

HECTOR

Hybrid Electronic Curation, Transformation and Organization of Records

FINAL REPORT

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2. SUMMARY

Context and objectives

Most administrative structures are nowadays confronted with a hybrid document environment. Organisations use, access, share, save and store documents in a variety of formats: on paper, scanned, born in electronic format, or printed. In the absence of a clear policy for managing and preserving such heterogeneous documents, the result is a great deal of confusion, loss or redundancy of information, waste of valuable resources and legal uncertainty which hampers the efficiency of public services.

In this context, the HECTOR research project aimed to model the transformation, organisation and preservation of hybrid documents in the Belgian federal administrations, in order to facilitate the transition to a trustful, secure and efficient e-government.

To this end, the project aimed to develop document and file digitisation processes that preserve the authenticity of the document (traceability and integrity) and ensure its efficient use (quality of the result, accessibility and exploitation of the content). In addition to these processes, the research aimed at adopting post-digitisation appraisal and disposal policies that take into account legal constraints and the administrative, organisational and heritage value of the documents. Legal or organisational constraints may lead to the need for joint management of hybrid documents, combining paper and digital media.

The identification of concrete instruments accompanying these digital or hybrid preservation policies was also one of the objectives of the research: metadata schemes and classification plans integrating the aspects of authenticity, traceability, retention and accessibility of digitised documents and files.

Finally, the research project aimed to propose policies for the efficient management of access to digitised documents, taking into account the legal obligations of transparency (linked to the access to public sector information) and confidentiality (linked to the protection of personal data).

Methodology

The HECTOR project was conducted using an interdisciplinary approach involving law (for the legal constraints) and information sciences: Records Management and Archival Sciences (for aspects related to records and information management). The integration of archival sciences was intended at an early stage in the development of hybrid records management strategies, rather than confining archivists to a depository and preservation role. This "integrated archival" approach is strongly encouraged in order to anticipate the long-term preservation of records.

A bottom-up approach has also been implemented. The research, initially theoretical and based on a state-of-the-art assessment, was nourished by field analyses on the basis of selected case studies. The cases selected offered potential for generalisation to other actors in the public sector, or even to the administration as a whole. Information from the field was gathered through meetings and interviews. Two types of complementary questionnaires were sent to the interviewees: one focusing on the analysis of the general context of the administrative entity studied and its strategy in terms of records management, and the other focusing on the management of specific digital/digitised documents. The aim was to arrive at a comparison between the theoretical ambition in terms of records management and the reality of practice at the level of the creators and users of documents.

The aim of the exercise was to lead to a transverse functional modelling for hybrid document management.

Results

The digitalisation of the public sector should make it more efficient and accessible. It is important that the law should not be an unjustified obstacle to this transformation. An analysis of the applicable legal rules has led to the conclusion that recent amendments to several of these rules were intended to promote the digital transition. As an example, the European e-IDAS regulation, by guaranteeing the principle of functional equivalence, paves the way for this transition even if two concerns remain: there are still not enough "qualified" services in terms of this regulation, which prevents all documents from being digitised and paper from being eliminated; moreover, in too many cases still, legal formalities impose paper support and therefore hinder the switchover to digital.

Data protection legislation has proved to be very close to the rules and good practices in Records Management. The GDPR imposes a series of rules impacting data management (purpose principle, minimisation principle...), imposing the use of certain tools (such as the data processing register), obliging to adopt appropriate security measures and making those who process personal data accountable (accountability principle). All these legal principles are in fact also found in the rules of good document management advocated by the discipline of records management (filing plan...). There is a welcome complementarity between both disciplines.

It should be noted that the GDPR invites each EU Member State to adopt a specific regime for the processing of personal data for archiving purposes in the public interest. The GDPR must therefore be read in conjunction with the Data Protection Act of 30 July 2018.

Other legislation also affects the digital transformation of the administration (laws on archives, on the re-use of public sector data, on access to administrative documents...). They were all analysed in the course of the HECTOR research.

The case studies carried out during the project revealed obstacles to the management of hybrid documents in the Belgian federal administrations, thus impacting the transition towards a fully completed, reliable, secure and efficient e-government. The reasons for these difficulties include budgetary restrictions but also deep-rooted resistance to change, difficult inter-organisational relations between public administrations, legal uncertainties resulting from a constantly changing digital environment, and fragmented decision-making between different public entities making choices independently rather than as part of a commonly thought-out and collaborative policy. As a result, the substantial differences between public administrations lead to a lack of interoperability not only at the technical level but also at the organisational level.

However, some of the examples analysed are models of remarkable success in managing digital transformation. They may be instructive for other administrations. For example, a project of administrative processes automation, such as the project for electronic records (e-PV) developed by the FPS Employment, is exemplary because its success is linked to two factors:

- in terms of records management, standardisation through the development of a uniform document model and an online application to automate the procedure has made it possible to strengthen not only the authenticity of files and documents but also their usability and reliability.
- a critical change has been made in legislation, leading to the recognition of the same probative value

of e-PVs signed with an electronic signature as a handwritten signature (by the application of the "principle of assimilation").

The findings of this case study have highlighted conditions for successful digital transformation: rigorous and homogeneous document editing rules and secure electronic access to applications and databases. These keys to success can be found in other cases studied, particularly in the case of the integrated management of statements of offence in Quebec City.

It should be added that automating certain document management processes, such as classification or deletion, reduces the impact of human error and workload, improves the quality of document management practices and facilitates their adoption by users.

The HECTOR project has produced a set of tools to inform public administrations involved in a digital transformation project: digitisation decision-making scheme, comparison of the advantages and disadvantages of removing paper, table of digitisation steps, metadata tables, and diagram of the document processing chain in hybrid management.

Keywords

Public administration, archiving, document management, e-government, digitisation, GDPR, e-IDAS

General recommendation

It might be interesting to consider, in the framework of BELSPO-funded research contracts, a sustainable availability of results and information resources – not limited to the final report – on a public website (logically linked to BELSPO) which would guarantee the maintenance of the publication of the resources over time. This site should also benefit from visibility as a reference place where the results of BELSPO-funded research are available. This would avoid the dispersion of results over a variety of sites, either academic or of federal scientific institutions, which would be unfavourable to effective access to research results.

2. RESUME

Contexte et objectifs

La plupart des structures administratives sont aujourd’hui confrontées à un environnement hybride de documents. Les organisations utilisent, consultent, partagent, enregistrent et conservent des documents se présentant dans une variété de formats : sur support papier, ayant fait ou appelés à faire l’objet d’une numérisation, nés sous format électronique, ou encore (ré)imprimés. En l’absence d’une politique claire de gestion et de préservation de documents aussi hétérogènes, il en résulte une grande confusion, la perte ou la redondance d’informations, le gaspillage de ressources précieuses et une insécurité juridique qui entravent l’efficacité des services publics.

Dans ce contexte, le projet de recherche HECTOR a eu pour objectif de modéliser la transformation, l’organisation et la préservation des documents hybrides dans les administrations fédérales belges, afin de faciliter la transition vers un e-gouvernement fiable, sécurisé et efficace.

Pour ce faire, le projet visait à déboucher sur l’élaboration de procédures de numérisation de documents et de dossiers qui préservent l’authenticité du document (traçabilité et intégrité) et assurent son utilisation efficace (qualité du résultat, accessibilité et exploitation du contenu). Outre ces procédures, la recherche visait à l’adoption de politiques de conservation après numérisation tenant compte des contraintes légales et de la valeur administrative, organisationnelle et patrimoniale des documents. Les contraintes légales ou organisationnelles peuvent conduire à la nécessité de gestion conjointe des documents hybrides, combinant les supports papier et numériques.

L’identification d’instruments concrets accompagnant ces politiques de conservation numérique ou hybride était également un des objectifs de la recherche : des schémas de métadonnées et des plans de classement intégrant les aspects d’authenticité, de traçabilité, de durée de préservation et d’accessibilité des documents et dossiers numérisés.

Le projet de recherche visait enfin à proposer des politiques de gestion efficace des accès aux documents numérisés, prenant en considération les obligations juridiques de transparence (liées à la publicité de l’administration) et de confidentialité (liées à la protection des données à caractère personnel).

Méthodologie

Le projet de recherche HECTOR a été conduit en adoptant une approche interdisciplinaire impliquant le droit (pour les contraintes légales touchant à la matière) et les sciences de l’information : Records Management et Sciences archivistiques (pour les aspects liés à la gestion des documents et de l’information). Au niveau des sciences de l’information, l’intégration des sciences archivistiques a été voulue à un stade précoce de l’élaboration de stratégies de gestion hybride des documents, plutôt que de confiner les archivistes dans un rôle de dépositaires et de conservation. Cette approche « archivistique intégrée » est fortement encouragée afin d’anticiper la préservation à long terme des documents, notamment dans la modélisation des processus d’évaluation et d’élimination des documents prenant en compte leur valeur primaire et secondaire conjointement.

Une approche *bottom-up* a également été mise en œuvre. La recherche, au départ théorique et partant d’un bilan de l’état de l’art, s’est nourrie d’analyses de terrain sur la base d’études de cas sélectionnés. Les cas retenus offraient un potentiel de généralisation à d’autres acteurs du secteur public, voire à l’ensemble de l’administration. L’information du terrain a été recueillie par le biais de rencontres et d’interviews. Deux types de questionnaires complémentaires ont été envoyés aux personnes interviewées : l’un portant sur l’analyse du contexte général de l’entité administrative étudiée et de sa

stratégie en termes de *records management*, et l'autre se concentrant sur la gestion de documents numériques/numérisés spécifiques. Le but visé était de parvenir à une comparaison entre l'ambition théorique en termes de gestion documentaire et la réalité de la pratique au niveau des créateurs de documents et des utilisateurs de ceux-ci.

L'objectif de l'exercice était de déboucher sur une modélisation fonctionnelle transversale pour la gestion des documents hybrides.

Résultats

La digitalisation du secteur public doit permettre à ce dernier d'être plus efficace et plus accessible. Il est important que le droit ne soit pas un frein injustifié à cette transformation. L'analyse des règles juridiques applicables a débouché sur le constat que les récentes modifications de plusieurs de ces règles étaient destinées à favoriser la transition numérique. Ainsi le règlement européen e-IDAS, en garantissant le principe d'équivalence fonctionnelle, ouvre la voie de cette transition même si deux préoccupations demeurent : il n'existe pas encore suffisamment de services « qualifiés » au regard de cette réglementation, ce qui empêche de tout numériser et de supprimer le papier ; en outre, dans trop de cas encore, les formalités légales imposent le support papier et font donc obstacle au basculement vers le numérique.

La législation de protection des données, quant à elle, s'est révélée très proche des règles et bonnes pratiques en Records Management. Ainsi, le RGPD impose une série de règles impactant la gestion des données (principes de finalité, de minimisation...), imposant le recours à certains outils (comme le registre des traitements de données), obligeant à adopter des mesures de sécurité appropriées et responsabilisant ceux qui traitent des données à caractère personnel (principe d'*accountability*). Tous ces principes se trouvent en réalité aussi dans les règles de bonne gestion documentaire prônées par la discipline du *records management* (plan de classement...). On observe une complémentarité bienvenue entre les disciplines.

On notera que le RGPD invite chaque Etat membre de l'UE à adopter un régime spécifique réservé aux traitements de données personnelles effectués à des fins d'archivage dans l'intérêt public. Le RGPD doit donc en cette matière être lu de concert avec la loi du 30 juillet 2018 relative à la protection des données.

D'autres législations affectent également la transformation digitale de l'administration (lois sur les archives, sur la réutilisation des données du secteur public, sur l'accès aux documents administratifs...). Elles ont fait l'objet d'une analyse dans le cours de la recherche menée.

Les études de cas réalisées durant le projet ont mis au jour des obstacles à la gestion des documents hybrides dans les administrations fédérales belges, impactant dès lors la transition vers un e-gouvernement complètement abouti, fiable, sécurisé et efficace. Les raisons de ces difficultés tiennent à des restrictions budgétaires, mais également à une résistance au changement fortement enracinée, aux relations inter-organisationnelles difficiles entre les administrations publiques, aux incertitudes juridiques découlant d'un environnement numérique en permanente évolution, et à l'éclatement décisionnel entre les différentes entités publiques faisant des choix en toute autonomie plutôt que s'inscrivant dans une politique communément réfléchie et favorisant la collaboration. En conséquence, les différences substantielles entre les administrations publiques conduisent à un manque d'interopérabilité non seulement au niveau technique, mais aussi au niveau organisationnel.

Cela dit, certains exemples analysés offrent des modèles de remarquables réussites de gestion de la

transformation digitale, porteurs d'enseignement pour d'autres administrations. Ainsi, un projet d'automatisation des procédures administratives comme celui des procès-verbaux électroniques (e-PV) développé par le SPF Emploi est exemplaire, car sa réussite est liée à deux facteurs :

- en termes de *records management*, la normalisation à travers le développement d'un modèle uniforme des documents et d'une application en ligne pour automatiser la procédure a permis de renforcer non seulement l'authenticité des dossiers et documents, mais aussi leur exploitabilité et leur fiabilité.
- un changement critique a été apporté dans la législation, conduisant à la reconnaissance de la même force probante des e-PV signés avec une signature électronique par rapport à la signature manuscrite (par application du « principe d'assimilation »).

Les constats tirés de cette analyse de cas ont mis en exergue les conditions d'une transformation digitale réussie : des règles d'édition des documents rigoureuses et homogènes, et un accès électronique sécurisé aux applications et aux bases de données. Ces clés de la réussite se retrouvent dans d'autres cas analysés, particulièrement dans le cas de la gestion intégrée du constat d'infraction à la Ville de Québec.

On ajoutera que l'automatisation de certains processus de gestion des documents, tels que la classification ou la suppression, permet la réduction de l'impact de l'erreur humaine et de la charge de travail, améliore la qualité des pratiques de gestion des documents et facilite leur adoption par les utilisateurs.

Le projet HECTOR a débouché sur un ensemble d'instruments destinés à éclairer les acteurs publics impliqués dans un projet de transformation numérique : schéma de prise de décision de numérisation, comparaison des avantages et inconvénients de la suppression du papier, tableau des étapes de la numérisation, tableaux des métadonnées, et schéma de la chaîne de traitement du document dans la gestion hybride.

Mots-clés

Administration publique, archivage, gestion documentaire, e-gouvernement, digitalisation, RGPD, e-IDAS

Recommandation générale

Il pourrait être intéressant d'envisager, dans le cadre des contrats de recherche à l'issue desquels des ressources informationnelles — pas seulement le rapport final — sont rendues publiques sur internet, de prévoir une mise à disposition durable sur un site web public (rattaché à BELSPO logiquement) qui offrirait la garantie du maintien dans le temps de la publication des ressources. Ce site devrait en outre bénéficier d'une visibilité en tant que lieu de référence où sont disponibles les résultats des recherches financées par BELSPO. Cela éviterait la dispersion des résultats sur une variété de sites soit universitaires, soit des institutions scientifiques fédérales, dispersion défavorable à l'accès effectif aux résultats des recherches.

2. SAMENVATTING

Context en doelstellingen

De meeste administratieve structuren worden tegenwoordig geconfronteerd met een hybride omgeving voor het beheer van hun documenten. Organisaties gebruiken, openen, delen en bewaren documenten in verschillende formaten: op papier, gescand in elektronisch formaat geboren of geprint. Bij gebrek aan een duidelijk beleid voor het beheer en de bewaring van dergelijke heterogene documenten, leidt dit tot veel verwarring, verlies of redundantie van informatie, verspilling van waardevolle middelen en rechtsonzekerheden, wat de efficientie van onze openbare diensten belemmert.

In deze context had het HECTOR project tot doel de transformatie, organisatie en bewaring van hybride documenten in de Belgische federale administraties te modelleren, om de overgang naar een vertrouwensvolle, veilige en efficient e-gouvernement methode te faciliteren.

Met het oog hierop was het project gericht op het ontwikkelen van document- en dossier digitaliseringsprocessen die de authenticiteit van het document bewaren. Naast deze processen was het onderzoek gericht op het aannemen van een post-digitaliserings- en verwijderingsbeleid dat rekening houdt met wettelijke beperkingen en de administratieve, organisatorische en erfgoedwaarde van de documenten. Juridische of organisatorische beperkingen kunnen leiden tot de noodzaak van gezamenlijk beheer van hybride documenten, waarbij papieren en digitale media worden gecombineerd.

De identificatie van concrete instrumenten die dit digitale of hybride bewaarbeleid begeleiden, was ook een van de doelstellingen van het onderzoek: metadataschema's en classificatieplannen die de aspecten authenticiteit, traceerbaarheid, retentie en toegankelijkheid van gedigitaliseerde documenten en bestanden integreren.

Ten slotte beoogde het onderzoeksproject beleidsmaatregelen voor te stellen voor een efficiënt beheer van de toegang tot gedigitaliseerde documenten, rekening houdend met de wettelijke verplichtingen van transparantie (in verband met de toegang tot overheidsinformatie) en vertrouwelijkheid (in verband met de bescherming van persoonsgegevens).

Methodologie

Het HECTOR-project werd uitgevoerd met behulp van een interdisciplinaire benadering van recht (voor de wettelijke beperkingen) en archiefwetenschappen (voor aspecten die verband houden met archief- en informatiebeheer). De integratie van archiefwetenschappen was bedoeld in een vroeg stadium van de ontwikkeling van hybride documentbeheerstrategieën, in plaats van archivarissen te beperken tot een bewaar- en bewaringsrol. Deze benadering van "geïntegreerde archivering" wordt sterk aangemoedigd om te anticiperen op de bewaring van documenten op lange termijn.

Er is ook een bottom-up benadering geïmplementeerd. Het onderzoek, aanvankelijk theoretisch en gebaseerd op een state of the art assessment, werd gevoerd door veldanalyses op basis van geselecteerde case studies. De geselecteerde gevallen boden een potentieel voor generalisatie naar andere actoren in de publieke sector, of zelfs naar de administratie als geheel. Via bijeenkomsten en interviews is informatie uit het veld verzameld. Er werden twee soorten aanvullende vragenlijsten naar de geïnterviewde gestuurd: de ene was gericht op de analyse van de algemene context van de

bestudeerde administratieve entiteit en haar strategie in termen van archiefbeheer, en de andere was gericht op het beheer van specifieke digitale / gedigitaliseerde documenten. Het doel was om te komen tot een vergelijking tussen de theoretische ambitie op het gebied van archiefbeheer en de praktijk in de praktijk op het niveau van de makers en gebruikers van documenten.

Het doel van de oefening was om te leiden tot een transversale functionele modellering voor hybride documentbeheer.

Resultaten

De digitalisering van de publieke sector moet deze efficiënter en toegankelijker maken. Het is belangrijk dat de wet geen ongerechtvaardigde belemmering vormt voor deze transformatie. Een analyse van de toepasselijke wettelijke regels heeft geleid tot de conclusie dat recente wijzigingen van een aantal van deze regels bedoeld waren om de digitale transitie te bevorderen. Zo effent de Europese e-IDAS-verordening, door het principe van functionele gelijkwaardigheid te garanderen, de weg voor deze overgang, zelfs als er twee problemen blijven bestaan: er zijn nog steeds niet genoeg 'gekwalificeerde' diensten in termen van deze verordening, waardoor alle documenten gedigitaliseerd worden en papier wordt geëlimineerd; bovendien leggen wettelijke formaliteiten nog te veel gevallen op papier en belemmeren daardoor de omschakeling op digitaal.

De wetgeving inzake gegevensbescherming heeft bewezen zeer dicht bij de regels en goede praktijken op het gebied van archiefbeheer te staan. De EC legt een reeks regels op die van invloed zijn op gegevensbeheer (doelprincipe, minimalisatieprincipe, ...), het gebruik van bepaalde tools opleggen (zoals het gegevensverwerkingsregister), het verplichten om passende beveiligingsmaatregelen te nemen en degenen die persoonsgegevens verwerken aansprakelijk (verantwoordingsprincipe). Al deze juridische principes vinden we trouwens ook terug in de regels van goed documentbeheer die bepleit worden door de discipline archiefbeheer (archiveringsplan, ...). Er is een welkome complementariteit tussen beide disciplines.

Opgemerkt moet worden dat de EC elke EU-lidstaat uitnodigt om een specifieke regeling vast te stellen voor de verwerking van persoonsgegevens voor archiveringsdoeleinden in het algemeen belang. De EC wetgeving moet dus gelezen worden in samenhang met de Wet Bescherming Persoonsgegevens van 30 juli 2018.

Andere wetgeving heeft ook gevolgen voor de digitale transformatie van de administratie (wetten over archieven, over het hergebruik van overheidsgegevens, over toegang tot administratieve documenten, ...). Ze zijn allemaal geanalyseerd in de loop van het HECTOR-onderzoek.

De casestudy's die tijdens het project werden uitgevoerd, brachten belemmeringen aan het licht voor het beheer van hybride documenten in de Belgische federale administraties, wat een impact had op de overgang naar een volledig voltooide, betrouwbare, veilige en efficiënte e-overheid. De redenen voor deze problemen zijn onder meer budgettaire beperkingen, maar ook diepgewortelde weerstand tegen verandering, moeilijke interorganisatorische relaties tussen overheidsdiensten, rechtsonzekerheden als gevolg van een voortdurend veranderende digitale omgeving en gefragmenteerde besluitvorming tussen verschillende overheidsinstanties die onafhankelijk keuzes maken in plaats van als onderdeel van een algemeen doordacht en gezamenlijk beleid. Als gevolg hiervan leiden de substantiële verschillen tussen overheidsdiensten tot een gebrek aan interoperabiliteit, niet alleen op technisch niveau, maar ook op organisatorisch niveau.

Enkele van de geanalyseerde voorbeelden zijn echter modellen van opmerkelijk succes bij het beheren

van digitale transformatie. Ze kunnen leerzaam zijn voor andere administraties. Een project voor de automatisering van administratieve processen, zoals het project voor elektronische dossiers (e-PV) ontwikkeld door de FOD Werkgelegenheid, is voorbeeldig omdat het succes ervan gekoppeld is aan twee factoren:

- op het gebied van archiefbeheer heeft standaardisatie door de ontwikkeling van een uniform documentmodel en een online applicatie om de procedure te automatiseren het mogelijk gemaakt om niet alleen de authenticiteit van bestanden en documenten te versterken, maar ook hun bruikbaarheid en betrouwbaarheid.
- er is een cruciale wijziging aangebracht in de wetgeving, die heeft geleid tot de erkenning van dezelfde bewijskracht van e-PV's ondertekend met een elektronische handtekening als een handgeschreven handtekening (door toepassing van het "principe van assimilatie").

De bevindingen van deze casestudy hebben de voorwaarden aan het licht gebracht voor een succesvolle digitale transformatie: rigoureuze en homogene regels voor het bewerken van documenten en veilige elektronische toegang tot applicaties en databases. Deze sleutels tot succes zijn terug te vinden in andere bestudeerde gevallen, met name in het geval van het geïntegreerd beheer van strafverklaringen in Quebec.

Hieraan moet worden toegevoegd dat het automatiseren van bepaalde documentbeheerprocessen, zoals classificatie of verwijdering, de impact van menselijke fouten en werkdruk vermindert, de kwaliteit van documentbeheerpraktijken verbetert en de acceptatie ervan door gebruikers vergemakkelijkt.

Het HECTOR-project heeft een reeks tools opgeleverd om overhedsdiensten te informeren die betrokken zijn bij een digitaal transformatieproject: besluitvormingsschema voor digitalisering, vergelijking van de voor- en nadelen van het verwijderen van papier, tabel met digitaliseringssstappen, metadataballen en diagram van de documentverwerkingsketen in hybride beheer.

Trefwoorden

Openbare administratie, archiefbeheer, document management, e-government, digitalisering, GDPR, e-IDAS

Algemene aanbeveling

Het zou interessant kunnen zijn om in het kader van de door BELSPO gefinancierde onderzoekscontracten een duurzame beschikbaarheid van resultaten en informatiebronnen op een openbare website (logischerwijs gelinkt aan BELSPO) te overwegen, wat het behoud van de publicatie van de bronnen doorheen de tijd zou garanderen. Deze site zou ook moeten profiteren van de zichtbaarheid als referentieplaats waar de resultaten van door BELSPO gefinancierd onderzoek beschikbaar zijn. Dit zou de verspreiding van resultaten over verschillende sites, zowel academische als federale wetenschappelijke instellingen, vermijden, wat ongunstig zou zijn voor een effectieve toegang tot onderzoeksresultaten.

3. INTRODUCTION

For a number of years now, all administrative structures have been confronted with a hybrid environment of documents, some of which are paper-based, some ones digitised and some others digital-born. Moreover, some of the electronic documents are (re)printed for various reasons. In the absence of a clear policy for the management and preservation of such heterogeneous documents, the result is a great deal of confusion, loss or redundancy of information, waste of valuable resources and legal uncertainty which hampers the efficiency of public services.

The HECTOR project aimed to clarify the rules to be followed in this context, whether legal, technical or organisational, to develop practical tools and to formulate recommendations to facilitate this digital transition.

4. STATE OF THE ART AND OBJECTIVES

The emergence and increasing use of electronic documents and records in the public sector has been accompanied by significant legal, normative and organisational challenges.

Improving the efficiency of services and interactions with internal and external actors, as well as cutting costs and reducing the use of paper, has been an objective towards which all public services have been striving for two decades. However, the "paperless office" has proved to be more myth than reality. Paper and electronic files still coexist today, sometimes even as a result of legal obligations. Document management has naturally been affected by these technological developments, but also by the concomitant evolution of legislation, rules and standards applicable to such "hybrid" documents.

In order to comply with regulations, particularly those relating to the transparency of the administration and to the mandatory archiving of administrative documents, organisations have invested considerable resources in the preservation of their records.

In recent years, the Belgian legal framework has considerably evolved. New European regulations have been added to the existing body of legislation. The application of these new regulations has made the management of hybrid documents and files more complex. In particular, the implementation of the General European Regulation on the Protection of Personal Data (GDPR) on 27 April 2016, supplemented by the Law of 30 July 2018, has shaken the "good father" approach in the field. On the basis of the commonly accepted assumption that "it is better to keep too much than not enough", administrations are currently running a legal risk by keeping personal data that should be deleted by the application of this new data protection regulation.

In addition, the e-IDAS Regulation of 23 July 2014 has come into force and has implied its implementation at Belgian level. Any organisation wishing to digitise its paper documents must now comply with a series of legal requirements if it wants these digitised documents to retain the same legal value as their original paper version.

As these texts are particularly recent, the GDPR having even been adopted in the course of the HECTOR research, it was necessary to analyse the obligations they entail, as well as their application in the context of the management of hybrid documents and files, and the links between these

regulations.

In addition, the literature on archiving and records management has for a very long time been mainly oriented towards a paper document model. While certain rules can be transposed to the new environment, the digital switchover raises a series of new questions. Today, deciding not only what information should be retained and how it should be retained, but also what information should be disposed of is particularly complex in terms of the theoretical and practical rules of records management.

It has therefore become essential to study good practices in digital records management and digitisation processes. The common thread that links the different angles from which records management is approached in HECTOR's research is logically that of digital transformation. Technological developments and the increase in the real-time capture of the created information result in such an abundance of records that both NARA (National Archives and Records Administration – USA) and TNA (The National Archives – UK) have highlighted the obsolescence of traditional approaches to records management. That said, the persistence of paper within the public sector is notable and leads to certain imbalances in the management of information depending on whether it is in paper or digital format.

It has therefore proved difficult to manage all paper and electronic documents in a global and homogeneous manner. In addition, there are many practical difficulties in the process of digitising paper documents. The administration therefore wonders: what to scan, how to scan, how long to keep the documents...

Norms and standards are crucial in developing a records management strategy for hybrid documents, as they allow concepts to be reappropriated without having to reinvent the wheel at every stage. However, the process of standardisation and revision remains complex. Moreover, each administration evolves in its own context and makes use of different resources. It is therefore important to understand, as an organisation, what, among all the recommendations, can actually be used as is and what adaptations to the environment need to be made. Certain international standards (ISO, MoReq, EDRMS standards in particular) provide practical answers, but these do not necessarily take all account of the Belgian and European legal framework.

In view of this reality, it proved necessary to propose a multidisciplinary study of the questions raised in order to integrate not only the legal constraints but also the organisational and practical ones.

The objective of the HECTOR research project was to **model the transformation, organisation and preservation of hybrid documents** in the Belgian federal administrations, in order to facilitate the transition to a reliable, secure and efficient e-government. More specifically, the project aimed to provide a coherent framework for the following procedures:

- Document and file digitisation procedures that preserve the authenticity of the document (traceability and integrity) and ensure its efficient use (quality of the result, accessibility and exploitation of the content)
- Post-digitisation evaluation and selection policies that set out criteria for defining
 - o the need to preserve or destroy the original paper or digital copy of the original;
 - o the respective retention periods of the paper original and its digital copy (sorting tables based on a joint assessment of the administrative, legal, organisational and heritage value of the document)

- Metadata schemes and classification schemes which propose an appropriate description and classification of digitised documents and files, including elements relating to their authenticity, traceability, preservation period and accessibility
- Policies for the efficient management of access to digitised documents that take into account the necessary balance between transparency (accessibility of public sector information) and privacy/confidentiality
- Policies for the parallel management of paper and electronic documents and records that assess the circumstances in which such joint management is really necessary.

5. METHODOLOGY, SCIENTIFIC RESULTS AND RECOMMENDATIONS

The following pages present the methodology adopted for carrying out the HECTOR research and the results obtained. In order to facilitate the understanding of the research results, the presentation of these results follows the order of the WPs included in the initial description of the HECTOR project as well as the tasks related to these WPs.

Concerning the tasks related to WP 4 (Consolidation, Awareness Raising, Valorisation & Dissemination), we refer to Section 6 below.

Moreover, as the project aimed at developing practical tools to improve document management in a hybrid environment, a significant part of the research results is materialised in the form of diagrams, models and graphs (except for some sheets and reports). We refer to the project website (see Section 6.4), where these more practical and visual schemes and tools are included. However, some diagrams and tables are included in this final report for illustrative purposes.

GENERAL METHODOLOGY

An Interdisciplinary research

In view of the object of the research, the HECTOR project has been conducted using an interdisciplinary approach crossing law and information sciences (Records Management and Archival Sciences). Both the information management aspects (Archiving and Record Management) and the legal aspects have therefore been analysed, as well as connections between these different disciplines.

The three research teams involved in the project reflected the adopted angles of analysis since they were: the Centre de recherche Information, Droit et Société (CRIDS) of the University of Namur, responsible for the legal axis, the Department of Information and Communication Sciences (STIC) of the ULB, responsible for the Records Management and Standards axis, and the DIGI-P@T Preservation and Digital Access services of the State Archives (AGR), responsible for the archiving axis.

A « bottom-up » approach

In order to take into account as much as possible on-the-ground realities of the Belgian federal administrations, a bottom-up approach was followed. It materialised in 3 steps :

- Analysis of the theoretical context and selection of Use Cases

- Field analysis on the basis of relevant and potentially generalisable case studies from different federal administrations
- Functional modelling for hybrid document and file management.

Firstly, we studied from a theoretical point of view the state of the art in the different disciplines covered in this project (WP1).

Secondly, we made a selection of relevant and potentially generalisable case studies from different administrations. Thus, we carried out a field analysis (an audit) to identify the functions fulfilled by the types of documents/files selected, as well as the needs, opportunities, risks, constraints and obstacles to hybrid records management and the transition to "all-digital" (WP2). In concrete terms, this field analysis took the form of interviews and exchanges with several members of the different institutions selected, and exchanges with members of the Follow-up Committee representing different federal institutions.

Finally, we developed models, schemes and tools, which can be generalised in order to be able to transpose the research and results obtained to other federal administrations (WP3).

WP1 – THEORETICAL FRAMEWORK

Task 1.1. Setting the scene

Task 1.2. Analytical & Critical state of the art

Impact of technical developments

The issue of record management within organisations is not new and has not always been linked to technological developments. However, the computerisation of working procedures since the 1970s, and thus the emergence of the coexistence of electronic and paper documents, has obviously brought about new challenges, many of which are still relevant today. During the 1980s, a decisive change in the perception of the life cycle of the document came about with the introduction of the concept of the "records continuum", defined as a "coherent and consistent regime of records management processes from the moment of their creation (and even before that, in the design of records retention systems) through the preservation and use of records as an archive" (Norm AS 4390, 1996, since replaced by ISO 15489). Records management is therefore no longer seen as a one-off action, but as a succession of different interrelated phases.

Throughout the 1980s and 1990s, some major IT players implemented the idea behind the records continuum in electronic records and document management software. This software, long touted within large organisations as the ideal solution for managing the massive and growing production of digital documents, claimed to offer the best value for money. However, they were leading to dependency on a proprietary system provider, high costs associated with migration from one platform to another and rapid tool evolution.

The centralised and monolithic approach of the EDRMS (Electronic document and records management system) model is proving very difficult to implement in a context where documents and records are increasingly dispersed in applications or media. (J. LAPPIN, « What will be the next records management orthodoxy? », Record Management Journal, 2010, p. 252 et seq.). James Lappin proposed to replace the EDRMS model with a records directory model, based on the concept of a central directory providing a single and secure storage of content. This directory could then be used

by various applications through web services, and could be connected to a filing plan and a sorting table.

There is therefore a need to develop functional requirements that ignore a specific technology and focus on the minimum functionality of a records management system. We can cite three major interventions in this direction: DIRKS, a system that was developed by the National Archives of Australia and officially published as a standard in 1996; MoReq 2010, which, after several versions, incorporates archival principles; and the professional standard of the International Council on Archives, ICA-Req, which has become an ISO standard. However, the specificity of hybrid records management, although not completely excluded from MoReq 2010, needs to be clarified in the context of classification, description (metadata), appraisal and disposal. The almost total absence of these issues in the normative texts could lead to unpredictable records management and may hinder the long-term preservation of public sector records.

Legal Aspects

The written form is still the master of modes of evidence in our civilist system.

Since the introduction of the Civil Code, an increasing number of formal requirements have been incorporated into various legal standards, and impose in particular the use of a signed or sealed document, handwritten mentions, registered mail or written information. The objectives pursued by these formal requirements are diverse: to ensure the security of transactions, the formal validity of a public or private document, transparency, to allow for audits or for tax purposes.

In this context, the emergence of the information society has raised the question of the legal value of electronic documents in an environment in which the written document occupies a predominant place and meets unambiguous formal requirements.

After several attempts to adopt legal texts governing the legal value of electronic archiving processes – particularly those processes involving format or medium migration – and of the digitisation of paper documents or of electronic timestamping, a European regulation on electronic identification and trust services for electronic transactions in the internal market was adopted (e-IDAS Regulation (EU) 910/2014, adopted on 23 July 2014). Since then, this Regulation has been implemented in Belgium through the Belgian Digital Act (Law of 21 July 2016 implementing and supplementing Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trusted services for electronic transactions in the internal market and repealing Directive 1999/93/EC, inserting Title 2 in Book XII "Law of the electronic economy" of the Code of Economic Law and inserting the definitions specific to Title 2 of Book XII and the implementing provisions of the law specific to Title 2 of Book XII in Books I, XV and XVII of the Code of Economic Law). This Belgian law provides a more comprehensive legal framework for document archiving and digitisation, explicitly applying the theory of functional equivalence between media.

Since the European regulation only envisages electronic archiving in a very laconic manner, this Belgian law clarifies in particular the functional requirements for the legal recognition of electronic archiving and digitisation processes, including the evidentiary value of the digital copy of a paper-based document, both in the public and private sectors.

However, such functional requirements are formulated at too general a level to guide the day-to-day management of hybrid records in private and public organisations. Indeed, uncertainty will persist as long as organisational and technical measures are not taken to meet these legal requirements in practice. These measures should include, in particular, the length of time the original and its copy must

be kept and the need to destroy the paper original after digitisation. On the latter point, account has to be taken of the Federal Archives Act (dating from 1955 but amended in 2009), which makes the destruction of public sector records subject to the prior approval of the State Archives.

Finally, the digitisation of public records considerably increases the possibilities of access to information. This new paradigm has to be taken into consideration with regard to the law ensuring citizens' access to administrative documents (Law of 11 April 1994 on the Publicity of the Administration and Law of 4 May 2016 on the Re-use of Public Sector Information). It is also important to take into account the legislation on privacy and the processing of personal data (RGPD...). Finding a balance between these conflicting rights is a complex operation and civil servants sometimes find themselves in an uncomfortable position when they have to deal with requests for access to public documents containing personal data.

These research results have been disseminated mainly through conferences and scientific publications. These publications are accessible via the institutional repositories of the different project partners. (see Section 6.1).

WP2 – EXPLORATORY ANALYSIS

Task 2.1. Preparatory work

This step consisted of selecting 4 institutions in which a workflow involving hybrid documents (paper and digital formats) would be analysed.

To ensure that this audit was carried out in a methodical manner, an analysis grid in the form of a questionnaire was designed so that the findings and observations made during the audits could be synthesised, compared and then generalised. Hence, during the interviews with the members of the institutions, all the important aspects were addressed, i.e. both the constraints linked to the legal framework and those deriving from the particular functioning of the institution. This questionnaire was sometimes slightly adapted to respond to certain specificities encountered during the interviews.

In addition to these questionnaires, we operated a selection of the type of scheme that best allows to visualise this type of document workflow, so that it could be modelled in a way that could easily be transposed to other institutions.

Finally, before selecting these different institutions, a preliminary summary analysis of both the particular legal framework and the organisational framework was carried out in order to avoid studying institutions with too specific a profile. These preliminary analyses were carried out following a first information exchange meeting with members of the different candidate institutions.

In the end, the following were selected

- The electronic archiving of the Police report (archived by the FPS Justice)
- The management of statements of offences (PVs) by the local Police forces
- The management of statements of violations of social laws by the FPS Employment.
- The integrated management of statements of offence in Quebec, in particular by the Quebec City Municipal Court.

Other case studies with certain institutions have been initiated, but for various reasons, notably related to internal reorganisations within some of these institutions, they could not be pursued despite the initial fruitful exchanges we had with members of these institutions.

The model questionnaire is available on the project website (<https://hectorproject.wixsite.com/manuel-handboek/>).

Task 2.2. 1st Level of analysis: Hybrid documents management & Task 2.3. 2nd Level of analysis: Hybrid files management

Methodology

In concrete terms, for each selected case study, the HECTOR team met several times with members of the institutions concerned. We made sure that we met with people in charge of legal issues, archiving issues, IT issues, etc.

After these initial interviews, and in the light of the information obtained from the Standard Questionnaire (WP1), an initial modelling of the workflows studied was drawn up by the members of the HECTOR team, then validated by those of the institution concerned (in some cases, the work was done directly together). A report was then produced to document the information obtained during these interviews. It contains technical and organisational information relating to the information management system studied, as well as brief analyses of specific legal issues raised.

It should be pointed out that after discussion with, and in agreement with, the members of the Follow-up Committee, it was decided to confine the analysis to hybrid documents and not to study the management of hybrid files. This was justified by various practical difficulties encountered during the first exchanges with the institutions that were to serve as Case Studies. It was also due to the overly complex nature of the case studies given the scope of the project. It would ultimately have taken too much time to study the hybrid cases in order to arrive at a sufficiently detailed and precise analysis. In particular, we had started to monitor the 'P&O Shared Service Center' project of the FPS FEDICT.

We therefore focused on the 4 case studies chosen for a first-level analysis (analysis of hybrid document management). This change allowed us to analyse in an in-depth way this hybrid document management.

It was therefore not possible to carry out a complete analysis of the "second-level" case studies. It should be noted that in the context of certain case studies that focused on the presence of hybrid documents, we were also confronted with hybrid files.

The analysis files of these case studies are not intended to be made public. They are above all a source of internal project documentation and certain information obtained during interviews must remain confidential. However, below are some of the elements that seemed important to emerge from these different analyses. Case Study 4 (Statement of offences in Quebec) is available on the following website https://ciscra.org/assets/public/dissemination/NA21FinalReport_Part2_20170519.pdf.

Case Study 1: The electronic archiving of the Police report

The objective of this Case Study was to study the question of the electronic archiving of Police reports by the FPS Justice (responsible for the archiving of these reports).

Flowchart

As there is no clear policy on the management of hybrid documents and their archiving, and as there is only a paper document policy, it was agreed not to produce a flowchart for this Case Study 1.

However, we refer to the flowchart for Case Study 2, as archiving by the FPS Justice is in fact the last step of Case Study 2.

Findings

Belgian Justice is very little digitised, and for what it is digitised, it is often a reduced digitisation, carried out in a very fragmented way, without an overall vision. Indeed, company-specific applications have been developed each time for different user groups. This has resulted in a fragmented and heterogeneous ICT landscape for Justice, with partly obsolete and incompatible ICT infrastructure and applications. In addition to these technical difficulties, there is also an unclear legal framework on certain aspects related to the evidential value of certain digitised documents.

To address these problems and findings, the Phénix project was set up by the FPS Justice. However, the project's failure has meant that those involved in the judiciary are now reluctant to embark on new and/or major projects to modernise, digitise and computerise the justice system. According to the people we met, the project was too ambitious and required too radical changes in the functioning of the various actors in the world of justice. Since then, other, less ambitious projects such as Just-X or Just-Scan have emerged. Finally, from an archiving point of view, the sorting table of the judiciary (2009) clearly specifies the retention periods and the fate of the different types of documents. Nevertheless, there is no real archiving policy within the FPS with regard to the management of paper and digital documents.

One conclusion that can be drawn from this Case Study is that it is crucial to think about the digitisation of an institution in a coherent and comprehensive way, and that this requires a good prior analysis and a well-considered Change Management policy.

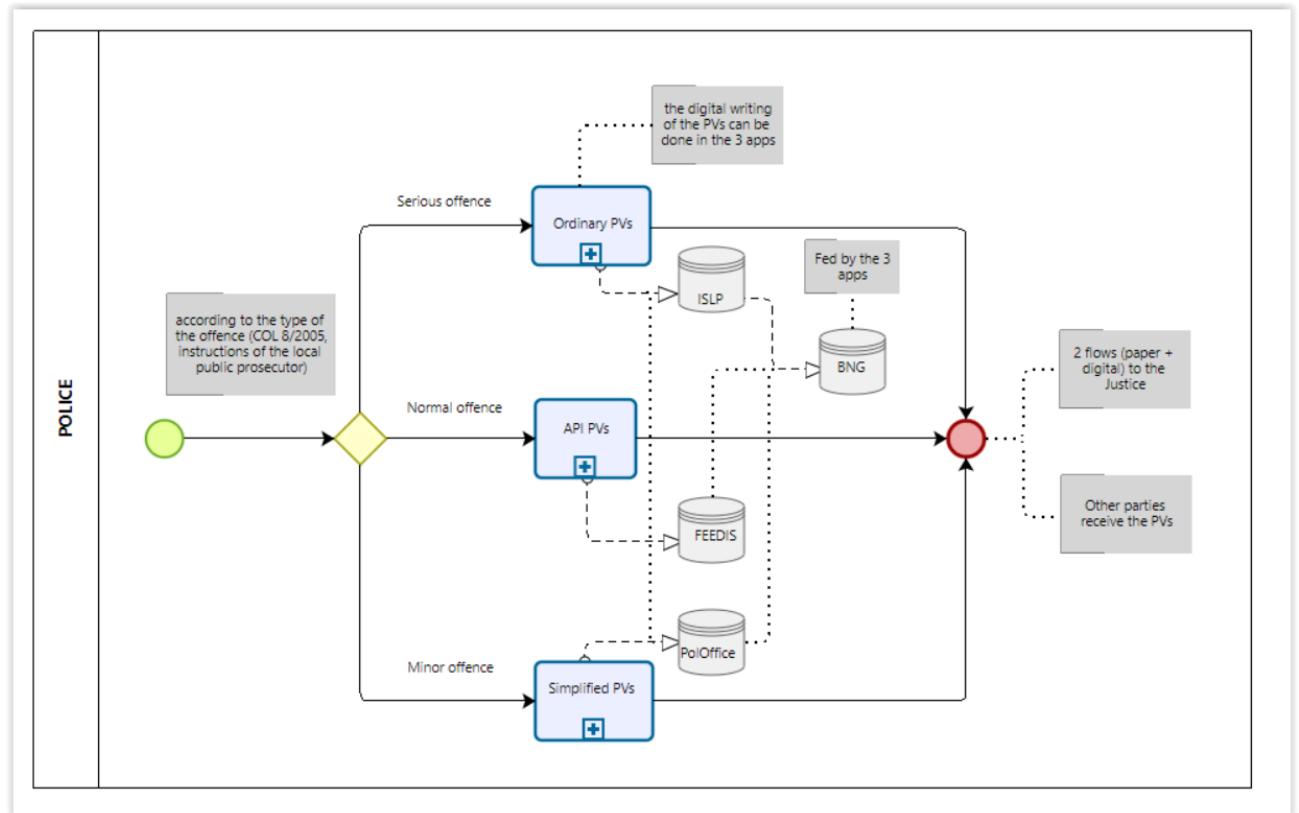
Case Study 2: The management of statements of offences (PVs) by the local Police forces

The objective of this Case Study was to study the management of official statements of offence (PVs) by local Police forces.

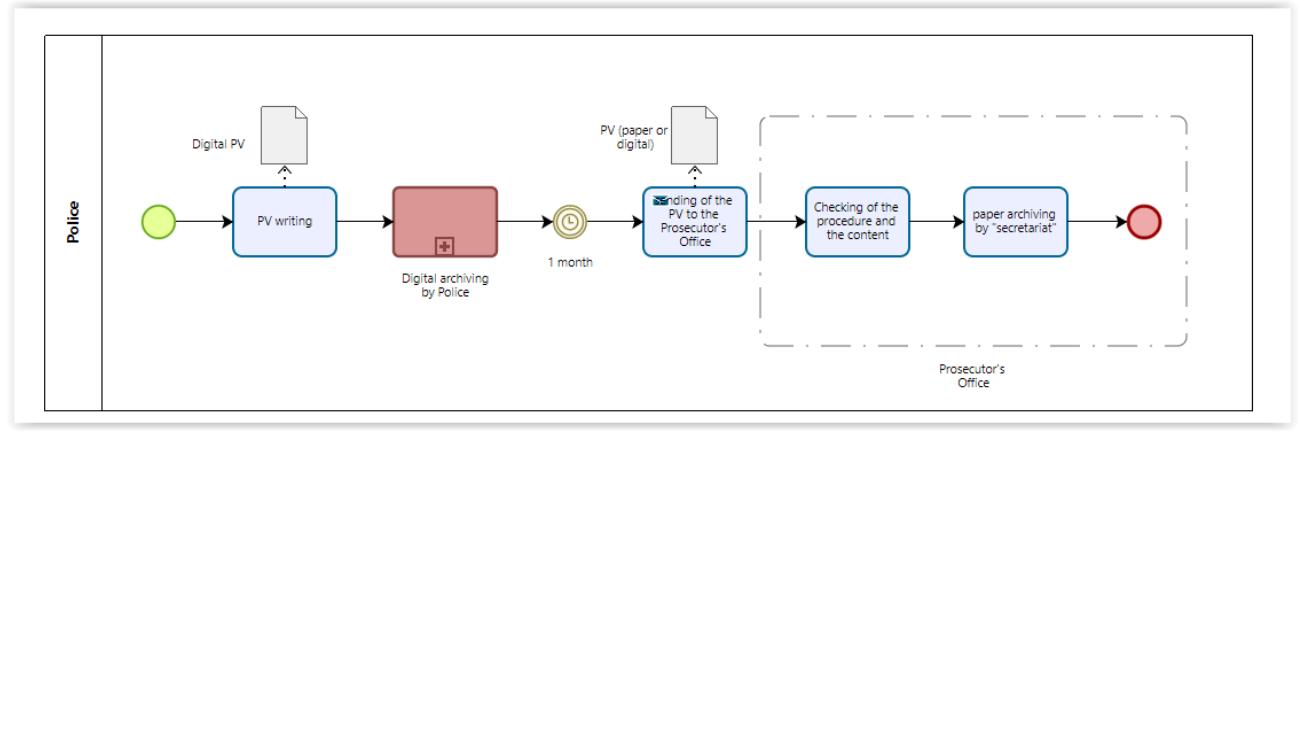
During the first meetings, it turned out that there were in fact many different types of official statements of offence, depending on the subject matter, the procedures... We decided to limit ourselves to three different types of statements of offence: ordinary statements of offence, API statements of offence (Automatic Police Investigation), and simplified statements of offence.

Flowchart

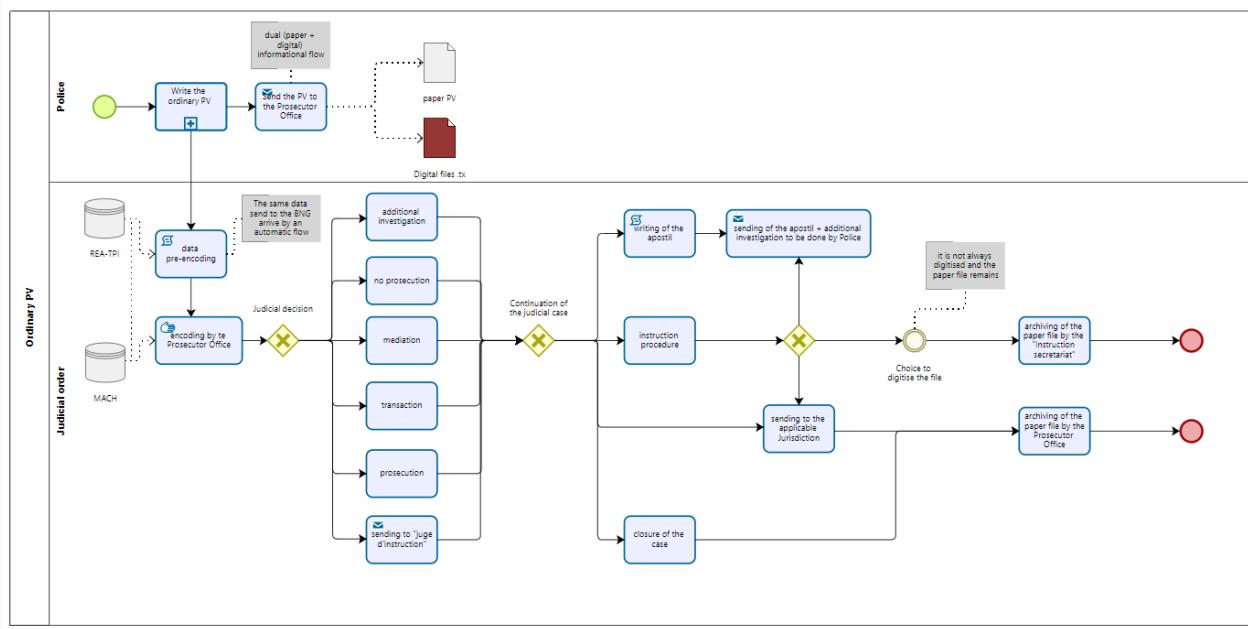
Global PV processing



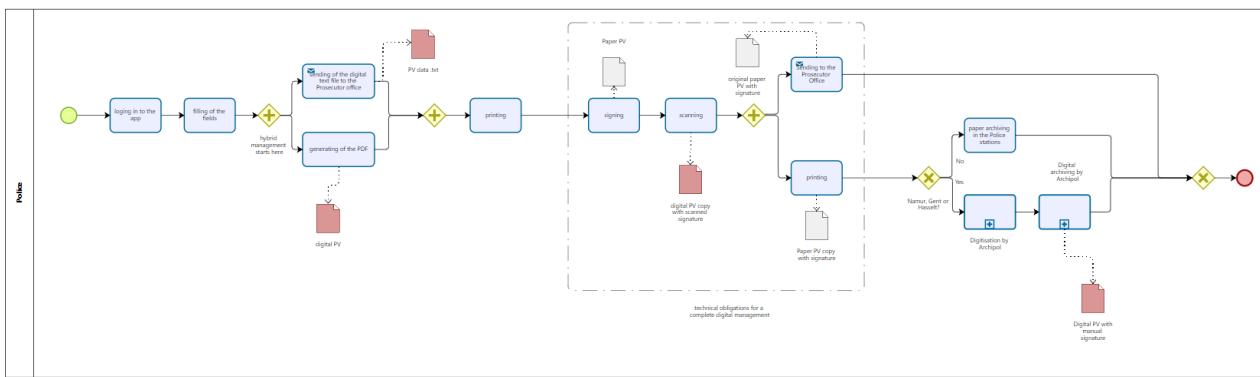
a) Simplified PV under-process



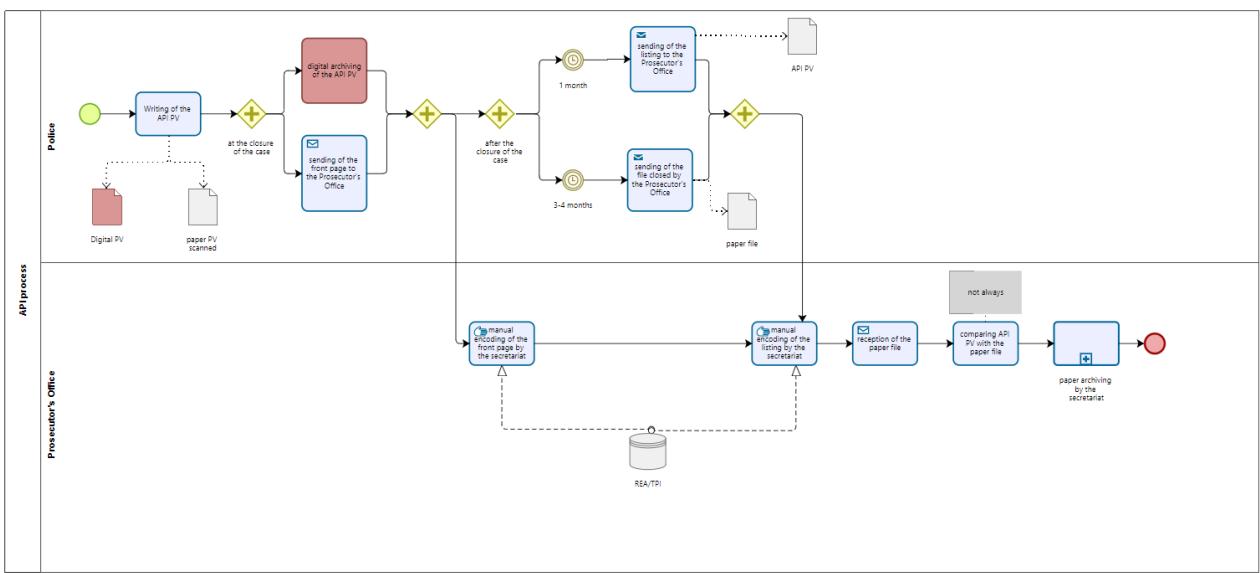
b) Ordinary PV under-process



Drawing up ordinary PV process



c) API PV under-process



Findings

In this Case Study 2, almost all PVs are written in electronic form from the outset (which does not exclude a paper copy which has its own life cycle). Depending on the different branches of the Police, the management software varies (ISLP, FEEDIS, PolOffice). Some Police Zones use certain software developed in-house. This software is used to create and record statements of offences at the level of the departments that create them.

In the applications there are many predefined fields, even if there are parts in the computer system that allow "free text", which leads to a certain standardisation and facilitates document management. The fields change over time, but it is the same ISLP, the same Feedis that is used in all departments. Although there are some differences between these two systems (different metadata schema; one uses Word before generating a PDF...), overall they are similar in terms of their functions, so much so that there are plans to merge them.

As stated above, statements of offence exist in both paper and electronic versions. The paper version is sent to the Public Prosecutor's Office after certain deadlines. It should be noted that this transmission to the Public Prosecutor's Office is carried out digitally.

As far as their storage on paper is concerned, the time limits for original statements of offence vary according to the type of statement of offence. In addition, they are also kept in electronic form, but the time limits for keeping and disposing of this version were not organised in a systematic and considered manner at the time of the meetings with the reference persons for this Case Study (internal work was in progress in this respect).

Finally, from a legal point of view, the rules vary according to the type of procedure, and therefore of statements of offence. Generally speaking, the paper statement of offence remains the only true original, even if it is possible to create "true copies" from digital versions by following certain procedures.

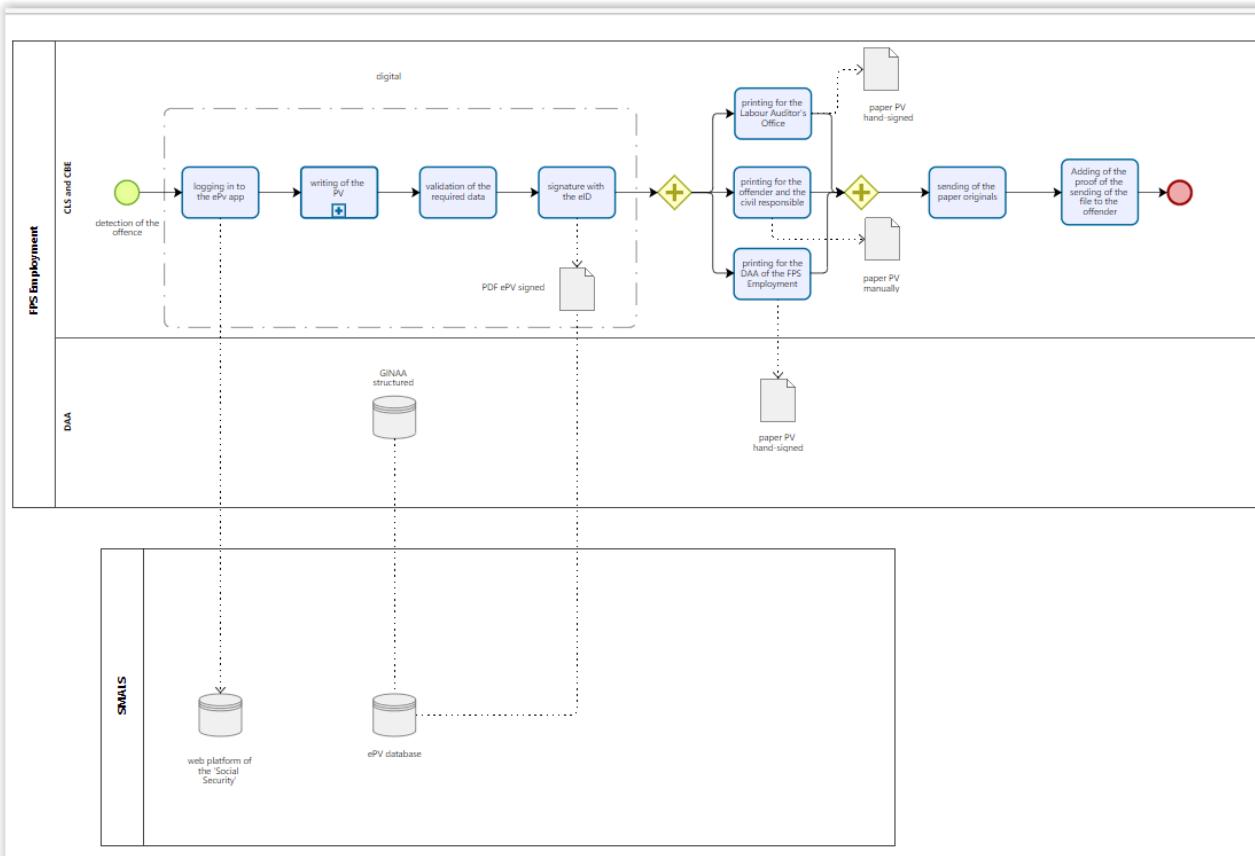
From the analysis of this Case Study, it has been concluded that the management of statements of offences is relatively well thought-out. However, the issue of retention and disposal periods for digital versions and the delicate question of a complete switchover to an environment where the paper version of the statement of offence is no longer the reference document (raising the fear of deleting or scanning it) still needs to be addressed.

Case Study 3: The management of statements of violations of social laws by the FPS Employment

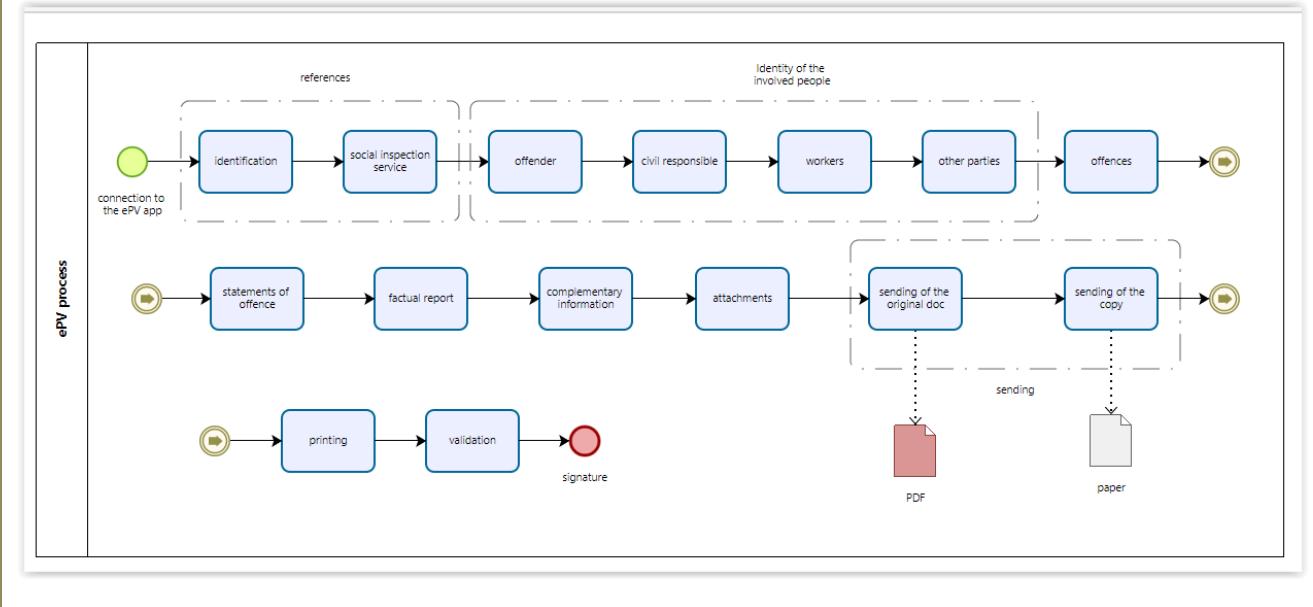
Our object of study within the FPS Employment (FPS Employment, Labour and Social Dialogue) is the electronic statement of violation of social laws (ePV).

Flowchart

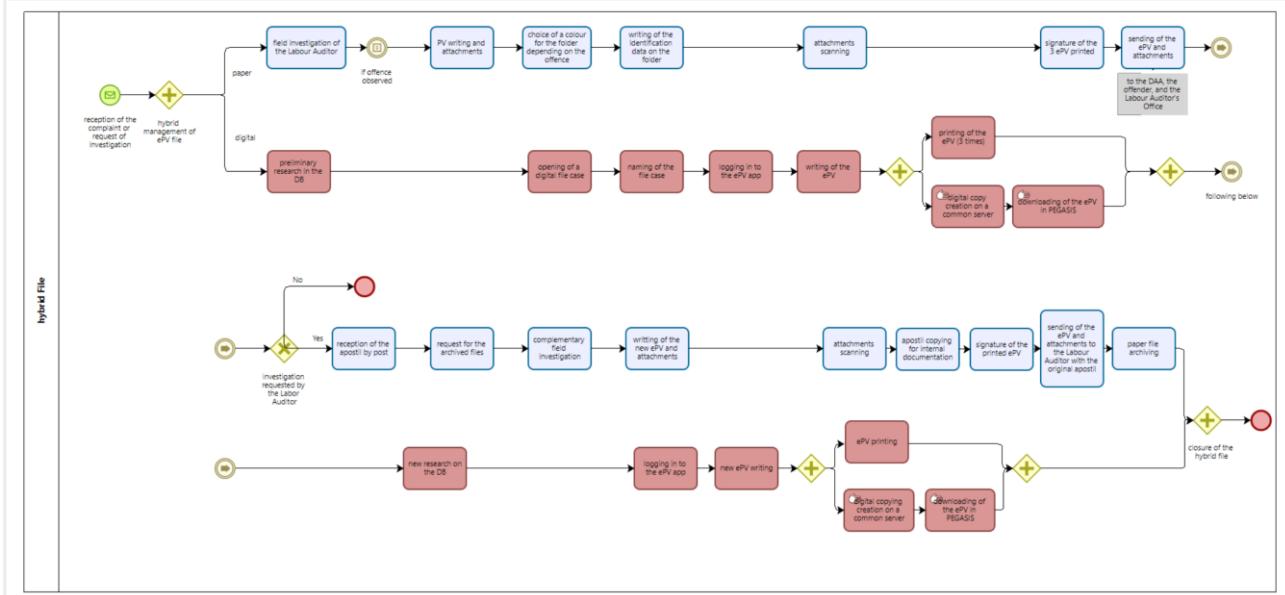
Global process



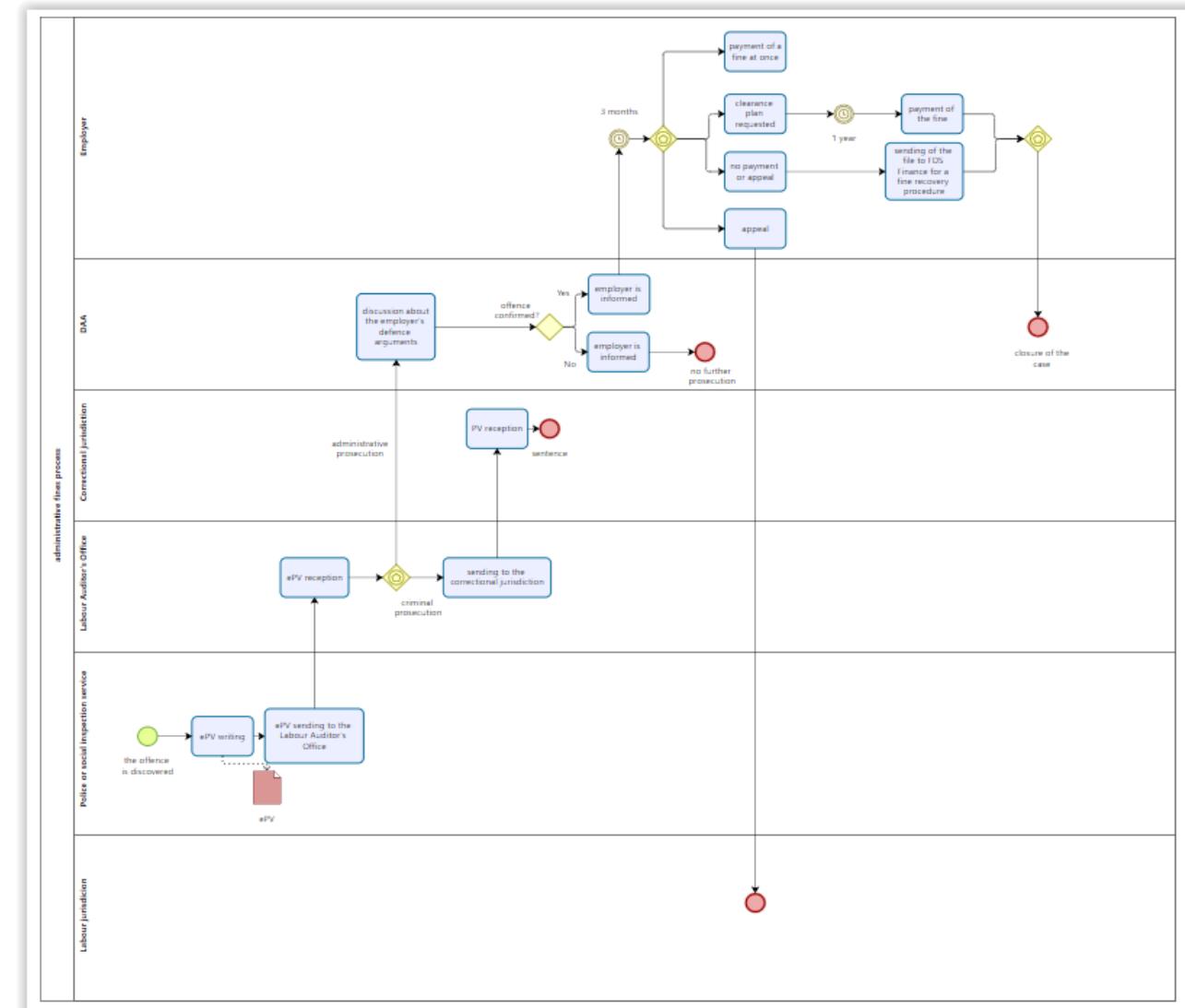
Drawing up ePV process



Hybrid files management



Administrative fines process



Findings

With a view to the electronic exchange of information between those involved in the fight against illegal employment and social fraud, the social inspectors of the social inspection services appointed by the King draw up their statements of offences electronically (ePVs) via the computer application designed for this purpose. The e-PVs are then registered in the e-PV database, which authorised bodies can consult via the network of the Crossroads Bank for Social Security.

This network organisation and the possibility of drafting the e-PV from the outset are intended in particular to enable a faster exchange of information between the various services (particularly the many social inspection services) and, given the multiplicity of players, to ensure that practices are standardised.

This e-PV creation software required the creation of databases, notably the e-PV database. This software also has access to other databases such as the GINAA database (considered an ‘authentic source’ of the data contained) and PEGASIS (non-authentic source).

These PVs are then transmitted to different actors: to the Labour Auditor’s Office (paper version), to the offender (paper version), and to the Administrative Fines Directorate (electronic version).

These ePV procedures and the databases in which the PVs are recorded are scrupulously regulated to ensure compliance with the rules on the protection of personal data (information is not circulated more than necessary and is only accessible to those who need it for the performance of their duties). In addition, it is compulsory to draw up this type of penalty notice in electronic form (special rules, in particular signature via e-ID, etc.), which therefore has the same value as a penalty notice in paper form. As a result, paper is no longer the reference document (the original), even where paper versions of these PVs exist. Moreover, the files are not entirely digital (ongoing project).

Within the inspection services, an annual cleaning is carried out in order to destroy paper files that are no longer useful (3 or 5 years, no real sorting table).

Concerning the digital versions, no definitive archiving is organised (transfer to AGR), despite the existence of some sorting tables.

Case Study 4: The integrated management of statements of offence (PV) in Quebec, in particular by the Quebec City Municipal Court

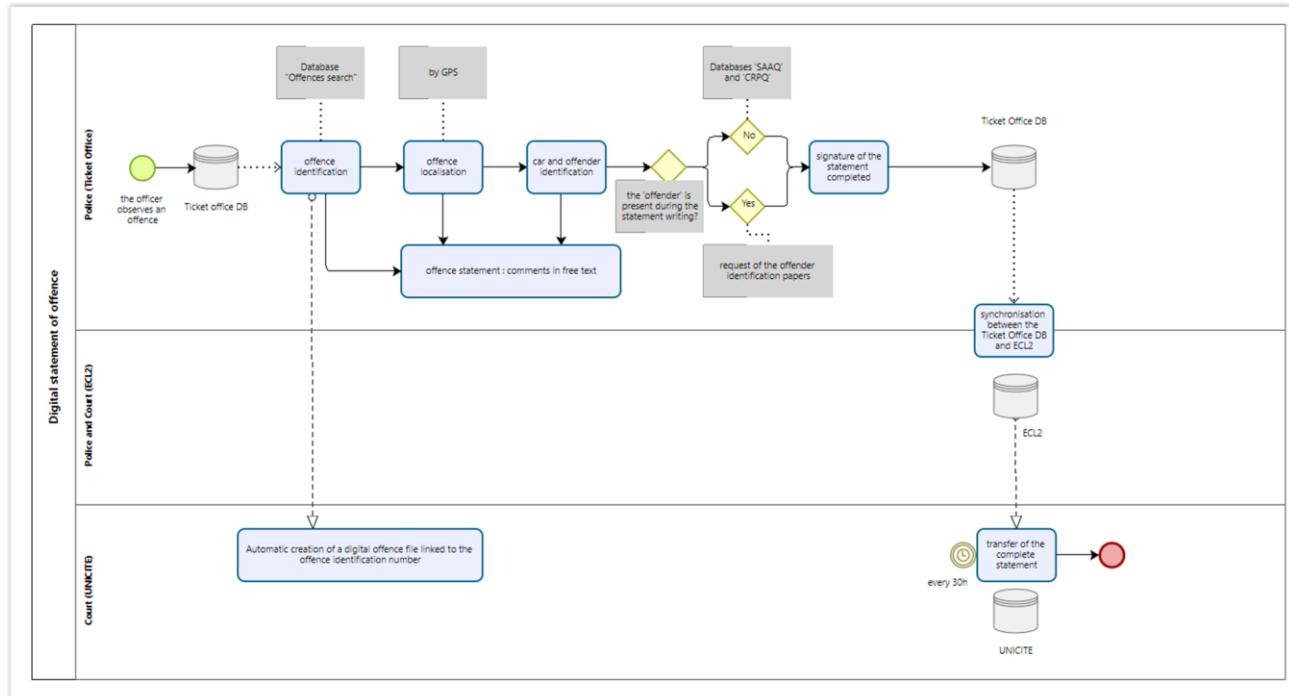
This Case Study differs from the others in that it was conducted with Quebec institutions. Its purpose was to study the integrated management of the statement of offence in Quebec and its implementation in practice, from its creation to its transmission to the Quebec City Municipal Court.

The objective of this Case Study was to see how the Quebec legal framework, which is very flexible in terms of functional equivalence between paper and electronic media (digitisation/printing), allows for hybrid management of statements of offence. This Case Study is all the more interesting in that it enabled us to make comparisons with the Belgian situation. One major difference lies in the fact that the justice system in Quebec is much more advanced in the digitisation process and is likely to move towards 100% digital in the near future.

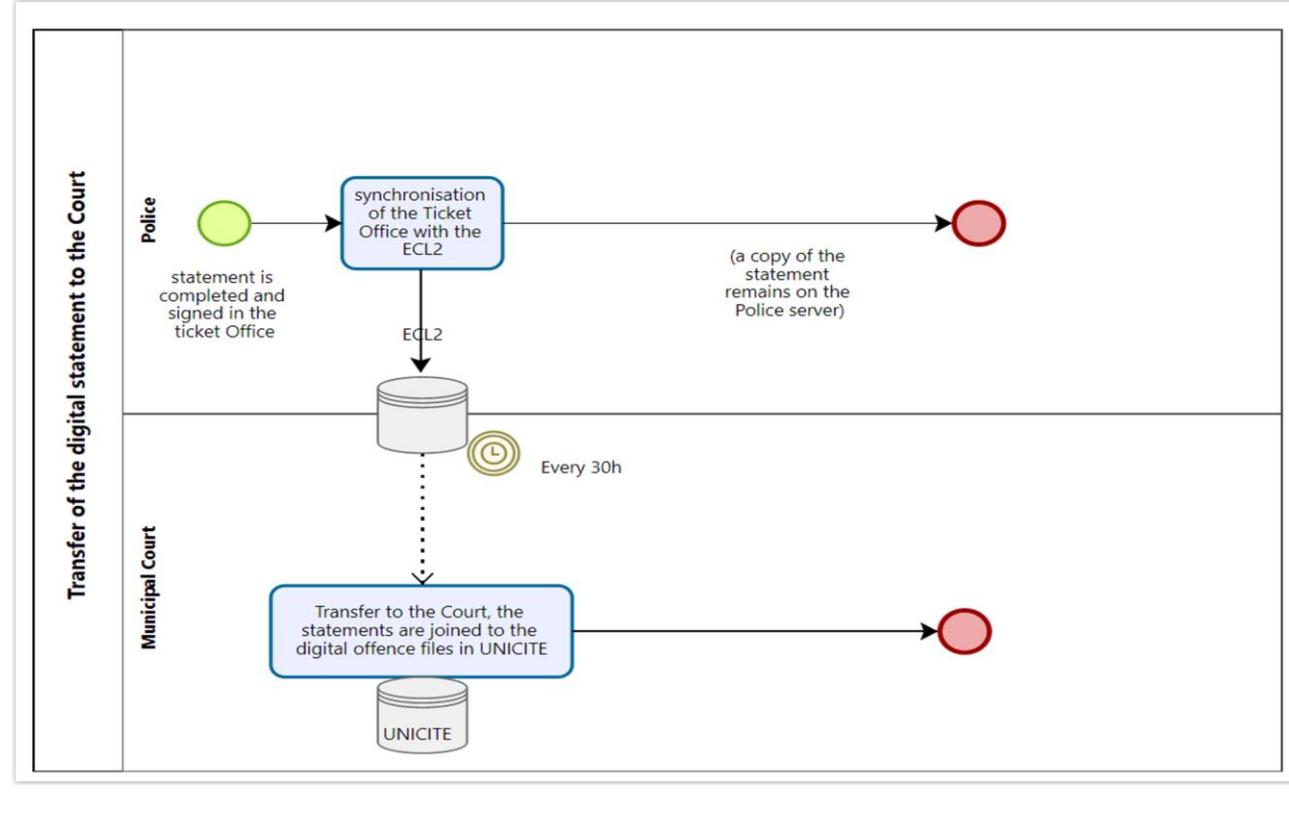
Unlike other Case Studies, the full report is available at

Flowchart

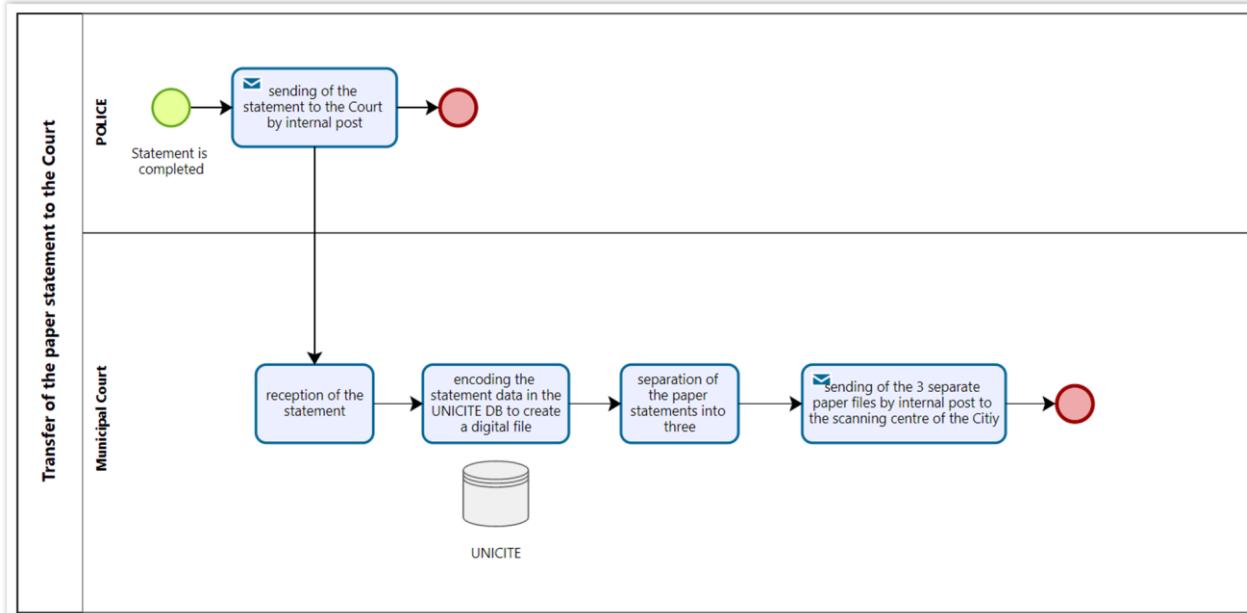
Drawing up of an ePV



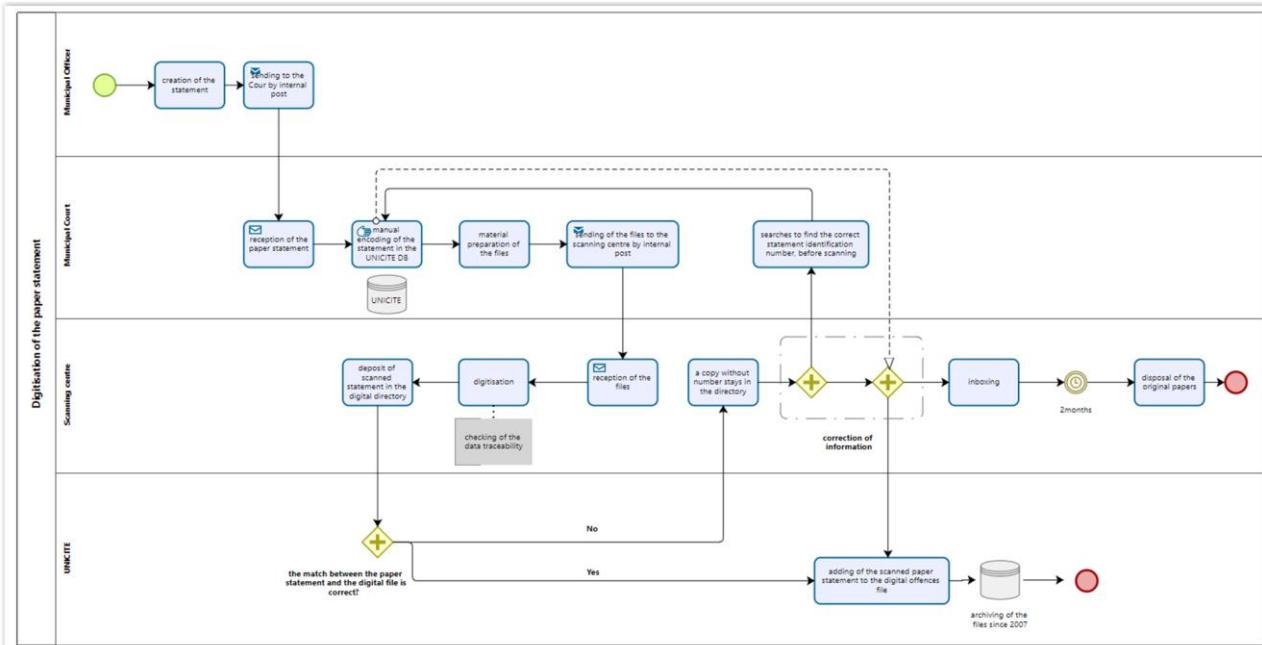
Sending of the digital statement of offence to the Court



Sending of the paper statement to the Court



Digitisation of the paper statement



Findings

The Case Study of the integrated management of statements of offence in Quebec City is of undeniable interest, given that the Quebec legal framework, unlike the Belgian context (where paper remains the reference most of the time), stipulates that statements of offence have the same legal value on paper and digital media, provided certain conditions are met to guarantee their integrity and authenticity.

This flexibility thus makes it easy to prepare a statement of offence digitally, print it out and send it in paper form to the offender, while at the same time being able to send it digitally to the Court, without having to question whether each of these documents is original or a copy. Conversely, it is also

possible to scan a paper statement and then continue the proceedings in a purely digital manner.

It emerges from the Case Studies carried out as part of the HECTOR project that most of the procedures analysed seem to have been well thought out and organised. However, with regard to the digitisation of paper reports, we observed that the proof of the authenticity of the procedures is based on a simple Excel file filled in manually by the employees of the scanning centre, which presents more risks than a fully digitised procedure. Moreover, the rules for the retention and destruction of electronic statements are not yet clearly in place (project in progress).

WP3 – PROSPECTIVE MODELLING

Task 3.1. Functional Model for Hybrid Document Management in Belgian Federal Administrations & Task 3.2. Functional Model for Hybrid Files Management in Belgian Federal Administrations

Methodology

On the basis of the observations made thanks to the various Case Studies and to the realities in the field that they have revealed, fed by the fruitful exchanges with the members of the Monitoring Committee, we have been able to propose generalisable recommendations taking into account both the legal constraints imposed by the various legal texts applicable to document management by public administrations and good archival practices or, more generally, good document management practices.

Once these recommendations were drawn up, they were submitted to the members of the Monitoring Committee for their comments.

Due to the difficulties encountered during the WP2 tasks related to the analysis of the management of hybrid files, it was not possible for us to identify models and recommendations for the management of hybrid files. However, some recommendations for hybrid document management aim at facilitating the management of this type of file.

Legal framework: Applicable legislation

We have analysed all the legal rules applicable to administrations in the context of the management of their documents, with the exception of regulations specific to certain institutions.

Without going into the details of these legislations, here is a list of the main legal texts (not to mention the royal decrees) grouped by theme:

- Legislation on the processing of personal data

European Regulation 2016/679 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (PGRD)

Belgian Law of 30 July 2018 on the protection of individuals with regard to the processing of personal data

- Legislation on administrative transparency and re-use of public sector information

Law of 11 April 1994 on the publicity of the administration

Directive 2013/37 on the re-use of public sector information (PSI Directive)

Law of 4 May 2016 on the re-use of public sector information

- Legislation on archiving of administrative documents

Archives Act of 24 June 1955, revised on 19 May 2009 (and its various implementing Royal decrees)

- Legislation on electronic identification and trusted services (including electronic archiving and digitisation)

European Regulation 910/2014 on electronic identification and trusted services for electronic transactions in the internal market (e-IDAS Regulation)

Belgian Law of 21 July 2016 implementing and supplementing Regulation (EU) No. 910/2014 (Belgian Digital Act)

The detailed analysis of these legal texts has been the subject of numerous scientific publications and public presentations. These publications are accessible via the institutional repositories of the different project partners (see Section 6.1).

Normative framework

A study of useful and relevant Record Management standards was also carried out. It consisted in analysing the different existing standards and the interest of these standards for practitioners.

Among the norms and standards studied, we will mention in particular:

- ISO 15489 – Information and documentation. Records management
 - The ISO 3030X series: Business document management systems
 - ISO 23081
 - ISO 26122 (2008): Process analysis for the management of information and business documents
 - ISO/TR 18128 (2014) : Risk assessment for registration processes and systems
 - ISO/TR 17068 (2012) : Trusted third party repository for electronic records
 - ISO 14721 (2003): Spatial data and information transfer systems. Open information archiving system. OAIS model (Open Archival Information System)
 - ISO 20652 (2006): Spatial data and information transfer systems. Interface between producers and archives. Standard for abstract methodology. PAIMAS model (Producer-Archive Interface Methodology Abstract Standard)
 - ISO 14641-1 (2012): Electronic archiving.
-
- MoReq 2010 (<http://www.moreq.info/>): Modular Requirements for Records Systems.
 - Dublin Core (<http://dublincore.org/documents/dces/>): Generic metadata schema (now ISO 15836 (2003)).
 - METS —Metadata Encoding & Transmission (<https://www.loc.gov/standards/mets/METSOversetview.v2.html>)
 - PREMIS - Preservation metadata (<https://www.loc.gov/standards/premis/index.html>)

- ICA-Req (now ISO 16175): Principles and functional requirements for records in electronic office environments.
- Keyword AAA: Thesaurus proposing a classification of functions and activities
- STAR – Standard for Administrative Records
- ARCS – Administrative Records classification system

The study of these standards is integrated in the PhD thesis carried out within the framework of this project by L. Maroye on "La normalisation internationale du records management: analyse critique dans le contexte du Digital Act. Case studies within Belgian federal administrations" (available on request on the ULB institutional repository).

This research work also led to the creation of a Belgian mirror committee in the framework of ISO standardisation and within the NBN for participation in the drafting and revision of international standards related to the ISO TC46/SC11 Archives/Records management working group.

Digitisation

One of the two main activities of a trusted electronic archiving service is the digitisation of documents initially present on a traditional (paper) medium. The importance of having a quality digitisation procedure, which complies with certain rules, lies in the fact that without it the digitised document (the copy) does not have the same legal value. In view of their obligation to preserve documents under the Archives Act, public administrations are obliged, subject to certain exceptions, to use a "qualified service". Annexe 1 of the Law of 21 July 2016 provides a detailed list of the elements that must be complied with in order to produce digital copies that have the same value as the paper original. The Royal Decree of 29 March 2019 setting the reference numbers of standards applicable to the qualified electronic archiving service lists the standards that can serve as references to be followed so that the service can be considered as a "qualified service".

Major steps of a scanning procedure ("What to do?")

Prepare the documents to be scanned	Test a few documents per sample	Scan the documents	Register digital copies	Check the quality of the scan	Describe and classify digital copies
Identify the size of documents	Configure hardware and software	Check hardware and software settings	Register the documents in the predefined location	Select the check procedure	Name documents according to predefined naming rules
Remove staples, paper clips and other fasteners	Choose a representative sample of documents	Scan batches of documents		Check digital pictures and their metadata	Add predefined metadata
Identify documents of heterogeneous size: e.g. post-its	Execute each task in the operational process	Monitor the proper functioning of the equipment		Identify errors	

Standardise the size of documents	Define the pace of work and its distribution	Re-scan documents with errors
Prepare the classification	Identify problems	Validate pictures and metadata
Prepare naming rules	Adjust the process	
Determine the minimum metadata	Validate the process	
Prepare the batches of documents		

Mandatory and optional elements of a digitisation project

In the context of dematerialisation, if the will of the institution concerned is to produce digital copies with all the legal guarantees that will enable it to eliminate the original documents, the project leader will have to distinguish between the mandatory elements imposed by the European e-IDAS regulation and the Digital Act and the elements left to his or her choice.

The list of these obligations is made up of six elements:

- The quality of the digital copy must ensure legibility, fidelity, durability and completeness of the copy compared to the original document. Thus, the copy must be readable by the human eye; it must be faithful to the external elements of the original document; it must be durable over time, in particular until the end of its retention period as preset in the institution's sorting table; and it must be complete in content and form.
- A Quality control of copies is compulsory: manual or automatic.
- The recording of data must be systematic and complete in order to ensure the subsequent location of the copy, as well as transparent management.
- The filing of digital copies must be systematic and complete, in order to organise the information adequately and ensure controlled access.
- The minimum description of the copies must include at least the eight metadata specified in the following table:

Mandatory and facultative elements of a digitisation project

Metadata required by law of 21 July 2016	Description
Name	Name of the file/ the document
Unique ID code	Unique identifier
Author/Creator	Person(s) or body(ies) who created/wrote the document
Description	A short description (of a list) of file(s)/document(s)
Date	Date of creation = date of digitisation

Retention period	The period during which the file or document must be conserved by the creating administration
Final destination	It can be preservation or destruction
Format	File format of the digitised file

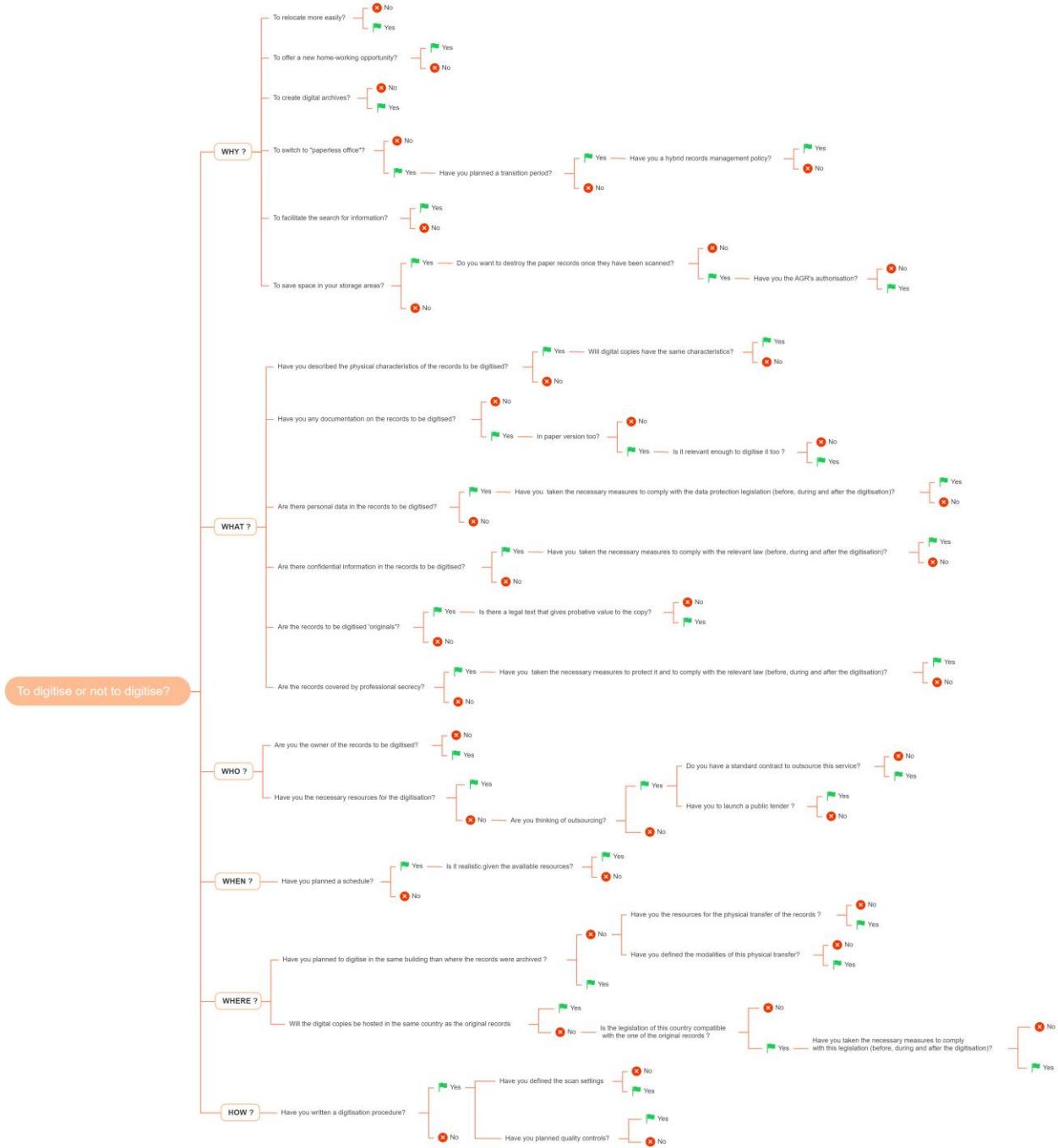
In addition to this information required by law, the State Archives recommend adding the following metadata if possible:

Additional metadata recommended	Description
Validation date	The date of the signature, for example
Modification data	The date(s) of any changes made to the file or document
Origin and context	Function or activity that generated this file or document
Integrity	Integrity hash: for example MD5
Rights and privileges	Rights of access, consultation and authorship of the file or document

- The description of the digitisation procedure followed in the project must be documented with the following six elements:

Supporting documentation required by the law of 21 July 2017	Description
Identity of the person responsible for scanning and its execution	The person in charge of the digitisation project in the institution
Nature and purpose of the scanned documents	The activity and/or function that generated this document or file
Dating of operations	The date of each process applied to the document or file
Disturbance reports	Information related to disturbances encountered during the project
Digitisation policy	The internal normative and regulatory framework to be applied, including the procedure and the roles and responsibilities of the project
Systems and equipment used	The list of the technical and application infrastructure and equipment required for the project

Mindmap for an implementation of a digitisation procedure



Document evaluation and selection

It is imperative to identify what it is necessary, or even mandatory, to keep and/or digitise, depending on the applicable legislation in particular.

In principle, the Archives Act requires the preservation of documents held by administrative authorities until they have received permission from the AGR to destroy them.

For this purpose, the use of the sorting table is necessary. Many tips and sorting tables are available

on the AGR website (<http://arch.arch.be/index.php?l=fr&m=fonctionnaire&r=trier-eliminer-des-documents>).

Concerning the possibility to delete the paper original once the document has been scanned through a qualified archive service, according to the AGR the answer depends on the status of the archive (dynamic archive vs. static archive). It is also possible to ask, by means of a form, whether one is entitled to substitute a paper document with its electronic version (see <http://www.arch.be/index.php?l=fr&m=fonctionnaire&r=faq-gestion-des-documents&p=elimination-d-archives#5>).

Within the framework of the HECTOR project, a review of the literature on the subject was carried out and an annotated bibliography was drawn up, as well as a summary note.

Metadata scheme and classification plan

Historically, if one wanted to find one's way in a paper environment, it was important to have a clear classification policy (a classification plan) in place, so that a paper document could be found in the middle of a large number of files and folders. In a digital business document management context, it is different. Search tools provide easier access to certain information, but there still needs to be enough information (metadata) about the document to find it. Metadata is the information that enables documents to be uniquely identified and given evidential value. Metadata also enables records to be managed by assigning them a retention period. Finally, metadata can make it easier to find information/documents/records by placing them in a pre-established classification scheme. Metadata ensures traceability and usability, which are essential characteristics of business records (Minnesota Historical Society, *Minnesota History: Building A Legacy*, 2012, p. 13).

The amount of metadata varies depending on the object to be managed and archived. The number of metadata also depends on the resources available and the needs of the institution. Indeed, metadata can be encoded manually or automatically. If they are manually encoded, then the workload falls on the record creators. If they are automatically encoded, upstream developments must be foreseen. Since resources must be devoted to this, it will be necessary to define the essential metadata in order to make a cost-benefit trade-off.

The metadata recorded must meet, on the one hand, the requirements of intermediate archive management (legal and archival levels, see above, section "Digitisation") and, on the other hand, the operational needs of the institution.

Exhaustive list of metadata and their characteristics:

- Their unambiguous description (expected content): even the simplest fields must have a definition. A field as simple as the author can lead to confusion (example: a letter written on behalf of a manager by her secretary);
- The format in which they are recorded: text, date, figures, etc,
- The accepted values;
- The method of recording: automatic (to be preferred in order to limit the workload and the risk of error) or manual;
- The relationship between them (if any);
- Whether they are mandatory or optional.

Schemes, drawn up by various foreign public bodies or professional groups, are available to serve as a basis for the constitution of an organisation's own scheme, in particular:

- Dublin Core (<http://dublincore.org/>)
- Encoded Archival Description or EAD (<https://www.loc.gov/ead/>)
- Premises (<http://www.loc.gov/standards/premis/>)

Relevant metadata can also emerge from reading norms and standards such as ISO 15489, ISO 30300 (series), ISO 23081-1, ISO 15836: Dublin Core, ISO/IEC 11179 or MoReq2010, but also, and above all, according to the specific needs of each institution.

In the context of **administrative or intermediate archiving** (from the creation of the file to its transfer to the State Archives or its disposal), the mandatory metadata are as follows:

Metadata	Comment
Unique ID code	Title of the scanned folder or document. Unique and ideally meaningless
Author/creator(s)	Name(s) of the author(s) of the document (this may be one or more persons or one or more services)
Subject	Subject of the document (name of the file processed) Other elements of description, such as the related task/function, will be described instead of the "Origin and Context" metadata level.
Date — creation	Date on which the document was created (and modified)
Date — definitive version	The date of the validated document (or finalised if there is no formal validation), on which no further modifications will be allowed.
Retention period	Based on the legal or administrative usefulness period (see disposal schedule).
Final destination	Destination of the record(s): disposal or conservation/transfer to the State Archives (see disposal schedule)
Format	The file format is to be described as "MIME type"; coding and compression types can also be useful (examples of technical metadata schemas for pictures: EXIF, IPTC or XMP)
Origin and context	Any useful element to clarify the context in which the document was produced and its origin (task/function/service/institution)
Signature method	Which method is used?
Hash of the signature	
Rights and Privileges	Access management; Intellectual property, administrative responsibility, user privileges (confidentiality, classified)

In the context of a **digitisation process** by a qualified trusted service, the previous metadata will be completed with the following metadata (see Annexe 1 of the Belgian Digital Act):

Metadata	Comment
Responsible for the scanning procedure	
Responsible for carrying out the scanning procedure	
Description	Of the scanned content
Dates of operations	Of the different operations of the scanning process
Name of the system used	For the creation of the digital record
Name of the scanner used to create the new record	
Disturbance report	
Digitisation policy	
Software and hardware used during the process	

The following metadata will be added in the context of the transfer of records to the State Archives (AGR):

Metadata	Comment
Archive title	Name given to the archive being transferred (this may be a more common name, with a more specific description of the exact name)
Description	Archive Content: archive type + brief description
Format	Archive format identification : Paper/Digital/Hybrid
Size	Paper and digital size of the archives deposited: in linear metres for paper and in MB/GB/TB for digital.
Transfer date	Date of transfer made by the transferring institution
Name of the transferring institution	Name of the institution in charge of the transfer
Contact person	In the transferring institution

Access policy

Legally, the citizen has the right to consult (on the spot) every administrative document, and can also receive a copy of it. By "administrative document", the Law of 11 April 1994 on the publicity of administration means "any information, in any form whatsoever, that an administrative authority has at its disposal".

This expression means that any information available to an administrative authority must be considered as an administrative document, regardless of the form and medium on which this

information is materialised. Thus, the text does not distinguish between documents in paper format and documents in electronic format (pdf, word, html...).

The form of the information is also irrelevant so that it can be texts as well as sounds, images, videos, software, databases...

If the requested administrative document is not or no longer in the possession of the administrative authority, the latter is obliged to "inform the applicant without delay and communicate to him/her the name and address of the authority which, according to the information available to it, is in possession of the document" (Law 11 April 1994).

In certain cases, the document requested will not be communicated to the person concerned. This will be the case in particular if the communication of the document would infringe the privacy of someone. In this case, the applicant must then justify an interest. Other reasons may justify non-disclosure. This is for example the case for certain confidential documents. It may be useful to create a category of metadata relating to these exceptions in order to facilitate the availability of documents more quickly and efficiently.

The applicant has the right to request the document in paper or digital format unless technical reasons make such a request impossible.

In addition to this publicity on request, administrations are also required to actively publish certain information, in particular on their websites.

In addition to this legislation on the right of access to administrative documents, there is also the Act of 4 May 2016 on the re-use (possibly for commercial purposes) of information held by the public sector. Any citizen or legal entity (company, organisation, etc.) can request that the data held by the administration be communicated to them, and this "in open and machine-readable formats and accompanied by their metadata". There are also a number of exceptions to this principle, particularly where the re-use of data would threaten the privacy of certain individuals. Such provision may be made under certain conditions, but in principle cannot be made above cost price (except for certain institutions).

At the present stage, administrations are not obliged to actively publish these datasets. However, the phenomenon of Open Data, which has been relayed by the legislator, tends to encourage administrations to move in this direction.

In addition to this external access, it is important to ensure internal access policies, in particular in order to comply with the rules on the protection of personal data (protection of data against unauthorised access).

Hybrid management

In a context where a series of documents are in paper version while others are in digital version, it is difficult to manage both types of documents correctly. Although the general management principles are generally the same, the way in which they are put into practice is quite different. This means that a document management policy must be put in place, including rules for digital documents, rules for paper documents, and rules to articulate these regimes (including the transition from one to the other, i.e. scanning or printing).

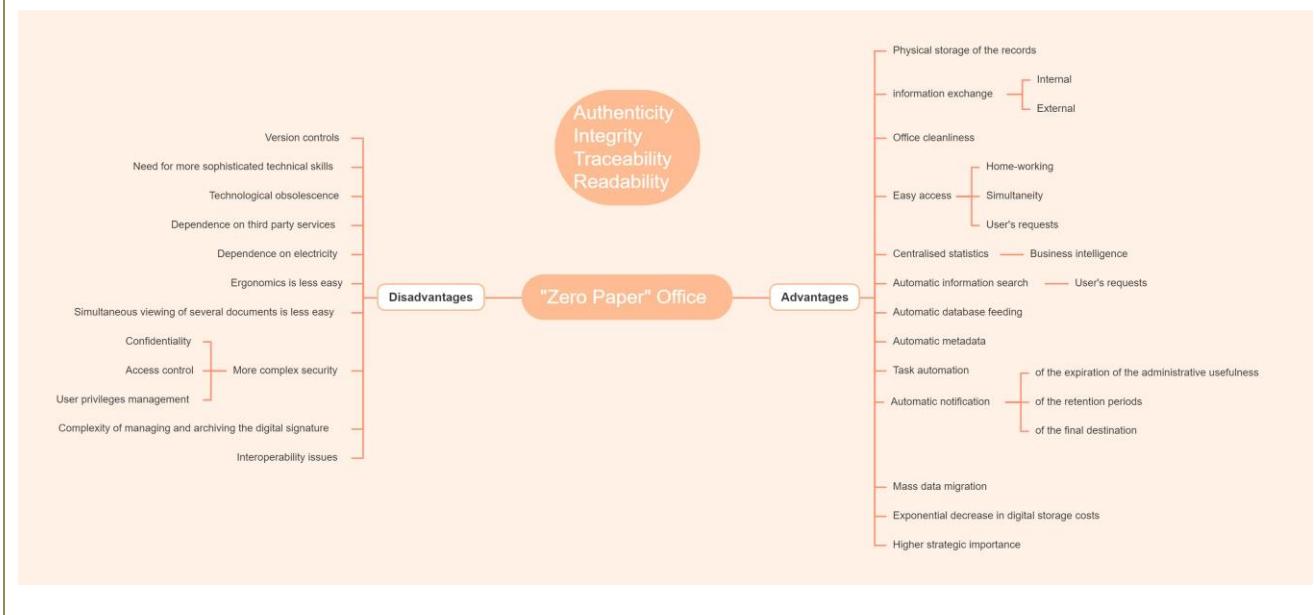
In this context, it may be tempting to move to "paperless". However, our research shows that it is often

difficult to do without it for practical and organisational reasons.

In addition, there are currently legal issues involved in the systematic switchover of all paper documents to an electronic version and the removal of the original paper document (see Digitisation). We are thinking in particular of the legal value of digitised documents, the possibility of suppressing the paper original, the value of digital documents, and of certain legislation specific to certain Institutions introducing specific procedures which are not adapted to a digital or hybrid environment (see previously in the research results of our Case Studies).

For those who would like to remain in a hybrid situation where documents come in both paper and electronic form, there is a need to systematically assess which document should be considered the original and which should be the copy.

« Zero Paper » Office: Advantages and Disadvantages





Change Management

When an institution wishes to implement a new project (such as the digitisation of the institution) that will have an impact on its workers, it is essential for the proper conduct of this project that the end users be accompanied in the change that this new project will generate. Supporting end-users in the change process helps to reduce the obstacles or reluctance to change. This imperative must be managed and incorporated into the agenda of any project, whether it is carried out exclusively internally or through external consultancies.

As a clear example of poor management, we can cite the case of the Phenix project (digitisation of the justice system), which was explained to us during the analysis of the Case Studies.

In this context, it is obvious that, faced with any changes that must take place in records management practices or tools, the end user, the creator of activity documents, must be accompanied and supported. This with a view to better adoption and understanding of new developments and their impacts.

This analysis must be carried out throughout the project management process (before the launch of the project, during the change, after the change). The important thing is to communicate and exchange with the people affected by the planned changes.

During the analyses carried out within the framework of the project, we were able to observe that change management was taken into consideration in certain Case Studies, but sometimes insufficiently. Indeed, training manuals are distributed in some cases, in other cases the end users are involved in the project management process. However, when confronted with a new tool, many end users confess that they have learned "on the job" and do not necessarily understand the added value of this or that functionality.

If there is indeed an awareness of the importance of change management (even if the concept is lip service or is implied), the optimisation of communication and possible training would bear fruit in the context of the records management strategies.

Checklist for a change management strategy

Source: OECD, « Working with Change », 2008,

Objective: To provide guidelines for the development of a change management methodology.

Strategic approach		
Does the objective of the change fit into the vision and mission of the organisation?	YES	NO
Is there a vision for the future that gives direction to change efforts?	YES	NO
Have the constraints in the field been identified?	YES	NO
Has the organisation experienced any other changes in recent years?	YES	NO
Have lessons been learned from previous changes?	YES	NO

Management support		
Is there a leadership with sufficient moral and political power to lead the change effort?	YES	NO
Planification		
Has the need for change been carefully identified?	YES	NO
How has it been defined?		
Are the available resources sufficient to implement the change and achieve the desired effects?	YES	NO
Are the stages of implementation defined?	YES	NO
Communication		
Have members of the organisation had the opportunity to express their opinion on the proposed change?	YES	NO
Do they perceive the same problem and agree with the proposed solution?	YES	NO
Is there a steering committee made up of different stakeholders?	YES	NO
Is there a change sponsor?	YES	NO
Is there constant communication, through all possible channels, with the direct and personal involvement of managers, decentralised at all levels of the organisation?	YES	NO
Implementation		
Is the proposal for change being implemented progressively to encourage adaptation and improvement?	YES	NO
Has the change been tested?	YES	NO
Risk management		
Have the side effects of the change been taken into account?	YES	NO
Are the initiators of change aware of its limitations?	YES	NO
Evaluation and consolidation		

Is the change programme regularly evaluated to improve its technical aspects and to see if it achieves the desired results?	YES	NO
Have measures been planned to compensate for unintended consequences?	YES	NO

These results have mainly been disseminated via the project's website in the form of sheets, diagrams or tools, through a monograph which is to be published in 2021, as well as in various conferences or training courses where these results have been presented (see next section).

WP4: Consolidation, Sensibilisation, Valorisation & Dissemination

See Section 6.

6. DISSEMINATION AND VALORISATION

6.1. SCIENTIFIC PUBLICATIONS – TASK 4.3.1

The publications listed below are accessible via the institutional repositories of the various institutions and organisations to which the researchers belong. Here are the three main ones:

- <https://researchportal.unamur.be/>

- <https://difusion.ulb.ac.be/vufind/>

- <https://interparestrust.org/>

- **Books**

C. DE TERWANGNE, *Vie privée et données à caractère personnel : Code Police & justice*, Brussels, Politeia, 2015.

S. VAN HOOLAND, S. HENGCHEN, F. GILLET and M. DE WILDE, *Introduction aux humanités numériques*, Brussels, De Boeck, 2016.

C. DE TERWANGNE and K. ROSIER (ed.), *Le Règlement général sur la protection des données (RGPD/GDPR). Analyse approfondie*, Brussels, Larcier, Collection CRIDS, 2018, 928 p.

E. DEGRAVE, C. DE TERWANGNE, S. DUSOLLIER and R. QUECK, (ed.) *Law, Norms and Freedoms in Cyberspace. Liber Amicorum Yves Poulet*, Brussels, Larcier, 2018, 800 p.

C. DE TERWANGNE, E. DEGRAVE, A. DELFORGE, and L. GERARD, *La protection des données à caractère personnel en Belgique : Manuel de base*, Brussels, Politeia, 2019, 190 p.

L. MAROYE, F. ARANGUREN CELORRIO, C. DE TERWANGNE, A. DELFORGE, S. SOYEZ, S. VAN HOOLAND, O. VANRECK, *Gestion et conservation de l'information au regard de la transition numérique*, Brussels, Larcier, to be published.

- **Peer-reviewed journal articles**

L. MAROYE, « ISO 25964 : de la distinction formelle concept/terme préconisée par la norme pour la création et la gestion des thésaurus », *I2D – Information, données & documents*, n° 1, 2015, p. 72-80.

M. DEMOULIN and A. VERNUSSET, « La réversibilité des données et l'archivage électronique : Ou comment éviter la dépendance technologique », *Cahiers du Numérique*, 2015/2, vol. 11, p. 115 et s.

C. DE TERWANGNE, K. ROSIER, « La protection des données à caractère personnel : un aspect incontournable de l'informatisation du social », *Journal du Droit des Jeunes*, 2016, p. 7-15.

K. ROSIER, B. LOSDYCK and C. DE TERWANGNE, « Lignes de force du nouveau Règlement relatif à la protection des données à caractère personnel », *Revue du Droit des Technologies de l'Information (R.D.T.I.)*, 2016, p. 5 et s.

L. MAROYE, « Interopérabilité des systèmes de management et automatisation », *La qualité : variations autour d'une notion essentielle*, *I2D – Information, données & documents*, n° 4, 2016, p. 52 et S.

O. VANRECK and B. LOSDYCK, « Economie digitale : un nouveau cadre légal applicable pour les services de confiance », *Bulletin juridique et social*, 2016, n° 569, p. 15.

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B. LOSDYCK and O. VANRECK, « Un projet pour améliorer la gestion des documents des administrations fédérales belges », Interview Mediaplanet, 1 September 2015, p. 10.

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F. ARANGUREN and S. SOYEZ, « Numérisation et dématérialisation », « Transfert numérique », recommendations and advises Brochures, Brussels, AGR, 2018.

6.2. SEMINARS, CONFERENCES AND TRAINING PROGRAMS (NATIONAL/INTERNATIONAL) – TASKS 4.2 AND 4.3

PARTICIPATION IN CONFERENCES/INTERNATIONAL MEETINGS (NOT EXHAUSTIVE)

- Participation in the DLM FORUM Congress, November 2014, Lisbon.
- Participation in ARMA Europe, June 2015, Brussels.
- Participation in InfoGov 2015, September 2015, Hartford.
- Participation in the Team Europe workshop of the international project InterPARES Trust, 9 and 10 June 2016, Berlin, Germany.
- Participation in the international conference of the PERICLES project, 29 November–1st December 2016, London.
- Participation in the study day « Inside the user's mind (MADDLAIN) », 22 February 2017, Brussels
- Participation in the Team Europe workshop of the international project InterPARES Trust, 11 and 12 May 2017, Girona, Spain.
- Participation in the workshop of the Europe and transnational Teams of the international InterPARES Trust project, 30 November and 1st December 2017, Brussels.

EVENTS ORGANISATION

- Masterclass “50 nuances de cycles de vie : quelles évolutions possibles ?”, 25 February 2016, Brussels.
- ISO Mirror Committee meetings for the TC46/SC11, 13 December 2016, 30 January 2017, Brussels.
- @CRIDS Conference « Les nouveautés en matière de confiance depuis la loi du 21 juillet 2016 », 10 February 2017, Brussels.
- Conference “Trust (in) the digital transition: Management and archiving challenges facing a new legal & standard framework” 29 November 2017, Brussels.
- Colloquium “Machine learning for information governance”, 31 May 2018, Brussels.
- Colloquium “Digital preservation in practice”, 18 March 2019, Brussels.

CONFERENCE PRESENTATIONS

- Presentation « Analyse des risques appliquée à la gestion des documents d'activité » in the framework of the CNAM's MOOC "Gérer les documents numériques : maîtriser les risques", 2016, France.
- Presentation of the intermediary report 2015 “Model for a trustful hybrid records management of the statement of offence: the case of the Belgian Federal Public Service of Employment”, InterPARES Seminar, 20 May 2015, London.
- Presentation “Let's build trustful archives: preserving the authenticity of hybrid records”, ICA 2015, September 2015, Reykjavik.
- Presentation « Integrated management of the Electronic Statement of Offence at the City of Quebec », Centre de recherche en Droit public (CRDP) of Montreal University, 15 October 2015, Montreal.
- Presentation « Le droit d'accès aux documents administratifs dans un contexte électronique », Training for Walloon civil servants organised by the Walloon Region, 25 September 2015, Namur.
- Presentation “Model for a trustful hybrid records management of the statement of offence: the case of

the Belgian FPS Employment”, International Workshop InterPARES Trust, November 2015, Zagreb.

- Presentation « Le constat d’infraction électronique : entre gestion documentaire et cyberjustice » Centre international de Criminologie comparée, Montreal University, 1 December 2015, Montreal.
- Presentation of the Report “Model for a trustful hybrid records management of the statement of offence: the case of the Belgian Federal Public Service of Employment”, InterPARES Seminar, 15 February 2016, Vancouver.
- Presentation at the colloquium « L’identification électronique et les services de confiance depuis le règlement eIDAS », organised by Namur University, 18 March 2016, Brussels.
- Presentation « Les obligations des responsables de traitement et des sous-traitants », in the framework of the training for Walloon civil servants « Formation en règlementation européenne des communications électroniques et de la société de l’information », 26 January 2017, Namur.
- Presentation at the conference @CRIDS « Les nouveautés en matière de confiance depuis la loi du 21 juillet 2016 », 10 February 2017, Brussels.
- Presentation « Le règlement général sur la protection des données - Application au secteur public » at the plenary session of the Digital Transition WGi, 23 March 2017, Namur.
- Presentation “Normalisation du records management” at the Plenary meeting of the Digital Transition Working Group led by the municipality of St Gilles, 2017, St Gilles.
- Presentation “Des schémas de métadonnées” at the Plenary meeting of the Digital Transition Working Group led by the municipality of St Gilles, 2017, St Gilles.
- Presentation “Les nouvelles règles applicables au service d’archivage électronique” at the IFE seminar « Archivage, données personnelles et cybersécurité », 8 June 2017, Brussels.
- Active participation in the roundtable « Les Wallons du numérique: partage d’expériences » at the Namur Innovation Fair 2017, 30 October 2017, Namur.
- Presentation « La protection des données privées : un enjeu du quotidien », Conference organised by UTLA, 10 November 2017, Namur.
- Presentation « Le projet Hector: contexte, case studies et résultats », at the HECTOR Colloquium, 29 November 2017, Brussels.
- Presentation « e-Archiving: Delete or not Delete: That’s the question », at the Conference « State of the GDPR Union » organised by the DPO Circle, 30 January 2018, Brussels.
- Presentation « RGPD, de quoi parle-t-on ? », in the framework of the study day « Mise en conformité au RGPD » organised by the Union des Villes et Communes de Wallonie (UVCW), 22 March 2018, Liège.
- Presentations « Obligations classiques et nouvelles du responsable du traitement et du sous-traitant dans le RGPD » and « Responsabilité au regard du RGPD », Training Days for SME « RGPD : et si on s’y mettait ? Une journée pour tout comprendre », 13 March 2018 and 1st June 2018, Namur.
- Presentation « GDPR in a archiving world », Workshop organised by the European Team of the InterPARES-Trust project, 20 June 2018, Jerusalem.
- Presentation « RGPD et son impact sur la gestion administrative des services sociaux », training day for the Federation of social services, 29 June 2018, Brussels.
- Presentation « RGPD et son impact sur le milieu associatif », training day on the legal changes impacting the associations, 13 September 2018, Brussels.
- Presentation « Le RGPD et ses implications pratiques pour les entreprises », at the colloquium organised by the University of Montreal « Entre propriété et liberté : 30 ans de protection des données personnelles », 6 November 2018, Montreal.
- Presentation « Questions liées à la sous-traitance », at the colloquium organised by the CRIDS « Le RGPD/GDPR après sa mise en application concrète : Questions choisies », 4 December 2018, Brussels.

- Presentation « L'évolution des pratiques professionnelles au regard du RGPD dans le domaine des bibliothèques publiques », and presidency of a workshop at the study day « Culture & Création : La protection des données personnelles : un enjeu ? », 7 December 2018, Liège.
- Presentation « La question de la responsabilité civile dans le RGPD », Seminars Cycle « Le RGPD-E-Privacy », 7 March 2019, Lille.
- Presentation “Digital archiving policy at the National Archives Belgium”, at the Colloquium “Digital preservation in practice”, 18 March 2019, Brussels
- Presentation « La question de la responsabilité civile dans le RGPD », Conference DPO NEWS "La responsabilité 4.0", 2 December 2019, Brussels.
- Presentation « Vue panoramique du RGPD, nouvelles applications », C.U.P. (Commission Université-Palais) Conferences, 7-14-21 February 2020, Liège-Louvain-La-Neuve-Charleroi.

DISSEMINATION OF THE ACQUIRED EXPERTISE IN UNIVERSITY TRAINING CYCLES – TASKS 4.2.1. AND 4.3.4.

The members of the project have promoted the results of their research through various training courses. We can mention in particular:

- Ma-STIC: Master in Information and Communication Science and Technology (ULB) (<https://mastic.ulb.ac.be/>)
- DTIC: Specialized Master in Information and Communication Technology Law (UNamur) (<https://www.unamur.be/droit/etudes-dtic>)
- INFOSAFE: Interuniversity Certificate in information systems security management (UNamur-ICHEC) (<https://www.infosafe.be/>)
- DATASAFE: Interuniversity Certificate in Protection of personal data (UNAmur-ICHEC) (<https://www.data-safe.org/>)
- DOCSAFE: Interuniversity Certificate in Digital information Management (UNamur-ULiège-AGR) (<https://www.docsafe.info/>)
- Specialisation in Multimedia Documentary Resource Management (HENALLUX) (<https://www.henallux.be/gestion-des-ressources-documentaires-multimedia>)

A number of these training courses are intended for a professional public, and are regularly attended by members of the federal administrations.

6.3. SUPPORT FOR DECISION MAKING (NON-EXHAUSTIVE)

- Participation in the FPS FEDICT working group within the framework of the "P&O – digitisation of personnel files" project: definition of a filing plan common to several FPSs and recommendations on the document retention period (activities developed within the framework of the federal project PERSOPOINT).
- Meeting with the Digitisation project manager and a member of the Strategic Coordination and Communication Department of the FPS Finance on the new DIGILEX project and the legal and archival issues related to it (project developed within the framework of Digital Belgium and the Horizon 2020 agenda).
- Participation in the expert committee of the OFO/IFA project: Training course "Towards sustainable digital work" <https://www.ofoifa.belgium.be/fr/trajet-de-formation-vers-un-travail-digital-durable>.

- Meeting with the executive attaché and the IS project manager on archiving of the French company RTE (Réseau de transport d'électricité): recommendations on the integration of documents with electronic signature in their electronic archiving strategy.
- Participation in (and chairmanship of) the Belgian mirror committee in the framework of ISO standardisation and within the NBN for participation in the drafting and revision of international standards related to the ISO TC46/SC11 Archives/Management records working group.
- Promotion of and participation in the e-Archiving Task-Force, mandated by the cabinet of the Minister in charge of the Digital Agenda, whose objective is the drafting of a Royal Decree supplementing and implementing the law of 21 July 2016 "Digital Act", in collaboration with the FPS Economy, SMEs, Self-Employed and Energy, and setting the reference standards for digitisation and electronic archiving services (coordination on the "Standard" working group).
- Participation in the working group for the drafting of the chapter of the Belgian law supplementing the General Data Protection Regulation devoted to processing for archival purposes in the public interest, for the purposes of scientific or historical research or for statistical purposes.

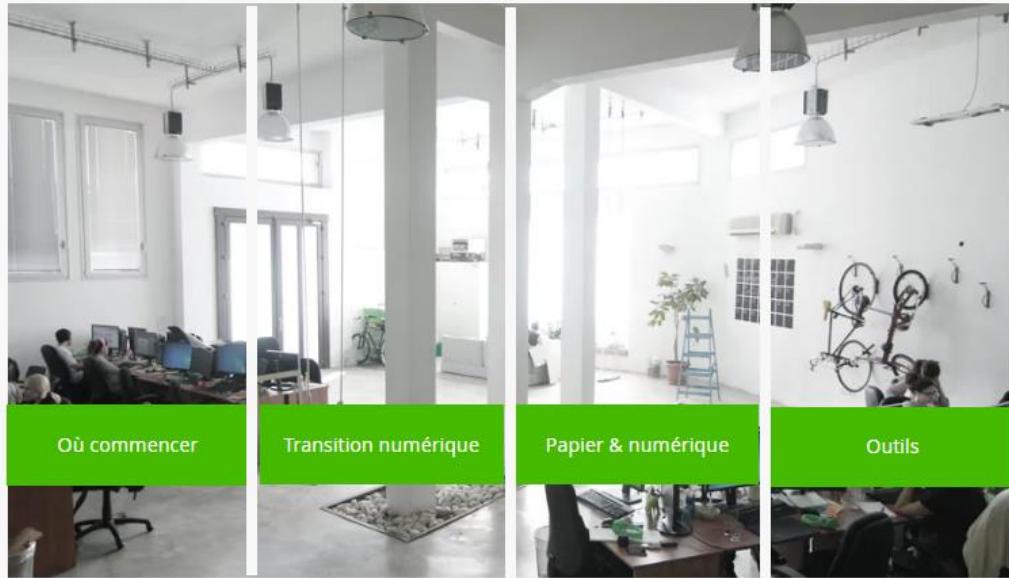
6.4. PROJECT WEBSITE: INFORMATION AND PRACTICAL SHEETS – TASKS 4.4 AND 4.2.2

A website (mostly bilingual FR/NL) has also been created (<https://hectorproject.wixsite.com/manuel-handboek/>). It includes the various research results obtained in the framework of the HECTOR project. However, unlike scientific publications, the emphasis here is on the practical aspect.

It covers both the organisational and practical aspects related to archiving and records management, as well as a reminder of the main legal aspects to which attention should be paid.

Thus, the site makes it possible to help administrations (and more generally any organisation) to set up the archiving of their documents (paper/digital) and to carry out a digital transition.

The aim of this site is therefore not to take up all the research results of this project, but to answer the practical questions that often arose during the exchanges with the various practitioners in the framework of this project (particularly in the context of case studies, meetings with the members of the Monitoring Committee, etc.), in the form of practical sheets bringing together the various themes addressed in the framework of the project.



MANUEL PRATIQUE

Ce site se veut une aide pratique pour les professionnels du secteur public (belge) qui sont directement ou indirectement impliqués dans la gestion courante des documents et/ou leur archivage à courte ou à long terme dans la tâche parfois titanique de créer, échanger, gérer, numériser, stocker, éliminer ou encore archiver des documents et des données authentiques et lisibles en toute sécurité (juridique et physique).

Promoteurs et sponsors



It consists of four main parts

- Where to start: This section aims to help the organisation think about its needs so that it can put in place the method that best suits its situation, resources and requirements.
- Transition: This section answers questions that a practitioner may have if they are considering a digital transition.
- Paper & Digital: This part lists the different questions that need to be asked at each stage in the life of a document, and proposes recommendations.
- Tools: This section includes a series of tools (filing plan, etc.) and resources that can be used directly.

RECOMMENDATION

It might be interesting to envisage, in the framework of research contracts at the end of which information resources are made public on the Internet, to provide for a sustainable availability on a public website (logically linked to BELSPO) which would guarantee the maintenance of the publication of the resources over time. This site should also benefit from visibility as a reference place

where the results of BELSPO-funded research are available. This would avoid the dispersion of results over a variety of sites, either academic or from federal scientific institutions, which would be unfavourable to effective access to research results.

6.5. ORGANISATION OF AN INTERNATIONAL CONFERENCE (TASK 4.3.3)

In order to valorise the research results obtained and to exchange with practitioners from all over the world on digital transition, we organised an International and Interdisciplinary Colloquium "Trust (in) the digital transition: Management and archiving challenges facing a new legal & standard framework" on 29 November 2017 in Brussels, at the Palais des Académies.

This colloquium brought together more than a hundred people of various nationalities (Belgians, Canadians, French, Luxembourgers, Swiss, Czechs...).

As the conference was international, simultaneous translation FR/EN/NL was provided. All the presentations are available on the conference website: <https://hectorcolloquium2017.wordpress.com/presentations/>

Programme

9.30 – 9.40

Welcome from M. Karel VELLE, National Archivist (State Archives of [Belgium](#))

Opening notes

9.40 – 10.10

Introduction – Keynote talk: "**Trusting records in the Cloud: The InterPARES TRUST research project**"

Prof. Dr Luciana DURANTI (Interpares TRUST, University of British Columbia, [Canada](#))

10.10 – 10.25

"What are standards and what is their added value?"

Johan Haelterman, CEO at NBN (National Bureau for Standardisation, [Belgium](#))

10.25 – 11.15

The HECTOR research project: context, case studies and results – Part 1

By the promoters and the researchers of the project.

Coffee break (11:15 am – 11:45 am)

11.45 – 12.30

The HECTOR research project: context, case studies and results. –Part 2

Lunch (12:30 am – 1:30 pm)

Panel discussion (part 1 & 2): Digital information management and archiving within the new legal and normative framework at the Belgian and European level (E-IDAS/Digital Act).

1.30 – 3.0

Part 1 – Law, Standardization & Certification: designing Trust from the new legal framework.

Moderator: Prof. Dr Marie Demoulin (Université de Montréal, [Canada](#))

Panel :

- * Didier Gobert (FPS Economy – Service Digital Economy Law, [Belgium](#))
- * Sylvie Dessolin (Senior Consultant at Sopra Steria and ISO TC46/SC11 expert, [Luxembourg](#))
- * Marc Wouters (FPS Economy – eIDAS Control Service, [Belgium](#))
- * Wout Van Der Reijden (Recordkeeping advisor at the National Archives and ISO TC46/SC11 expert, [Netherlands](#))
- * Lucas Colet (Information Security Management Consultant at Altirian, [Luxembourg](#))

Coffee break (3:00 pm – 3:30 pm)

3.30 – 3.45**Part 2 – Standards & IT Solutions: how to certificate Trust?**

Moderator: Frederik Rosseel (Docbyte/Agoria, [Belgium](#))

Panel:

- * Arnaud Hulstaert (IT Project leader at Smals, [Belgium](#))
- * Luc Vervaecke (Sales Manager at Zeticon, [Belgium](#))
- * Christian Dubourg (Directeur Product Marketing at SparkArchives, [France](#))
- * Heiko Tjalsma (Senior Policy Advisor at Data Archiving and Networked Services-DANS, [Netherlands](#))

4.45 – 5.15

Conclusion – Keynote talk: “Digital preservation, a challenge without boundaries”

Annemieke Vanlaer (Policy officer in Records & Archives management, European Commission-SG)

5.15 – 5.30**Closing Note:**

Anne-Sophie Vandeveldé (Advisor « Digital Agenda », Office of the Deputy Prime Minister and Minister of Development Cooperation, Digital Agenda, Telecom and Postal Services Alexander De Croo)

Summary of the conference

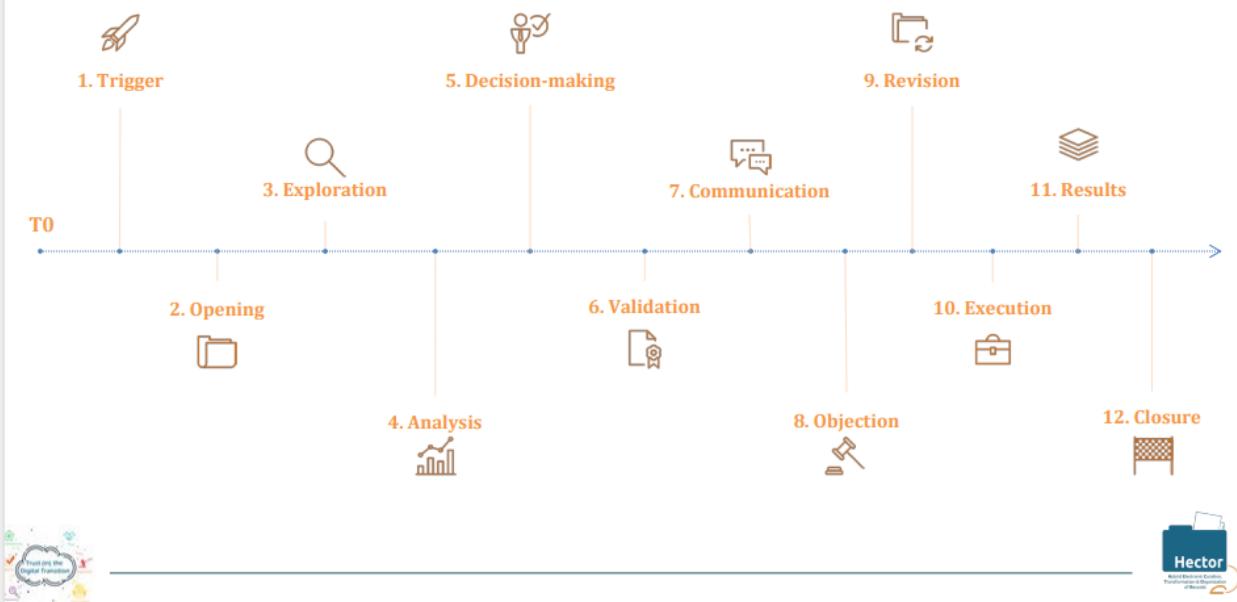
The aim of this conference was to present the challenges of the digital transition and the practical answers that could be brought to them, in the different disciplines (Archiving, Record Management and Law).

Thus, after an introductory word from the Director of AGR, who recalled the importance of these issues and the role of AGR in the digitisation of the public sector, Canadian Professor Luciana Duranti presented the results of research by the IntePares consortium (of which several HECTOR members are members) on record management in the Cloud.

Then, the Director of NBN insisted on the interest of standards to answer some practical questions that arise on a daily basis for practitioners.

At the end of the morning, the HECTOR Project researchers presented the results of their research. In order to make the presentation as practical as possible, it was decided to present these results not discipline by discipline, but at each stage in the life of a document (from its creation to its destruction). In this way, the researchers from the different disciplines presented the points to be paid attention to and set out recommendations, step by step.

Tasks and processing sequence of a file



During the afternoon, two panels bringing together experts from different countries and different disciplines highlighted the importance of interdisciplinary approaches to meet the challenges of digitisation.

Finally, the day ended with a Keynote by a representative of the European Commission who gave a portrait of the preservation of digital documents within the Commission, and a presentation by a member of the De Croo Cabinet on the Belgian "Digital Agenda" and the future federal projects in terms of the digitisation of the administration.

6.6. OTHERS

This project made it possible to develop the partners' scientific expertise in the field of law and document management in the face of the phenomenon of the digitisation of documents and files. This shared expertise has led to the setting up of new research projects, in particular the BRAIN projects: FLEXPUB (ngi.be/website/fr/develop/flexport/) and PROMISE (kbr.be/fr/projets/projet-promise/).

The HECTOR project has also provided support for the AGR in the fulfilment of their mission to accompany the archiving of documents held by Belgian federal administrations.

It gave partner members and the institutions to which they belong the opportunity to integrate into international research networks, such as InterPARES-Trust (multi-national, interdisciplinary research consortium exploring issues of trust and trustworthiness of records and data in online environments, <https://interparestrust.org/>).

It was also an opportunity to launch some reflections on the protection of personal data, which led to the start of a doctoral thesis project by A. Delforge at UNamur.

7. ACKNOWLEDGEMENTS

The partners of the HECTOR project would like to thank the members of the Monitoring Committee for their interest in the research topic, for the time they devoted to participating in the meetings and reading the various reports presented, as well as for their remarks, suggestions and comments which helped to feed the reflections and move the project forward.

We would also like to thank the members of the institutions who agreed to participate in the research under the title of Case Studies (FPS JUSTICE, Federal Police, FPS Employment, the Municipal Court of Quebec City). Through the many exchanges we had with them, we were able to discover in detail the realities on the ground, which enabled us to feed the research with the knowledge and experience we shared.

We would also like to thank the speakers who agreed to make a presentation at the International Symposium we organised at the end of the project, as well as the participants in this event. It was a rich opportunity for exchange between people from different disciplines and different countries.

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