Document Lifecycle Management for the European Public Sector

Keynote Presentation at the DLM-Forum Barcelona 2002

Industry White Papers

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P R O J E C T C O N S U L T

Unternehmensberatung Dr. Ulrich Kampffmeyer GmbH

Hamburg 2002

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Abstract

The use of electronic information, document, and records management technologies have become an essential component for archives and administrations of the European public sector institutions. The extensive growth of digital information and the problems of long-term access, preservation and availability create an increasing need for professional solutions. To address the larger scope of the DLM initiative the original acronym was newly defined as DLM Document Lifecycle Management. The global association of vendors and users of these technologies, AIIM International, has provided a set of six white papers to the DLM community presenting best practice solutions. An overview about the challenges, trends and changing markets for document related technologies closes this contribution.

Contents

The second DLM-Forum on Electronic Records in Brussels 1999 summarized in its conclusions (INSAR, Proceedings of the DLM-Forum on electronic records, Brussels 18.-19. October 1999, p. 333, 339; European Communities 2000) the urgent need for practical solutions facing the problems of public archives in Europe. Although there have been tremendous improvements on both sides, available technologies and organizational implementations in numerous archives, the growing volume of digital information created an even greater demand than stated at the DLM-Forum 1999 (Ulrich Kampffmeyer, "Electronic Documents Management Market in Europe: Technologies and Solutions", INSAR, Proceedings of the DLM-Forum on Electronic Records, Brussels 18.-19. October 1999, p. 50-65; European Communities 2000). The third DLM-Forum on Electronic Records in Barcelona 2002 was to address these challenges.

Drowned by the Digital Flood

The tasks of archivists, records managers, information managers and other related staff in public administrations today includes a growing variety of management and organisational issues to qualify, organise, store, manage, protect, provide access and deliver information in electronic archives. The "Digital Flood" adds to the original tasks of public archives and increases the pressure to develop suitable solutions.

The "Traditional" Problem

The traditional problems were focussed on the management of paper and other physical objects in archives and how to transfer them in digital systems.

- Kilometers of paper documents
  The huge amount of paper documents alone, in some archives reaching kilometres of shelves, millions of documents and billions of pages, creates a barrier for digitisation.
- Fragile, fading consistence
  Especially in historic archives the consistence of paper, not only from historical periods but as well the late modern paper, demands for urgent initiatives for preserving the records physically.
- Capture
  Both, the huge amounts of documents and their fading consistence create problems for digital capture with cameras or scanners. Providing documents electronically can be part of a strategy to enable access without endangering the fragile original documents.
- Ordering systems and indexing
  Indexing is the access key to documents. The depth and structure defines if a document can be easily retrieved or not. Different needs from archive specialists and future non-specialist users create difficulties in organizing electronic archives.

- Quality
  Capturing paper documents electronically, especially using high resolution and colour, create huge volumes of storage. Selecting appropriate formats for long-term archival and preservation is a challenge in the rapidly changing information technology market.
- Access
  Providing access to specialists on-site in a local archive system environment is the easy part. Allowing access to other archivists at other locations, to third parties and to the citizen is both a challenge for user rights administration and high performance delivery of requested information.
- Funds
  Politicians proclaimed open access to public archives. The necessary funds for installing and running systems, capturing and indexing the information, and managing the content are mostly not sufficient. Claim and reality may differ extremely.
- Awareness about the value of information
  One of the largest tasks is to communicate the value of the content stored in archives. If the stored information is not used and the value is not recognized, the work of transferring all archives into electronically accessible records management solutions is not worth the effort.

The "New" Problem

Besides the "traditional" problem of converting paper into electronic records a new challenge has arisen by the increasing amount of digital information. Most documents today are created electronically with text processors, spreadsheets, business applications, graphic and construction design programmes, digital cameras and video.

- Exponentially growing volumes of digital information
  The increase of digital information can be no longer measured. Industry analysts assume that per year today more information is created than in all the years since Gutenbergs invention. Software makes it easy to edit, copy, alter, store, distribute and print information. So not only the digital flood flows higher but as well the output of paper swells.
- Digital "only" information with no physical representation
  There is an increasing amount of electronic information generated which is no longer designed to have a physical representation in paper. XML documents with separated content, structure and layout elements, which are generated dynamically when viewing them; digital video, multi-dimensional construction and simulation objects, electronically signed documents where the electronic signature can be only approved in a software system. The list of these electronic objects grows and creates problems for long-term availability in changing software and hardware infrastructures.

- The “information gap”
  We already face today a widening information gap. Once existing information is no longer available. From simple websites disappearing from the internet to valuable information of space expeditions on no longer readable tapes, the spectrum and the value of lost information cannot even be estimated. We have to start immediately with the creation of electronic archives for the preservation of the earlier periods of the of the information age.
- The “information divide”
  On the other hand we recognize a growing divide in those who can easily access any needed information and those who strive for pure survival without any connection to the virtual information world. We face today simultaneously an “information overflow” and an “information divide”. Both create risks for the information society.
- Information redundancy
  One of the big problems of the digital flood is that most of the information are copies, slightly altered documents, and reformatted content. The new tasks for information and records managers include to discover, what was the original document, what was its context, and to select information, which may be valuable for future generations. Storing everything without selection and detention cannot be the strategy.
- Commercialisation
  In the early days of information technology digital information was private and only accessible in closed communities like company or administrations. The age of free information on the web is getting to an end. Valuable information has to be paid. Digital rights management, privacy, media asset management and other E-business software requirements add to the technological challenge for public archives. How to protect open public information from commercial re-use ?

The new Quality of Electronic Documents

As already discussed above the fast developing software and telecommunications industry not only provides solutions but as well new problems.

- Any format from data to digital video or complex virtual containers
  An electronic document in the 80ies was an easy to manage object: an ASCII-data file, a scanned black/white image as TIFF. Today a document can be anything in a software system: a video stream, a container combining different files, a file containing references on other files in different systems, complex proprietary digital objects, a.s.o. There is no unique format for every type of information available which could be used for long-term digital preservation, thinking in decades and centuries.

- Different renditions
  Information today is provided in different renditions, the same content in different file and object formats. Decisions have to be made, what is the original, and which rendition should be stored. Due to the fact that electronic originals are often created with software with a short-term lifecycle, renditions of stable representation formats may be more suitable for long-term preservation.
- Separation into content, metadata and structure information
  Especially in enterprise content, media asset and web content management solutions with the use of HTML and XML we recognize a separation of the content information from context, structure and layout. The same information is used for different purposes and representations. This leads to the challenge, which form of a representation to store and archive if the original software environment is not available.
- Digital signature and time stamps
  Todays electronic signature solutions provide both, a solution and a problem. The solution is that the author of a document can be authenticated and that the unchanged content of the document is proven. On the other hand personal electronic signatures “live” only for a certain period and can be only verified in a given software environment. Time stamps, nowadays available as well as certified electronic signature, can be used in addition to personal electronic signatures. By this combination of the authenticity of a document and its originator, together with the certified time when it was generated, a legally valid electronic record can be created.
- Digital Rights Management
  Today digital rights management regulations and solutions add to the complexity of archiving electronic documents. They are on one hand a solution to protect copyrights and authorship rights, to trade assets and to prove original content. On the other hand, the management of digital rights of different origin and different technical implementation create challenges for providing open access to electronic archives.

A Challenge: Open Access

One of the goal of all projects for the implementation of electronic archive, document, asset, and records management systems in the public sector, is to allow open access to the citizen.

- Political mission
  The political directive is clear – open public archives to provide transparency. Initiatives on the European level like eEurope2002 or on the national level like Bund-Online2005 are to provide digital services to the citizen. Most of these initiatives focus on E-government. To allow open access to archives is often only a sub-topic.

- Democratic user access
  The mission, to allow every citizen access to public archives via electronic means, ignores one important question: is there a demand, a need or an interest of “the” citizen to access information in public archives ? And if yes, to what kind of information ?
- Professional users and private users
  In the past archives were administered and used by records and information specialists only. Written demands, personal visits were the way to access information by third parties. In the future archives have to be able to serve different needs. Those of the specialists and historians as well those of journalists, companies and citizens.
- Rights protection
  These new user groups lead to the necessity to install systems which allow open access but on the other hand protect information if it is classified, personal rights are involved or time of publication restrictions apply. In the past the archivist or records manager could handle this individually, in the future intelligent software has to have the same ability.
- Easy use
  Most of the records and document management software was designed for use by professionals in private or public administrations. User interfaces, navigation, and retrieval functions require deep knowledge about the functionality and organisation of the system. To allow access for the citizen easy-to-use interfaces have to be developed, not only for web access but in the future possibly as well for home television systems, mobile devices, and other technologies. And it makes no sense if every public archive develops its own propriety interface!
- Availability
  The success of any open public archive will depend on the availability of information. Nice interfaces and comfortable navigation will lead to nothing, if the content is not prepared in a way that untrained users will find what they are looking for. And to launch an electronic archive with only a few documents already available is a “good way” to make every potential user never use it again.
- Cultural dimensions
  When discussing open access to public archives on an European level, we have to take into consideration the different information cultures in the member states. A general approach, which information should be provided by which technologies, seems not to be successful. The use of information technologies, especially in regard to the new applicant states, is very different in Europe.

- Language barriers
  Europe is a community of many languages. Language is a barrier in regard to information access. In regard to cross-language access to information, thesauri and automated translation technologies still have to be developed further. The goal to allow access to information independently from the language in which it was generated is still a vision and a major challenge. The European Commission and the European community have to face this challenge and have to provide suitable solutions.
- Time and budgets
  Given all these challenges and unsolved problems, all claims and programmes fall short today, both in regard to published time frames as well in regard to provided funds. Funding lots of different initiatives and single projects do not lead forward.

A Babel of Acronyms

The challenges cannot met by archivists, records managers, administrations and public institutions on their own. The ITC information and telecommunication industry has to supply suitable solutions. In the past the public sector was not regarded as a strong key market: complicated tenders, low rates and budgets, bureaucracy, few chances for organisational change. This has changed significantly in the last three years. Today the public sector is regarded as one of the drivers for the development of the DRT document related technologies market. But still there is a lack of suitable, repeatable and affordable solutions to address the needs of long-term archival.

Today it is no easy job to find a suitable solution for the problems of the DLM-community. The ITC industry adds to this on her own with creating new acronyms and marketing slogans for slightly different solutions every year. Shall we look for

- KM Knowledge Management ?
- RM Records Management ?
- DM Document Management ?
- DLM Document Lifecycle Management ?
- DRT Document Related Technologies ?
- CLM Content Lifecycle Management ?
- Electronic Archival ?
- MAM Media Asset Management ?
- ECM Enterprise Content Management ?
- EDM Electronic Document Management ?
- EIP Enterprise Information Portals ?
- xyz next year ?

All of these slightly different categories contain valuable components for the solutions needed by public sector archives. Considering the gigantic tasks of transforming existing archives into electronic repositories and managing the digital flood we need suitable solutions now. We need no individual solutions but standardised systems which fulfil the specific needs of public archives at least by a 80:20 ratio. These solutions must be accessible via web interfaces, support multilingual cross-over retrieval, use automated classification to support indexing of large volumes, and provide formats and storage systems for constant migration and long-term preservation. Vendors always claimed, the needs of archivists and records managers are too specific that there is no chance to create standardised systems, the market for these solutions seemed too small. Today these functionalities are as well required by any large private business and international organisation. This trend will increase the market offer of suitable solutions for public sector electronic archives.

The DLM Acronym

As well the DLM community identifies by an own acronym. When created in 1996 DLM was used for “Données Lisibles par Machine”. Today the ICT industry uses the DLM acronym for Document Lifecycle Management. To adopt to the wider tasks, scope and challenges, the DLM community changed the meaning of the acronym respectively. Machine readable data are only a small part of the solutions necessary to provide the memory of the information society. DLM now stands for managing the lifecycle of information from generation and use to long-term availability and preservation.

Best Practice

In 1999 as a result of the second DLM-Forum the DLM Monitoring Committee issued a “DLM-Message to the ICT Industry” and a “Consultative Document” (INSAR; Proceedings of the DLM-Forum on Electronic Records, Brussels 1999, pp. 345, 349; European Communities 2000) to address the needs of the DLM community. In 2000 the ICT industry, represented by a group of independent industry specialists from Germany, the Netherlands, Sweden and the United Kingdom, presented the “Answer to the DLM-Message to the ICT Industry” (INSAR, Vol. 8, pp. 1,3, Brussels 2000). The answer to the DLM-message included several proposals on educational activities supported by the ICT industry.

Based on this initiative, AIIM International, the global association for ECM Enterprise Content Management, launched a series of six industry white papers to address the special needs of public sector archives and to present practical solutions (Industry White Papers on Records, Document and Enterprise Content Management, Series, AIIM International Europe, Datchet, UK, 2002; ISBN 3-936534-00-4).

The industry white paper series was endorsed by Erkki Liikanen, Member of the Commission for Enterprise and Information Society. Liikanen states

"The importance of providing public access and long-term preservation of electronic information is seen as a crucial requirement to preserve the "Memory of the Information Society" as well as improving business processes for more effective government. Solutions need to be developed that are, on the one hand, capable of adapting to rapid technological advances, while on the other hand guaranteeing both short and long-term accessibility and the intelligent retrieval of the knowledge stored in document management and archival systems. Furthermore, training and educational programmes on understanding the technologies and standards used, as well as the identification of best practice examples, need to be addressed."

The AIIM/DLM white papers are to demonstrate the ability of the ICT industry to deliver solutions to the major known problems and address the following topics:

1. Capture, Indexing & Auto Categorisation
2. Conversion & Document Formats
3. Content Management
4. Access & Protection
5. Availability & Preservation
6. Education, Training & Operation

The following chapters summarise the content of the six publications, which focus on "common" and "best practice", standardisation, and trends.

IWP1 Capture, Indexing and Auto-Categorisation

This white paper on intelligent methods for the acquisition and retrieval of information stored in digital archives was authored by the company SER AG, a leading supplier of knowledge management, automatic classification and archival technologies from Germany. SER delivers as well workflow solutions supporting the DOMEA standard of the German public sector.

The white paper addresses the ever-increasing overload of information. An individual can read approximately 100 pages per day, but at the same time 15 million new pages are added to the Internet daily. Our limited human capabilities can no longer filter out the information that is relevant to us. We therefore need the support of a machine which facilitates the exchange of knowledge by storing information and enabling personal, associative access to it through the lowest common denominator in human communication: The common human index is natural written and spoken language. All other types of indexing are limited aids which humans must first learn to use before they can employ them. The standard has already been set and recognised as natural language, but systems which have adapted this natural standard are stilling missing.

The seven chapters of the white paper deal with the importance of safe indexing, methods for indexing and auto-categorisation, the role of databases, standards for indexing, best practice applications and an outlook on citizen portals and natural language based portals. Special focus topics are high speed data entry, OCR/ICR recognition technologies, and knowledge based indexing and access. The two described applications from the Statistical Office of the Free State of Saxony and the computer magazine CHIP give an overview about the efficient use of automated indexing and categorisation of unstructured information.

IWP2 Conversion and Document Formats

This white paper on backfile conversion and format issues for information stored in digital archives was prepared by HP Hewlett Packard, a worldwide leading supplier of computer hardware and storage solutions. For long-term archival HP offers digital optical media and jukeboxes to automatically manage the media.

The white paper addresses the issues which arise when considering the conversion of existing physical archives, that contain documents of different formats and types, into electronic format. These issues are broad in nature including the logistics of capture involving high volumes; the determination of appropriate strategies and tactics, for both delivering the conversion and maintaining normal business operations in the process; and the adoption of appropriate, reliable and sustainable document formats.

The first chapters describe the “Bottleneck of conversion”, types of information, information capture and standards for formats. Focus is laid on topics like long lasting archive formats, strategies for long-term information management, standards for storage formats and migration paths. The four best practice applications are from the Department of Forestry, Sanctuary Housing Association, Staffordshire County Council, and Levy Gee. The last chapter gives an insight on conversion strategies and the value of archives.

IWP3 Content Management

The third white paper authored by the leading manufacturer of archival, document management and workflow management software, FileNET, concentrates on the theme managing the lifecycle of information. FileNET provides enterprise content management solutions to the public sector worldwide.

The paper defines content management and the various technologies it embraces. It examines the differences between several content management architectures and the different types of solutions being deployed today. The white paper explains the different functionalities included in content management solutions and outlines the relevant standardisation bodies, definitions and technologies. The mentioned best practice applications feature examples from both the private and public sector. It forecasts the future of content management and identifies possible trends and developments.Special focus is laid on areas like scalability and availability of systems, internet technologies, electronic archives as backbone infrastructure of modern information systems, and new standards for electronic documents. The

seven chapters of the white paper cover “From archival to enterprise content management”, architectures and integration issues, necessary functionality, content management standards, and an outlook on E-Government and “E-Merging technologies”. The volume contains several best practice applications including the solutions of the Federal Foreign Office, New Jersey Division of Revenue, and others.

IWP4 Access and Protection

White paper four adresses the problems of managing open access and information protection. It was provided by IBM, the leading systems and solutions provider. IBM has been engaged in numerous E-government projects and installed a great number of electronic archives in the public and the private sector.

In this paper the key topics for user and information access are addressed. Issues regarding litigation, privacy protection and networks attacks need to be addressed in order to provide secure access to citizens. The ability to locate and identify relevant information is becoming key - with the portal as a paradigm for the rich function needed for information access. Planning for any significant IT application requires knowledge about standards – in particular with open application that will interact with many other systems. Protection of public information is not only about how to avoid hacker attacks. Governments need validated audit trails of their information interchange with their citizens, and there is a need for building proof of authenticity into the information infrastructure. The white paper also describes the main drivers for architectural change.Special focus is given to topics like digital rights protection, audit trails and logging, and standards for access, architectures, security and directory services for user rights management. The chapters of the white paper cover “The challenge of open access”, methods of accessing and protecting public information, and standards for access and protection. The best practice applications are describing the solutions of the cities of Naestved and Skurup in Danmark, and of the National Danish Art Museum. The outlook gives an overview about technology benefits and critical success factors.

IWP5 Availability and Preservation

This fifth industry white paper, authored by KODAK, covers issues of long-term availability and preservation of digital information. KODAK specialises in both, analogue microfilm and digital optical storage technologies for long-term preservation of records, documents and media assets. The company was one of the early providers of these technologies and has numerous reference installations worldwide.

The paper offers Kodak’s perspective on the long-term retention and availability of digital information. Digital documents require management just as their paper-based forerunners do. The electronic technologies used to create, distribute, and store them present special problems for archiving this information as time advances. Successive iterations of technology, inevitable media decay, and their inherent editability ill-suits them for long-term keeping in their native formats. A reference archive of permanent document images offers a cost effective long-term solution. By rendering digital information to microfilm as uncoded, analogue images, organisations may create

technology-proof repositories. The information stored has to be made available for decades even centuries including issues of migration and secure storage media.The focus topics include migration issues, advice on mix of technologies, standards for formats and the use of reference archive media systems. The white paper contains chapters on “The virtual memory” and “Long-term archival”. The described best practice applications are the United Kingdom Census 2001 and the State of Virginia. The last chapter provides an insight on digital preservation strategy and benefits with reference archives.

IWP6 Education, Training and Operation

Industry white paper number six was jointly authored by the UCL University College of London, TRW systems, Austria, and communicando, Italy. The white paper addresses changing role of records managers: “From the traditional archivist to the information manager”. UCL is one of the developers and providers of E-TERM educational programmes. TRW systems and communicando are providing E-learning solutions. The idea behind this white paper is not only to use electronic solutions to manage records, documents and assets, but to use software as well to provide education to archivists and records managers.

The white paper looks at issues of education, training and information management in an electronic world. It considers the challenges faced by universities and institutions of higher education, some of the new pedagogic methods under development and the new possibilities for continuing professional development and lifelong learning. It analyses the market drivers and requirements for E-learning, discusses some of the potential benefits of software based learning and argues that businesses and corporate institutions in the 21st century must have and implement a learning and training vision.

The main topics of the white paper focus on “Archivists and information managers”, managing and maintaining digital archives, education and training requirements, computer-based training and e-learning. Special respect is given to how to qualify records managers for the digital age, how to train effectively, and how to run projects to implement solutions. The best practice examples were provided by communicando on Business-to-Business and Business-to-Consumer solutions. The final chapter describes possible ways from strategy to implementation and the requirements of change management.

Challenges

"*Electronic Archives are the Memory of the Information Society*" – this headline of Erkki Liikanen has become most prominent in publications, marketing brochures and conference presentations. It demonstrates clearly the dimension of the challenge the information society is facing. Whilst we are still struggling with the basic technologies to create electronic archives, the development of information technology is heading for future visions like "*Information at your fingertips*" or "*The internet is the global brain and memory of mankind*". Archive solutions are today no mainstream software. Electronic archives and records management systems are offered as special products for a special purpose. In fact, these systems should belong as infrastructure in every software and should be delivered as part of the basic operating system services. Everybody needs electronic archival. This is not a special problem of "some archivists or records managers in dusty halls below museum floors". The preservation of valuable information is a task for everybody dealing with electronic information.

Consolidation

Electronic archival and records management is still a niche market segment. Most of the software manufacturers are middle sized companies. The crisis of the ITC industry since the beginning of this century, driven by the fallout of dot.coms, hit as well providers of solutions for long term electronic archival.

- The vendor market is undergoing a consolidation phase.
  This development has special impact for those who already installed electronic archives which are now no longer available or supported. On the other hand there is no reason to panic: thinking in decades and centuries of availability requires strategies for "constant" or "continuous" migration. Companies will always raise and fall over the years. Migration strategies should be independent from these natural cycles.

- The shake out already hit document management and electronic archival suppliers.
  The next wave of consolidation will hit the vendors of content management and portal solutions. There are too many product offers on the market place. But good ideas and innovative products will survive if they are absorbed by larger companies who can provide more stability.

- To provide archival software is "to do the splits"
  Customers always ask for the latest technologies and newest features. On the other hand they want from archiving and records management solutions that they keep their information available for years, decades and centuries. To serve both demands is nearly impossible for smaller sized software companies. They have not enough resources to do both, deliver latest functionality and providing stable solutions for long-term information storage. Archival and records management solutions should stick to the basic requirements.

Standards

Standards are necessary for vendors and users alike. Vendors can streamline their development, add components from other manufacturers, and link to other systems more easily using standards. Users needs standard to have test criteria, gain independence from proprietary products and insure long term availability of their information.

- Standards on different levels for different purposes
  Without standards and interchange formats there will be no document interchange. Without pre-defined structures and defined meta-data there will be no long-term accessibility and no cross-over usage of information.
- Standards are developing, changing and disappearing
  Although standards can provide more safety for investments and information availability, they are no final lifeline. Migration has to implemented as a regular, continuous process. Standards help to make migration easier.
- Standards must be auditable
  General standards like document formats and interfaces are normally specified in detail and easy to test for compliance. Complex standards are often restricted to a functional description. Important standards for electronic archival and records management like MoReq Model Requirements or ISO 15489 Records Management have to be enhanced with auditable compliance criteria to enable vendors to deliver compatible solutions and to enable users to test on compliance.

Redundancy

We face redundancy in different areas: development of products, sponsoring of projects, redundancy in information itself. Redundancy in computer systems and system architectures is an attribute of safety and security. Redundancy as mentioned above is a risk.

- Redundancy in product development
  Every supplier creates his products individually and independently. This leads to a lack of standardised, multipliable solutions. “Re-inventing the wheel” costs too much resources, money and time, and endangers standardisation and the implementation of standards.
- Redundancy in information
  Uncontrolled renditions, copies and re-use lead to a mountain of information where the original content often gets lost. New techniques are necessary to identify original content and protect it against unlawful use and re-use.
- Redundancy costs resources
  Archivists and records managers will spent a lot of their future working time on sorting out, which information is valid to be saved for future generations. Intelligent software tools are needed to support and partially automate these processes.

Co-Ordination

An European approach to develop standardised procedures, meta-data structures and best practice applications, to create stable solutions for long-term archival of valuable information, and to allow access to electronic archives to the European citizen, makes sense. To make it a success the DLM community needs to join forces. No vendor, no archive, no institution, and even no member state alone can provide the "final solution" for the "memory of the information society" "out of the box". To achieve the goal:

- more and effective co-ordination is necessary,
- redundancy has to be avoided,
- initiatives like DLM have to be transformed into sustainable networks,
- criteria for auditing standards to improve compatible solutions have to defined,
- initiatives like "E-Government", "Open Access to Public Archives" and other related topics, beginning to overlap more and more, have to be harmonised.The co-ordination body for this task could be the initiated European DLM-network of excellence.

Co-Operation

Co-operation between the ICT industry and the user organisation in the European public sector is essential. Up to now co-operation mostly happened only in individual projects to create a specific solution. Co-operation on a higher level, between competing vendors, standardisation organisations, and co-ordination bodies on the European and the Member State level are necessary to develop standards and certification procedures to create compatible solutions. The demand is that the ICT industry:

- co-operates with the public sector not project-by-project but in a continuous process on the European level,
- delivers standardised, affordable, easy to adopt, install and run solutions,
- takes the term "long-term availability" seriously, and provides strategies and tools to meet the challenge of the DLM community,
- undertakes own efforts to avoid incompatible, individual solutions on the European, national and local level.

A Mission ?

Information policy, standardisation, co-ordination, education and qualification issues have been addressed by the DLM-Forum since its creation.

In 1999 the DLM-Forum addressed the challenge

- to move the traditional archivists from the end of the information chain upwards,
- to become the information manager and
- to get control over the complete document lifecycle.

In 2002 the DLM-Forum has to address politicians and administrations to

- create more awareness about the value of information and the value of archives and to
- co-ordinate joint efforts more efficiently to avoid the evolving “Digital Gap”.

Three simple statements to conclude this paper:

- Electronic Archives are the memory of the information society.
- Information has a value of its own only if the information is used.
- Document Lifecycle Management is just in the beginning.

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About the author

Dr. Ulrich Kampffmeyer, born in 1952, is the founder and president of PROJECT CONSULT GmbH, one of the leading independent management consultancies for business process organization, knowledge management and workflow in Germany. He is founder and managing partner of PROJECT CONSULT International Ltd., London.

He has been founder and chairman of the board of the German association for document management, VOI Verband Organisations- und Informationssysteme e.V., from 1991 to 1998. He served the international document management vendor association IMC as member of the board of directors from 1993 to 1998. Since the merger of IMC and AIIM in 1999 he actively supporting AIIM International, the global association of users and suppliers of Enterprise Content Management solutions. From 1999 to 2002 he co-chaired the European Board of Directors of AIIM International Europe. Since 2002 he is a member of the international Board of AIIM International and chair of several AIIM committees.

Dr. Kampffmeyer is a member of the DLM-Monitoring Committee, chaired the DLM Scientific Committee for the DLM-Forum conference Barcelona 2002, and is a member of the steering committee for the establishment of the DLM-Network of Excellence. He is editor of the six DLM/AIIM industry white papers on electronic document, records and content management for the public sector in Europe.

Dr. Kampffmeyer is a well-known keynote speaker, presenter and panelist on the subject of records management, document management, workflow, groupware, business reengineering and organizational change management. His speaking engagements include major national and international congresses and conferences. He published numerous books and articles, i.E. the German codes of best practice for electronic archival. He is a member of several standardization bodies in the field of document and records management.