

Notes and Communications

InterPARES 2 and the Records- Related Legislation of the European Union*



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RÉSUMÉ Ce texte fournit un aperçu de la législation, des politiques et des règlements de l'Union européenne par rapport aux exigences pour la préservation des documents numériques. Il sert aussi comme point d'entrée à un champ d'enquête sur lequel le projet InterPARES 2 s'est penché, c'est-à-dire l'étude des barrières et des outils pour la préservation des documents numériques qui peuvent se trouver dans la législation de bon nombre de pays dans le monde, y inclus l'Union européenne en tant qu'entité supra-nationale.

ABSTRACT This article provides an overview of European Union legislation, policy, and regulations relating to the requirements for the preservation of digital records. It also serves as a window into one line of inquiry being undertaken in the InterPARES 2 project, that is, the study of the barriers and enablers to the preservation of digital records that may be found in the enabling legislation of a number of countries all over the world, including the European Union as a supranational entity.

This article will focus on issues of digital preservation in the European Union (EU) legislation. Its aim is to identify weaknesses, either explicit or implicit, in current laws and regulations that both individual EU countries as well as the EU as a supranational body need to address in order to support digital preservation. The findings that are here presented are based on research conducted in the context of InterPARES 2, the second phase of the International Research on Permanent Authentic Records in Electronic Systems Project that was established with the objective of developing the

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theoretical and methodological knowledge necessary to ensure the long-term preservation of authentic electronic records.¹

The InterPARES 2 Policy Cross-Domain Study on Legislation

In the context of InterPARES 2, the Policy Cross-Domain² was mandated to establish a framework for legislation and regulation to support the preservation of digital records flexible enough to be useful in differing national contexts, yet consistent enough to support a common basis for records policy and standards. Such a framework was to balance the cultural and juridical differences and perspectives that have emerged during our investigation of international legislation. A key component of the work of the Policy Cross-Domain was a study undertaken from September 2004 to September 2005, which examined the barriers and enablers to the preservation of electronic records found in the enabling legislation of a number of countries such as Australia, Canada (at the level of both national and sub-national jurisdictions), China, Hong Kong, Singapore, the United States, and, in Europe, France and Italy, as well as the European Union itself as a supranational entity. The choice of these jurisdictions is justified by the fact that they are among the leaders in e-government initiatives. They also provide a mix of common and civil law environments. In addition, they allow the examination of the effects of legislation at different levels (national, sub-national, and supranational) on the preservation of electronic records. Together with the main concepts elaborated by InterPARES 1 and InterPARES 2, and the findings of the project's case studies, the results of this study on legislation formed the basis of the framework to be developed by the Policy Cross-Domain.

- 1 InterPARES 1, which ran from 1999 to 2001, addressed the long-term preservation of authentic *inactive* electronic records (i.e., records that are no longer needed for day-to-day business but must be preserved for operational, legal, or historical reasons) produced and/or maintained in databases and records-management systems. With InterPARES 2 (from 2002 until the end of 2006), the project focus has been expanded to include the study of records throughout their life cycle that are produced and/or maintained in interactive, experiential, and dynamic environments to support not only e-government activities but also artistic and scientific endeavours. See the InterPARES website at <http://www.interpares.org/> (accessed 10 December 2006).
- 2 The InterPARES 2 Project is organized in four Cross-Domains (i.e., Description, Policy, Terminology, and Modelling Cross-Domain). The Policy Cross-Domain is responsible for examining the key policy objectives and critical policy implications related to the creation, maintenance, appraisal, and preservation of the records studied by the InterPARES 2 Project. It is expected to outline and critically examine existing standards, and to produce scholarly works addressing the research questions, as well as guidelines for developing policies, strategies, and standards at the international, national, and organizational level. For more information on the Policy Cross-Domain, see http://www.interpares.org/ip2/ip2_policy.cfm (accessed 10 December 2006).

The study of legislation made clear a basic ambiguity over the definition of a record. The InterPARES 2 Project defines a record as:

a document made or received in the course of a practical activity as an instrument or a by-product of such activity, and set aside for action or reference.³

This can be referred to as an “activity-oriented” definition. Records come into existence “in the course of a practical activity” and are “set aside” – through a record-keeping activity – to support further activities. To preserve records’ authenticity, consequently, it is necessary to maintain the connection of records to the activities from which they originated.

In most countries, definitions from archives-enabling and other records-related legislation⁴ often include explicit references to records in connection with some kind of activity. For example, an Italian law regulating the management of administrative records defines electronic records as “the electronic representation of legally relevant acts, facts or data.”⁵ In Canada and the United States, while evidence legislation recognizes a relationship between records and actions or actors, the archives-enabling legislation primarily focuses on the informational content and structure of records. The US *Disposal of Records Act*, for instance, defines records as:

all books, papers, maps, photographs, machine readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States Government under Federal law ...⁶

Diverse and sometimes inconsistent definitions of record exist not only in different jurisdictions but also within a single jurisdiction, as is the case in both Canada and the United States, where “activity-oriented” and “media- or “structure-oriented” definitions coexist. If there is no clear definition of what

3 See InterPARES 2 Terminology Database at http://www.interpares.org/ip2/ip2_terminology_db.cfm (accessed 10 December 2006).

4 For the purposes of the study reported in this paper, *archives-enabling legislation* is defined as “legislation that enables (brings into existence and assigns responsibilities) an archival institution or repository,” while *records-related legislation* is that which “deals with records or information generally such as evidence legislation, which is not in connection with a specific legislated activity.” See InterPARES 2 Project Policy Cross-Domain, “Archives Legislation Study Report,” by Jim Suderman (co-chair of the Policy Cross-Domain), Fiorella Foscarini, and Erin Coulter (unpublished, September 2005).

5 Italy, President of the Republic Decree No. 445/2000: “Single Text of Legislative and Regulatory Provisions Regarding Administrative Documentation,” art. 1 (b). Following a tradition that goes back to the diplomatists of the seventeenth century, this Presidential Decree excludes from the definition of records those records having no legal value or referring to activities with no juridical implications. See Luciana Duranti, *Diplomatics. New Uses for an Old Science* (Lanham, MD, 1998).

6 United States, *Disposal of Records*, 44 USC Chapter 33, s. 3301.

a record is, or if records can be different things in different contexts, then, according to the basic premises of InterPARES 2, definitions of record in existing legislation may become a barrier to preservation.⁷

Additionally, we identified no legislation reflecting a holistic view of the record's life cycle. In some cases, significant barriers to the long-term preservation of electronic records have been established, due presumably to the lack of awareness of the specific nature and characteristics of records created in a digital environment.

Records and Archives in the Context of European Union Legislation

With reference to the EU legislation affecting records management and preservation, the first consideration one should bear in mind is that each country belonging to the European Union retains its own legislative and regulatory autonomy in matter of records and archives management.⁸ Nevertheless, the "European archival heritage" is recognized as a shared value that is necessary to safeguard. Various actions have been initiated at a supranational level in order to enhance cooperation and coordination of archival policies and practices within the Union, evident in the preamble of a 1991 Council resolution:

*The European archival heritage provides an indispensable resource for writing the history of Europe or of an individual nation; ... well-kept and accessible archives contribute greatly to the democratic functioning of our societies; ... an adequate archives policy and efficient archives management create the conditions for the accessibility needed.*⁹

However, current archival legislation and policies in each of the Member States as well as, at an institutional level, within the EU bodies, do not reflect the clarity of objectives expressed in official statements. As Professor Maria Guercio points out in her *Preface* to a 2003 survey of legislation, regulations, and policies for digital-heritage preservation in European and non-European countries:

7 The basic premises of InterPARES 2 are represented in the *Manage Chain of Preservation* model, which is available at http://www.interpares.org/ip2/ip2_documents.cfm?cat=models (accessed 10 December 2006).

8 The original twelve Member States grew to twenty-five following the enlargement of the EU on 1 May 2004. As of 1 January 2007, the EU Member States numbered twenty-seven with the addition of Bulgaria and Romania. All EU laws quoted in this article are available online at EUR-Lex: <http://eur-lex.europa.eu/en/index.htm> (accessed 10 December 2006).

9 "Resolution of the Council and the Ministers of Culture meeting with the Council of 14 November 1991 on arrangements concerning archives," *Official Journal of the European Communities*, C 314, 05/12/1991.

[W]ithin countries, there is a fragmented legislation and regulation activity and, at the European level, not enough effort is made towards reconciling the contradictions in the regulatory activity of European Union governing bodies.¹⁰

In our analysis of the EU legislative and regulatory regime, we took three perspectives into account:

1. the self-regulating activities undertaken by EU institutions (e.g., European Parliament, European Council, and European Commission) to protect their own archives (i.e., *archives-enabling legislation at an institutional or internal level*);
2. the recommendations addressed to the Member States by the EU institutions as coordinators of national initiatives in the field of records management and archives (i.e., *international cooperation function*); and
3. those aspects of the so-called EU “Information Society Legislation” which, either directly or indirectly, have an impact on the records created, managed, and preserved by all the Member States that have ratified relevant EU directives (i.e., *records-related supranational legislation affecting national legislation*).

EU Internal Regulations on Documents and Archives (First Perspective)

Before examining specific laws and regulations, a terminological issue should be clarified. Following usage in the Latin countries, EU legislation uses the terms *document* and *archives*, where the former is a synonym for record, or “archival document,” and the latter refers to a plurality of documents independently of their being current/active or non-current/inactive. With reference, for instance, to those “documents that are drawn up or received by it [i.e., any of the EU governing bodies] and in its possession, in all areas of activity of the European Union,”¹¹ a *document* is defined as:

any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording) concerning a matter relating to the policies, activities and decisions falling within the Institution’s sphere of responsibility.¹²

Similarly,

archives of the Institutions of the European Communities means all those documents of whatever type and in whatever medium which have originated in or been received

10 Maria Guercio, “Preface” to draft report entitled *Legislation, Rules and Policies for the Preservation of Digital Resources: A Survey* (Florence, October 2003), p. 7.

11 “Regulation (EC) No. 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents,” *Official Journal of the European Communities*, L145, 31/05/2001, art. 2 (3).

12 *Ibid.*, art. 3 (a).

by one of the Institutions or by their representatives or servants in the performance of their duties, which relate to the activities of the European Communities.¹³

Although the regulations governing the archives of the European institutions are not binding for Member States, they clearly refer to a conceptual framework that is common to most of the EU countries, regardless of the national archival legislation in place.

As to record life cycle-related issues, all EU institutions must comply with the so-called “thirty-year rule” – meaning that a maximum period of thirty years from the time of a record’s creation exists for applying any exceptions to the public right of access.¹⁴ In order to facilitate public access, a 2003 regulation requires every EU institution to establish its “*historical archives*,” consisting of “that part of the archives of the Institution which has been selected ... for permanent preservation.”¹⁵ This regulation is precise in indicating when documents kept and maintained in “current archives” (i.e., offices) are to be transferred to the “historical archives,” i.e., “no later than 15 years after the date of creation.”¹⁶ Records appraisal, which must take place “no later than the 25th year following the date of the document creation,” is defined as “a sorting process with the purpose of separating documents that are to be preserved from those that have no administrative or historical value.”¹⁷ Each EU body should establish its own criteria to define those values.

Such time-based regulations, including an interpretation of the record life cycle suitable only to traditional records, are symptomatic of the great lag that characterizes many of the current initiatives of the EU, at both an internation-

13 “Council Regulation No. 1700/2003 of 22 September 2003 amending Regulation No. 354/83 concerning the opening to the public of the historical archives of the European Economic Community and the European Atomic Energy Community,” *Official Journal of the European Communities*, L 243/1, 27 September 2003, art. 1 (2, a). The EU definitions of document and archives, besides being both media- and activity-oriented definitions, are also both unrelated to any life cycle considerations. In most countries of continental Europe, documents and archives (in the sense of multiple documents), independently of their status, may be found both in offices (a.k.a. “current archives”) as well as in repositories (a.k.a. “historical archives”). In the same vein, the profession of “archivist” encompasses all stages of a record’s life cycle. However, the Anglo-Saxon distinction between (active) records and (inactive) archives has been influential, so that, today, most countries in Europe and in the world acknowledge the profession of records manager as differentiated from that of archivist.

14 See Regulation 1049/2001, art 4 (7) that also provides: “In the case of documents covered by the exceptions relating to privacy or commercial interests and in the case of sensitive documents, the exceptions may, if necessary, continue to apply after this period.”

15 *Council Regulation 1700/2003*, art. 1 (2, b).

16 *Ibid.*, art. 7. Note that the record life cycle appears to be divided into two (instead of the usual three) stages: i.e., current and historical stage.

17 *Ibid.*, arts. 5 and 7. Furthermore, during the appraisal exercise, documents which have been classified may be declassified: “The re-examination of those documents that have not been declassified at the first examination shall be done periodically and at least every 5 years.”

al and a national level, in its capacity to react to new technological challenges. EU regulations, including the most recent, draw a clear distinction between records-management responsibilities (as part of the administrative duties of the originating office) and preservation responsibilities (starting after the transfer of records to a historical archive). The European legislator has not yet recognized that the preservation of its records, with particular reference to those that are created and/or maintained in an electronic environment, starts at the creation stage and, therefore, preservation considerations should be embedded in the entire life cycle of a record.

International Cooperation Actions (Second Perspective)

In its role of “central guiding agency,” the EU shows much more awareness of the issues raised by today’s rapid technological developments.¹⁸ Taking into consideration the increased importance of the flow of information across borders, facilitated by the global character of the Internet, and the necessity to provide European citizens with new, shared forms of access to information, the EU Council of Ministers felt the need to elaborate a *Resolution on Archives in the Member States* in 2003.¹⁹ The Resolution invited the European Commission to convene a “group of national experts” to examine the situation of public archives in the EU. Two years later, this group specified the actions to be undertaken in order to fulfil its mandate in a *Report on Archives in the Enlarged European Union*.²⁰ The following five priorities were identified:

1. Preservation and damage prevention for archives in Europe [which involves measures for preventing and recovering from natural and other catastrophes, restoration programs, standards for archival buildings, etc.];
2. Reinforcement of European interdisciplinary co-operation on electronic documents and archives;
3. Creation and maintenance of an Internet gateway to documents and archives in Europe;
4. EU and national legislation relevant to management and access to documents and archives;
5. Theft of archival documents.

18 Borrowing the words used by Eric Ketelaar in his *RAMP Study*, the EU governing bodies may be seen as an example of that sort of “central guiding agency, with or without executive powers” which, according to Ketelaar’s suggestion, should be in place in any “national archives system” to bring cohesion and consistency to archives and records-management legislation. See Eric Ketelaar, *Archival and Records Management Legislation and Regulations: A RAMP Study with Guidelines* (Paris, 1985), p. 33.

19 “Council Resolution of 6 May 2003 on archives in the Member States,” *Official Journal of the European Communities*, C 113, 13 May 2003.

20 Commission of the European Communities, *Report on Archives in the Enlarged European Union. Opportunities for Future Action: Priorities* (Brussels, 18 February 2005), COM(2005) 52 Final.

Item two, in particular, was meant to stress the importance of “implementing Europe-wide collaboration for establishing authenticity, long-term preservation and availability of electronic documents and archives.”²¹ In practice, such a complex goal would result in, on the one hand, “updating and extending the present *Model Requirements for the Management of Electronic Records (MoReq)*”²² and, on the other, “reinforcing the DLM network and forum.”²³

Both initiatives, together with some other important projects and programs supported by the EU in recent years, are regarded as basic points of reference by any government agency, institution, corporate body, or enterprise in Europe committed to the preservation of digital materials.²⁴ The *MoReq Specification*, issued by the European Commission in 2001 and currently under revision, has become a *de facto* standard throughout the EU. The success of the *MoReq Specification* demonstrates that cooperation is indispensable and requires the adoption of shared regulations.

EU Supranational Legislation (Third Perspective)

“Standardization” is at the core of the EU policy framework. Indeed, the EU governing bodies consider standardization “an integral part of their policies to carry out ‘better regulation’ to increase competitiveness of enterprises and to remove barriers to trade at [the] international level.”²⁵ A new set of laws classified as “ICT / Information Society Legislation” and including the directives on *Electronic Signatures*, *Data Protection*, *e-Invoicing*, and another five relevant to *Electronic Communications Networks and Services*, all deal, either

21 Ibid., *Executive Summary*, B.2.1.

22 Ibid., *Executive Summary*, B.2.2. The *Model Requirements for the Management of Electronic Records. MoReq Specification*, prepared for the IDA Programme of the European Commission by Cornwell Management Consultants plc. (March 2001), is available online at <http://www.cornwell.co.uk/moreqdocs/moreq.pdf> (accessed 10 December 2006).

23 Ibid., *Executive Summary*, B.2.3. DLM is an acronym for the French *Données lisibles par machine* (machine-readable data); however, today it more commonly refers to “Document Life Cycle Management.” The DLM-Forum was established following the “Council conclusions of 17 June 1994 concerning greater cooperation in the field of archives,” *Official Journal of the European Communities*, C 235, 23 August 1994. For more information on DLM, see http://ec.europa.eu/transparency/archival_policy/dlm_forum/index_en.htm (accessed 10 December 2006).

24 Another example of European cooperation in the field of records management and archives is the European Commission funded ERPANET (Electronic Resource Preservation and Access Network) project. The project was established in 2001 with the aim of uniting numerous diverse initiatives in the area of digital preservation. It concluded in 2005. Its important findings, training materials, and other extremely valuable products are available online at <http://www.erpanet.org> (accessed 10 December 2006).

25 *Communication from the Commission to the European Parliament and the Council on the role of European standardization in the framework of European policies and legislation*, [SEC(2004) 1251] (Text with EEA relevance) / *COM/2004/0674 final* /, p. 1.

directly or indirectly, with records-related issues. These directives are issued under the aegis of European standards organizations and have the purpose of “establishing a legal framework to ensure the free movement of information society services between Member States.”²⁶ All Member States are requested to adopt new laws or to amend existing ones according to EU directives. This would remove fragmentation and would enable interoperability (another keyword of the EU programs in ICT matters) both internally and at the EU level. According to the definition given by the EU bodies,

interoperability is the means by which this inter-linking of systems, information and ways of working occur: within or between administrations, nationally or across Europe. At the technical level, *open standards* can help to achieve such integration. In addition, administrations are building up experience with *open source* considering intrinsic aspects such as costs and security, and benefits from externalities including ease of integration. Exchange of experience in the use of open standards and open source amongst administrations should be promoted amongst others through the relevant EU programs.²⁷

The emphasis of the EU on open standards and open source has, unfortunately, not been followed in practice by most European e-government initiatives due to the pressure of the market, mistaken investments, and lack of knowledge on the part of the administrators. The European archival community also has its share of responsibility in failing to scrutinize the EU recommendations to alert national legislatures on the implications of the “principle of freedom of movement of goods” (one of the main pillars of the EU) when such a general principle is applied to the exchange of data, information, and eventually records.

Nevertheless, the archival community has promptly highlighted the risks involved in some of the provisions of *Directive 1999/93/EC on a Community framework for electronic signatures*, which would have a severe impact on the preservation of electronic records.²⁸ All Member States have implemented the general principles of the so-called *e-Signature Directive*, including the funda-

26 Ibid., p. 8.

27 *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – The Role of e-Government for Europe's Future*, [SEC(2003) 1038] / *COM/2003/0567 final* /, p. 12. Italics added for emphasis in this paper.

28 “Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures,” *Official Journal of the European Communities*, L 13, 19 January 2000.

mental distinction between “light” and “strong” signature.²⁹ The former, also known as *electronic signature*, corresponds to “data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication,”³⁰ while the latter, also referred to as *advanced electronic signature*, is an electronic signature that meets the following requirements:

- it is uniquely linked to the signatory;
- it is capable of identifying the signatory;
- it is created using means that the signatory can maintain under his sole control; and
- it is linked to the data to which it relates in such a manner that any subsequent change of data is detectable.³¹

It is clear from these four criteria that the advanced electronic signature provides crucial information for establishing a record’s identity (i.e., an authentication purpose, bound to the time and circumstances of record creation) and, at the same time, allows monitoring or fixing a record’s content (i.e., maintenance and transmission of the created record through time and space).³² Unlike a traditional seal or handwritten signature, which can be easily examined subsequent to the activity to which it pertains, an advanced electronic signature is made of digital components that have a life cycle, which is limited by the security of the technology used and may, therefore, differ from the life cycle of the record to which the signature is attached. None of the legislation examined by the InterPARES 2 Policy Research Team addresses this asymmetry.

A Commission *Communication on the eEurope 2005 Action Plan*, while acknowledging limitations in the technology supporting electronic signatures, fails to mention the consequences for the preservation of electronic records that such a technology implies. In particular, the Communication observes:

29 For instance, in the Italian Legislative Decree No. 10/2002: “Putting into effect the EU Directive No. 1999/93/CE on a Community framework for electronic signature,” and following President of the Republic Decree No. 137/2003: “Regulation about coordination provisions with reference to electronic signature according to art.13 of the Legislative Decree No. 10/2002,” *digital signature* (as opposite to *electronic signature*) is defined as “a special kind of advanced (or qualified) electronic signature that is based on a system of asymmetric keys, of which one public and one private, and that allows both signatory and addressee, through the private and the public key respectively, to make evident as well as to verify provenance and integrity of any electronic record or group of electronic records [DPR 137/2003, art. 1, lets. e) and n)].”

30 *Directive 1999/93/EC*, art. 2.

31 *Ibid.*

32 See Luciana Duranti, “Diplomatics: New Uses for an Old Science (Part V),” *Archivaria* 32 (Summer 1991), pp. 9–14.

A number of issues remain on the legal and market aspects of the application of the Directive [on *e*-signatures]. Firstly, there is currently no market demand for qualified certificates and related services. Secondly, greater interoperability of electronic signatures is called for by the Directive as necessary to achieve the wide spread-use of electronic signatures and related services.³³

The *e-Signature Directive*'s requirements for issuing qualified certificates and for secure signature-creation devices look extremely demanding from a record-keeping viewpoint. To become a certification service provider, an agency "must use *trustworthy systems* to store certificates in a verifiable form" so that:

- only authorized persons can make entries and changes;
- information can be checked for authenticity;
- certificates are publicly available for retrieval in only those cases for which the certificate-holder's consent has been obtained; and
- any technical changes compromising these security requirements are apparent to the operator.³⁴

Given such high security requirements, which of course imply high costs for both implementing and maintaining the system, it does not come as a surprise that public and private agencies have not yet committed themselves to them at this time.³⁵

The *Directive on Electronic Commerce*³⁶ and related EU legislation concerning public procurement procedures and contracts rely on the use of advanced electronic signatures in order to achieve higher levels of security and confidentiality. However, the *e-Commerce Directive* explicitly excludes certain categories of contracts from its scope, thus adopting a cautious approach that may derive from a lack of confidence in the current state of

33 *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – eEurope 2005 Action Plan: An Update*, [SEC(2004) 607-608] /* COM/2004/0380 final */, p. 9.

34 "Requirements for certification-service-providers issuing qualified certificates," Annex II to *Directive 1999/93/EC*. Italics added for emphasis in this paper.

35 The market of electronic signature devices is however very fluid and dynamic. In addition, it is worth mentioning that some European standards organizations have recently developed standards for electronic signature products (CWA-CEN workshop agreement and ETSI TS-ETSI technical specification) on the basis of the Annexes to *Directive 1999/93/EC*. For more information, see "Commission Decision of 14 July 2003 on the publication of reference numbers of generally recognized standards for electronic signature products in accordance with Directive 1999/93/EC of the European Parliament and the Council," *Official Journal of the European Communities*, L 175, 15 July 2003.

36 "Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market," *Official Journal of the European Communities*, L 178, 17 July 2000.

technology, in particular that related to the use of electronic signatures. It is not by chance that the types of contracts that cannot be concluded electronically are amongst the most important and delicate ones, such as:

- contracts that create or transfer rights in real estate, except for rental rights;
- contracts requiring by law the involvement of courts, public authorities or professions exercising public authority;
- contracts of suretyship granted and on collateral securities furnished by persons acting for purposes outside their trade, business or profession; and
- contracts governed by family law or by the law of succession.³⁷

According to the same directive, the information necessary for the identification of an “intermediary service provider” (e.g., name, geographic address, etc.) must be “easily, directly and *permanently* accessible.”³⁸ On the contrary, any other information relevant to the actual transaction (e.g., dates, names of the parties, etc.) shall only be stored *temporarily*, so that the service provider will not be liable for the information transmitted beyond the period of transmission. The *e-Commerce Directive* reads:

The acts of transmission in a communication network of information provided by a recipient of the service, and of provision of access to a communication network include the automatic, intermediate and transient storage of the information transmitted in so far as it takes place for the sole purpose of carrying out the transmission, and provided that the information is not stored for any period longer that is reasonably necessary for the transmission.³⁹

The *Directive on privacy and electronic communications*⁴⁰ not only limits the responsibilities of a service provider in terms of how long certain information must be kept, it also requires either deletion or anonymization of the data following transmission:

Traffic data relating to subscribers and users processed and stored by the provider of a public communications network or publicly available electronic communications service must be erased or made anonymous when it is no longer needed for the purpose of the transmission of a communication.⁴¹

37 *Directive 2000/31/EC*, art. 9.

38 *Ibid.*, art. 5.

39 *Directive 2000/31/EC*, art. 12 (2).

40 “Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector.” *Official Journal of the European Communities*, L 201, 31 July 2002.

41 *Ibid.*, art. 6.

This Directive and its accompanying *Regulation on data protection* provide stringent rules for processing personal data. Such rules, if broadly interpreted, might hamper the proper storage of the records containing sensitive data in many ways, e.g., by influencing records retention periods and appraisal decisions, or by irremediably altering the records' content and/or structure. In particular, the *Regulation* states that personal data must, *inter alia*, be

- accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that data which are inaccurate or incomplete ... are erased or rectified; and
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data were collected or for which they are further processed.... Personal data which are to be stored for longer periods for historical, statistical or scientific use should be kept either in anonymous form only or, if that is not possible, only with the identity of the data subjects encrypted. In any event, the data shall not be used for any purpose other than for historical, statistical or scientific purposes....⁴²

One of the weak points of the legislation on privacy – not just with reference to the EU, but to any of the countries examined in the course of the InterPARES 2 study on legislation – is that it never specifies that archival processing of personal information for preservation purposes is different from the use of it for research or business purposes.

As a conclusion to this overview of the efforts made by the EU to regulate and harmonize the use of the new communication technologies in a borderless Europe, it may be worth analyzing an example of preservation requirements relevant to a special record type: the invoice. For obvious reasons, invoices are very important in the context of the European single market. The use of electronic invoicing is encouraged in all Member States by the EU legislature, provided that “the authenticity of the origin and integrity of the contents are guaranteed”:

42 “Regulation (EC) No. 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data,” *Official Journal of the European Communities*, L 008, 12 January 2001, art. 4, (d and e).

- by means of an advanced electronic signature ... or
- by means of Electronic Data Interchange (EDI).⁴³

Advanced electronic signature and EDI both have strong technical limitations, in that they involve digital components that “complicate” the life of digital records, as has been mentioned in this article with reference to electronic signature. However, because invoices are not supposed to be kept for an unlimited time, one may argue that their physical integrity would not be compromised in the short term by the use of either mechanism. Additionally, the *e-Invoice Directive* explicitly refers to basic considerations that would enable records preservation with reference not only to invoices but also to any kind of hybrid record-keeping systems:

The authenticity of the origin and integrity of the content of the invoices, as well as their readability, must be guaranteed throughout the storage period.... Invoices must be stored in the original form in which they were sent, whether paper or electronic.... When invoices are stored by electronic means, the data guaranteeing the authenticity of the origin and integrity of the content must also be stored.⁴⁴

Nevertheless, the directive under examination eventually falls into a mistake that is typical of most legislation dealing with new technologies: it specifies the types of technologies to be employed in order to put in place its prescriptions and, in doing so, acts as a barrier to records’ long-term preservation.

Transmission and storage of invoices “by electronic means” shall mean transmission or making available to the recipient and storage using electronic equipment for processing and storage of data (including digital compression) [!], and employing wires, radio transmission, optical technologies or other electromagnetic means.⁴⁵

43 “Council Directive 2001/115/EC of 20 December 2001 amending Directive 77/388/ECC with a view to simplifying, modernizing and harmonizing the conditions laid down for invoicing of value added tax” (a.k.a. e-Invoicing Directive), *Official Journal of the European Communities*, L 015, 17 January 2002. Electronic Data Interchange (EDI) is the “electronic transfer, from computer to computer, of commercial and administrative data using an agreed standard to structure EDI messages.” In contrast to email messages, EDI messages are “structured set of segments, capable of being automatically and unambiguously processed.” According to “Commission Recommendation No. 94/820/EC of 19 October 1994 relating to the legal aspects of electronic data interchange,” *Official Journal of the European Communities* L 338, 28 December 1994, in the event of a dispute, the records of EDI messages, which the parties have maintained in accordance with the terms and conditions of this Agreement, shall be admissible before the Courts and shall constitute evidence of the facts contained therein unless evidence to the contrary is adduced [Recommendation 94/820/EC, art. 4].

44 *Council Directive 2001/115/EC*, art. 2 (d).

45 *Ibid.*, art. 2 (e).

Because of the uncertainty surrounding the use of the new technologies – an uncertainty that is also reflected in legislation – and because of the costs involved, many of Europe’s old and new bureaucracies find it hard to embrace the thrust towards the dematerializing of evidence supported by laws like the *e-Invoicing Directive*. Actually, in order to meet the requirements of external and internal auditors, invoices are still mainly kept on paper, even when they are originally created in electronic form.

Recommendations for Lawmakers and Policy-makers

Despite its limited scope, this analysis of the EU legislation reveals important issues that legislators and policy-makers should take into consideration when drawing up laws or regulations that may have an impact on the preservation of electronic records.

First, a barrier to digital preservation that the InterPARES 2 Policy Research Team has identified as common to all jurisdictions examined is the lack of a clear definition of record. A consistent definition of what an organization, with a national or an international jurisdiction, considers to be a record is the starting point of any sound legislation or policy.

Second, another weakness that the EU regulations share with the archives-enabling legislation of most European and non-European countries is the time lag in addressing preservation considerations such as acquisition, or appraisal and selection. It is essential to understand that the preservation of digital records is a continuous process that begins with the creation of the records and in this way differs from the preservation of traditional records. Accordingly, preservation considerations should be incorporated and manifested in the design of record-making and record-keeping systems, as well as in any relevant law, policy, or standard.

Third, records policies should clarify how to manage different life cycles of digital components, including the electronic signature, as the latter inevitably alters the record’s structure. This recommendation derives from one of the principal findings of InterPARES 1, according to which preservation of electronic records requires that all of the digital components of a record be consistently identified, located, retrieved, and reconstituted or reproduced, in appropriate form.

Fourth, privacy legislation and data protection regulations, as they are formulated today in most countries, contain ambiguous expressions that may

threaten the long-term preservation of records in any medium.⁴⁶ One of the recommendations that emerged from the Policy Research Team on this topic is that, in cases where records are to be retained indefinitely, privacy issues relating to access to records should be expressly resolved. Specifically, regardless of their juridical framework, organizations should be able to demonstrate that archival processing of records containing personal information does not put such information at risk of unauthorized access.

Finally, because technologies evolve rapidly and constantly, any technology-specific solutions for record making, keeping, and preserving are likely to be out of date by the time the laws prescribing such solutions come into force. Therefore, references to specific technologies should never be included in laws, policies, and standards for records creation, maintenance, and preservation. Solutions to digital preservation, apart from being technologically neutral, should also be dynamic, meaning that better methods and strategies are constantly developed by research findings and by archival practices as new technologies create increasingly complex records and new knowledge enables archivists to deal with them.

Despite the sometimes inconsistent outcomes of its legislation, policy, and regulations, the EU has nevertheless been contributing in various ways to the challenge of the long-term preservation of electronic records – for instance, by promoting the use of open standards and open source in order to enable platform independence and interoperability. However, its primary contribution rests in its continuous commitment to support important research projects and programs in the field of digital preservation. As InterPARES 1 and InterPARES 2 have proved, the future of our memories depends on interdisciplinary collaborative efforts. The need to find solutions to increasingly global problems, such as the preservation of and access to digital resources, requires that both traditional (e.g., archives, libraries, and museums) and unlikely allies (e.g., public administrators, software and hardware producers, authors, publishers, broadcasting companies, universities and cultural institutions, industries, and legal and financial authorities) share strategies and join forces. The EU represents a common ground where such a wide cooperation is not only possible but also promoted and supported.

46 To add another non-EU example of privacy legislation, Canada's *Privacy Act* requires that: "Personal information that has been used by a government institution for an administrative purpose shall be retained by the institution for such period of time after it is so used as may be prescribed by regulation in order to ensure that the individual to whom it relates has a *reasonable opportunity* to obtain access to the information." Canada, *Privacy Act*, RS 1985, c. P-21, section 6 (1). (Italics added.)

If "reasonable opportunity" corresponds to the retention requirement relevant to a given category of records, then there is no problem. If it is defined otherwise, the normal means of establishing the record's life cycle must be modified to accommodate this consideration.