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"ARCHIVING BY DESIGN": A COLLABORATIVE PROJECT OF THE NATIONAL ARCHIVES FROM NORWAY AND ROMANIA

Abstract

Purpose*: The paper presents the results of a collaborative project between National Archives of Norway and Romania.*

Methodology*: Presentation of the project and the results, highlighting the main challenges and their solutions.*

Results*: The project produced the first consolidated view on the topic of digital records management, and it is the foundation of several action in Romanian administration.*

Conclusion*: The main finding is that no matter how bright a product/approach may be, it needs to consider the particular specificities in the ream of application in order to be implementable.*

Keywords: *digital records management, archiving by design methodology*

"ARCHIVIAZIONE PROGETTUALE": UN PROGETTO COLLABORATIVO DEGLI ARCHIVI NAZIONALI DI NORVEGIA E ROMANIA

Abstract

Scopo: *il documento presenta i risultati di un progetto collaborativo tra gli Archivi Nazionali di Norvegia e Romania.*

Metodologia: *presentazione del progetto e dei risultati, con particolare attenzione alle principali sfide e alle relative soluzioni.*

Risultati: *Il progetto ha prodotto la prima visione consolidata sul tema della gestione dei documenti digitali ed è alla base di diverse azioni nell'amministrazione rumena.*

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Conclusioni: *Il risultato principale è che, per quanto brillante possa essere un prodotto/approccio, per essere implementabile deve tenere conto delle specificità particolari del campo di applicazione.*

Parole chiave: *gestione dei documenti digitali, metodologia di archiviazione progettata*

»ARCHIVING BY DESIGN«: SKUPNI PROJEKT NACIONALNIH ARHIVOV NORVEŠKE IN ROMUNIJE

Izvleček

Namen: *Prispevek predstavlja rezultate skupnega projekta med nacionalnima arhivoma Norveške in Romunije.*

Metodologija: *Predstavitev projekta in njegovih rezultatov s poudarkom na glavnih izzivih in njihovih rešitvah.*

Rezultati: *Projekt je prinesel prvi konsolidiran pogled na tematiko digitalnega upravljanja zapisov in predstavlja temelj več ukrepov v romunski javni upravi.*

Zaključki: *Glavna ugotovitev je, da mora vsak izdelek/pristop, ne glede na to, kako inovativen je, upoštevati posebnosti področja uporabe, da je lahko izvedljiv.*

Ključne besede: *digitalno upravljanje zapisov, metodologija arhiviranja z zasnovo*

THE PLAN

Between January 2025 and March 2025, a joint project was conducted by the National Archives of Norway and Romania. Sponsored by the EEA and Norway Grant, the bilateral initiative between the two National Archives had as objectives to establish a strategic concept to strengthen the competence and position of Romanian National Archives on digital born archives; to develop guidelines on implementing archiving by design for public sector organisations, and to mutually share the experiences in the field of electronic records.

As it was indicated in the application, the project was based on the premise that archives constitute an essential and irreplaceable element of culture and democracy. "*It is considered that a country does not become fully democratic until each of its inhabitants could gain experience about their history in a documented manner. At the same time, the ability of the public sector to perform its activities in an efficient, transparent, and accountable way is directly connected to its ability to properly create, manage, and retrieve records. Digital transformation continually alters the possibilities and challenges in how the public sector and National Archives can work to ensure preservation and access to digitally born documentation*".

Addressing these challenges and creating new approaches is a significant task for all European countries. In recent years, Norway has actively worked on this by developing the concept of Archiving by Design, both at the national level and as the lead of a subgroup within the Commission's expert body, the European Archives Group (EAG). By contrast, Romania's current societal priorities—focused on cohesion and recovery, both in terms of ongoing legacy issues and the post-pandemic context—have directed EU funding toward other sectors, leaving no resources for methodological advancements or policies in digital records management. In this context, aligning with the latest professional developments represents an important step toward ensuring the proper safeguarding of Romania's digital memory.

The insights and knowledge developed through cooperation were also deemed essential to establish a foundation for better strategies in providing value to the rest of the public sector in the two countries, improving the quality of digital-born archives, and thereby strengthening democratic fundamentals in these countries.

THE PROJECT

Though not coined in Europe, "archiving by design" is a trendy methodology to electronic records management in several European Union countries (see a critical assessment at Popovici, 2023). It provided some promising results in practice, which explains its popularity. To develop a body of knowledge for implementing the archiving by design methodology in Romania, several factors were considered.

The Norwegian archivists have a long experience in dealing with electronic records, dating back in the 1980s. They have a legal framework, developed in time, and professional standards like NOARK. In contrast, Romanian archivists have a rather modest experience in the field. The professional experience in working with electronic records is scarce and scattered, being isolated to some specific cases of applications and archiving actions. The legislation is rich, but rather domain-specific (see a presentation in Popovici, 2015), lacking an integrating framework. The contrast between the two backgrounds was therefore significant, and it needed to be coped with.

To soften the differences and create a common platform of understanding, the project included a first work-package dedicated to understanding the specificities of each country and, more specifically, their respective regulatory frameworks. The Norwegian archivists presented their legislation and the main pillars for archival regulations. Their long professional experience allowed for a presentation of this legislation in evolution, with evaluation of successful experiences and less accomplished attempts, with various contexts and scenarios of action and perspective for future evolution. Besides the theoretical explanation, the practical workshops allowed for the visualisation of various systems, helping the Romanian team to gain a sound understanding of the options for managing electronic records, as well as the main challenges posed by digital preservation.

This process was followed by presentations of Romanian archival legislation and methodologies. The emphasis was placed on the main differences in approaches identified in the previous phase, and the goal was to determine if there are sufficient regulatory instruments for the National Archives to influence the management of electronic records. This phase was relevant for deciding the perspective on developing an archiving by design methodology (a compulsory or recommended tool) and for identifying areas where Romanian archival regulation should be improved.

Based on the findings, a managed and supervised process of analysing business processes and the assessment system was performed. As I shall present further on, this practical activity is a core part of archiving by design, and it was fundamental to the development of the Romanian methodology.

The findings and lessons learnt allowed for the Romanian team to interact with several selected creating agencies and to present the purpose of archiving by design and the envisaged way of implementation. The feedback was relevant for shaping the intent, scope, and structure of the methodology. Additionally, a meeting was organized with colleagues from the National Archives of the Netherlands, who have practical experience with implementing "archiving by design" methodologies. Based on the already established practice of cultural contextualisation, several points of difference were identified, underscoring once more the need for a customised approach to archiving by design in Romania.

THE ROMANIAN VERSION OF "ARCHIVING BY DESIGN"

A). PREREQUISITES

Based on the knowledge and practical experience gained, a methodological manual was compiled (Popovici, Bețianu, Guseth, & Ionaș, 2025). It reflects, in addition to the steps in the process (which will be described later), the methodological needs of Romanian archivists, as identified in the project.

Initially, the target audience of the methodology was the creating bodies, as agencies to apply "archiving by design" for their business systems. During the project, it was observed that creators would not be able to utilize such a methodology without guidance from recordkeeping professionals, and that these professionals lacked a conceptual framework to assist creators. As such, the primary audience became the staff of the National Archives (who, by law, may deliver technical assistance for the creators). As the second audience, the records managers and IT staff from the creating bodies were targeted. Not least, a potential audience is also the IT companies that develop and implement software for document/records management in administration.

For each of the intended audiences, it was decided that an introduction would be necessary to present the proper record-keeping prerequisites for understanding the methodology. For the archivists, it was necessary to offer some considerations about digital records and the way they are managed by the systems. Romanian archivists

are essentially paper-minded and introducing a few necessary perspectives towards electronic records management was necessary. In this regard, one of the first chapters treated the records as *information in context*. The archivists were used to regarding the record as an object. In fact, it is not the record, but it is a carrier bearing content which is an object. In the digital world as professional considerations attest (see for instance, Duranti & Thibodeau, 2006), the carrier must exist for a record, but it is not an intrinsic part of it any longer. As such, in digital records management, we must focus on the control of the content of records and their metadata.

As context of record, it is highlighted the connection between the record and the functions/business processes which produce it. This is something rather new for Romanian archivists, as we are accustomed to connecting records with the divisions of the organization that accumulated them. Also, traditionally, we relied on the creators for producing good records, based on their long-established bureaucratic procedures. But in the digital world, due to inconsistent and varied levels of maturity and digitalization, one does not have this certainty any longer: one institution may have its email account from commercial providers, or their records and systems kept in cloud, without any concern on their management and preservation and how they will proceed with those digital records when the contract ends. Moreover, many employees in administration struggle to understand that digital records will not be as understandable and accessible in the future as their analogue counterparts. Therefore, it is, in many regards, a new task for archivists is to pay attention to the quality of records produced by the creators.

An important topic was why the organizations would care about "archiving by design". The archival legislation imposed certain generic obligations on the creators. And not once, the archivists, having the right of inspection, try to enforce them. The "stick approach". is sometimes necessary, when the creators often decline their obligations concerning records. This is, in fact, one of the core differences between Romanian society and the Norwegian one, that we noticed during the project. The colleagues from Norway told us that the most powerful institutions in Norway are those with the best-organized records, because they are under scrutiny from citizens regarding how they spend the money and the need to answer FOIA requests. In Romania on the other hand, a powerful institution is perceived the one who have a higher autonomy and is less controlled or sanctioned by another one.

These opposite perspectives reflect cultural differences, and we needed to think twice about how to approach the implementation of the archiving by design methodology in Romania. In this regard, we deliberately avoided *imposing* the method on organizations, because the process of identifying their own needs implies their agreement and involvement. If the organization cannot see the benefits of having a good records management system, imposing the method from the outside would hardly bring good results. Hence, a special chapter is dedicated to the presentation of the advantages of proper management of digital records by design, as a tool of persuasion, and we provided a list with the most common rejecting answers we have identified from the creators with several counterarguments.

However, it would not be fair to blame creators for disregarding the management of records, since archivists, in many situations, also consider their task to be only dealing with records for permanent preservation. We also considered these regards on the matter and tried to argue that, from the perspective of creators, records are the instruments derived from or implied in their daily business. The retention periods only intervene when records are subject to disposition. However, if the records—all records—in a system are not properly cared for, then even permanent records would lack trustworthiness. Therefore, we need to adopt a comprehensive and overarching approach to protect and manage all the records. In the end, without proper knowledge about the workflows and the documentation produced by a creator, one cannot discern the permanent records either.

Another introductory topic that we needed to address was the connection between the systems and the records they produce and store. Traditionally, the archivists seldom deal with the systems for creating and storing records. In special cases, we might be interested in the quality of ink, the quality of paper, the quality of boxes or shelves. However, we usually care about the record being protected and preserved in good conditions, and that would be all. In the digital world, however, the record is of a mediated nature, that is, it cannot be read or interpreted without the proper software that intermediates the process. Any manipulation of the record, from writing to sending and reading, needs a certain piece of software. Therefore, proper records management must ensure that records are correctly produced, stored, and transmitted across time and space, and all their peculiarities are properly documented, thereby ensuring that they will be usable in the future. This perspective is, in many regards, unusual for

creators, because they tend to regard the record as it was on paper: *if I need it, I shall put it aside, and I shall look for it, if necessary, maybe in 10 years, while the record will politely wait for me*. The concepts of hardware/software obsolescence are far from their minds. However strange it may look, this approach was encouraged by the IT industry. The IT industry solves a need here and now, and they do not care what will happen in 10 years. And they do not care because they are ignorant, but because in 10 years it will be different implementations, read–a different business. (In this regard, imposing requirements that will ensure long-term sustainability for the records would imply in some way a loss of money for the provider of the software.)

One final topic that we considered to be relevant and a prerequisite for understanding archiving by design is to present the existing models so far for managing digital records. These would help categorize systems and processes and are relevant for the methodological assessment. The first model was one that mirrored the record-keeping processes and functionalities from the paper world into digital space. The standard typology of software for this model is the electronic records management system (ERMS), which has specific functionalities for managing the records, acting like a records centre. While ERMS came in various architectures and integrations and presented several approaches in the world, being manifested in various specifications like MoReq, we remarked that the existing recordkeeping tradition shapes this approach (Popovici, 2019, 157). Because MoReq, for instance, takes into consideration the Anglo-Saxon Two Age model, where an ERMS covers all the needs for record keeping while the records are in the creator's management. But in countries where the Three Age system is implemented, the perspective is different. That is, the creators used to manage their current records in their production system and then they expect that a solved case to be "archived", that is moved from the current system to an archiving system. In this approach, the ERMS has the functionalities split between registration and managing the records in their current phase and the functionalities for archiving (read, preservation), which are specific to the second phase, the intermediate archives (semiactive records).

A second approach was to consider the business system, that is that IT system which produces records and stores them during the working process. In practice, this is a rather common model, because the practitioners have the information, they need in one place, current and historical data; if that system was good enough to

produce and store current records, they must be good enough to preserve them on longer term. Considering specifications for managing records, these business systems should be modified to fulfil the roles of managing the records they produce and store. The main issue with this approach is that systems are designed for business, not for managing records; therefore, implementing records management specifications may be costly. Also, one system may be used by different organisations, but their requirements for records can vary, therefore, it may be the case they pay for a system with high (secondary) capabilities, but do not using such complexity.

The third approach is an updated version of the second one, that is, to focus on the business system, but to adapt the recordkeeping capabilities to the specific needs of organizations. As such, improvements in recordkeeping functionality will be developed/implemented based on the needs of the organisations and not on some generic, complex se t of requirements (for a presentation of these systems see Lappin, Jackson, & Matthews, 2021).

B). THE METHODOLOGY

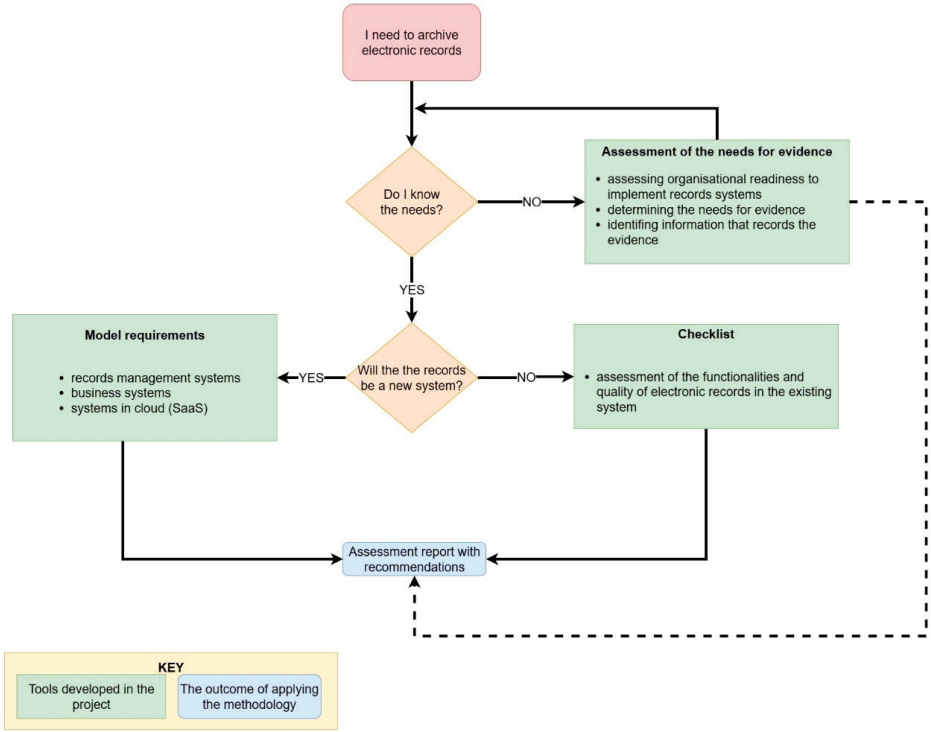
"Archiving by design" is an approach to the management of electronic records. It consists of *identifying relevant requirements that allow for the capture, preservation, and use of digital records for as long as necessary, from the design phase of the systems that manage and store records* (Popovici et al., 2025, 35). There are two core elements in this definition. Firstly, it is about *relevant requirements*. Creators vary very much in size, complexity, and relevance of work processes. As such, one size does not fit all, and it is necessary to prevent unnecessary costs for developing a large and complex system where it is not essential to do so. It is important to ensure only the optimal requirements to meet specific needs. Another key term is *the design phase,* which needs to be interpreted broadly as the period preceding the implementation of a new business system or the moment an existing system is planned for revamp. In this phase, the relevant requirements are identified to protect the records.

The methodology developed for Romanian archivists consists of three phases. The first—*establishing the rules of the game*. In this step, it will be examined the trigger and conditions for performing an assessment. Since the archiving by design methodology, it is not a legal requirement, but rather a voluntary tool to be used, the resources spent should return some specific benefits. This phase should clarify the scope, the resources involved, and the desired outcome.

The second phase will be the assessment itself. This step will focus on assessing the business workflow's needs for information and evidence and translating these needs into specific record requirements. Since the business process is a small piece of a larger puzzle, it should be regarded in the context of the organisation and in relation to other associated or concurrent processes. Additionally, if a business system already exists, the second phase may assess its existing capabilities for capturing, managing, and utilizing records according to the needs of informing/evidence identified during the business process assessment.

The third phase involves producing a recommendations report that outlines the functionalities and measures required to ensure the relevant business system's records remain accessible for as long as needed. These recommendations can be further utilized to establish technical requirements for procuring or developing software, laying the foundation for budgeting, etc.

Figure 1: *The diagram of the methodological steps for the Romanian version of archiving by design.*



All these phases are described step by step, in a manner intended to be fitted for practical use. For the outcome of the **first phase**, it needs to answer to some specific questions. Firstly, by answering to the WHY question, the expectations of the beneficiary are revealed: what the beneficiary expect, what the provider can do. This needs to be clarified from the very beginning. A second question is WHEN, to establish the pertinency of the assessment. The archiving by design assessment can be performed during a moment of change in work process rather than being on an ongoing process. The assessment is not mandatory, and one needs to understand when is relevant and when it is not for the organization, in order not to spare the organisational resources. A third question is WHAT AND aims to define the scope of the assessment. It is not necessary to analyse the whole business, but rather the processes that are supported by a certain system. Another question in this phase is HOW to perform the assessment. That means it is a phase for planning, to describe and plan the activities intended as to be clear for all the parties involved: what is the effort implied, what are the questions that are going to be asked. Eventually, one last question is WHO—the participants. It is a necessary step, as it allows for the selection of the relevant staff, the resource personnel, such as those from the organization itself, the contractor, or those who best understand the process.

The second phase can be divided in three parts. Firstly, assessing the organizational readiness for electronic records management. A second part is to determine the needs of information and evidence, and the third one is assessing the existing systems. For this second phase, an important step is information gathering. One needs to collect information and documentation from various sources for the processes that are under analysis, like: legal documentation, business technical documentation about the systems or the technological environment of the organization, users or any other. As work techniques, interviews, workshops with various personnel, and various actors, are recommended.

"*Assessing organizational readiness*" is not a metaphor, but it is a must, because this is the foundation for implementing a system for protecting electronic records. One may intend to introduce a very complex system that can automate everything. Still, this part can assess that the staff in the organisation has no understanding of their records, and they are unsure how to work with computers. So, these expectations may be too high, and this gap can only be bridged by extra budget and

resources involved. If an organisation does not understand what is implied by a records-keeping activity, likely, it does not have any requirements in this regard. And, if there is a wish to increase the records management maturity, that means extra efforts that need to be considered. One should also verify the existence of records management tools, as improving records management capabilities may be necessary, but without these, there may be no effective way to do so. For instance, a retention schedule is a valuable tool. Equally important to understand is the technological environment of records: it is a different type of requirement if your infrastructure is on-premises or on the cloud. All these elements should be measured in a risk analysis framework, to understand the importance of certain records and the importance of certain systems for organisational activity.

The second part is to understand the *organisation's need for evidence*. The process of identifying the records that serve as evidence and as information is composed of two main steps. The first is the identification of requirements for evidence of the business process (intended to be) supported by the business system. The second is the identification of the structure and the necessary context of the information that records this evidence, that is, the record itself.

For the first step, the activity can be divided further. *The business process analysis* must consider how the process is performed, the factors that influence it (such as jurisdiction, industry, and organisational regulations), and the interconnections with other processes within or outside the organisation. Along the process, it must be *identified the records requirements*: why the records are produced, which records are produced and for what purpose (informing, evidencing or acting), in what form the records are produced. Eventually, the *records requirements must be linked* to the business functions and processes.

For the second step, it is necessary to identify the information, including both the content and metadata, of the records. This step requires IT competencies, as it needs to clarify where the information that forms the evidence resides, what technical components (such as files) are aggregated to generate the record, and the metadata that support and contextualize the records.

The last part (which is not necessarily last as an order, but it can even be the main part of the assessment, based on circumstances) is *the analysis of the existing systems*. This is an important consideration for organisations that are already digitalised

and want to improve their record-keeping capabilities, because, unintentionally, their business systems may already be aligned with best practice for preserving records, and they need to take any (or fewer) measures for a performant records management.

All these parts and steps presented above are thoroughly explained in the methodology, accompanied by checklists, models, and examples to clarify and make them as useful as possible.

The **third phase** of the process is producing the output of the assessment. It needs to include the results of the process, that is, assessing the organizational readiness for implementing business systems that can preserve records, the evidence needed, the requirements for content, metadata and form, and, as the core part, recommendations for business system functionalities. In our methodologies, we offered a list of illustrative requirements, compiled from ISO standards.

Our methodology stops here, emphasizing the fact that the job of the assessor should end here. The recommendations may or may not be implemented by the organisation; the final decision belongs to the beneficiary. But it may be the case that the organisation may ask for assistance during the implementation phase, where some requirements may be adjusted or fulfilled by unpredicted system functionality. It is important to note that even if the software meets the requirements, its configuration at implementation and its use may not fully satisfy the records requirements. Therefore, regular audits should verify the conformity and determine the need for an upgraded assessment when the general conditions have changed.

FINAL REMARKS

The project and the output have had a good impact in Romania. Many relevant actors in public administration welcomed the first articulated position of the National Archives on the digital records management area. Based on lessons learned during the process, the National Archives has developed a national standard for electronic records, which is currently undergoing approval. A new project has been initiated by the General Secretary of the Government, in collaboration with the Courts of Account, focusing on testing the compliance of public sector electronic systems with the long-term preservation of authoritative data. As such, the project proved to be fruitful and practical, with good impact, which in the end is a measure of its success.

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Summary

This paper presents a collaborative project undertaken by the National Archives of Norway and Romania, aiming to enhance the latter's capacity to manage the process of electronic records management. The paper is structured in three main sections. The first one outlines the project plan, including its main intended activities and steps. The second one presents the performance of the project, emphasizing the challenges and the way activities were carried out. The third part presents the main output of the project—a book introducing archiving by design to the Romanian audience.

The paper aims to present the experiences and results of the project not as an informative report, but rather in a manner that highlights the key events, relevant to a broader audience. For instance, it emphasizes the cultural challenge when trying to adopt foreign methodologies and the need for adaptation to local realities. This is also reflected in the project's results, as well as in its methodology,

which includes in its first part several chapters about a larger conceptual context, allowing the reader to identify the exact location of this methodology within the broader realm of digital records management.

Typology: 1.02 review article