterprise Training Partnership), relying on the membership of enterprises and universities from Greece and all over Europe. WEGRE UETP has channelled its work towards the following main areas: vocational training activities, telematics and multimedia applications, equal opportunities issues and participation in E.U. programmes.

7.19.2 Project involvement

Partner, User, Service Provider and System Integrators

7.19.3 Curricula Vitae

N. Bogonikolos

N. Bogonikolos is the president of ZEUS Consulting S.A., the main shareholder of ZEUS European Economic Interest Grouping and the co-ordinator of Western Greece and Epirus UETP. He has co-ordinated since 1992 various European projects such as ESPRIT, Telematics Application Programme, Leonardo Da Vinci, TIDE, Brite Euram and Craft, PHARE, MED Invest etc.

Bill Vassiliadis

Bill Vassiliadis is a Computer Engineer MSc., working as a research engineer in the group. He is working with Information Technologies for the last four years and he has great experience in customised solutions for SMEs and large companies. He has presented significant scientific work since he has 15 publications in international conferences and journals.

Dimitris Fragoudis

Dimitris Fragoudis is a Computer Engineer MSc., working as a research engineer in ZEUS S.A.. He is working with Information Technologies for the last four years and he has great experience in designing and implementing customised solutions for SMEs and large companies. He has also presented significant scientific work since he has publications in international conferences.

7.20 SYSTEMA INFORMATICS**7.20.1 Presentation of Systema Informatics**

Systema Informatics (SYSTEMA) specialises in the development of advanced information technology applications in the areas of Multimedia Databases and Networking, Virtual Reality, and Image & Video processing and archiving. The company is also a regional Distributor and Value Added Reseller and Qualified Developer for a number of international Multimedia and VR software and hardware manufacturers and integrators. In parallel, Systema Informatics, capitalizing upon its Research and Development activities and expertise has launched several joined business processes in niche Information Society markets. Specifically in Multimedia Support for Culture, Education and Training.

Our Mission

To provide innovative solutions to customers that fully satisfy their needs by effectively exploiting the latest, state-of-the-art information technologies while ensuring superior customer satisfaction through highly motivated and committed employees.

Company History

Systema Informatics (SYSTEMA) was established in 1991 and its new Headoffices are located in 215 Messogion Avenue, while also having a branch in Maroussi an Athens suburb. SYSTEMA has always given emphasis in innovative software applications and solutions, and this is why it has invested in a Research and Technology Development Group, as part of its Technology Department. Within this context, Systema Informatics has undertaken numerous projects for the development of custom applications and has established a very successful market presence. The company's clients include Greek private and public companies as well as local subsidiaries of multinational corporations. Systema Informatics' customers have repeatedly recognized the company for the exceptional quality of the services and solutions it provided.

Systema Informatics has realised that to expedite the dissemination of technological developments it was necessary to establish a network of partnerships with international companies in the area of advanced information technologies and aggressively promote their products along with its own added value in the local market. As a result, Systema Informatics has obtained distribution and reseller rights for Greece as well as neighbouring (southeastern European) countries for a number of international Software and Hardware manufacturers and integrators who acknowledged the company's leading expertise. Presently, Systema Informatics is the local distributor and value added reseller of, among others, Silicon Graphics, Superscape Plc, Blaxxun Interactive Inc, and Intersense Inc. Moreover, SYSTEMA has been collaborating in the establishment of Multimedia Support Networks, and participated in the Mcube support network for the Cultural sector, and Dfilm for the Audiovisual and Media markets. In addition SYSTEMA has co-operated as a subcontractor, with the Greek Multimedia Support Center, established by the Lambrakis Research Institute, in the light of Menon, now an EEIG

supporting the European Educational sector. This year, SYSTEMA sponsors the 1999 VR World Congress, held in Brussels.

Services

Currently, the company's application development expertise covers the following main areas:

- Networked Data Base Applications
- Multimedia Applications including Publishing of Multimedia Titles
- Internet Applications
- Virtual Reality Applications and Systems' Integration
- Educational Software

Organization: Systema Informatics has a team of highly skilled Application developers capable of successfully undertaking any project within the scope of the company's expertise. The company's team is not only highly professional and enthusiastic but most importantly, characterized by a balance between extensive experience and young dynamism.

The company's technology department is organised into three groups: software development; multimedia applications; research and development. The company also has a growing commercial department, promoting the products and delivering on and off line services,

Systema Informatics takes particular care to ensure the on-going training and professional development of its entire staff and fosters a constructive environment where innovative thinking and exceptional performance are the essence.

Main clients and partners: National Academy of Athens, European Multimedia Forum, Greek Ministry of Education, UPS Greece, Greek Ministry of Development, Greek Chamber of SMEs, Agfa Gevaart, Superscape plc, Blaxxun, Intersence, Vidar Scanners, Silicon Graphics, Foundation of the Hellenic World, Lambrakis Research Foundation, Computer Technology Institute Greece, University of Ioannina, Egnatia Epirus Foundation.

Recent EU funded Projects

- **INVITE - IST:** The INVITE project aims at building a highly innovative environment for synchronous telelearning deploying advanced VR technology through a multi-disciplinary, international team.
- **JEWELMED – INCOMED:** The objective of the project is the identification, analysis, preservation, and dissemination of manufacturing technologies in goldsmithing and silversmithing from the 5th to the 1st century B.C. in the Mediterranean Area.
- **VIRTUAL EUROPEAN SCHOOL (VES) Joint Call on Educational Software - MM1028:** The objective of the project is to develop a European wide network archiving and distributing multimedia educational material from/to publishers, schools, teachers, pupils. The project utilises the Internet as a communication back-bone and Microsoft SQL server as the database infrastructure.
- **DFILM - Esprit – 28770:** The project aims to create a user support network platform providing information about digital film in the broadest sense of the word. The DFILM strategy is, in that sense, to support leaders at all levels; leaders in the digital & ICT industry, leaders in the Film sector and in education organisations and people who want to anticipate and deal with changes in an uncertain world.
- **ELECTRON - Leonardo 96 – 5182:** The project aims to develop new methodologies for managerial training in public sector organisations (The initial pilot user is the Greek Public Power Corporation who is a participant in the project).
- **POWERNET - Adapt – 610:** The project aims to develop an internal teletraining structure in the Greek Public Power Corporation. The structure will enable the company's employees to be brought

up to date in various critical energy related areas such as alternative production methods, environmental issues etc.

- **NORTOUR** - European Regional Development Fund – 970810003: The objective of NORTOUR is the design and implementation of the necessary communication and database infrastructure for an Electronic Commerce environment in the area of Tourism.
- **DIGITAL FILM CENTER** -Esprit - SME Award of excellence – 25075: The project aims at the creation of the necessary infrastructure for the implementation of a Paneuropean Support Center of Digital Cinema which would provide the know-how in digitising, archiving and production of new products based on film footage such as CD-Roms, CD-Plus, DVDs, Web Services etc.
- **M-CUBE** - Esprit – 22266: The objective of the project is the creation of a multimedia support center for the cultural market in the Mediterranean basin. Within this context, the project delivered a web-based network, providing services promoting multimedia applications on cultural heritage, in the region.
- **EPHAESTUS** - Leonardo – 3652: The objective of the project was to develop, demonstrate and produce multimedia & distant learning environments and products for the familiarisation and initial vocational training of young people to Research and Technological Development disciplines of the Greek and European Metal and Metalworks Industry.
- **OTENET** - Adapt – 209: The objective of the project is to facilitate the familiarisation of employees in SMEs to the changes brought about by the expansion of electronic commerce, and the creation of new jobs related to these developments.
- **POSTNET** - Leonardo – 28122: The objectives of the project are to develop Computer based training programmes related to a post office company network on ergonomic quality and to establish a web-based service providing vocational training for post office personnel.

7.20.2 Project involvement

Associate Partner, **Supplier**, Service Provider and System Integrators

7.20.3 Curricula Vitae

Constantinos (Costas) Davarakis

Dr. Constantinos Davarakis (Ph.D), (costas@systema.gr), Married, Two Children. Born in 1960, he has been working as a Research Fellow and a Post-Doctoral Researcher, during the period 1986 to 1992, at the Computer Technology Institute of Greece participating in several National and European Projects. In 1991 he was the cofounder of Systema Informatics, and holds the position of the Managing Director. He has been elected four times at the Board of Directors of the European Multimedia Forum. He is currently a member of the Board of Directors of the Greek special interest group on Multimedia. Dr. Davarakis has published several articles on VR and Technology Based Training and Flexible Learning in international workshops and conference proceedings (eg. VRET '98, Educa '98) and is an invited speaker at the VR World Congress to be held in Brussels, in July 5,6,7/ 1999; a Congress supported by the EU Commission and regarded as a Concertation meeting.

Anastasios (Tasos) Harissis

Dr. Tasos Harissis, (Ph.D), (tasos@systema.gr), Born 1960, Electrical Engineering Degree, National Technical University of Athens, Greece, MSc in Microelectronics Systems Design and PhD in Electrical Engineering, Brunel University, U.K. Holds the position of the Development Director. Dr. Harissis has more than 15 years of experience in Information Systems' analysis, design and

development. He has also participated in numerous projects related to multimedia databases development, educational software, image and video archiving and processing.

7.21 INFORMATICS AND TELEMATICS INSTITUTE, CENTRE OF RESEARCH AND TECHNOLOGY

7.21.1 Presentation of Informatics and Telematics Institute, Centre of Research and Technology

The *Informatics and Telematics Institute of the Centre of Research and Technology, Hellas (ITI/CERTH)* is a financially and administratively independent research institute, part of a mature organization (the Centre of Research and Technology, Hellas) currently supervised by the Greek Secretariat of Research and Technology with its head office located in Thessaloniki, Greece. ITI/CERTH is independent from the Aristotle University of Thessaloniki, but has close links with its personnel.

Its infrastructure development is funded by the Greek Government with an initial budget of 2,35 Million Euros for the period 1999-2001. The Informatics and Telematics Institute is active in research, both basic and industry-oriented, as well as technology transfer actions, in the following areas: Multimedia and Internet Technologies, 3D Imaging and Virtual Reality Applications, Educational and Cultural Technologies, Telemedicine Applications, Digital and Interactive Television, Data Communications and Computer Networks.

The ITI/CERTH research group has long and very extensive experience in digitisation, archiving and content-based management of multimedia information, which are key requirements for the completion of the REGNET objectives. ITI/CERTH is participating in a large number of research collaboration forums, whose objectives include integration of emerging technologies into innovative applications.

The research and development team of ITI/CERTH is currently participating in many research projects funded by the EU and the Greek Secretariat for Science and Technology. Among these, the relevant to REGNET European and National research projects are the following :

- “ASPIS : An Authentication and Protection Innovative Software System for DVDROM and Internet”, (IST-1999-12554) funded by the DG XIII, The Information Society Technologies IST Programme, 1999-2002.
- “HISCORE : High-Speed 3D-and Colour Interface to the Real World”, (IST-1999-10087), funded by the DG XIII, The Information Society Technologies IST Programme, 1999-2002.
- "INTERFACE : Multimodal Analysis / Synthesis System for Human Interaction to Virtual and Augmented Environments", (IST-1999-10036), funded by the DG XIII, The Information Society Technologies IST Programme, 1999-2002.
- “KOD : Knowledge on Demand”, (IST-1999-12503), funded by the DG XIII, The Information Society Technologies IST Programme, 1999-2002.
- “An Integrated System for Fast Searching, Browsing and Composition of Audiovisual Data”, funded by the Greek Secretariat of Research and Technology, PAVE, 1999-2001.
- “Content-Based Image Search over the Internet”, funded by the Greek Secretariat of Research and Technology, PAVE, 1999-2001.
- “An Intelligent System for Retrieval and Mining of Digital Audiovisual Data”, funded by the Greek Secretariat of Research and Technology, EKVAN, 1998-2000.
- “Image Retrieval from the Internet”, funded by the Greek Secretariat of Research and Technology, PAVE, 1999-2001.
- “MPEG4 Toolbox”, funded by the Greek Secretariat of Research and Technology, PENED, 1999-2001.

Over the last three years (since 1/1/1997), the ITI/CERTH research team has authored over seventy publications in scientific journals and one hundred presentations to international conferences (for a complete list: <http://www.iti.gr>).

As is clear from its profile and its past research, digitisation, archiving and content-based management of multimedia information, is clearly among the core activities and interest of the research and development team of

ITI/CERTH. Further evidence of ITI/CERTH's expertise can be found by reference to the CV's of some of their key contributors to this project, shown below.

7.21.2 Project involvement

Associate Partner, **Supplier**, Content provider, Service Provider and System Integrators

7.21.3 Curricula Vitae

Professor Michael G. Strintzis

Professor Michael G. Strintzis is a Professor at the Aristotle University of Thessaloniki and the director of ITI/CERTH. He received his Ph.D. Degree in Electrical Engineering from Princeton University, Princeton, N.J.,USA in 1970.

Professor Strintzis is a Senior Member of the IEEE, Member of the New York Academy of Sciences, and one of the four Greek scientists awarded the IEEE Centennial Medal. His current major interest areas include 2D and 3D image processing, coding, compression and communication, MPEG4, MPEG7, multimedia image processing and communication. He has published over 50 journal publications and 100 conference papers in the above and related areas during the last three years. Until 1999, Prof. Strintzis was a member of the RACE/ACTS Management Committee. Since July 1999 he is an Associate Editor of the IEEE Transactions on Circuits and Systems for Video Technology.

Dr. Dimitrios Tzouvaras

Dr. Dimitrios Tzouvaras is a senior researcher in the Informatics and Telematics Institute. He received the Diploma in Electrical Engineering and the Ph.D. in 2D and 3D Image Compression from Aristotle University of Thessaloniki, Greece in 1992 and 1997, respectively. Prior to his current position, he was a leading researcher on 3D Imaging at the Aristotle University of Thessaloniki.

His main research interests include image compression, 3D data processing, virtual reality, multimedia image communication, 3D motion estimation, stereo and multiview image sequence coding. His involvement with those research areas has led to the co-authoring of over twenty articles in refereed journals and more than 50 papers in international conferences. He has served as a regular reviewer for a number of international journals and conferences. Since 1992, Dr Tzouvaras has been involved in more than 20 projects, funded by the EC and the Greek Ministry of Research and Technology.

Dr. Sotiris Malassiotis

Dr. Sotiris Malassiotis was born in Thessaloniki, Greece, in 1971. He received the B.S. and Ph.D. degrees in Electrical Engineering from the Aristotle University of Thessaloniki, in 1993 and 1998, respectively.

From 1994 to 1997 he was conducting research in the Information Processing Laboratory of Aristotle University of Thessaloniki. He is currently a senior researcher in the Informatics and Telematics Institute, Thessaloniki. He has participated in several European and National research projects. He is the author of more than ten articles in refereed journals and more than twenty papers in international conferences. His research interests include image analysis, image coding, virtual reality and computer graphics.

7.22 INSTITUTE OF COMPUTER AND COMMUNICATION SYSTEMS

7.22.1 Presentation of the Institute of Computer and Communication Systems

The Institute of Computer and Communication Systems (ICCS) is a part of the Bulgarian Academy of Sciences. It was founded in 1994 as a successor to the Control System Research Center and Central Laboratory of Automation. The ICCS is a non profit research organisation with 143 employees including scientific and technical staff. The subject of ICCS activities are defined as fundamental and applied scientific research, consultant and expert activities, application and implementation of the scientific results and advanced technologies in industry, and graduate/post-graduate education in the field of computer and communication systems. The key actions of the Institute concerned advanced and applied research in IT; analysis, design, programming and implementation of large-scale information systems for industry and public administration; IT consultancy, automatic control and management ; “turnkey” systems delivery upon users’ requests; software development; training and knowledge improvement in IT; technical assistance in implementing software products developed by ICCS; implementation and deployment of IT and computer systems and network solutions; solutions of practical problems for traffic flow control, on-line management and optimization.

The ICCS participates in seven international projects through the EC COST, PECO and INCO COPERNICUS programmes. Additionally, the Institute participates in several projects on National level, supported by Governmental institutions and the National Scientific Fund of Bulgaria.

The ICCS expertise cover topics from scientific researches through technological development till implementation and deployment of practical solutions and applications.

- Theoretical and applied studies in complex, wide distributed, and decentralized system, which take part in the computer and communication systems. Particular interests are supported towards practical problems as traffic flow control, on-line management, optimisation, and design of LAN and WAN.
- Optimisation theory is widely applied in the studies. Both off-line and on-line areas of applications are considered. Optimal structure, topological design, parameter estimation of networks (computers, communications, transports) are determined, modelled, estimates, assessed. The dynamical behaviour of such systems is assessed, controlled and managed.
- The applied researches concern analysis, modelling, design, implementation, management of distributed computers, communications and transportation services. Problems of optimal real-time, dynamical routing and fleet management are designed and solved. Appropriate fast algorithms for solution of problems and their implementation are derived. Applications of Internet and World Wide Web technologies (both hardware and software), client-server objects and programming are implemented. The studies support both national and international scientific and technical programs and projects.

Several important achievements are:

- New control strategy in complex hierarchical systems has been derived and applied for optimisation of the information transfer in wireless communications and for optimal management of the information flows.
- Internet and Web technologies have been applied in technical and information distributed networks. Access to distributed database, with mirror component in Bulgaria, Romania and Greece has been implement through Internet. The system is deployed according to the FRETRIS project partly, funded by the EC.
- Modeling, optimization, assessment and implementation of routing algorithms in distributed interconnected computers and communication systems. Optimization problems are defined and real time management protocols in networks are applied for solving the “bottle-neck” problems. Software tools are made out for on-line monitoring of the network state and traffic intensity.

- Client server technology is applied for solving problems of optimal routing of information flows; multiply access to a common communication media; database applications through the global network Internet.

7.22.2 Project involvement

Partner, **Supplier**, Content provider, **Service Provider** and System Integrators

7.22.3 Curricula Vitae

Todor Atanasov Stoilov

Senior researcher, computer scientist with experience in project management. Edu:- 1973 – Technical University Sofia -Electrical Engineer-Automatics, 1979- PhD degree, 1989- Assoc. Prof., 1998- D.Sc.; Bulgarian Academy of Sciences; Head of Department;

More than 180 publications in the area of computers and communication networks, wireless transmissions, modeling, optimization, traffic management;

Participation in Projects: Supervision–21, Participation–12, Implemented–8; International projects participation-INCO-COPERNICUS PROGRAM: FRETRIS EU Project 096183, EDIPA EU Project 977076

Krasimira Petrova Stoilova

Computer scientist, Edu:-1975- Technical University Sofia-Electrical Engineer-Automatics, 1980-PhD degree, 1996 – Assoc. Prof.; More than 80 publications; Participation in Projects: Supervision –1, Participation –27, Implemented –8; Key staff in FRETRIS EU Project 096183, EDIPA EU Project 97076

Alexander Petrov Kemalov

Computer and electronic scientist. Edu:-1974- Technical University Sofia-Electrical Engineer-Computer Science, 1997-PhD candidate; Bulgarian Academy of Sciences; Hierarchical Systems Department member; More than 30 publications in the area of computer and communication networks. LAN and WAN; Participation in Projects: Supervision –1, Participation –27, Implemented –8; Key staff in FRETRIS EU Project 096183, EDIPA EU Project 97076

7.23 SOUTHERN URAL STATE UNIVERSITY

7.23.1 Presentation of Southern Ural State University

Southern Ural State University is accredited by the State Committee of Higher Education of the Russian Federation and is ranked 8th in the nation for excellence in education and research.

SUSU was established in 1943 as a polytechnic institute to serve the growing needs of the industrial complex of the region. Great transformations in the Russian economy have occurred since the early 1990s, requiring specialists in the liberal arts and social sciences, along with qualified engineers and scientists. SUSU has adjusted to the needs of the economy by opening new departments and attracting new faculty to the University.

Many accomplished scientists and scholars such as Professors Alexander Morozov, David Pavolotsy, Michail Schteinberg, German Vyatkin and Boris Zeldovich have played important roles in the University's academic community.

Rector: Professor German P. Vyatkin, Doctor of Chemistry, corresponding member of the Russian Academy of Sciences.

Students:

Undergraduate (full and part-time students): 24,424

Graduate: 240

Faculty (with SUSU branches):

Full Professors: 160

Associate Professors: 800

Teachers: 1,500

Academic departments: 17

Aerospace	International
Applied Mathematics and Physics	Light Industry and Services
Architecture and Engineering	Linguistics
Automobile and Tractor Engineering	Mechanical Technological Engineering
Commerce	Metallurgical
Economics and Law	Power Engineering
Economics and Management	Physical Education
Humanities	Psychology
Instrumentation	

Degrees offered:

Bachelor's, Engineering, Candidate of Science, Doctor of Science

International academic and student exchange programs:

Southern Ural State University has agreements of cooperation with research centers, universities, and academic institutions in a number of countries of the world, including the United States, Ireland, the Czech Republic, Finland, Great Britain, China, and Germany.

University facilities on campus:

There is a computer room where students can set up email accounts and use the Internet. In addition, there is a library, which contains over 2 million volumes, a student health clinic, and a sports complex that contains indoor tennis courts, an indoor track, and workout rooms.

Location:

The main campus of Southern Ural State University is located in downtown Chelyabinsk on the edge of the largest park in the city, affording convenient access to a recreation area as well as to the downtown shopping area. Branch campuses are located in the cities of Kyshtym, Miass, Nizhnevartovsk, Trekhgorny, Ust-Katav, and Zlatoust.

The city of Chelyabinsk is the capital of Chelyabinsk oblast, which lies both in Europe and Asia. Dotted by picturesque lakes and mountains, there are many vacation spots where one can downhill and cross-country ski, swim, fish and relax.

Chelyabinsk gained status as a city in 1781, and today boasts a population of 1.3 million. The city, also known as the "Capital of the Southern Urals", is divided by the Miass River, and surrounded by a mixture of birch and pine forests.

7.23.2 Project involvement

Associate Partner, **Supplier**, Content provider, Service Provider and System Integrators

7.23.3 Curricula Vitae

Dmitry Latukhin

Date of birth: October 11, 1957

- PhD Degree in engineering (methods and devices for material control). MS Degree in physics and engineering. Graduated from Moscow Engineering and Physical Institute.
- Job: Head of Information Service Group at Division of Wide Area Networking Technologies of Southern Ural State University (SUSU) since 1995.
- Creation and maintenance of Ural Regional Centre of FREENet — Wide Area Network For Research, Education and Engineering. UNIX (BSD, Solaris, FreeBSD), WWW servers.
- Recent projects: Director of "The City Web" project granted by the Eurasia Foundation in 1996–1998 and "Chelyabinsk Civic Network" granted by Friends and Partners Foundation in 1997-2000. Co-director of "The Lakes Network" project (NATO networking infrastructure grant), 1996–2000.
- Some presentations: at WebNet'96 conference, San Francisco, October 1996 and NATO headquarters, Brussels, May 1997.

Anton Voronin

Date of birth: November 9, 1975

- Engineer-mathematician, graduated from SUSU, 1998.
- Job: Ural Regional Centre of FREENet based SUSU since 1996.
- Three years experience of Unix (FreeBSD) system administration.
- Programming experience: C, C++, Perl5, shell, awk, prolog, CodeBase, ODBC, JavaScript.
- Implemented Projects: "Integrated gateway for email access to on-line Internet services", "Chat system" (CGI application and web-server module), etc.
- Participated in Advanced Networking NATO Workshop, Kaunas, Lithuania, 1998.

Galina Trifonova

Deputy director of research work department of the Chelyabinsk Region Picture Gallery. Graduate from Ural State University majoring in the history of art. She's been working in the Gallery since 1978. The author of more than 200 catalogues, articles in newspapers, magazines, special publishing's and presentations. Research interests are classical art of Russia and Europe, the history of art life of Chelyabinsk, modern art. A member of the Union of artists of Russia, and association of Chelyabinsk artists "Tradition". Made more than 30 expositions of old and modern art.

7.24 VALTECH

7.24.1 Presentation of Valtech

Valtech is a French international consulting group focused on e-business technologies.

Valtech helps its clients to create a durable competitive advantage (e-advantage) in building new Internet and Intranet applications integrated with existing systems. Thanks to its international network started in 1996, Valtech has gained a significant experience on critical e-business projects with two major kind of customers: the large international group (mainly in finance and communication) and the new players of the e-business market .

Valtech is listed at the **nouveau marché** since the 12 of April 1999. Valtech was elected Authorised Java Centres for Object Reality Consulting Services in **1998 on a worldwide basis**. Valtech is a member of the **OMG** (Object Management Group).

By the end of 1999, Valtech counted 390 employees :

- Valtech France : 120 Persons. Paris, Toulouse
- Valtech Germany : 30 Persons. München
- Valtech Switzerland :10 Persons. Zurich
- Valtech Sweden: 60 Persons. Stockholm, Uppsala
- Valtech UK : 60 Persons. London, Manchester
- Valtech US : 110 Persons. New York, Dallas, Denver
- Valtech Corporate : 15 Persons

Services

Valtech services include Project Delivery, Consulting and Skills Transfer. This offering leverages Valtech experience in the architecture of Internet (e-advantage Architecture) and the delivery of complex systems (Valtech Unified Process).

Valtech offers a collaborative approach that enables its customers to take overtime control on the development and the evolution of their e-business applications. Valtech partners with the major technology vendors to deliver the best operational solutions.

Formalizing Know-how

Valtech has developed an innovative model of R&D, based around a “virtual enterprise” structure. Most companies centralize R&D in a separate group that is cut off from real-world projects. Valtech’s “Open Market Model” is designed to ensure that the entire company contributes to enhancing Valtech’s knowledge capital.

In this model, operating regions contribute 7% of their revenues to a Corporate R&D budget. A lightweight Corporate team manages this budget, defines the overall consulting and training R&D priorities, and issues tender offers that any local Valtech office can bid for. This ensures that course materials and consultancy packages are developed by the consultants that are working out in the field.

Skills and Partners

Sun Microsystems :

- Valtech is one of the top five Authorized Java Centers in the world
- Awarded partner excellence award in 1999.

Inprise :

- Partner of Business Solution Program
- Valtech is one of the leading providers of Corba education and consulting.

Oracle :

- Valtech is Certified Solution Partner.

BEA Systems :

- Training Provider for BEA Weblogic Application Server
- Valtech partners with BEA on numerous consulting engagements.

IBM :

- Training Provider for IBM Websphere

Vitria:

In 1998 Valtech started a practice in Enterprise Application Integration (EAI) solutions to go beyond back office process automation and enable end-to-end E-business. Valtech partners with Vitria Technologies & is investing heavily in staff education on Vitria Technologies.

7.24.2 Project involvement

Partner, **Supplier**, Service Provider and System Integrators

7.24.3 Curricula Vitae**Jean-Pierre LORRE**

Jean-Pierre LORRE is senior consultant of Valtech in e-architecture. Prior to this activity he works as consultant of CRIL Technology and before was researcher at the CEA (French nuclear agency). His main domains of interest are distributed object technologies applied to Internet Architectures, Artificial Intelligence and graphical applications. Nowadays, he works as a trainer, consultant and project manager in the eBusiness domain (Enterprise Java Bean, CORBA, XML and Web architectures). Actually he is project manager on a CRM application dedicated to consumer event management based on EJB architecture. As a researcher in the fundamental research institute of CEA (Frederic Joliot Hospital), he works during four years on the application of neural networks to medical images processing. As a project manager of CRIL Technology, he works on the SPIRAL project. SPIRAL is a knowledge based system dedicated to the modelisation of large physical processes. He was also project manager of the SEXTANT framework, which is a platform dedicated to nuclear plant supervision. He defined and managed a CORBA based Telemedecine framework developed as a national research project with INRIA, European Institute of Telemedecine and Purpan Hospital. He has European project experience : Project VILIB, Project BISE-LT; publications

7.25 TERRA INCOGNITA LTD.**7.25.1 Presentation of Terra Incognita Ltd.**

Terra Incognita Ltd. is a new British SME specialising in consultancy for European institutions and enterprises operating in the field of multimedia content provision at large, oriented to application sectors like culture (libraries, museums, archives), education and tourism, publishing, audio-visual and new media. It provides high-level professional advice and consultancy in the following areas: Sustainable Business Planning, Market Analysis, IPR Management, and Strategic Advice on ICT Trends.

Sustainable Business Planning

Culture and the various sectors of the cultural industry are a major economic and social force in the European Union. Culture covers the heritage, literature, the press, music, the performing arts, visual and audiovisual media and socio-cultural activities. Europe is to culture what the USA is to information technology. However, this immense cultural wealth has until recently been seen more as a prestigious but costly heritage rather than as an asset capable of generating income. This is a narrow-minded attitude which only takes into account assets with an immediate short-term economic return. Thankfully this attitude is beginning to fade away and a more comprehensive and far-sighted approach is taking over: one which is able to realise that art works, for example, are not merely tradable objects

for collectors, but are also capable of generating value as in the case of industrial designs, albeit through radically different processes.

Traditional business modelling does not apply to culture for many reasons: the customer/provider relationship does not exist as such; there is a wide variety of actors; the legal and administrative framework is extremely complex; political, national and religious values are involved; and so on. For each enterprise, there is the necessity of finding a balanced approach between the traditional one which excludes economic considerations and a pure market-driven one which is doomed to fail. Sustainable business planning is the basic starting point for any business, including those within culture and tourism-related area. Any enterprise, be it profit or non-profit orientated, has to develop its own sustainable business model and project it into the future. A clear and well-supported business plan is the best credential which can be furnished to all its partners: sponsors, supporters, operators, collaborators and so on. Terra Incognita can assist its clients in analysing trends and opportunities, in identifying the various sources of risk, and in describing credible and sustainable economic models.

Market Analysis

The possibilities of new cultural practices offered by the Information Society are developing fast: multimedia and on-line services to mention just a few. On-line services, in particular those available on the Internet, are having far-reaching cultural effects. However, some key players in the market, such as cultural institutions can not be simply considered commercial enterprises in the same way as works of art are not industrial products. Even areas which at first sight might seem closer, like entertainment and publishing, are in fact different. One cannot launch a new exhibition as if it were a new film or a new best-seller. Being able to provide meaningful quantitative data for cultural enterprises is a daunting task requiring new approaches. Terra Incognita can assist in both the demand and the supply sides of market analysis, as well as in market intelligence and in the formulation of the most appropriate marketing plans including promotional aspects, applying new methodologies especially suited to take into account the subtleties and the diversity of the field.

IPR management

An essential aspect of any “new digital economy” business is the management of related intellectual property rights. It is virtually impossible to think of any activity concerning the promotion of culture and/or tourism without having a clear plan regarding the protection and the exploitation of the related IPRs. Unfortunately, the regulatory framework concerning IPRs is extremely complex: national and international legislation are often overlapping, contradictory, incomplete and ambiguous. Furthermore, they are only now trying to cover copyright and related rights linked to the digitisation of cultural assets. Terra Incognita relies on a network of experts in IPR who have expertise in some crucial legislations, and can offer assistance in IPR management in many complex cases.

Strategic advice on ICT trends

The dramatic changes in the valorisation of culture have been made possible, among other reasons, by the massive use of Information & Communication Technologies in its promotion and diffusion. ICTs have entered into every aspect of the management of culture and tourism: the digitisation of archives and works of art, art publishing through CD-ROMs and Internet, Virtual Reality reconstructions, audio and video guides to assist visitors in museums and historical sites, and so on. A more seamless integration of ICTs in the coming years are expected to provide vast new business areas offering ever more sophisticated services to “culture consumers”, breaking down the barriers between traditional museum visitors, cultural and historical city tourists, cinema and theatre-goers, literature readers, and so on. Terra Incognita is equipped to advice institutions on all relevant ICT trends, and to provide assistance in every important strategic decision related to technological choices.

Partnership

Terra Incognita Ltd has partnered with the following organisations: Telecom Italia (IT); Finsiel (IT); Infobyte (IT); MOTOROLA Technology Centre (IT); ERICSSON Competence Centre (IT); Consorzio Civita (IT); T&T (IT); Akros Informatica (IT); Municipality of Florence, Directorate for cultural policies and activities (IT); Municipality of Perugia, Directorate for cultural policies (IT); University of Florence, Department of Electronic Engineering (IT); CESVIT (IT); Uffizi Gallery (IT); Fondazione Querini Stampalia (IT); Fondazione Cini (IT); VASARI Florence (IT);

ITALIATOUR(IT); Krahuletz Museums (AT); Eggenburg Library (AT); Deutsches History Museum (D); Airweb (D and FR); National Museums of Scotland (UK); VASARI UK (UK); Universidad Polit cnica de Madrid (SP); Municipality of Madrid (SP); Museum National de Art de Catalunia (SP); Athens Technology Center S.A. (GR); University of Thessaloniki - Department of Archaeology and History of Art- (GR); the Acropolis Museum in Athens (GR); Silicon Graphics S.A. (GR); MT-Systems (HU); Tretyakov Gallery (RU).

7.25.2 Project involvement

Associate Partner, User, Service Provider and System Integrators

7.25.3 Curricula Vitae

Carlo Donzella

Managing Director

More than 16 years experience in IT management, in both public and private environments. He has designed and implemented Information Systems for public administrations from 1984 to 1988. Ten years of international projects management. Member of the Management Board of an IT SME with responsibility for international projects from 1989 to 1993. Responsible for selection and execution of R&D projects on behalf of the European Commission from 1993 to 1996. In charge of marketing and finance for a high-tech UK start-up from 1997 to 1998. Principal Consultant for Business Development to an American consultancy company since 1996. Founder of Terra Incognita in 1999.

Martin Reid

Cultural Advisor

Graduate in Spanish and Philosophy with post-graduate qualifications in Education. More than 20 years of experience in teaching languages in Europe and the Middle-East. Experience as actor, writer and translator of scientific works. Has worked for recording studios providing the "voice over" in English for videos and CD-ROMs. Founder of Terra Incognita in 1999.

Matt Johnston

Technical Advisor

Degree in Computer Science at Bristol University. He worked and collaborated with different functions, both in research and in education, with the Bristol University and other academic institutions. He is an experienced software developer, having worked in varied and demanding roles within the IT industry over a period of 10 years. Consultants to industrial companies for software design and implementation. Participated as project manager several ESPRIT and Telematics projects. Undertaken contracted-out assignments on behalf of large and SME European-based client companies since 1993.

7.26 MOTOROLA TECHNOLOGY CENTER ITALY

7.26.1 Presentation of Motorola Technology Center Italy

Established in 1999, this is an R&D Centre focusing in three major domains. The domains are 3rd Generation Applications which will explore future applications for 3rd generation wireless systems, system availability research with emphasis in architectural modelling and data networks, and

consumer product design with emphasis in industrial and physical design of future consumer handheld devices.

System availability research is aimed at creating a Centre of excellence in system and network dependability, while harnessing the knowledge available inside and outside Motorola. The Centre is also committed to perform Fault-Tolerance Studies aiming at improving system availability through architectural solutions and fault removal. The improvement methodology hinges on field data mining to identify potential product and architecture deficiencies.

7.26.2 Project involvement

Partner, **Supplier**, Service Provider and System Integrators

7.26.3 Curricula Vitae

Dr. Nassrin Tavakoli

Dr. Nassrin Tavakoli is PhD in Computer Science. The major fields of interest and investigation are addressed to Communications, Databases technology, Information Technology, pattern recognition and distributed systems. She initially held a position of Professor at the University of North Carolina (USA) and afterwards she was Communication Manager at the Aeronautical Radio inc. (a worldwide company) where she led a number of projects dealing with aeronautical telecommunication systems. She joined Motorola eight years ago and she is currently the Director of the Motorola Technology Centre in Italy. She is responsible for the centre activities focused on the development of third generation mobile communication systems and applications, Multi Media user interface and availability research. She is author of a number of publications addressed to Pattern Recognition, Image Compression and Full Text Retrieval.

Ing. Raffaele Menolascino

Raffaele Menolascino got the university degree on Telecommunication Engineering from Politecnico di Torino in 1988. From 1990 through 1999 he was in CSELT (The Public Telecommunication Operator Research Centre) involved in mobile network performance assessment and planning. From 1993 to 1995 he was involved, on behalf of CSELT, in the IRIDIUM project as task leader. The task objective was to propose appropriate modifications to the GSM call set-up protocols to adapt them to the IRIDIUM environment. From 1995 to 1998 he managed project AC016 STORMS, an R&D project framed in the ACTS Programme where a complete suite of UMTS planning tools have been developed and demonstrated. In 2000 he joined Motorola Technology Centre in Italy where he holds a Project Manager position.

Cicci

Roberto Cicci got the university degree on Telecommunication Engineering from Politecnico di Torino in 1997 and the Engineering Professional Certification from the Politecnico di Milano in 1999. From 1996 and 1997 he was in CSELT involved in a study about geographic digital networks and ISDN into details, for Video on Demand services applications, and in the project and development of a Video on Demand information search engine, through the Internet. From 1998 and 1999 he was Software Engineer at Cluster Reply Turin, involved in project and development of administration software for Intranet infrastructure (web like). From the end of 1999 he is Software Engineer at Motorola Technology Center Italy involved in 3GN mobile systems area.

C8 Economic development and scientific and technological prospects

One of the main reasons to run a project like REGNET is based on the concept of new e-economy applied to the operations of cultural heritage institutions. Since there are different types of organisations there are also different possibilities to exploit the potentials of the REGNET project. The different types of organisations are:

- Content providers (cultural institutions like libraries, museums, archives, etc)
- Service suppliers (cultural industries like IT-enterprises, new media company, internet service providers, etc)
- Business access points (organisations which provide access to the REGNET system (eg. cultural institutions, local administrations, tourist offices, information brokers, etc)

REGNET is relevant to all types of organisations: content providers are enabled to sell digital or physical goods as well as services (experts, exhibition planning, etc) and products (museum shop, copies of real objects, etc) using the REGNET e-business subsystem; service supplier are able to sell their services (eg running a REGNET System) and products to a broader community in the field of cultural heritage (the exploitation of the REGNET System itself is dependent on a consortium agreement); business access points are able to sell consultancy work or can even offer services (eg distributed searches) using the REGNET System.

To identify the real potentials of the REGNET systems different activities are carried out: Identification of the market relevant to different types of organisations. Since REGNET partners are coming from twelve European states the different studies carried out for the partner's states cover nearly the whole European market. There will also be investigations done what clientele can be addressed using the REGNET system functions. A rough estimation would deliver that the number of cultural institutions (libraries, museums, archives) located in regions spanned by the REGNET network might be beyond 50.000. Potential users will be millions. To prepare the final marketing activities a methodology how to do the marketing will be done within a market engineering activity. The marketing activity will be carried out within the framework of the trial service (demonstration phase).

The market analysis performed within the REGNET project will be based on already available material (previous studies like being done within the RAMA project) and on the study of the user requirements data gathered in the preparation phase of the project and the correlation of the knowledge gained from that study with the broad and deep industry and market knowledge available within the large consortium.

An Exploitation Committee nominated to deal with specific issues on exploitation will give consideration to the exploitation of the results from a fairly early stage in the project. It is eventually expected that the exploitation plan would have an influence on the REGNET system functions..

Commercial potential justifying the commercialisation of project results will be qualified and quantified in the form of a Business Plan to be developed by the industrial partners. This Business Plan will be presented for discussion and agreement as soon as the successful delivery of the REGNET Demonstrator has been assured.

The exploitation plans of some partners, especially from the Service Supplier Group, (might be applicable to other partners in that group) are:

Exploitation plan Valtech.

When the REGNET framework will be available, VALTECH will have a first version of tools dedicated to e-business in the field of cultural heritage which allows VALTECH to penetrate the significant add-value market of cultural heritage Internet systems. REGNET will be

distributed in the market of museum portals in order to develop both B2B and B2C business. Moreover, REGNET will allow VALTECH to strengthen its market position in the field of e-business. The development of the REGNET system will enable VALTECH to penetrate in the wide market of Internet tools for B2B application.

Exploitation plan Tarx.

Tarx, being involved already in a number of cross-domain initiatives in art, culture, tourism and information communications technologies, wants to boost the competence centre activities in these areas. Through the Regnet-project, Tarx wants to gain access to a portfolio of technologies (licences) that makes it possible to bridge the gap between culture (content) and e-commerce (economy) and to deliver solutions within this area.

The market Tarx is targeting for is twofold: Flanders (Belgium) and European cross-cultural realisations. After the realisation of the Regnet-part, especially in collaboration with the Museum of Mechlin, Tarx aims to realise the same for a number of other Flemish Museums and Archives in the year following the end of the project. A rhythm of a series of three per year is envisaged. Another activity line of Tarx is setting up the cross-cultural content for different European regions, e.g. Flemish heritage tracks in South East England and vice versa. This fits completely with the underlying theme of the Regnet-project and can be repeated for a lot of other European regional combinations.

The pay back of the investments will mainly reside on two components: consultancy/realisation and operations/maintenance/quality control. Consultancy and realisation are one shot income sources but the operational side, maintenance and quality control, definitely needed in this rapidly changing technology and content world, will provide a more continuous income. One can expect that the exact mechanisms to achieve this will evolve over time and will be dictated de facto by the market (fixed fee based, percentage on volume, etc.).

Exploitation Plan ITI.

ITI, as a research institute, does not have at present a commercial interest in the exploitation of the REGNET results. The research and development objectives of REGNET fit perfectly into the general orientation of the research group of ITI and will help to further deepen its scientific excellence. Part of the business plan of ITI, is to produce in 2-3 years a spin-off commercial company capable of exploiting its research.

Exploitation Plan SIE.

REGNET has been conceived from an awareness of the needs to satisfy, and will make of user requirements elicitation a dynamic process throughout the project life time by the active participation of the end-user partners in the project in all the steps of the development. Most probably this user participation will take place through the provision of successive prototypes with enhanced functionality the users will be able to play with and provide feedback into the technical development accordingly. The intention is also to create a REGNET user group to increase the user base.

Potential commercial exploitation is the essential driving aim for the REGNET consortium. The successful commercial exploitation of a product starts by satisfying market needs and undertaking the appropriate promotion. In addition to the creation of the user group -which complements the work of the user partners in the consortium- to ensure developments according to the evolution of user needs and expectations, the project will undertake a series of dissemination activities to promote

internationally the project. These will include production of leaflets, organisation of conferences with demonstration of the project prototypes, and publications.

The commercial success will certainly rely on the elaboration of a good exploitation plan which, starting by the correct product definition, keeps continuously an eye to the potential competition, and analyses benefits and risks to enter the potential market. SiE will involve their commercial staff to ensure all necessary actions are properly undertaken for the elaboration of such a plan. There is a clearly defined market for the REGNET project in Spain and this is the market SiE wish to tackle making use of their already strong introduction in the Spanish market.

AIT, as project co-ordinator, will establish an English *web site (continuation and extension of the existing project web)*, that will give free access to information about the project and about the consortium members, as well as to deliverables defined as public use. It also will permit controlled access (through a password) to other project information and deliverables (under prior agreement by partners) to all organisations potentially interested in future developments of the programme, in order to encourage their involvement in it once the pilot stage is concluded. Besides this different means for the dissemination of information related to the REGNET project will be offered: discussion lists, printed and electronic information material, etc.

The consortium, through its partners, will take part in general or specialised forums, both national or international, in which it could be of interest participate for the dissemination of problems and solutions posed all along the programme, in order to assure the awareness among potential users.

Besides, it will assure dissemination of project results in most important international normative forums or international associations of involved professionals (such as IFLA, ICOM, UNESCO, Cultivate accompanying measure, OMG, CEN/ISSS, ZIG, ebXML, DLM-forum, etc), especially with regard to standards that must be applied in the project, in order to assure the awareness of relevant bodies that might have an influence on the adoption of those technologies.