

Building Blocks for Europe's Electronic Libraries*

The European Commission's Telematics for Libraries initiative: Taking stock

Hans-Georg Stork

European Commission, DG XIII/E/4, Luxembourg

Keywords: Telematics for Libraries, European library projects, Electronic Library

Abstract: There is growing awareness of the potential contribution libraries and the people working in them can make towards the creation of new and useful services based on large information repositories and on modern Information and Communication Technology. In today's Europe, with its single market, this is clearly an issue of European dimension and concern. DG XIII of the European Commission responds to this challenge by funding a number of relevant projects within the Libraries Sector of the Telematics Applications Programme. Many of these projects may be viewed as providing building blocks for an "electronic" infrastructure for libraries, covering the whole of Europe. This paper presents an overview of these endeavours in terms of goals, technical approaches, current achievements and future prospects.

The "Libraries Programme"

The Telematics Applications Programme (TAP) is one of the large subprogrammes of the Fourth Framework Programme for Research and Technological Development (FP4). It was launched by the European Commission in 1994 and will cover a period of five years. It has been designed to promote the application of telematic solutions in various areas of relevance to growth, competitiveness and employment in Europe. "Knowledge" has been identified as one of these areas and three sectors of the programme have been linked to it: Telematics for Research, Telematics for Learning and Telematics for Libraries. Thus the role of libraries (of practically all kinds and at all levels) continues to be acknowledged as crucial for the development of the infrastructure of an emerging Information Society. The attention they receive has in fact considerably increased since the first European initiatives were taken for their benefit in the mid-eighties, and since a small European "Libraries Programme" was made part of the Telematics Programme under the Third Framework Programme (FP3, 1990 - 1994). There is now growing awareness of the potential contribution libraries and the people working in them can make towards the creation of new and useful services based on large information repositories and on modern Information and Communication Technology. In today's Europe, with its single market, this is clearly an issue of European dimension and concern.

The early library initiatives had led to the definition of a workprogramme which became the basis of the libraries area (Area 5) of the Telematics Programme under FP3. It was stated in terms of four "Action Lines":

- I Development of computerised bibliographies
- II Telematic means for interconnecting library systems
- III New library services based on I&CT
- IV IT products, services and tools in support of AL I-III

The overall goals underlying these Action Lines are derived from a 1985 resolution of the European Council of Ministers which provided the political rationale for any subsequent Commission activities in this area. It called on the Commission to help create a modern libraries infrastructure in Europe, in support of economic, social and cultural life. In view of today's developments this was certainly a timely and yet far-sighted mandate: timely, because the "digital revolution" along with new and exciting technologies had already taken a firm grip on many sectors of the economy, and libraries everywhere in Europe (in some countries more

than in others) were facing a real threat of falling behind in adopting these technologies. But it was also far-sighted, given that the concept of the "Information Society" had not yet gained a high profile in public opinion.

Clearly, the first two of these Action Lines were of pressing urgency. They involved the definition, adoption and - most importantly - implementation of standards. Hence, prior to the formalisation of the "Libraries Programme" as part of the FP3 Telematics Programme, several pilot projects were launched that addressed precisely these issues, to wit: CD-BIB (Interchange of bibliographic data on CD-ROM), EROMM (European Register of Microform Masters), ION (OSI interconnection between library networks for interlending services) and EDILIBE (Electronic data interchange for libraries and booksellers).

Library projects under the Third Framework Programme

The workprogramme underlying the libraries area of the FP3 Telematics Programme also included a number of "priority themes" for each of the Action Lines, in order to provide proposers with a clear focus on technical and organisational objectives. Three calls for project proposals (CfP '91, '92, '93), based on this workprogramme, were launched during the lifetime of the Third Framework Programme (FP3).

They attracted altogether 333 proposals involving 1036 distinct organisations. 51 proposed projects (involving more than 200 distinct organisations) could be funded (some of them are already completed). Their repartition among the Action Lines is shown in Table 1 (the completed projects are indicated by using an italic script).

	CfP '91	CfP '92	CfP '93	Total
AL I	<i>HELEN</i> <i>FACIT</i>	USE- MARCON		3
AL II	<i>EDILIBE II</i> <i>EDIL</i> <i>SOCKER</i>	LIRN EUROPA- GATE	PARAGON ARCA ONE	8
AL III	<i>ELISE</i> <i>HYPERLIB</i> <i>EBP</i> <i>RIDDLE</i>	EDUCATE SPRINTEL AIDA MOBILE FASTDOC BIBDEL <i>PLAIL</i> EURILIA	SELF COPINET BORGES DECOMATE REACTIVE TELECOM DALI	18
AL IV	<i>EXLIB</i> <i>MORE</i> JUKE-BOX VAN EYCK	ELSA CANTATE BIBLIOTECA INCIPIT MECANO	MURIEL DECIMAL EQLIPSE MUMLIB TRANSLIB DECIDE CANAL/LS MINSTREL SESAM BAMBI HISTORIA OLUIT CASE- LIBRARY	22
#Projects	13	16	22	51
#Partners				200
Budget				~24 M

Table 1: Results by Action Line

The relatively large number of projects retained in '93 under Action Line IV (targeted at the market for library products and services) is most likely due to a special initiative taken in conjunction with CFP '93. It was aimed at stimulating the participation of small and medium-sized enterprises (SMEs) by granting some financial support for the preparation of full proposals. It may also be worth noting that only three projects could be allocated to Action Line I. (More should be said about this later on.) Further statistical analysis of the three calls under FP3 would certainly reveal interesting facts and figures regarding coverage of the Member States (plus associated countries), and of the different types of libraries and library-related organisations.

It is perhaps more illuminating to analyse our FP3 projects from quite a different point of view, i.e. in terms, say, of technologies, standards, services and specific domains of interest. A possible result of this analysis is represented in Tables 2 and 3. There is indeed a wide range of issues that have a bearing on the libraries' world and upon which the libraries' world may have a bearing. We should not be too demanding, though. The "Libraries Programme" was never meant to host "original research" (and, for that matter, neither was the Telematics Programme at large). "Innovative application" is the term that may characterise the gist of our projects. And "innovation" is as relative as time and space: what may be considered new in the library domain may be an "old hat" elsewhere. But this should not diminish our endeavours, on the contrary: creative adaptation of proven methods and techniques to a specific domain may be no less an intellectual challenge than designing these methods and techniques in the first place. Obviously, these remarks apply to some lines in our Tables 2 and 3 more than to others.

	AL I	AL II	AL III	AL IV
Networking		EDILIBE II (EDIFACT, X.400) EUROPAGATE, ONE (SR/Z39.50) SOCKER, PARAGON, ARCA (SR) LIRN (X.500) EDIL (GEDI recom.)	AIDA (ILL) DALI (Z39.50, X.400) ELISE (Z39.50, Internet)	MURIEL (ISDN)
Imaging	FACIT (scann., OCR)		BIBLIOTECA (print) DALI (Scient. rep.) ELISE (photog, maps) EURILIA (text, fax) FASTDOC (journ., fax) RIDDLE (text)	BAMBI (Manuscripts) HISTORIA (heraldry) INCIPIT (microfilm) MORE (scann., OCR) MUMLIB (multim.) VAN EYCK (photog)
Multimedia				JUKE-BOX (sound) MUMLIB (CD-ROM)
Toolboxes	UseMARCON (convers.)			MECANO (CD-OPAC) OLUIT (user interface) CASELIBRARY (Library service interf.) MINSTREL (MI tools)
Various tech			SPRINTEL (voice rec.) MOBILE (GSM)	REACTIVE (voice, videotex)

Table 2: Issues covered (technologies)

Some of the key projects that resulted from FP3 calls are still ongoing. So it would be somewhat premature to talk about their final results. It is, however, possible to draw some qualitative conclusions, mainly from the content of Tables 2 and 3. A general conclusion would be that libraries in Europe are indeed making an effort to catch up on some widely recognised

trends, such as standardisation of data formats and communication protocols; they are preparing themselves for the "digital age" and for becoming rooms accessible in "cyberspace"; they try to gain efficiency in their internal workings and to seek new opportunities in areas (such as education and training) where they have played an important role ever since.

As far as networking standards are concerned the controversy between OSI and the "Internet world" seems to be going on, with the latter gaining more and more ground. Interlibrary networking in Europe still seems to be a stronghold of OSI whereas the Internet is the obvious choice when connections into the world at large are called for (WWW is the name of that strange attractor). The convergence of SR and Z39.50 (or is it a takeover of the former by the latter?) may eventually lead to a "peaceful settlement", at least on the interlibrary front. Our projects do also make significant contributions to format standards. They deal for instance with the conversion of bibliographic formats (e.g. UseMarcon), the creation of bibliographic records (e.g. MORE), and with applications of SGML and its derivatives (like HTML) to the enhancement of library catalogs, bibliographies and electronic documents in general (e.g. HyperLib - with one of the best Web-OPACs, ELSA, SESAM, BIBLIOTECA and others). It must be noted, however, that too few projects are supporting or promoting international bibliographic standards.

	AL I	AL II	AL III	AL IV
Formats (bibliogr. and text)	UseMARCON (Unimarc)		BIBLIOTECA (SGML) HYPERLIB (SGML, HTML)	MORE (SGML, Unimarc) ELSA (SGML) CANTATE (SDML) SESAM (HTML)
Multilingual	HELEN (transliteration)			CANAL/LS (catalogue access) TRANSLIB (dict., thes.)
Document delivery & Electronic publishing		EDIL (File transfer)	EURILIA (techn. docs) DALI (MM scient. reps.) FASTDOC (order&deli.) BIBDEL (learn. mat.) EDUCATE(courseware) DECOMATE (copyr. mat.) COPINET (copyr. mat.)	SESAM (acad.courses) ELSA (electr. journals)
Decision support				DECIMAL (DDS mod.), EQLIPSE (PI, ISO9000), DECIDE (DSS, PI), MINSTREL (PI, DSS)
Education & training			EDUCATE (science&engin. students) PLAIL (adult learners) BIBDEL (general) REACTIVE (general)	MURIEL (librarians) SESAM (students)

Table 3: Issues covered (standards, services and specific domains of interest)

"Electronic documents" is the cue that leads on to the next area of concern, an area that has also often been described using the catchword "Digital Libraries". (Like the "information highway" this is a term that was made popular in the United States. In Europe we may prefer to talk about "Electronic Libraries".) Without backing any side in debates on "digital (or electronic) libraries", it is safe to say that many of our projects are dealing with matters which without doubt are

inalienable elements of the "Digital Library". There is digitisation of library materials in the first place, through scanning and OCR for instance (e.g. MORE). Imaging technologies are applied by a large number of projects (cf Table 2), with the express aim of making documents (including old and fragile ones) more accessible to specialists and the general public alike. And they are often employed within larger settings, involving other technologies that are pertinent to the concept of a "Digital Library", such as electronic document management and document delivery, where documents are no longer limited to linear text, but may contain objects traditionally represented through quite different media, and are structured through links among these objects. ("Multimedia" and - if networked - "Hypermedia" are the terms usually applied to this extended notion of documents.) It seems quite evident that libraries do not ignore the (many) problems posed by what has become known as "Electronic Publishing" and that they are well on their way to assume new places within new publication chains.

Not all of these problems are technical and in fact the technical ones are those which are probably the easiest to solve. Copyright and IPR (Intellectual Property Right) are far more formidable. Many of our projects (especially those that do have a document delivery component of some sort) have to tackle these problems. And it is of course tempting to put I&CT to use for suitable solutions. At least two of our current projects, COPINET and DECOMATE, both dealing with the electronic delivery of copyrighted materials, were specifically designed to do just this.

A third remark is about new services. There are those based on Information and Communication Technology (I&CT) (like the aforementioned document delivery) and there are others which aim to make people fit for using I&CT. It is quite heartening to see that public libraries are making a particular effort in this direction. Four projects, SPRINTTEL, REACTIVE TELECOM, MOBILE and PLAIL should deserve an honourable mention at this point. SPRINTTEL and REACTIVE TELECOM for having combined well established technologies like Telephone and Cable TV, with fairly advanced voice recognition and synthesis tools, in order to provide citizens with library services in their homes; MOBILE for introducing I&CT into mobile libraries and thus extending I&CT based library services to inhabitants of rural and remote areas. PLAIL, on the other hand, run by a consortium that includes three public libraries, sets out to enable librarians to provide help and guidance to adults who are seeking to improve on their own their professional skills and knowledge (so called "adult independent learners"). Libraries have always had a key role in education and training at all levels (as "learning resource centres", one may say) and so it is not surprising that there is a number of projects, with mainly academic libraries involved, that focus on issues pertinent to these areas. EDUCATE for example, will use the WorldWideWeb to give students access to courseware on information sources related to physics and electrical engineering; SESAM will provide improved access to the library's learning resources via the campus network and MURIEL envisages the collaborative and distributed production of courseware to be used by students of librarianship via Euro-ISDN connections.

Even from these short descriptions it becomes apparent that it would not be fair to put just one label (referring to just one technology, one service, etc.) on each particular project. Indeed, most projects have many dimensions and can well be characterised as multi-disciplinary. Therein lie, one might argue, the particular challenge and attraction of applying modern technology to the creation of new library services and to the enhancement of traditional ones.

At this point it may be appropriate to note that the Commission services that manage R&TD funding programmes like the one described here, do not understand their role as mere providers of funds. Their mandate and ambition go beyond that. They are also called on to act as facilitators in our respective domains, to foster cooperation between all players and to provide support for solving problems of general interest. These activities are commonly known as "accompanying measures" and may take the form of, for example, (ground clearing) studies, workshops and concertation meetings. By the rules of the FP3 Telematics Programme it was

also possible to set up so called "fora" in order to study problems which could not or not sufficiently be addressed through the ordinary Call for Proposals mechanisms. Three such fora were instigated by DG XIII's "Libraries Unit": ECUP (European Copyright User Platform), CoBRA (Computerised Bibliographic Records Action) and EFILA (European Forum for Implementors of Library Automation). In addition, there is support for groups (such as EWOS, the European Workshop on Open Systems) where library related standards are discussed.

It goes without saying that these fora were not set up "out of the blue". Each of them grew from a perceived need for clarification and action. This is quite obviously the case for ECUP as was already explained above. (The Library Associations of all Member States and of other countries eligible for participation in the TAP are represented there.) CoBRA was created in cooperation with CENL, the Conference of European National Librarians, in response to a relative lack of sufficient response to our Action Line I. It was felt that for whatever reason the national libraries had not been adequately represented in Action Line I proposals and that, after all, harmonisation of bibliographic records was a matter of concern primarily to the national libraries. In the meantime, several studies have been launched under CoBRA which are investigating in depth, issues related to bibliographic data, such as UNIMARC, authority files and Unicode. Finally, EFILA has come into existence through our participation in EWOS. It invites implementors of library automation in Europe to share experiences on the implementation of standards and to create feedback to standardisation bodies and profiling groups such as EWOS.

First steps into the Fourth Framework Programme

When the overall structure of the new Telematics Applications Programme under FP4 was deliberated there was no doubt that Libraries would again be included as an important sector. It was equally clear, however, that the focus of this sector would have to undergo a slight shift. There was dual justification for that: On the one hand account had to be taken of the experience gained with FP3 projects. On the other hand the increased attention had to be honoured that was paid to libraries in discussions on what is conveniently termed "the Information Society", and its all-embracing global networks. The new workprogramme for the Libraries Sector of the TAP was hence to be guided by two fundamental principles: continuity and openness: Continuity with regard to ongoing activities and openness towards more recent trends and substantial developments in areas such as digitisation, networking and multimedia. After all, many of our early FP3 projects (from CfPs '91 and '92) had already undergone considerable adaptation in accomodating these trends and many of the later FP3 projects had quite expressly been defined in response to them. In view of this fact it was felt that continuity should not be too difficult to achieve. On the operational side the new workprogramme should encourage and to the largest extent possible support the move in the libraries world "from collection-orientedness to access-orientedness". Telematics, of course, is the key to accomplishing this move which affects systems and services alike.

In structuring the new workprogramme some heed had to be given to constraints imposed by the overall approach adopted for the TAP under FP4. It was still possible though to put the workprogramme in terms of Action Lines and to broadly describe a number of themes (now called "Call Topics") which, albeit not obligatory, provide potential proposers with a framework into which they can place their project ideas. The "Research Tasks" required by the general TAP structure have been rephrased as "Task Goals" and subsumed under the new Action Lines:

- A. Network-oriented internal library systems (Task Goals: LB1.1 - Modernisation of library systems and tools, e.g. with a view on cost-effectiveness, development of "easy-entry" technology to reduce disparities; LB1.2 - Provide continued stimulus to the European market for library systems and tools)
- B. Telematics applications for interconnected library services (Task Goals: LB2.1 - Interconnection between libraries to support development and enhanced services based on a

distributed library resource in Europe; LB2.2 - Integrated cross-border services for data-exchange, interlibrary lending and document delivery between libraries; LB2.3 - Electronic links between libraries and publishers/suppliers for acquisition and distribution of materials and data; LB2.4 - Development, testing and integration of open standards in libraries.)

- C. Library services for access to networked information resources (Task Goals: LB3.1 - Evolution of an organisational framework and integration of emerging resource discovery technologies into services for organised access to networked information resources; LB3.2 - Library-mediated services for end-user access to network information resources)

These Action Lines address library related issues and problems at three interlocking levels which (with a little grain of salt) may be paraphrased as (A) "intra-", (B) "inter-" and (C) "extra-" library respectively. This will become even clearer if we look at the various Call Topics:

Action Line A Call Topics:

1. Integration tools and interfaces for library systems in the local network
2. Tools and methods for the creation and use of library materials in electronic form
3. Development and testing of tools for the management and administration of library services in an electronic environment

Action Line B Call Topics:

4. Creating and testing interconnected library services, integrating applications for at least two different library service functions
5. End-user access to inter-library network resources
6. Services for the acquisition and supply of materials to libraries
7. Development of new scenarios and models for distributed libraries and associated services to users (in preparation for potential implementation projects)

Action Line C Call Topics:

8. User services based on resource discovery and retrieval
9. Test-beds for library mediated access and services based on networked information resources
10. Tools for use of retrieved networked information resources
11. User applications supporting unified access to combined networked information and library-based resources
12. Integrating library services with distance learning environments

These Call Topics are indeed hospitable to a wide range of project ideas (picking up on all the issues listed in Tables 2 and 3, and more) as it turned out in mid-June, 1995, when the time for submitting proposals to our first Call (CfP '95) under FP4 had elapsed. It would of course lead too far to present a fully fledged analysis of the more than 100 proposals received. Instead, a brief overview of the 14 shortlisted project proposals by Action Line may suffice. (Another 11 proposals have been put on a reserve list. As many of the shortlisted projects are still being negotiated some confidentiality ought be respected. It will therefore not be possible at this stage to indicate the potential new projects by name - after all, that may change - or to add any administrative information.)

Projects proposed and shortlisted under Action Line A:

- Development of a multi-media information system for public libraries with standard interfaces to local and remote catalogues and other information sources. It will incorporate

modules for user training and it will also be accessible from outside the library, e.g. from schools, private companies and private homes.

- Setting up a service aimed at improving the quality of bibliographic records. This service will be rendered through a knowledge-based system that is accessible via library networks and that will check bibliographic records for consistency.
- Development of a smartcard-based system providing secure, single code access to a range of internal and external library services. It will also handle billing and charging, and cater for the suppliers' need of guaranteeing copyrights.

Projects proposed and shortlisted under Action Line B:

- Building a large scale demonstrator of open, distributed library services integrating Search and Retrieve, (multimedia) Document Delivery and Interlibrary Lending. It will also allow for collaborative cataloguing. It will present a unified view on a potentially large heterogeneous (in terms of access method, record syntax, character set and even language) set of physical databases. Key standards to be employed will include SR/Z39.50, UNICODE and UNIMARC.
- Creation of a serials authority list based on the ISSN system. It will allow users to locate documents, identify document supply centres and find article citations and abstracts from multiple locations. Services based on this list will be available i.a. on the WorldWideWeb via ISSN to URL mappings.
- Development and demonstration of an operational image retrieval service based on a heterogeneous set of networked image banks located in several Member States of the Union. This service will be extensible and it will include a model for protection of rights, fair pricing for educational and cultural use, and mechanisms for charging.
- Implementation of a prototype system that enables the interchange of data between publishers and national bibliographic agencies. Based on this system services will be provided for the registration (at a European level) of electronic publications. Criteria for the kinds of electronic publications to be incorporated into national bibliographies and mechanisms to support bibliographic control of this material will be established.
- Production of multimedia materials for the children's library. These materials include search and access tools as well as packages for teaching children how to locate and use local and remote library resources, for stimulating their personal creativity and for communicating among each other via a (potentially Europe-wide) network of childrens' libraries.
- Building a Document Delivery demonstrator (involving several interconnected electronic document stores, located in different Member States of the Union) which will handle all service functions (searching, ordering, delivery, billing, etc.) under a unified standard interface allowing users to define their own individual profiles. The proposed technologies include document management systems and on demand scanning.

Projects proposed and shortlisted under Action Line C:

- Setting up trials in public and academic libraries in four countries whereby blind and visually handicapped readers may access catalogues and documents.
- Design and implementation of an open system for integrated access to and retrieval of documentary information (as commonly available from libraries) and empirical data (as usually contained in data archives). It will offer tools and procedures for the normalisation, cataloguing and controlled distribution of distributed holdings of material of the said kind.
- Development of an Internet based aid for search, selection and presentation of information on European law and politics from a wide range of locations and media to which there is currently no centralised access. It will consist of three basic elements: a WWW index of

European law and politics, a multimedia facility for training students, teachers and librarians, and a search engine providing a WWW interface to national and European parliamentary databases.

- Testing the "electronic library" versus the "traditional library" in an academic environment. This will be achieved by offering traditional library materials (journals, textbooks, reference works and dictionaries) and computer based training materials, on CD-ROMs, via campus networks and via wide area networks. The acceptance by students and other users of these products will be tested in comparison with usage of traditional media (paper, microfilm, etc.). New forms of cooperation between libraries and publishers will be made possible by the particular server technology (Hyper-G) which allows to implement relatively simple models for dealing with issues such as copyright and fair charging..
- Integration of "Flexible and Distance Learning" (FDL) solutions into a public library environment. Library users will gain access to a wide range of learning materials through a consistent interface: the library. This range includes a portfolio of interactive multimedia FDL titles, "wrapped" with distant (via networks) or local mentor-support. Four prototypes in four Member States are envisaged. These will be linked for Europe-wide user-support, feedback and discussion fora.

It is perhaps not surprising that most of the retained proposals do not address just one Call Topic and not even a single Action Line. This may partly be due to the abovementioned constraints imposed by general "TAP rules" but it is more likely to be a consequence of the intrinsic (and growing) complexity of the library scene. There are simply no clear-cut boundaries. Yet the above allocation of proposals to Action Lines is not entirely arbitrary: it does reflect the main emphases laid by the proposers and - in some cases - discovered by the evaluators. As from the outset Action Line B was considered to be the "centre-piece" of the new workprogramme it is worth noting that Call Topic 4, a key theme, will be addressed by two projects, although one of them has been cut back to meet the requirements of Call Topic 7. (Call Topic 7 was intended to provoke forward looking proposals for the preparation of projects which would not yet be ready for implementation given the present state of the art, but could well be realised in the medium-term. The proposals originally responding to this Call Topic were not deemed of sufficient quality to warrant their further consideration.)

The above selection of proposals also proves that the TAP Library Sector is well placed in the Telematics for Knowledge area, together with Research and Education and Training. This is particularly true with regard to Education and Training. In fact, most of the new projects will have a "training component", enticing library patrons to make more effective use of the resources offered. And - in continuation of a trend that has already become apparent following the last two Calls under FP3 - there will be a number of projects which explicitly intend to strengthen the traditional role of libraries as educational resource centres. As in the past, this applies to academic and public libraries alike. (In retrospect this result is also an excellent justification for introducing Call Topic 12.)

Another tendency seems to gain impetus: the fortification of links between publishers and libraries, especially as regards the new electronic forms of publishing, enhancing the function of libraries as distribution channels (at least for certain kinds of - electronic - sources). And there is some hope that for basic problems related to issues such as copyright, viable practical solutions will be found and experimented with.

As far as technologies (or applications of technologies) are concerned, there are two keywords (or perhaps "buzzwords"?) that catch ones attention while browsing the short project descriptions: "The Web" and "Multimedia". They are both more or less represented already in Tables 2 and 3. Another technology not figuring in these tables, is "smartcards", which one of the new projects is set to exploit in a libraries context.

A focus on global general networks was certainly implied in Action Line C and so it was no surprise that many proposers (especially many of those who were not successful) had felt it would be a good idea to "put something on the Web" which, after all, is now the most visible service on the Internet. Many of these ideas, however, did not take sufficient account of real needs of libraries (and their users) or of the value a librarian's expertise might add to e.g. organisational and navigational tools. They were therefore bound to fail in the evaluation process. However, there is good reason to believe that the selected "Web" projects will make a substantial contribution to a further opening of the libraries world towards the "worldwide networks at large".

The second keyword, "Multimedia", may owe its frequency to a general requirement set by the TAP which called for "multimedia telematics" rather than "data telematics". It is permitted to be a bit doubtful as to whether the promises linked to this term will (and can) be fulfilled during the lifetime of this programme. We are probably still far from being able to really enjoy "wide area multimedia" (or "hypermedia") as everyone will confirm who has tried to download Web-pages containing sound and images, at a speed of 9.6 or even 14.4 kbit/sec. (Not to talk about even highly compressed video, which looks quite jumpy when transmitted via ISDN.) So it remains to be seen whether or not the libraries world will greatly benefit from having bells and whistles carried on its networks in the years to come. It all hinges on the availability (at least in the medium-term) of sufficient bandwidth.

In all modesty it has to be admitted that projects funded under the European libraries programme are in no way unique in displaying the characteristics commented on above. These comments are in fact corroborated by many national, regional or local initiatives that are aimed at modernising libraries and giving them their appropriate place in the "Information Society". Another characteristic feature, not yet mentioned, is directly derived from the TAP rules. The official designation of the TAP is "Specific programme for research and technological development, *including demonstration*, in the field of telematics applications of common interest". The emphasis here is on "demonstration". In fact, TAP projects in all sectors are required to demonstrate what is designed and built, preferably on a large scale. They ought to prove the usefulness of their results in a real-world environment and not only in vitro. I am convinced this will not be too difficult for the projects of the Libraries Sector.

This account of the first steps into FP4 must not be concluded without saying a few words on further "accompanying measures" planned for the future. "Further", because the activities currently supported (to wit CoBRA, ECUP, EFILA - see above) will continue to receive attention. In addition there are plans to launch special "Concerted Actions" for important groups or types of libraries, and for tackling certain issues of common interest. There will be a Concerted Action for public libraries, involving in particular those who have submitted proposals following Cfp '95 (including the ones whose proposals could not be retained). Other Concerted Actions will be organised for music libraries, for dealing with library management issues and for the promotion of EDI standards. The aim of these actions (possibly to be implemented as "fora", like CoBRA, etc.) is to focus ideas, to stimulate cooperation (e.g. in view of preparing future project proposals) and to achieve synergy effects on a European scale. A Concerted Action for public libraries seems to be particularly promising and desirable as libraries of this kind should assume a leading role in shaping an "Information Society" where every citizen, irrespective of age, gender, race and income must have the right and the possibility to access the information he or she needs for a meaningful participation in social processes.

Postscript

More information on the European "Libraries Programme" and on projects funded under this programme may be retrieved via "<http://www.echo.lu/libraries/en/libraries.html>". That page also includes direct links to the Web pages of numerous European library projects.

Author's address:

Dr. Hans-Georg Stork

CEC, DG XIII/E/4

Bâtiment Jean Monnet, C5/69

L-2920 Luxembourg

Tel: +352-4301-33873

Fax: +352-4301-33530

e-mail: Hans-Georg.Stork@lux.dg13.cec.be

* Computers in Libraries 96 : Proceedings of the Tenth Annual Computers in Libraries International Conference held in London on 20-22 February 1996