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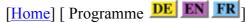


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# The Integration of electronic records into a records management system: the process of cost optimization

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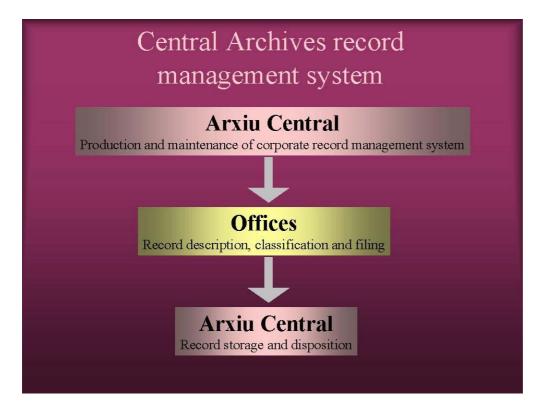


Spanish (original) version of the text.

#### 1. INTRODUCTION

This communication has a dual objective. Its first aim is to set out the different solutions by means of which we have integrated electronic records into the general record management system of the Department of Culture. The second is to calculate the savings resulting from some of these solutions.

The Central Archives of the Department of Culture of the Generalitat de Catalunya (the Government of Catalonia) (illustration 1) has been employing, since 1991, a records management system (SGDA) which pursues the task of integrating the management of records, irrespective of their media or format. On the basis of the experience presented at the last Forum on machine-readable records, we have continued to develop the system and, above all, to link together individual one-off actions with the aim of achieving a genuinely integrated management system.



(Illustration 1)

This linking together has not been without its problems, and has been made possible by the application of four criteria of actuation:

- 1. To respect at all times the archival point of view. In other words, to apply archival techniques and methods to the planning of the management of electronic records.
- 2. To ensure that every action is carried out with the lowest possible cost to the Department of Culture. In other words, to implement organizational improvements and changes in those situations which do not call for the acquisition of new software or the recruitment or relocation of staff. This last point is crucial in a context of limitation of public expenditure and scaling down of the public Administration.
- 3. To apply methods based on the pursuit of total quality and excellence in management (1).
- 4. To work at all times in interdisciplinary teams.

This strategy is the one we have adopted at the Central Archives of the Department of Culture. We have not, however, set out from an ex profeso planning for computerized records, but have looked for a progressive integration of these records into the system of corporate record management. This has been achieved by developing short- and medium-range projects, feasible in their entirety, and progressively linking these together to create information systems with a greater scope. In this way the task, which might have appeared impracticable and extremely costly if undertaken from scratch, is being carried out with an enviable economy of means and a surprisingly high level of performance and efficacy.

The method we will set out here is articulated on the basis of one fundamental idea: that the management of electronic records is not so much a set of instruments as a set of guidelines, by means of which it is possible "archivistizar" the computerized environments.

The position occupied by a records management service affords an analytical perspective on the parent organization, which makes it relatively easy to identify opportunities for improvement. It is a matter of priority to act on these points, which in many cases do not call for a financial investment but merely a series of organizational changes, before going on to implement reforms with a wider

scope. Observation of the results of these small improvements helps to improve the design of more ambitious plans.

The implantation of the SGDA has enabled us to identify the points at which information previously stored on paper was migrating to electronic formats, where it was escaping the control of the SGDA and disappearing from the records circuit (or life cycle). We have taken each of these vanishing points as an opportunity for improvement, in that we have been able to detect:

- Where the data were going, in what format and in which environment.
- What form these same data previously had, and therefore what archival treatment they received.

For each specific problem we have developed a specific solution. Where the result was positive, we have been able to convert that solution into a generic solution, and apply it to the Department as a whole, thus anticipating similar changes in the same direction. The "structural support" for these modifications was not the various different computerized systems, but the Records Management System. This has enabled us to create expansive solutions, to move from the specific to the generic, without losing sight of the overall vision and respecting all of the general objectives of the SGDA.

In these projects with a corporate scope, the basic elements are co-operation, a multidisciplinary approach and teamwork. Modern organizations no longer believe in individual miracles. The management of electronic records involve the whole organization, and therefore demands that the different agents involved collaborate with one another and work as a team. In this respect, it is essential to have a proper distribution of tasks and responsibilities in order to optimize the efficacy of the process. Without this collaboration, we would never have achieved anything at the Central Archives.

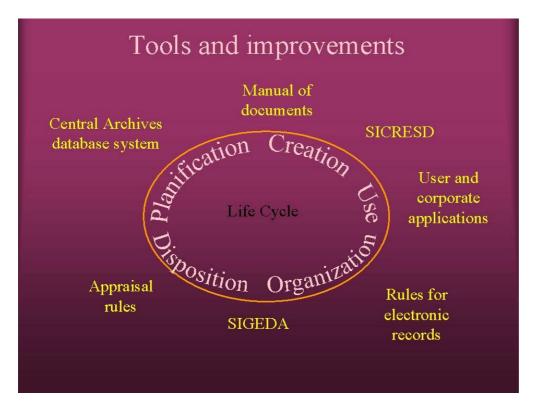
#### 2. THE INSTRUMENTS AND THE IMPROVEMENTS

The following section gives a description of the various one-off projects. Table 1 shows how this whole series of projects enables us to intervene in the entire life cycle of electronic records (2).

	PLANNING	CREATION	USE	ORGANIZATION	DISPOSITION
2.7. SIBADA	X				
2.1. Manual of documents	X	X			
2.2. SICRESD		X			
2.5. User applications			X		
2.6. Corporate applications			X		
2.3. Organization norms				X	
2.4. SIGEDA				X	
2.8. Appraisal rules					X

TABLE 1: phases of the life cycle of the electronic records in which each project intervenes

Intervention in the different phases of the life cycle (illustration 2) of electronic records has provided us with a series of technical specifications, which we have found to be suitable for general application. The records schedules were the first instrument for incorporating electronic records into the general management of the organization. The creation phase saw the elaboration of automated model documents, which were made available on line to the entire organization, and personalized on the basis of each office file system. At the same time, all of the Department staff were given access to the general register of incoming and outgoing correspondence. In the utilization phase there was intervention in the design of the structure not only of the data bases generated by the users themselves (Lotus Approach, Microsoft Access) but of those produced by the IT technicians. In the organization phase, guidelines were provided for the filing of electronic records for use by staff. And in the present provision phase, in addition to the guidelines on storage and appraisal, guidelines are being drawn up for the transfer to the Central Archives of machine-readable records.



(Illustration 2)

#### 2.1. MANUAL OF DOCUMENTS AND FORMS

In order to palliate the dysfunctions which were produced in the Department of Culture during the vulnerable phase of creation of the documents break-up of the corporate image, confusion of document typologies, diversity of designs, absence of essential data, a commission was set up in 1996, composed of archivists, IT technicians and linguistic normalization specialists, with the objective of elaborating instruments for supporting the process of record creation (3).

The first results were a series of models of documents, incorporated as style sheets of the word processor Lotus AmiPro, and made available to all of the users in the Department of Culture by way of the corporate network. Subsequently, in 1998, with the gradual replacement of this word processor by Microsoft Word, the templates migrated to the new format.

Every time the user creates a new document with his or her habitual word processor, they simply select the type of document they want to create, and the offices that produces it. The template then

automatically creates the new document according to the type indicated (letter, official form, etc.), perfectly correct and with their own personalized letterhead. It also includes a system of on-line help giving guidance on grammatical rules, composition and filing reference (4).

This project has resulted in a clear distribution of responsibilities among the various groups involved in the record creation, a unification of criteria, and the making available of a dynamic system with no expiry date, that can be maintained and adapted quickly and easily to any change in needs and circumstances

#### 2.2. APPLICATION OF THE "SICRESD" GENERAL CORRESPONDENCE REGISTER

Within the Generalitat de Catalunya, the deployment of the new legal framework (5) has come into effect with a new computer application known as the Sistema d'Informació Comú del Registre d'Entrada i Sortida de Documents (SICRESD Common Information System of Incoming and Outgoing Document Register), which interconnects all of the general and auxiliary registers and automates the functions of registering incoming and outgoing correspondence. The traditional register book on paper has been replaced by the SICRESD data base, the magnetic format of which has full legal validity.

In the Department of Culture, the co-ordination of the general and auxiliary registers is a function of the Central Archives. These registers are a very valuable instrument for the monitoring of record management, in that they record all of the documents received (incoming) and the majority of those created (outgoing), in this way acting as a filter which serves to control the application of the system of corporate classification from the initial phase of each record life cycle, with the establishment of the principle that all of the documents which pass through the outgoing register must carry the reference code of the dossier in which they are filed (6).

The SICRESD offers still further possibilities. The staff of each office are able to access directly the information in the data base of the register of incoming and outgoing correspondence, note down the reference code of the documents they have received, and record the people to whom they pass each document and for what purpose. The SICRESD application can also be used to allow each offices to keep its own book of internal correspondence, noting those documents which are passed to other offices within the same building. This makes it possible to do away with majority of internal notes and official letters, which in most cases only serve as acknowledgements of receipt.

The general register has provided us with a very powerful tool which enables description at the level of the document. This instrument is complemented by the SIGEDA application (see point 2.4.), which functions in relation to the dossier. This combination has made for a general improvement in document management, with a corresponding reduction in the volume of paper records.

# 2.3. NORMS FOR THE MANAGEMENT AND ORGANIZATION OF ELECTRONIC RECORDS

With the massive utilization of ODA office technology instruments, the disc drives of the network servers or the individual PCs accumulate a great quantity of files in a multitude of different formats. These files, with their virtual existence, are the ones which in many cases in fact contain the most current and vital information for the functioning of the organization, and in the majority of cases are not subject to any specific treatment, nor are they filed on the basis of corporate criteria.

In order to integrate these files into the entire body of documents of the Department of Culture, a series of norms and recommendations was drawn up, with the aim of applying the same system of classification to all records, irrespective of their format (7).

The recommendations establish how to create and maintain a management file in the memory of the

computer, following the same criteria used for keeping files on paper: separating records from cognitive documents, grouping records in dossiers, and classifying and codifying dossiers by grouping these in series. They also explain how to derive the maximum benefit from the potential of the different office technology instruments for describing each document in detail and for recovering it easily by reference to any of its contextual data. Finally they establish which computerized documents are to be stored in the magnetic memory and which can be eliminated once the document has been printed.

There are powerful instruments for file management (GED or Workflow) which amply resolve the problems deriving from the uncontrolled growth of these, far beyond the possible scope of our recommendations. Our experience is in the line of applying feasible solutions, at low cost and with a high degree of adaptability to any environment (in our case it has been used in Windows 3.1, Windows 95 and AS400), and of taking advantage of the organizational systems already in use before planning projects on the grand scale.

#### 2.4. "SIGEDA" DOSSIER MANAGEMENT APPLICATION

The SIGEDA was designed in 1991, and consists of a computerized application which manages a relational database, supported by the Host of the Computer Centre of the Generalitat de Catalunya (8). This database contains information on the documents (grouped on the basis of a broad concept of the "dossier" (9)) which are created or received in the different departments, validated in terms of a series of value tables. The application automates the process of documentation management throughout its active and semi-active phase, and allows a description to be given to each new dossier that is opened, to follow up the stages of the its processing, to transfer it (after a certain period of time) to the Central Archives, and to request it on loan, following an on-line consultation or by means of lists. It also enables the Central Archives to receive and process the transfers of records, to manage the available volume of the different repositories, to obtain statistics, and to check the elimination of out-of-date documentation. In all of these types of transaction (transfers, consultations, loans and elimination) the computerized application has replaced paper (inventories, transfer sheets, consultation forms, etc.).

The pilot test of the SIGEDA was carried out in the Central Archives of the Department of Culture, and from 1996 on use of the application has been obligatory for all of the central archives of the Generalitat de Catalunya. The level of effective implantation of this application is proportional to the level of general implantation of the SGDA, which in the Department of Culture stands at practically 95% (10), and has thus allowed all of the management archives to utilize the SIGEDA application.

The widespread use of this application in certain offices has generated new needs (this is a constant in the management of computerized documents). The clearest case is that of the legal service, where the SIGEDA application has been utilized not only for documentation management but also to carry out functions of dossier follow-up more usually performed using Workflow instruments.

#### 2.5. DESIGN OF USER APPLICATIONS

On the basis of the analyses of administrative procedures which we carry out in order to draw up record schedules, to make adjustments in the system of corporate classification, or to organize management archives, we frequently discover information needs on the part of the offices which require the automation of some part of the process, replacing a document sequence with a data-base application.

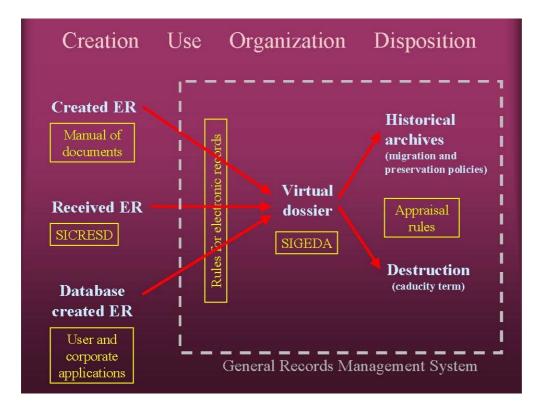
When requests are submitted to the Central Archive we draw up, taking advantage of the enormous potential of the personal data base managers, and in close collaboration with the user, a detailed design of the data base required, on the basis of a common model which allows this to be integrated into the other end-user applications employed within the Department of Culture, given that:

- This will always make it possible to work in relation to the entity "dossier".
- This will use a common pattern of description of the dossiers, according to the system of corporate classification.
- This will use a series of standard key fields which enable its future connection with other enduser instruments developed in other offices.

By means of its participation in this area, the Central Archive contributes to the general improvement of document management and the reduction of the production of paper. At the same time, however, it guarantees the controlled growth of the end-user applications, maintaining a standard structure and facilitating the future expansion of and migrations by the IT service.

#### 2.6. ADVICE ON THE DESIGN OF CORPORATE IT APPLICATIONS

In line with the previous point, and in the light of the need for constant ongoing co-operation with the IT service (11), the Central Archive has managed to exercise a role in the analysis for the design or modification of certain corporate IT applications (illustration 3), advising on the suitability of including fields which enable the linking up of applications with principles of classification utilized in each management archive.



#### (Illustration 3)

The corporate IT applications are the envisaged future substitute for the traditional paper-based document systems. Intervention in the design of these IT applications is the key to connecting the document management systems with the new technologies.

#### 2.7. THE CENTRAL ARCHIVE DATABASE SYSTEM

As an office, the Central Archive is equipped with a data base system which, complemented by the SIGEDA and SICRESD applications, covers all of the functions it carries out. The principal modules of this system are as follows (12):

• G238: management of the general and auxiliary registers

- G458: management of the activities of training and diffusion
- G223: management of the processes of reclassification of documentation
- G222: statistical control of loans and consultations of the various repositories
- G214: management of the series evaluated, and register book of destruction of documents
- G244: management of the library of the Central Archive

The system is structured on the basis of tables which contain information of a general nature relating to the Department of Culture as a whole, and make it possible to obtain information of a strategic nature with a view to the planning of future actions. It is envisaged that this information, essentially compiled by the Central Archive in its "field" work, will be shared with other office s of the department, thus extending the scope of this system.

The staff of the Central Archive, thanks to the utilization of the data base systems, in combination with electronic mail and collective agendas, have virtually managed to do away with paper in their information transactions, and utilize the day-to-day work of the testing bench for each new project.

#### 2.8. APPRAISAL RULES

The acceptance of the juridical validity of computerized documents (13) opened up the possibility of utilizing the appraisal process to establish the record schedules for the storage of the various series of documents of the Generalitat de Catalunya, as a way of integrating the archival function into the planning, creation and utilization of electronic records (14).

The proposal for the appraisal of a series of documents presented to the Comissió Nacional d'Avaluació i Tria de la Documentació (CNATD, the National Commission on Document Appraisal and Selection) (15) was preceded by a detailed analysis of the administrative process which generates this series of documents, an analysis which involves the selection, on the basis of the system of corporate classification, of the function to be analyzed and the various related activities, bringing together and studying the legislation with a bearing on the process, analyzing the process and drawing up the appraisal report. The carrying out of this analysis from the archival point of view makes it possible to guarantee that the result of the process, the dossiers to be generated, will be, by the time these are closed, in the most appropriate format for their temporary or permanent storage or for their elimination. This makes it possible to go back to the very start of the process, defining the format in which records are to be created and utilized.

The Central Archives has proposed three schedules, and is currently working on others, in which it recommends that, once the process is finalized, the paper should be destroyed, and the database which gives the whole process its format be permanently conserved (16).

#### 3. THE COST OF THE SOLUTIONS

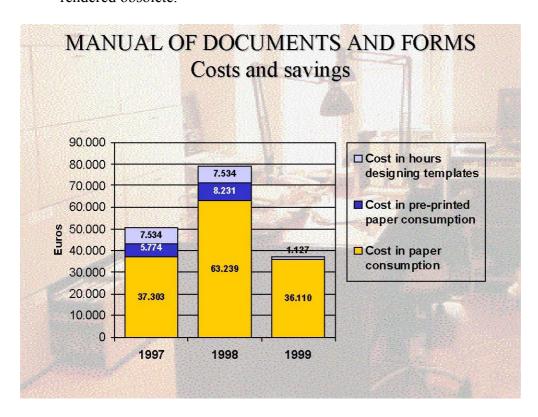
As we noted at the outset, one of the four basic premises for putting into effect the integration of electronic records into the SGDA of the Department of Culture was that the cost of the solutions adopted should be as low as possible, and that these solutions would not involve the acquisition of new software or the recruitment of additional staff. This being the case, the improvement obtained by means of these solutions can not be quantified solely in terms of the increased efficiency and efficacy achieved in the service of the organization, but must also reflect the saving represented by the reduction in the volume of necessary resources and of staff hours.

In this communication we have studied the saving to the Generalitat de Catalunya represented by the application of the two solutions that most clearly allow the quantifying of their results: the Manual of Documents and Forms and the utilization of the application SICRESD (17).

#### 3.1. MANUAL OF DOCUMENTS AND FORMS

Prior to the implantation of the Manual of Documents and Forms (18), within the Department of Culture (illustration 4) the creation of documents could be either manual or automated. Manual creation meant that each document had to be created from scratch, which entailed:

- Expenditure of staff time in setting down the same data in different documents.
- Expenditure of time and paper in printing drafts in order to adjust the quality of the format of the final document.
- A significant consumption of memory in the servers, in view of the practice of storing each document created in case it might serve as a model for a future document.
- The need to use pre-printed paper. In this case, it was necessary to supply pre-printed paper for all of the letterheads and variants of these required by the different offices of the Department of Culture. Any change in organic structure, in the occupation of a post or even of a telephone number made it necessary to scrap the accumulated stock of pre-printed paper that had been rendered obsolete.



#### (Illustration 4)

The use of word processors allows the automating of document creation, with a notable reduction in expenditure from previous levels. However, this advantage is offset by the fact that they involve a considerable input of time on the part of users in learning the peculiarities of each program and in creating the different models needed.

In the Department of Culture, approximately a third of users have had at some time to create a document template. The generation of an automated model of a certain complexity requires at least 10 hours of work; multiplied by the hourly rate of pay of an average user this represents an approximate cost of 11,500 PTA. (69.116 Euros) for each document template, and of 1,253,500 PTA. (7,534 Euros) for the set of templates corresponding to a given generic model.

The creativity of the users, their tendency to create templates, would be converted into an opportunity for improvement and saving, if it were possible to centralize the creation of these and

make this a personalized service. The benefits achieved with the Manual of Documents and Forms can be summarized as follows:

- Maintenance is centralized, so that any organic change, of address, or of telephone number, is immediately incorporated with minimum effort, and with no need to replace stocks of preprinted paper.
- The documents created with the Manual satisfy all of the specifications of the Visual Identification Program of the Generalitat de Catalunya, thus complying with the criteria of the Generalitat with regard to corporate image and the creation of documents.
- There is a saving in the time spent on the creation of documents, in the description of these for the General Register, and in their processing. There is also a saving in paper, by reducing the number of drafts, and by dispensing with the use of pre-printed paper.
- In addition, the ease of creation results in greater quality: the documents are more complete and more efficient, making it possible to optimize administrative procedures.
- Paper quality can be selected at the moment of printing, reserving the use of high-quality (more expensive) paper only for documents intended for permanent storage.
- In being available on line (WAN), the models can be utilized in different physical locations.

#### Cost of implantation:

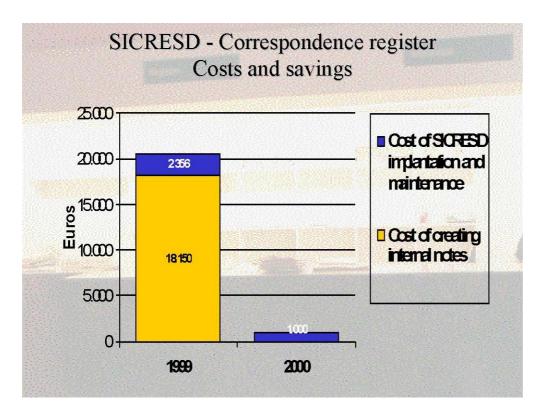
Calculation of the cost of implantation should not take into account the cost of licences for the word processor utilized, since this is a generic instrument for the execution of the basic range of administrative functions. The only element to be calculated here is the time invested by the technical staff of the offices involved in the elaboration of **the models (archivist, IT** technician and linguistic normalization specialist). This includes the preparation of the conceptual model, the drawing up of the automated template, the adaptation of letterheads, installation and notification/training of the users, which represents a total cost of 187,600 PTA. (1,127 Euros) each model.

Thus, in addition to the increased efficacy in administrative work, the Manual of Documents and Forms results in a saving per model of 1,065,900 PTA. (6,406 Euros).

Yet another source of saving is the elimination of the use of pre-printed paper. In 1997 the Department of Culture spent 960,828 PTA. (5,774 Euros) on the purchasing of pre-printed paper. In 1998 this expenditure rose to 1,369,589 PTA. (8,231 Euros). From the 1 of January 1999, the use of pre-printed paper has been discontinued. Every request for pre-printed paper submitted to the supplies unit is passed directly to the working group of the Manual of Documents and Forms, which analyses the request and, in those cases where a new model is needed, goes on to generate this for the entire Department. Considering that pre-printed paper represents only 1.8% of the total amount of paper consumed annually by the Department (the greater part of which is used for photocopies), the replacement of pre-printed paper by the use of plain paper represents for the Department an approximate annual saving of 1,230,000 PTA. (7,392 Euros).

#### 3.2. SICRESD

The monitoring of correspondence (illustration 5) within a given organization is a task that is very often performed directly by the users. The process usually consists in drawing up an internal memo, with original and copy, to accompany the document being transferred. This document is sent to the office of destination by means of basic-grade staff. The office of destination will then sign the internal memo (acknowledging it has received the document) and the basic-grade worker will take it back to the office that issued it, where the copy of the internal memo will be filed in the corresponding dossier. In this way, the dossier is filled up with unimportant documents.



#### (Illustration 5)

The SICRESD application, which is utilized in the general register of incoming and outgoing correspondence (19), makes it possible to monitor all of the movements of documents circulating within the organization (internal correspondence). When a document is sent to another office, it only has to be noted in the SICRESD for the office of destination to see the pass. The application is protected in such a way that the date on which the document was sent cannot be modified. The SICRESD application incorporates, for each document sent, the reference number of the dossier where it is filed, and allows notes to be made of the current state of its processing.

The utilization of the internal register option of the SICRESD has resulted in:

- Considerable reduction in the use of internal notes
- Greater control over internal correspondence
- Strengthening of document links (archival relations) between documents and the dossiers in which they are filed
- Reduction in volume and increase in quality of dossiers
- Elimination of internal correspondence register books

In the central services of the Department of Culture this solution has been implanted in only 20% of services. On the 28 of June 1999, the SICRESD application had registered 1,052 internal documents (20). Taking into account the savings of paper and the time used in creating internal notes, the saving achieved since the beginning of the year with this solution is 301,924 PTA. (1,815 Euros). To this should be added the cost of the maintenance of a manual internal register book, as well as the hours of work of the basic-grade staff employed in transporting acknowledgements of receipt, both of which values are difficult to quantify.

#### Cost of implantation:

With regard to software, the cost of the SICRESD computerized application should not be taken into consideration, given that this is an application which:

- has one indispensable principal utilization: the register of incoming and outgoing external correspondence. The monitoring of internal correspondence is a subsidiary use.
- it is interdepartmental in scope, so that the maintenance cost is spread between all of the departments of the Generalitat.

The Central Archive has taken on the training of the staff of the management archives in the utilization of the option of the SICRESD register of internal correspondence. With an approximate input of 2 hours for each office, the cost of initial implantation comes to 391,964 PTA. (2,356 Euros). It must be borne in mind, however, that this investment is only made once, and that at the present rate, this will be amortized by the end of August 1999 (and only by the 20% implanted). Maintenance includes the training of newly incorporated users, and is part of the system of general training programs of the Department of Culture.

The use of Workflow applications makes it possible to automate this task more efficiently. However, the cost of a single-user installation is in itself higher than the cost of utilization of the SICRESD. And it is important to bear in mind that in an organization such as the Department of Culture, the number of licences required is very high.

	START DATE	INSTRUMENTS GENERATED	OPPORTUNITY FOR IMPROVEMENT	ENVISAGED SCOPE	PRESENT IMPLANTATION
2.1. Manual of documents	1996	Automated models in Lotus AmiPro, Word and AS400, in network.  Manual on paper.	Certain offices created erroneous letterheads	All of the Department of Culture.	DG of Linguistic Policy.  DG of Cultural Promotion.  SG of Sport.  SG of Youth.  Minister Office.
2.2. SICRESD	1994	Computerized application on Host, AS400 and PC.	The general register was computerized with an application which included an option for the management of internal correspondence.	All of the Generalitat de Catalunya.	In the Department of Culture: all of the DG, SG and autonomous entities which has a general or auxiliary register.  As users of the internal register: SG of Sport, SG Youth, Service of Promotion Management, Administrative Secretariat, Lega Service.
2.3.	1996	Guidelines for	The management	All of the	All of the staff

Organization norms		management and organization of electronic records.	archives had problems in recovering computerized documents, and was thoroughly acquainted with the system used for documents on paper	Department of Culture.	trained in the courses taught at the Escola d'Administració Pública de Catalunya (Generalitat, universities, loca administration,  Various offices of the Department of Culture.
2.4. SIGEDA	1991	Application computerized on Host (IDMS).		All of the Generalitat de Catalunya.	All of the Department of Culture.
2.5. User applications	1994	Design of databases, and implantation in AS400, Approach and Access.  Maintenance.	Certain offices had created data bases for managing information which made up dossiers	All of the Department of Culture.	Education Burea Audio-visuals Office .  Architectural Heritage Service Inspection of Cultural Promoti Cinema Department. Catalan Films.
2.6. Corporate applications	1995	Fields of enlace and modifications in the corporate IT applications. Evaluation.	Corporate IT applications generated documents which were incorporated directly into electronic dossiers or on paper.	All of the Department of Culture.	Application of grants.  Press Promotion data base.  Application of follow-up of dossiers of the Legal Service.  Data base of vidof the Audiovisuals Office.
2.7. SIBADA	1996	System of data bases in		Central Archive.	All of the function of the Central

		Approach and Access.			Archive.
2.8. Appraisal rules	1996	Tables of appraisal which involve the storage (temporary or permanent) of the electronic format.	Legal Deposit, Declarations of cinemas	All of the Department of Culture.	Inspection of Cultural Promoti Legal Deposit.

TABLE 2: description of each project

#### Footnotes

- (1) JURAN, J.M. [et al.]. Quality planning and analysis: from product development through use. New York: McGraw-Hill, 1980. Back to the text
- (2) In this series there are no interventions in electronic mail. The reason why we have not as yet intervened here is based on a principle of profitability: any intervention should be focused where there is already a significant level of utilization, in order not to waste efforts. Until quite recently, in the Department of Culture the various forms of electronic mail were still relatively little used, and were not seriously implanted in the functional structure of the department. With the implantation of Microsoft Outlook the level of utilization us experiencing a notable increase.

  Back to the text
- (3) CAMPOS, Isabel, SERRA, Jordi, VEIGA, Montserrat. "La normalització de documents administratius al Department of Culture: un projecte interdisciplinari". Llengua i ús, no. 8, Barcelona, 1997. Back to the text
- (4) Administrative Secretariat, Linguistic Advisory Service, General IT Co-ordination. Manual de documents i impresos del Department de Culture. Publication for the internal use of the Department of Culture of the Generalitat de Catalunya. Barcelona, 1996.

  Back to the text
- (5) Article 38 of Act 30/1992 on the Juridical Regime of the Public Authorities and the Common Administrative Procedure introduced certain highly innovative aspects into the registers of incoming and outgoing correspondence. Within the ambit of the Generalitat de Catalunya, this article has been deployed by Decree 360/1994, which regulates integrated and non-integrated registers in what has been defined as the Common Information System of Incoming and Outgoing Documents Register, which comes close to making the idea of the "single counter" a reality.

  Back to the text
- (6) Instrucció sobre el funcionament dels registres del Departament de Cultura, by the General Secretariat, 7 of June 1995.

### Back to the text

(7) CANELA, Montserrat; CAMPOS, Isabel; DOMINGO, Joan; SERRA, Jordi. "L'aplicació del quadre de classificació a l'organització dels documents informàtics". ARXIUS, no. 14, Barcelona, 1997. See also VIGNEAU, André. "Les documents informatiques: pour une classification efficace".

Archives, vol. 27, no. 3, 1996. Back to the text

- (8) CANELA, Montserrat; LORENTE, Anna. "SIGEDA: un programa per a la gestió integrada de la documentació activa i semiactiva". ARXIUS, no. 1, Barcelona, 1993. Back to the text
- (9) Quadre de classificació del Department de Cultura de la Generalitat de Catalunya. Manual for internal use, Barcelona, November 1994. Back to the text
- (10) This means in practice that in all of the management archives of the Department, documentation is organized according to the system of corporate classification, whatever its format, and that all of the Department staff are familiar with and know how to apply the SGDA.

  Back to the text
- (11) GRÄNSTRÖM, Claes. "Relationship between creators, users and custodians of information", in the Proceedings of the DLM-Forum on Electronic Records, European Commission, Brussels, 1996. In the same publication MACFARLANE, Ian: "Responsibilities and transfer of responsibilities in the electronic records life cycle". And also MURDOCK, Alan: "Roles and responsibilities in managing an electronic archive".
- (12) This system is the result of the final project of the XII Postgraduate Programme in Organization and Management of Documentation Systems in Business (Institut Català de Tecnologia), by Jordi Serra Serra, presented under the title "A system of information management for an office of the Public Administration: the Central Administrative Archive of the Department of Culture of the Generalitat de Catalunya". Currently in process of publication.

  Back to the text
- (13) Article 45.5 of Act 30/1992 on the Juridical Regime of the Public Authorities and the Common Administrative Procedure.

Back to the text

- (14) CANELA, M., CAMPOS, I., DOMINGO, J., SERRA, J. "The appraisal process as a way to integrate the archival point of view in the planning, creation and use of electronic records and automated systems. A case study", in the Proceedings of the DLM-Forum on Electronic Records, European Commission, Brussels, 1996.

  Back to the text
- (15) Decree 117/1990 created the Comissió Nacional d'Avaluació i Tria de la Documentació, the remit of which is to establish the record schedules (Taules d'Avaluació Documental) of the different series of records of the Generalitat de Catalunya, in line with the proposals put forward by the central archives of the departments.

  Back to the text
- (16) On the forms and conditions of conservation of the documents in electronic format, see point 3.8. Back to the text
- (17) SOURCES OF THE CALCULATIONS:

Data referring to the remuneration of the staff of the Generalitat de Catalunya The data referring to average hourly rates of pay of employees of the Generalitat de Catalunya are calculated solely on gross salary, and at the minimum level for each category. The real cost to the Department includes the collateral costs of social security, which would make the sums expressed in the present communication substantially higher.

Wage cost per hour of a higher technician: 1,798 PTA (10.8 Euros)

Wage cost per hour of a management technician: 1,549 PTA (9.3 Euros)

Wage cost per hour of an administrative officer: 1,231 PTA (7.3 Euros)

Wage cost per hour of an auxiliary administrative officer: 1,064 PTA (6.3 Euros)

At the present time the Department of Culture has a staff roster of 195 administrative officers and 132 auxiliary administrative officers. The time which an administrative officer with IT skills devotes to the creation of a document template is between 10 and 15 hours approximately. The time need to create, sign and send an internal note is around 15 minutes.

Data referring to the consumption of paper in the Department of Culture

Consumption of recycled or ecological A4 paper (in packets of 500 sheets):

1997: 15,915 packets - 6,206,850 PTA. (37,303.9 Euros)

1998: 26,980 packets - 7,497,615 PTA. (63,239.7 Euros)

1999: 7,895 packets (at 30 of June 1999) - 3,079,050 PTA. (18,05.5 Euros)

Consumption of pre-printed A4 paper:

1997: 179,500 sheets (359 packets) - 960,828 PTA (5,774.7 Euros)

1998: 251,000 sheets (502 packets) - 1,369,589 PTA (8,231.4 Euros)

1999: Zero.

The approximate price of a packet of A4 paper is 390 PTA. (2.3 Euros). The price of a packet of pre-printed paper, depending on the inks, is in the region of 2,320 PTA. (13.9 Euros). This price varies in relation to the promotional offers of the suppliers and the quantity purchased. Back to the text

- (18) See point 2.1. Back to the text
- (19) See point 2.2. Back to the text
- (20) During this same period, the total number of external documents received by the offices of the central services amounted to 7.648 documents. Back to the text

Spanish (original) version of the text.

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