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Abstract

This report describes the methodology and results of a survey about methods of communication and about management and preservation of information and documents in the paper and electronic environment of Dutch and Flemish ministries.

Keyword list

Interviews, communication, e-government, preservation, arrangement, retention, paper, electronic documents.

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EXECUTIVE SUMMARY

Context

Work package DT/7 is concerned with how professionals communicate and manage information and documents in their daily practices. Its aim is to provide information managers with insights into how communication and information are created and so highlight issues librarians, archivists and information managers may need to address in given environments. This report DT/7-D5 focuses on how Dutch and Flemish civil servants, working in policy making administrations (ministries), communicate and create, manage and preserve information and documents that are necessary for the normal conduct of their work.

The report is a parallel report of DT/7-D6 and DT/7-D4 in which academics of the universities of Aarhus and Glasgow were surveyed. Academics of the University of Aarhus were approached through a questionnaire, a selected number of academics from the University of Glasgow through interviews.

All three reports focus on communication and preservation. Due to the different target public of this report, civil servants, questions were adapted slightly so that they would be meaningful in an administrative setting.

Methodology

Qualitative interviews were carried out with 76 civil servants about their normal modus operandi and preferences at work. The interviews were carried out in three waves from March 2009 – April 2010 using a semi-standardised interview protocol. Interviews targeted a wide range of civil servants in order to identify whether position or role influenced preferred methods of working. Due to the qualitative approach, the report does not pretend to be representative of the administrations involved in the project or even less for administrations in general. Nevertheless, due to its depth and breadth and overall consistency of the responses, it is highly possible results are indicative for a broader audience. Note however: ministries are typically involved in creative, as opposed to routine processes. As a result they may reflect more individualistic and complex approaches than may be expected in say executive administrations in which routine processes dominate.

Results

Participants of the cohort were all involved in typical administrative work, like writing documents, participating in meetings, communicating with others to further a process, organising for and supporting others, etc. Depending on their discipline, the administration they worked for, and the role they had, some of these activities were more predominant than others. In general, meetings were rather common and consumed a considerable piece of the working time, in some cases more than 50% of the time, but averaging a much less substantive percentage. For domain specialists and (senior) advisors, a great deal of time was spent on research, writing and attuning with partners, while for managers and secretaries, organising and keeping the shop running were major activities.

For all these activities, civil servants use a wide variety of communication channels. It is clear however that more traditional channels remain predominant. On the one hand, civil servants prefer personal contacts through face-to-face meetings or telephone calls; on the other hand e-mail has been picked up massively to communicate quickly, to target (large) groups of persons, and/or without imposing on one's time schedule.

More recent methods of communicating, such as Skype or video conferencing, are hardly used. It seems that several reasons can be identified for this behaviour: lack of infrastructure, perceived low added value and reservations about the security of these new channels of communication (especially in the field of *social media*). In general, civil servants are not reluctant to use these channels, but incentives to introduce and use them, are rather low.

Mobile phones are –not surprisingly– becoming more common, and most civil servants are in favour of this evolution. Flexible work-stations, with laptops, a minimisation of paper documents and working from home, are allowed to varying degrees. These evolutions are generally appreciated, although various participants indicated risks as well, especially the blurring of work and private sphere.

Although paper has lost and is further losing its predominance in administrations, it is still important for civil servants when it comes to reading and internalising documents. Reference works or key documents for daily use are preserved and read in paper. When searching for specific paragraphs in a text document, no real predominant method was revealed. Some participants prefer a key word search in an electronic document; others prefer a quick read and leaf through of a paper document.

Trust in documents is generally independent of its physical medium: paper and electronic documents are more or less equally trusted. The source, author or institution, is the more decisive element in assessing a document. Given the political character and sensitivity of some documents, some participants indicated that "reading between the lines" and understanding and interpreting the power structure in a document is much more important than the factual reliability of the content or the medium.

In the types of documents that circulate in ministries or are sent or received, civil servants are all well aware which ones are "official" and should receive more than average care and caution. These documents, also known as numbered or registered documents and are put in a separate registration system. For these registered documents, templates and other guidelines exist, and it seems that the majority of civil servants are aware of these regulations. For all other types of documents that are created, civil servants are not guided, nor helped in organising and managing records. It should be mentioned here that many participants indicated that they do not really need any guidance.

E-mails, concepts, documents with temporary value, etc. are organised on an individual or department/section basis. Generally, some series and themes are identified and form the basis of the classification structure. Individual classification schemes are identical or very similar in paper and electronic systems, but in the electronic environment, up to four separate system environments can exist: a personal drive, a shared drive, a records management system, and an e-mail account. In addition to this, a small group also makes regular back-ups of their documents.

Where civil servants are looking after their own documents, hardly any had experienced serious problems with retrieval, but searching in a shared structure becomes more time-consuming, as familiarity with the logical structure, and not visualisation, mnemonic tricks or keyword search, is decisive for successful retrieval.

Sharing documents has not penetrated all administrations. The main issue is not an adversity of employees to sharing, but the slow rate (due to human nature) of changes in attitudes and working methods, in addition to a lack of time and priority. For these changes, but also for the introduction of a (new) records management system, civil servants voiced that it took quite a while before the system had truly become part of their routine activities. Civil servants who were in a transition process from one system to another, clearly indicated that either communication was insufficient, the new system had too many bugs, or that training had been limited or had been scheduled too early.

In spite of these observations, the majority of participants were satisfied with systems that were available to them, independent of the system they were using. It seems to point to the fact that civil servants are generally satisfied, unless they know systems or tools from their private activities that are more user-friendly or quicker. No surprise that more technology savvy persons were more critical of the systems in their administration than others. In this regard, search tools and navigation were two of the most recurring issues identified as problematic.

Accessing old electronic documents was not an issue at all, first of all because most civil servants do not use old electronic records, secondly because various administrations did batch conversions in the past and thirdly because civil servants in ministries use very common file formats, mostly from an Office package. Opening recent file formats, sent by others, was mentioned more regularly as an issue.

Civil servants hardly use old documents: policy makers have on average a need of documents that don't exceed an age of five to seven years. A few even suggested that some general documents, such as vision and strategy documents, notwithstanding, all documents of a legislative period could be disposed of once a new legislative period had started. 'Older texts' that are often used, legislation, are easily available through databases.

In general, civil servants display different attitudes towards communication, and especially preservation. Several reasons could be identified: personality, role in the administration, systems available and knowledge and interest in technology. Function, educational background or age are not particularly decisive for these attitudes.

In managing documents, neither avoiding obsolescence, nor creating fully standardised documents is a priority for civil servants, but quick creation and use, naming, classification and retrieval are. Given the high level of freedom and self-regulation that modern civil servants have been given, it will be difficult to present generally applicable and fully satisfying solutions for these challenges.

Recommendations
Based on observations and interpretations from the report, some recommendations and issues, as identified in information and archival science, can be indicated.

1. Given the high level of freedom and self-regulation that is given to civil servants to organise their documents, it is to be expected that documents, with the exception of registered, official records, will be organised in highly different and sometimes even personal manners. Further analysis should show whether this is a desirable situation, or not.

2. Disposal schemes and retention periods are not known; it is not clear whether files should be transferred to the archival service of the ministry, thus making it dependent on individual's assessment of the importance of documents and files. This situation holds the risk that documents that should be preserved are disposed of too early or are lost. An analysis and identification of all documents to be preserved could overcome this situation.

3. Observing that retrieval in other person's documents is initiated by a search into the logic of the classification structure, one implication in the long run is that access and use of these documents may prove to be problematic, if not impossible as a result of personalised classification schemes.

4. The undeniable tendency to let civil servants free in their way of arranging, naming and appraising most documents, and high turnover of civil servants hold the risk that not all necessary documents are preserved by the administration. Either a stricter regime should be re-introduced or a closer follow-up and audit system with civil servants could be considered. Both will not be favoured by a majority of civil servants as they value their freedom and independence. A soft policy of striving to change attitudes could be introduced, but heavily relies on constant follow-up.

5. Given the fact that civil servants in ministries hardly ever use records that are on average older than five to seven years, it could be considered to facilitate a quicker transfer to an archival institution, in order to ensure appropriate and systematic proactive preservation.

6. Administrations using or introducing a new records management system should pay special attention to integration of tools that facilitate quick search. More recognisable icons and a more user-friendly interface are important for easy and smooth adoption and internalisation of the system.

7. In administrations using or introducing a (new) records management system, training should be more closely linked to the date of introduction and the threshold for support should be lowered. Such effort should be available for a considerable time, as introducing and using new facilitating systems are demanding for civil servants who are not primarily concerned with this. A period of at least one year, possibly stretching to two years, is a minimum.

8. Although civil servants voiced a general feeling of satisfaction about the availability of communication channels, the availability of some more modern tools and a higher rate of responsiveness of systems would help to increase efficiency and general satisfaction.

9. Archivists, records managers and information managers should consider and include users' perspectives more in system design and in defining of requirements of archival and records management systems. If not, attitudes and practices of civil servants will inhibit a successful information and document management programme.

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Notes: Tables and graphs in this report are not to be interpreted as statistical evidence of observations. They are included to show that observations are based on a wide set of answers, rather than highlighting one specific opinion.
Quotes as given in the report highlight an opinion that was shared by some or many civil servants, unless otherwise specified, and were chosen on the basis of their clarity and exemplifying character. All quotes were translated from Dutch.

References to participants can be in the feminine or masculine, regardless the sex, and do not necessarily correspond with reality, unless relevant.

1. Introduction

DT/7 was introduced as a highly experimental work package in Planets that would focus on research into new ways of working in academia and government. Its rationale is to identify and pinpoint future challenges for librarians, archivists and information managers. The assumption was that preservation specialists should be led in their work not only by the needs and values of end-users, but also by the methods and values of creators of information objects. As a result, preservation specialists should be knowledgeable about new trends in creation and use of information objects, and most importantly about solutions to preserve these objects. In a sense, the work package aimed to be a user-based form of Technology Watch, trying to identify modern means of communication and preservation that could have implications affecting (digital) preservation.

This report documents the outcomes of the 76 qualitative interviews carried out with civil servants in Dutch and Flemish Governments between March 2009 and April 2010.

The report consists of *five* chapters.

In the *first chapter*, the methodology is described in detail. For interpretation and use of the results, it is important to get an idea of the strengths and weaknesses of the method used, so that readers understand for which goals the results can be used, and for which ones they cannot.
The *second chapter* introduces some standard demographics of the persons interviewed. Although this chapter could be interpreted as a statistically driven justification, it should be read as a simple description of demographic characteristics of participants.
The *third chapter* is the most important as it is here that the results are presented. Based on a thematic approach, results are introduced, described, and if possible interpreted and explained in the specific background of Dutch and Flemish administrations.
A short, *fourth chapter* introduces the main conclusions and trends of the research project. A separate paragraph is used to introduce recommendations that were derived by the authors and thus link user's perspectives with suggestions for solutions or improvements from an archival and/or preservation perspective.
Finally, annexes provide consent form and interview protocol, and also contain some tables with demographical information about participants.

2. Methodology

The results presented in this report are the final outcome of a long research process that was divided into two phases. In a first phase, a qualitative approach with interviews and diaries was developed in order to get an insight into themes and issues that were relevant to academics and civil servants. Creators of communication and information in academia and government were asked to keep a diary in which they wrote about their working day. The main outcomes of these diaries were then used to construct a questionnaire that would cover various user-specific issues.

The analysis identified several themes that were worth further research. Issues included:
- The use and penetration of new communication technologies;
- Importance of traditional communication channels, including e-mail;
- Importance of rules, guidelines and regulations that influence creation, management and preservation of documents;
- Importance of preserving intermediate documents;
- Importance of sharing information;
- Opinions about responsibility of preservation;
- Use of personal or centrally governed methods of preserving documents.

The second phase built on these broad themes, two questionnaires were developed, one for academia and one for government. Topics included in the interview were directly derived from the original questionnaire and thus the first phases of the research project, but were all implicitly or explicitly linked to communication and (digital) preservation. Questions about registration, filing and selection were specifically adapted to government administrations. After some initial contacts with Dutch ministries, it became clear that launching a questionnaire was impossible. As a result, a more qualitative approach, involving semi-structured interviews based on the survey questions was designed. Because this interview-based approach was less demanding for ministries, it was accepted by a majority of Dutch and Flemish ministries. In total, 17 ministries, ten Dutch and seven Flemish, agreed to participate in the research (table 1).

From a records management perspective ministries are typically involved in creative, as opposed to routine processes. Introducing new policies and rules comes about as a result of political, social, economic and cultural triggers, which it is the job of civil servants to act on. In the absence of clear-cut procedures, it leads to individualistic approaches to arrive at the end-result. Literature indicates that such creative processes are generally more complex and difficult to regulate because triggers antecedents, behaviours and outcomes are less standardised. This means it may not be possible to generalise the results of the report to other types of administration where routine processes are dominant.

Ministries in the Netherlands		Ministries in Flanders	
Ministry code	*# of participants*	*Ministry code*	*# of participants*
D01	8	D11	5
D02	8	D12	2
D03	3	D13	3
D04	8	D14	2
D05	6	D15	1
D06	8	D16	1
D07	4	D17	2
D08	3		
D09	8		
D10	4		
Total	60	Total	16

Table1: Ministries and number of participants

In order to get a varied, but balanced overview of issues, a relatively high number of 60 participants was targeted. The large number was necessary to gain insight into the many variables that could affect behaviour of individual civil servants. Before the interviews were started, parameters such as age, discipline, systems used in ministries, type of work, educational level, etc. were considered as possible explanatory factors in different behaviour. As such, they were included in the interview protocol to facilitate research in correlations.

Interviews were semi-structured, using a standard interview protocol, but with the option to explore answers, if necessary. The interview protocol was divided into three parts. The first, demographical part aimed to identify and characterise participants; the second part sought to map individual's ways and preferred means of communication, and the reasons behind the behaviour. In the last part, a wide variety of questions aimed to understand civil servants' behaviour in relation to document management and preservation. Some questions were neutral and open-ended; others were intentionally provocative or suggestive, in order to get richer or more pronounced answers.

However, a qualitative approach introduces risks because it makes qualifying individual answers a time-consuming and difficult exercise. Moreover, exploring specific questions on the basis of a specific answer, leads to the possibility that the interviewer takes a leading and possibly decisive role in 'guiding' the interview in a specific direction. To avoid distortion, the partners of this work package, SB, HATII and NANETH, developed a methodology that was as researcher-neutral as possible and was mainly lead by indications of users. We have tried to represent these opinions as neutrally as possible. We didn't add a value judgement about specific methods, we just wanted to identify them, and understand why they were used by civil servants. Interpretations of opinions are mostly based on follow-up questions in the interview (and as such not included in the interview protocol) in which the reasons for a way of working were asked for. In some instances, the authors of the report added an interpretation or elaborated on a theme. Since the researcher for all interviews was the same person, this risk was minimised. The semi-structured nature of the interview ensured that a set list of questions was to covered, and thus guaranteed a certain level of structure and consistency.

The disadvantages of an interview-based approach are however outweighed by its strengths. In contrast to a questionnaire approach, semi-structured interviews leave plenty of space for the researcher to capitalise on intriguing, deviant or interesting answers and opinions. In addition, an interview-based approach allows probing of the reasons for certain preferences or behaviour. The outcome is in-depth insight into the reasons for behaviour and preferences, elaboration of interesting perspectives or solutions developed by individuals. In this sense, the non-representativeness of interviews is replaced by its depth and recognition of individual's answers, issues and solutions. The opinions of participants were very varied, to state the least. As such, they prove to be very rich for analysis and further use.

In total 76 interviews were conducted. Interviews were executed in three waves. The first wave spanned a period of 2 months (1 April-31 May 2009) and included 20 persons. During the second wave, from 1 June 2009 to 31 July 2009 (2 months), 19 persons were interviewed. The last wave, including 30 participants, was conducted from 15 September 2009 to 13 November 2009. A final round-up of interviews was done till 2 April 2010, totalling 7 additional interviews, in order to get a more balanced view in various ministries.

Given the breadth of participants in this project, it is our conviction that the results represent more than a linear enumeration of opinions, but also highlight trends and patterns in communication and preservation behaviour and preferences. Nevertheless, it should be underlined that they represent the issues and concerns as voiced by civil servants in administrations, which are not necessarily the same as the concerns identified by archivists, records managers, librarians or information specialists.

Participants were reached in an indirect way. In each ministry, a contact person identified candidates who were asked or appointed to participate. Depending on the size of the ministry and the success of the contact person, there was high variation between ministries in the number of candidates who took part.

In the request to the contact persons, profiles of candidates were included. The profile was used to avoid an over-representation of archivists, records managers, librarians, information specialists, and ICT specialists, who all have a professional interest and are possibly more inclined to participate. In addition, administrations were asked to nominate candidates with various functions and roles in ministries. One of the goals was to avoid that one type of civil servant in government, the policy maker or specialist would be over-represented.

Given this approach, it is very possible that participants' viewpoints are not representative of the population that they exemplify. Based on the interviews, it became clear that most participants volunteered (some exceptions notwithstanding), and had a personal interest in preservation or had

been confronted with preservation themes in their professional life. That said participants were critical and open for discussion about all themes.

Participants were unprepared for the interview. No detailed information about the content of the interview (only a statement about how civil servants communicate and preserve documents and information) was provided. This approach was chosen to avoid socially acceptable answers during the interview. By confronting participants without preparation to specific questions, it was expected to get honest answers that pinpointed the main aspects of an issue. In reality, it sometimes resulted in moments of silence during which participants were thinking about their behaviour or reasons for their behaviour. More than once, participants' reactions indicated that routine was a driver for doing things as they did.

Before an interview was started, the researcher went over a couple of administrative issues documented in Appendix B.

Dutch and Belgian legislation doesn't oblige the use of consent forms: an interview is considered as an implied agreement in which the interviewee realises that results will be used for the reasons indicated.

Issues as listed above were all enumerated in the consent form. One participant preferred that their interview was not recorded. The total length of all 75 recorded interviews reaches a bit less than 88 hours of information.

Patterns and trends in this multitude of opinions, behaviour and preferences are identified and analysed in the next pages.

3. Demographics

In total 76 persons were interviewed. Of this group, the majority is working full time (59 or 77,6%). Of these 76 persons, 45 were female and 31 male (figure 1). In total 60 Dutch and 16 Flemish civil servants (figure 1) participated from 17 ministries (10 Dutch and 7 Flemish ministries).
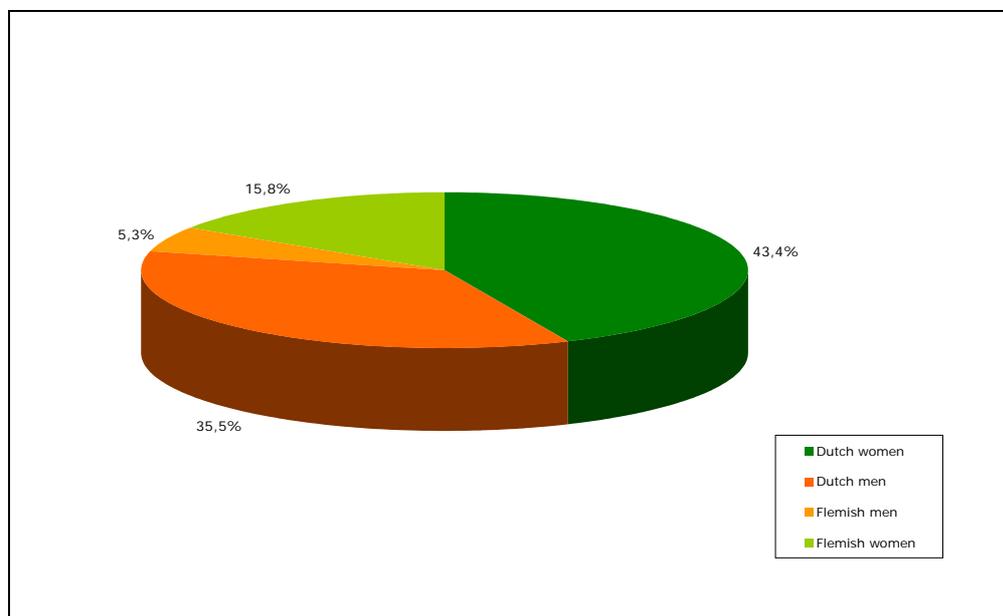

**Figure 1: Distribution of participants: sex and origin (n=76)**
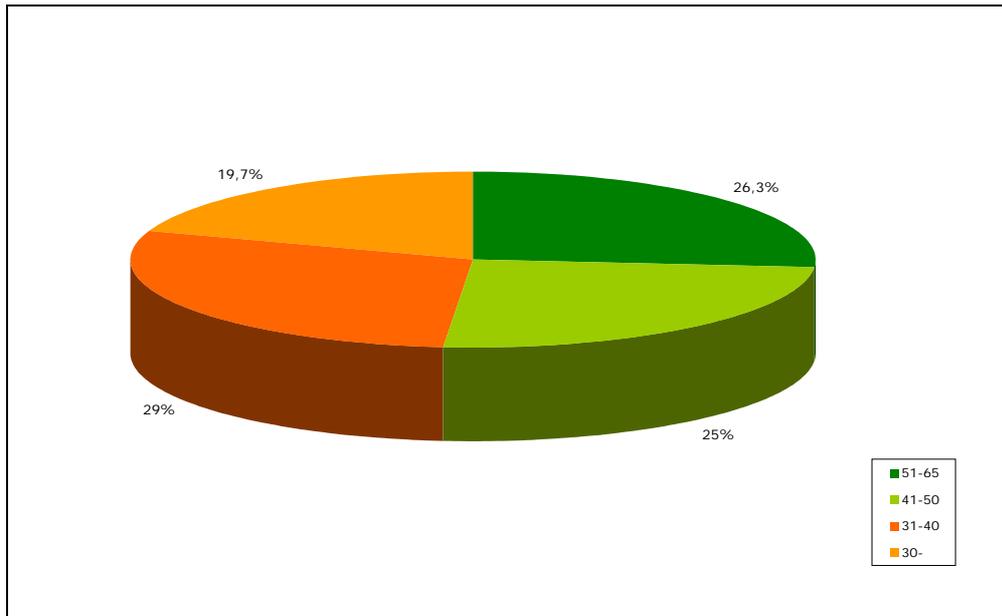
Figure 2: Age of participants (n=76)

To ensure a mix of opinions about issues that could be correlated with age and knowledge and ease of use of modern means of communication and computer technologies, a variety of participants was targeted. As shown in figure 2, participants represent a mix of young and more experienced civil servants.

This variety is also shown in figure 3 in which years of experience are represented. As a result of evolutions on the labour market, civil servants change jobs rather easily, reflected in figure 3 (years of experience in current job). However, it doesn't prevent 'older' civil servants from building a career in government agencies (figure 4).
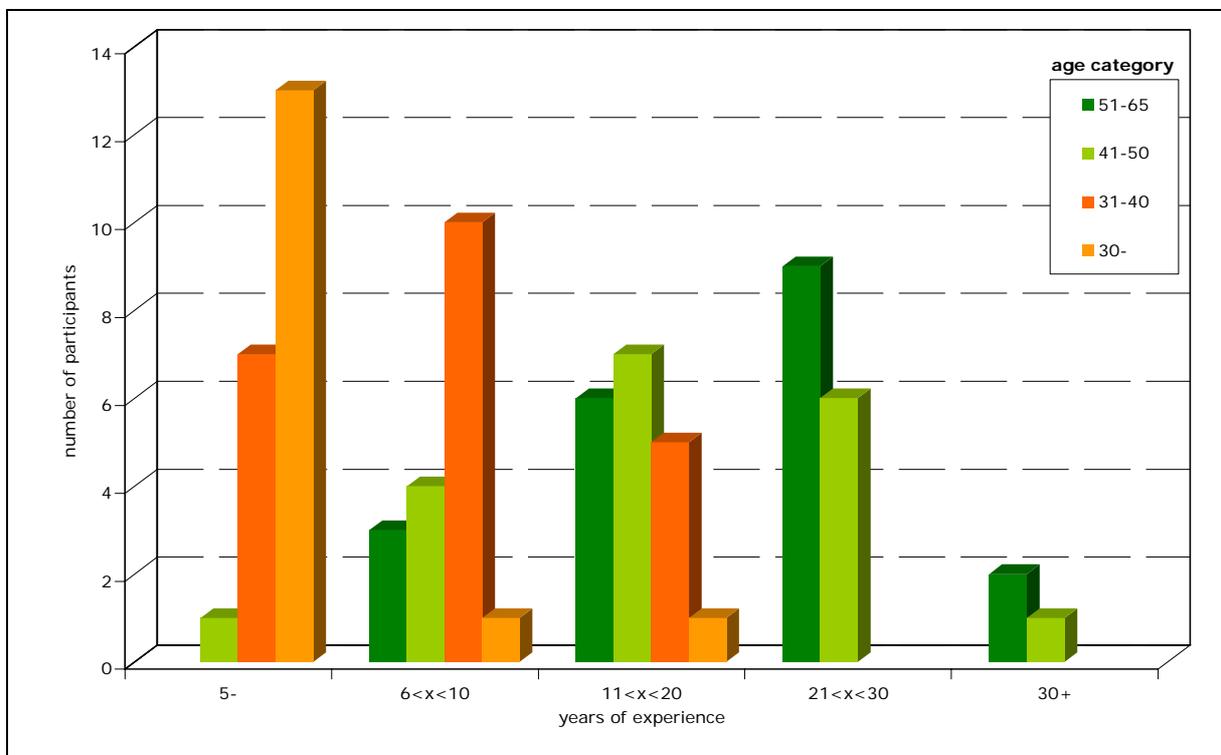

Figure 3: Years of experience in civil service (n=76)

Most of the participants were employees who have a role as advisor in a specific field (policy making, management, control of policy execution, legal support or decision making) or support these core business activities (in total 76,3%) (figure 4).
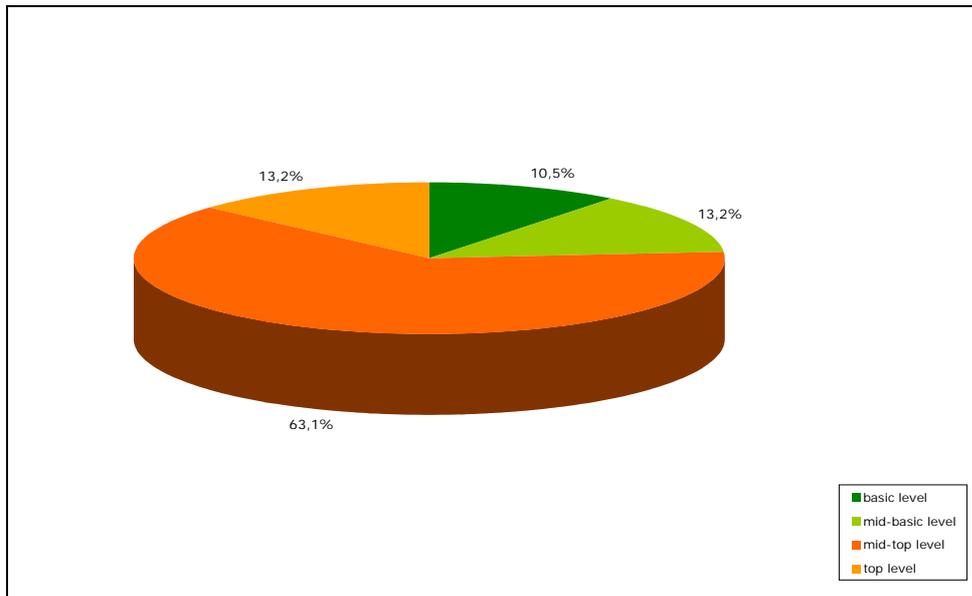
Figure 4: Types of position in government service based on salary level (n=76)
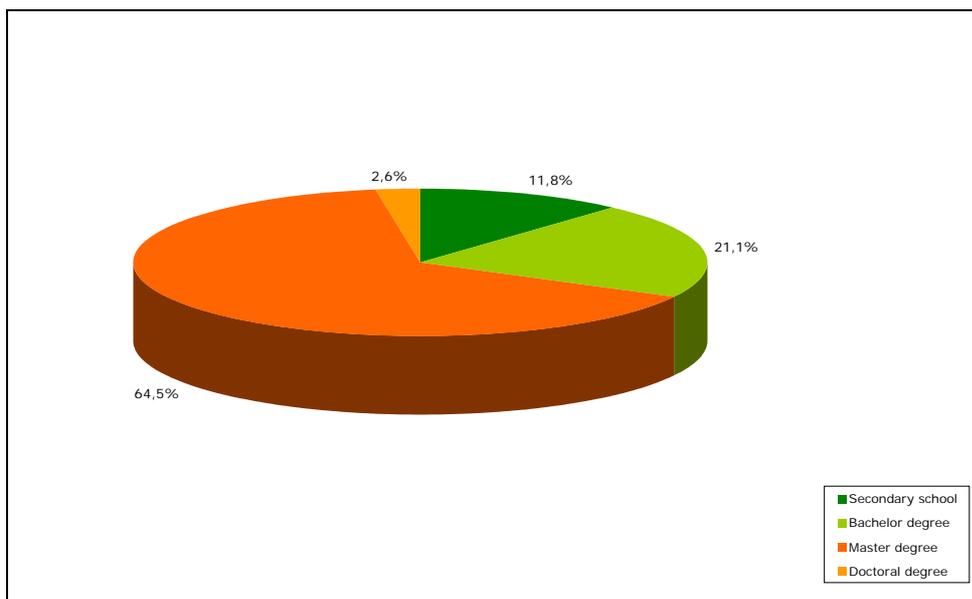
Figure 5: Level of education (n=76)

In general, the group of participants was highly educated: 88,2% had at least a bachelor's degree from a college or university (figure 5); those who didn't have a higher educational degree, were generally working as secretaries or office support clerks. As such, they were involved in communication and document management, sometimes even as a focal point for their administration.

Most of the participants had a social sciences background (figure 6). Hardly any participant was a natural scientist.
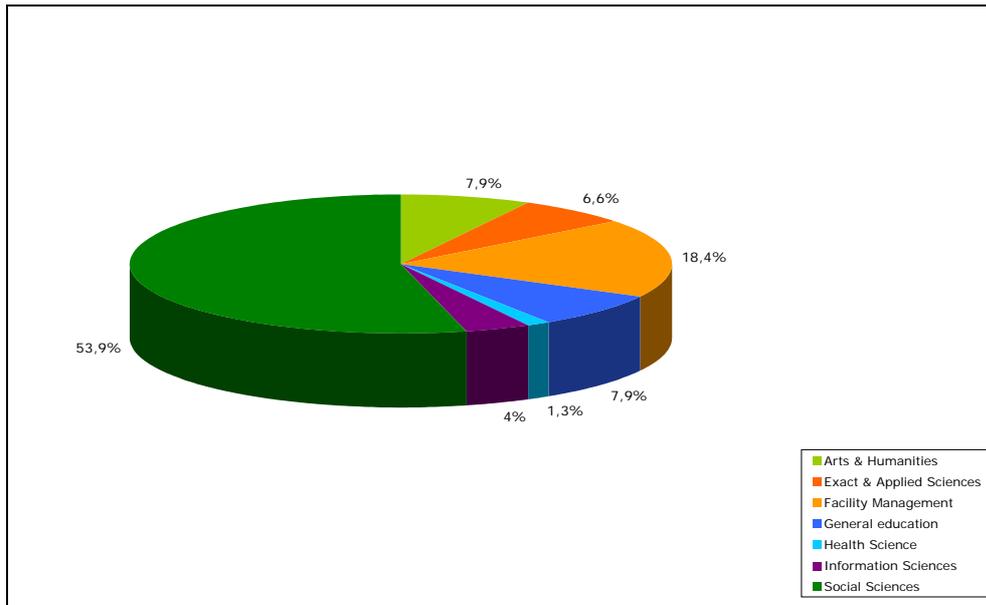
Figure 6: Field of education (n=76)

To get a rough idea of the importance participants place on organising and retaining information, an introductory question about e-mail was asked ("How many e-mails do you have unorganised (meaning unfiled) in your Inbox at this moment?"). Although many participants first misunderstood the question – they interpreted unorganised as unread– the results in figure 7 show that organising e-mails in (meaningful) folders is hardly a priority for civil servants. However, some of the participants represented in the group of ">1000" deliberately leave all e-mails in their Inbox.
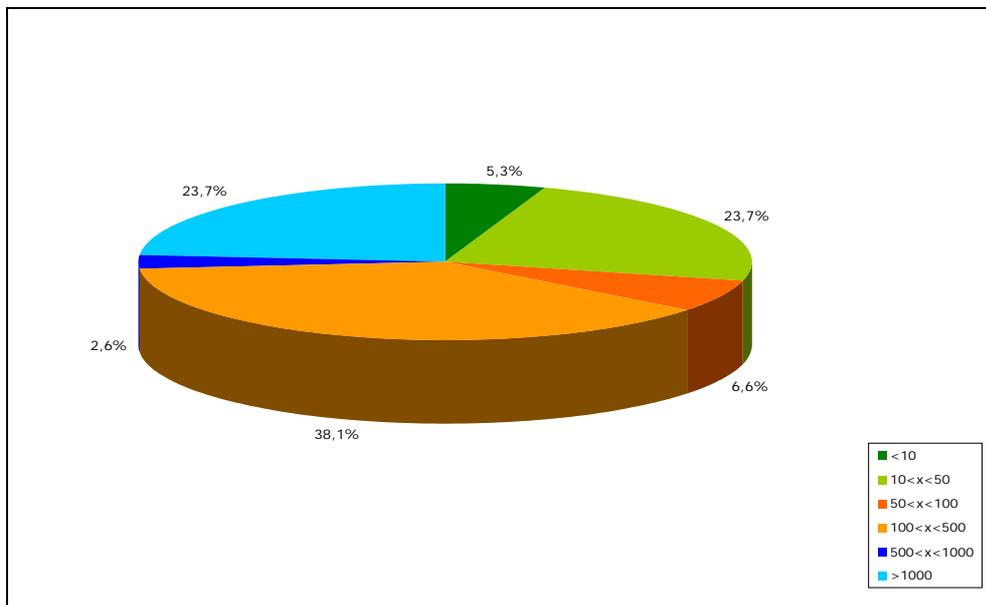
Figure 7: Number of e-mails in Inbox (no classification) (n=76)

4. Findings

4.1. Communication

Civil servants of ministries are working to respond to challenges in society. As a result they are constantly in search of information that may indicate change and answers to respond to these evolutions. Communication, in various forms and intensities, is one of the main activities of civil servants, and as one of the drivers of possible document creation an interesting issue to study for information specialists. New technologies are rapidly changing ways of communicating and thus potentially influence civil servants' ways of working in general, and their preferences and habits in information capture, management and output. Information is the raw material that most of the respondents are using. One of the respondents described himself as "a sponge that is constantly absorbing information". In short, the ways civil servants communicate, use and manage information are of immediate importance to archivists and information specialists.

4.1.1. Use of paper versus electronic substitutes

Paper has been the carrier of information for centuries, but is losing or has already lost its predominance to electronic substitutes. In administrations, it has led to a hybrid working environment, in which paper and electronic documents coexist and in which civil servants choose their means of communication based on the situation.
Use of paper is discouraged in both Dutch and Flemish administrations due to a combination of high level policy and the desire of people to minimise paper for environmental reasons.
Several methods to 'guide' employees in the direction of a paper-poor desk can be observed. New ways of working (i.e. paperless or more realistically paper-poor) have been introduced intentionally by management of administrations, or are a side-effect of a more general trend in which persons have a tendency to look for an electronic tool to solve a particular issue.
However, paper remains very important as a means of reading, and –less important– as a way of generating or structuring ideas. In addition, all so-called important documents are still on paper, due to a need for signature(s), or due to the preference of leading managers who prefer paper documents, rather than electronic versions.
A preference for paper was heavily attributed to ease of reading. Many participants answered the question about reading on screens or on paper in a multi-faceted manner. In general however, there was a clear preference for paper for reading. Environmental reasons or a lack of utility, prevented persons having paper copies of the majority of documents. For some document types, such as reports, important concepts that needed their input or feedback, or long e-mails and documents that were considered important, participants generally preferred a paper copy, even if an electronic version existed (for instance as an attachment to an e-mail or as a document on a shared drive). The ease of making marginal notes, leafing through the document, highlighting and cross-referencing all favoured the use of paper. One of the respondents indicated that she always read a paper document with a pencil in the hand to scribble, to mark, etc. Portability of the carrier –a paper document is light and easy to transport to a closed concentration room– was also a plus of paper documents. This said, notes, corrections and feedback made on paper copies were most often transcribed in an electronic format and then sent electronically. Paper documents of this kind are thus transitional documents in a larger flow of getting to a final document that is created in an electronic environment. Hybrid working in which text processing is done electronically and revising and providing feedback is carried out on paper (for larger documents) and electronically (for smaller text documents) seems to be a rather general pattern, some exceptions notwithstanding.

Civil servants invest time in making notes or documents if there is a direct need or benefit, for themselves or their colleagues. Paper or any of its electronic substitutes, e-mail, notes, text processing, spreadsheets, etc. is only used if civil servants need reminders, lists of activities to do, development of ideas, description of main themes of a meeting, etc. In other situations, more informal and transitory forms of communication are used as they better serve other needs.
Important to note is that a huge majority of participants clearly had a preference for making notes on paper. Various reasons were given: preference for paper in general, ease of access, speed of note-taking, availability of a laptop or computer, etc. Use of paper varies widely from scribbled notes to writing of minutes, and all sorts of intermediate forms.

When civil servants were using more informal and transitory means of communication, paper was often used to make short notes. The type of notes that were registered by individuals varied somewhat, although 'action points, decisions and conclusions' (ABC in Dutch: *actiepunten, beslissingen en conclusies*) were the most common, in addition to contact information, dates and other trivial, practical information, and also the general 'feeling', atmosphere of a meeting. Some respondents were using a notebook for these short notes; others were using separate papers or Post-It notes, depending on the availability of one of those. Asked whether they used these notes for further elaboration, a wide range of responses emerged , in which notes would never be used, were kept in notebooks as a source of reference (that was hardly used, however), were put in a text document, etc. In short, although there are some obvious reasons why civil servants are making notes, there is no real pattern to how civil servants use their notes, or how they save them: some keep them for a very short time, others still have the notebooks from the period when they started to work. New tools, like blackberries, in which notes can be made easily, are only used by a small handful of respondents: of course, not all individuals in the cohort had such devices, but even those who had, sometimes preferred paper notes, because of ease of use, or habit.

Many respondents indicated the physicality of paper is an advantage. Piles of paper act as a reminder of what had to be done, and prompt to action. But the physicality also enabled them to take documents along, to meetings or on the train. Even if civil servants had a laptop at their disposal, it didn't result in behaviour where documents were used in electronic form. When asked, hardly any interviewee could come up with examples of meetings in which participants were using a laptop to read (or write) documents. In this respect, computers and laptops still generate electronic documents that have a final destination as paper products, especially text documents. Other types of documents, especially dynamic documents such as spreadsheets with interactive elements, are less prone to print, as they lose more of their intrinsic characteristics on paper.

Paper documents were clearly preferred in case of reference or standard text books. Most specialists keep a couple of frequently used sources, and generally these are used in paper copies, for reasons as mentioned above.

4.1.2. Meetings and telephones: 'old' means of communication

Present-day offices in any administration of a western-European country have a PC or laptop. In previous decades, other 'modern' technologies, such as a telephone, were emblematic of advances in communication. Today's civil servants have an unprecedented level of choice as many tools, such as telephone, mobile phone, Blackberries, PDA's, e-mail, VOIP technology, personal contact, or any combination of these strategies to contact other persons, are available, at least in principle. The question is whether and how much new technologies have permeated the civil service, and how civil servants use and value various means of communication.

It is for sure that the most traditional form of communication, face-to-face communication hasn't lost any of its importance. It is often used, and in particular cases, it is preferred by a majority of civil servants. Due to the advent of new technologies the physical meeting has been complemented by other communication channels to better prepare or deal with issues as discussed in meetings. Nevertheless, a huge majority of the respondents indicated that meetings in person are extremely helpful and appreciated, even within a context in which all new technologies are offered to civil servants. These new technologies shouldn't be considered as tools to replace traditional means of communication, but to speed up and streamline communication.

Physical meetings can be divided in a couple of ways, all of them having significance for the reasons why they are used and preferred to other modes of communication.

There is of course a difference in physical meetings in group and individual encounters. Group meetings are one of the preferred means of communication if an issue is in its initial phase (phase of brainstorming or initial development) or if it concerns a sensitive or political matter. On the one hand, the theme itself made respondents prefer to use oral communication, on the other hand, the ease and speed with which ideas can be voiced, picked up, altered or criticised by others, makes it a superior form of communication to any other. Participants indicated that non-verbal communication is extremely significant in specific instances, for instance policy makers are very conscious of accents or wording in their work. In many types of meetings, such as exploration or fine tuning of policies between various partners, body language, but also small words that are not present in written communication are often relevant and have to be taken into account in future collaboration. To paraphrase one of the participants, in these cases it is of the utmost importance to pay attention to what isn't said and why. Emotions and typical verbal strengths like power of persuasion are more easily conveyed in meetings. An additional bonus of such group meetings is that all relevant important players are gathered, so that

everyone is informed and the more intangible feelings and attitudes toward an issue can be expressed, 'read' and interpreted.

Organising a meeting may be cumbersome, due to full agendas or the absence of individuals who should participate (and this gets more difficult as civil servants have flexible working schedules), but once this hurdle is taken, it is indeed a rather efficient manner of exchange.

This observed, some respondents also voiced disadvantages of group meetings. There is sometimes a social barrier, due to hierarchy that may influence active participation of some people, verbal skills are important and there is a need to absorb information immediately during the meeting. It is also possible that one or two persons start to dominate a meeting. In addition, some respondents, if asked for disadvantages specifically, criticised the length and lack of decisions during group meetings. According to some of these participants, the length and number of meetings could be reduced dramatically if efficiency measures were taken. However, others indicated that meetings in which all participants could voice their recent frustration and/or experiences had a 'healing' effect for a group too. In this sense, such meetings were useful, but for other reasons than for which they were originally organised.

Somewhat different arguments were brought forward when individual meetings were discussed. Of course, such one-to-one meetings do not involve a huge amount of organisation. Nevertheless, they are much more incidental and driven by daily needs. Therefore, they are used frequently and without any plan. Most commonly voiced reasons for a quick visit to a colleague included:

- short questions about very straightforward matters;
- questions about details that are easy to answer, but difficult to explain (in writing);
- questions about complex matters;
- 'questions' that interrupt work, by having social contact with a colleague.

The fact that a physical encounter results in an immediate response and could provoke a discussion, in which the specifics of a complex issue could be explained, understood and solved rather quickly, was generally considered to be the main advantage, at least for the one who answered the question. Physical presence of these colleagues is of course a *condition sine qua non*, and some participants indicated that they sometimes called before running to the colleague. Some persons of the younger generation also used short text messaging or e-mail as they were accustomed to use electronic means for quick communication. In some instances, respondents were also inclined to go to a colleague in order to have some exercise, or to have social contact during a day of working behind a computer screen. In very sensitive matters, or matters that had become problematic in e-mail, some respondents would take the time to walk rather long distances in a building or between buildings to clear the issue in person.

Finally, many participants also mentioned the social element in personal meetings, whether in group or in person. Simple observations like 'I want to look into the eyes of the other person', were voiced several times. It implies that in-person meetings are not only functional and efficient in certain instances, but –not surprisingly– also correspond to and satisfy a human need. In office landscapes where many persons are working, these incidental encounters may be somewhat intrusive for others. As a consequence of this, a couple of participants started to organise and plan their personal meetings more, in order not to disturb colleagues. These respondents admitted that such a change from a rather unstructured to a more organised way of having contact with colleagues was somewhat hard to follow at first.

Another 'old' means of communication is the telephone. Many civil servants are equipped with a mobile phone that is increasingly replacing a landline telephone, or a portable phone that can be used in the building. As with e-mail, most of the participants were generally satisfied with this evolution. Mobile telephones have become an integral part of our lives and are heavily used. As with all means of communication, the use of the telephone is partly influenced by the role of the employee: a secretary is typically a heavy user of a telephone as this role involves a lot of organisation. Specialists or policy makers in a specific domain are free to use whatever means of communication they prefer. Depending on the individual preferences, they'll use a phone frequently or not.

These role specific uses notwithstanding, there are some general patterns in the use of the telephone, whether landline or mobile. In a comparison of a telephone talk and a meeting in person, nearly all respondents preferred meeting in person as the non-verbal communication adds to the meaning of the meeting: even in a virtual world, physical presence is still appreciated. However, if the other person was located too far away, the phone was the preferred means of communication, as time is increasingly becoming an issue. Comparing telephone with e-mail, telephone was preferred if it were short questions, if an immediate response was needed, and if a meeting in person (especially a one-to-one meeting) needed to be prepared for. The main disadvantage, mentioned by many respondents,

was a lack of evidence about what had been agreed. One function group, secretaries, clearly acted on this deficiency, and often sent a reminder or summary to the other party to ensure perusal and to have evidence of the engagement.

The introduction of mobile phones is generally considered as a positive evolution. However, some respondents were dissatisfied with not receiving a mobile from their employer, due to its policy. To do their work in optimal circumstances, they expressed a need for a mobile, as they were either often out of office, or had to react quickly to new developments. The last reason was especially voiced by civil servants working in areas with special political attention and media coverage, or working on somewhat confidential files.

A lack of a work mobile phone often resulted in use of the personal mobile, but everyone expressed a rather negative opinion about such a situation. Given the evolutions, most persons indicated that the employer should enable work, and if this implied constant availability during working hours, it necessitated having a mobile.

Obviously, having a mobile also imposed on the free time of civil servants, as some mentioned. As with the use of e-mail, most civil servants embrace the availability of these channels, and also accept the consequence that their private time may be interrupted by colleagues. Nevertheless, some indicated that this should not lead to permanent availability for work.

4.1.3. Use of e-mail

E-mail was for sure the most contentious channel of communication, and induced the most positive and negative reactions. With personal, physical contacts, it was considered as the most important means of communication, and nearly all participants were heavy users. In general, e-mail was not seen as a substitute for other means of communication, but complementary to them.

Positive elements included:
- ease of use;
- easy to have an overview of workload;
- evidence of an action;
- time and location independent;
- contact(s) can answer whenever they prefer;
- easy to write to a group;
- easy to add documents (attachments).

Disadvantages voiced several times were:
- possibility of misunderstandings;
- possibility of endless threads of e-mail communication;
- time consuming to write about complex issues;
- receipt of overload of e-mails;
- receipt of irrelevant e-mails in cc;
- reactions may be too slow or too late;
- limitations related to maximum size of mailbox.

Given this list of general observations about e-mail, it is obvious that it is a channel that has been embraced by everyone. It is evident that e-mail has become an integral part of our way of communicating and that the threshold to use it has disappeared in administrations for some time. No one indicated issues working with e-mail. For sure, some respondents were more advanced and were using 'advanced' options, like flags, searching possibilities, etc. to fully exploit the features of their e-mail account. For these respondents, e-mail had huge added value as it was felt to be an aide-memoire: previous communication was easily retrieved in their e-mail account, and all relevant data, like date, persons involved and content of message (sometimes supplemented by a thread of messages) were all readily available. Employees using the tasks feature and flags in their e-mail account generally had a feeling that they were on top of things: the overview resulting from this type of organising e-mail and work, enabled them to prioritise and get work done in an effective way. Others had a paper variant of this, and were using stacks of paper as work load. These paper stacks may look chaotic, but most of the participants insisted that these piles were meaningful and organised. Both in the e-mail and paper variant, some persons admitted that, due to a lack of time, organisation and order may become neglected. When they felt they were losing too much time to retrieve information, they were inclined to reorganise and update their system, in the paper and electronic environment.

As indicated above, e-mail is often used to confirm engagements that were made orally and so lack a trace, or is preferred if evidence of an action is wanted. The question when evidence is necessary and

when a civil servant will use e-mail for this reason, is rather intangible. Asked for situations and rationales, most participants indicated that the need to keep track of deadlines, actions and decisions were drivers to use e-mail. Some of the respondents had been confronted with discussions about decisions or interpretations of oral engagements, and had thus introduced e-mail in order to create a record of the conversation. Maybe, partly as a result of such behaviour, a majority of participants complained about the overload of e-mails. Although spam and general e-mails with little information irritated everyone, e-mails that were sent 'FYI' to a large group of recipients were also a reason for 'agitation'. In some divisions, more rigid agreements were made in order to minimise such 'cc e-mails'. Such informal measures were appreciated and most participants were indeed observing a decrease in bulk e-mail. Formalising such agreements was not really seen as necessary or adding to a solution, and a couple of participants had the idea that some colleagues were still searching for a good balance in using e-mail, or were adjusting to the e-mail culture of a particular division or department.

With the exception of those interviewees who had organised their e-mail in a structured manner, others voiced feeling of restlessness if their inbox was too full of unread messages. However, such feelings should not be exaggerated as they were not considered as an issue that impeded working normally or efficiently. The issue at hand was that most respondents wanted to read those messages that are relevant. The more irrelevant e-mail is received, the more time consuming it gets to separate the wheat from the chaff. The observation of some participants that meetings are not always efficient and too time consuming has its virtual equivalent in the electronic environment: the overload of e-mails that are not directly relevant to recipients. As with all group endeavours and team efforts, it is of course extremely difficult to find a balance between too much and too little, as all persons have specific ideas about these issues and also have various levels of tolerance, but the repeated responses of participants seem to indicate that the scale predominantly tips too much towards too much e-mail.

Some of the advantages of e-mail mentioned above were closely related to disadvantages. While e-mail allows the recipient to answer when they thinks it's appropriate, the ease and speed of e-mail bring with it an implicit expectation that answering an e-mail should not take too long. It is one of the dichotomies of e-mail: on the one hand there is the thought not to intrude too much on other's time and planning, on the other hand, there is a clear expectation that –completely in line with our time– a colleague responds maybe not promptly, but definitely *timely*, which is open to interpretation.

Another advantage that sometimes turned into a problem was the heavy use of attachments. E-mail is valued as an easy channel to transmit documents, many and large ones, and often it is used for exactly this reason. But too many attachments cause quick filling and congestion of Inboxes. The fact that a significant group of participants mentioned congested e-mail accounts can be explained in several ways. One of the possibilities is that limits are too strict and that IT departments impose too heavily in this, this is how all respondents interpreted it. A rather different explanation lies in the observation (elaborated further) that many participants are preserving everything, including e-mail, and even stronger, are using their e-mail account as a tool in which duplicate files are kept. This behaviour was also observed with academics in the Arhus and Glasgow research.

One recurring issue with e-mail, not mentioned with any other channel of communication, was the feeling that some people were using e-mail to hand over a problem to someone else. Participants used a variety of words for this behaviour, but invariably it was considered as non-collegial behaviour. E-mail was apparently used for this, as the request just needed to be forwarded, others informed by cc that the sender had made another person responsible for the issue, thus creating an evidence-trail that could be used later on if a dispute arises.

4.1.4. New communication technologies

Asked for other means of communication –other than meetings, personal contact, telephone and e-mail– most participants confessed that they didn't actively use them in their daily work. The use of these new technologies is personal and depends on the tools available, e.g. SMS, sometimes because participants experienced them as useful in their private life, or were suggested by a colleague, e.g. RSS feeds.

Some of the facilities are available, but are hardly used: tele- and videoconferencing are generally only used in international settings and one of the respondents indicated that it was because others had asked for this type of meeting that she made use of it. The partial lack of body language, due to distance, didn't make it the favoured channel of communication, but it offered some advantages over e-mail correspondence. The same respondent said that she appreciated a personal meeting in advance, in order to evaluate behaviour and wording during these conference calls, which are more difficult to follow anyhow due to technological dependence.

Other VOIP services are hardly used, Skype or MSN Messenger are mostly not allowed at work, due to security or IT regulations. Less than a handful respondents use these occasionally when working at home. One of the drawbacks is the quality of the service, and most of the users indicated shortcomings in this area. In divisions where such tools were trialled to find out whether they would streamline and facilitate collaboration, they were only partially a success as some colleagues didn't participate, and thus the team effort was undermined.

Use of various text messaging services is rare. Those who had this available, appreciated it as a channel of communication, but text messaging was not a preferred method. Text has similar advantages to e-mail, and the added value that there is a direct signal to the receiver when it's received. One respondent was specific in his use of SMS: he used it if an urgent matter occurred when others were in a meeting to avoid interruption. Another participant valued text messaging when working at home or when on holiday! It was a subtle way to be informed, in a concise and pointed manner. Reactions from the home front to this uninterrupted connection to work prompted participants to limit use of such communication tools.

Some communication channels like blogs and twitter were hardly ever valued as a means of communication between colleagues. Issues with trust and confidentiality were the main reasons not to use them actively. The role of these social media however was recognised in communication to the public and some interviewees saw a multitude of applications. One respondent believed that exaggerated or false stories and interpretations about an issue, started on social media sites and magnified and worsened by the public, could be averted if her administration initiated a managed communication strategy for social media.

Other uses of these media were in the sphere of picking up incidental information by following tweets or blog postings of politicians and colleagues (abroad and nationally). The content of this information didn't respond to an immediate need, but respondents esteemed them as interesting background information that could be useful as framework for further developments or evolutions. Another civil servant reported that he got more information from these tweets and blogs about what colleagues were doing, than from regular meetings.

A wiki as a platform to communicate and store information was rather uncommon, but those using them were in favour, although it was stressed that all team members should participate then in such a group effort. Use of departmental intranets or interdepartmental portals was appreciated as it reduced the number of e-mails sent. Retrieval (see further) and basic functionalities however caused negative reactions from a users' point of view.

Many respondents confessed that they were no 'trail-blazers' when it came to the use of new technologies. One person, who had just been introduced to RSS feeds, was intrigued by the ease with which he could select relevant online information. Most respondents however confessed that they were awaiting initiatives of others, and would follow them if they were facilitated, explained and supported. Most civil servants had an open attitude and were eager to learn, provided new technology has clear added value. Technologies that merely duplicate current means of communicating were not favoured; technologies, integrating various channels were mentioned by some.

4.1.5. Concluding observations: choice in a world of abundance

Responses suggest a high level of freedom which encourages personal choice in means of communication. Respondents didn't particularly indicate that the choice of a means of communication was a conscious decision; it appears that they choose a means of communication based on personal experience and common sense. There is not always agreement about which particular communication channels are preferred, but the patterns are more or less clear: respondents tend to assign particular advantages and disadvantages to a means of communication, and depending on a situation, they will choose one or another. Creating a trace or evidence of what has been done –traditionally expressed in written documents– is one of the factors that are 'taken into account' by civil servants when choosing an appropriate means of communication. However, e-mail has made the threshold to write a 'trace' so low that it provokes various feelings.
One respondent expressed it this way:

> "From the pallet of means of communication, I try to pick those channels that are working instinctively, and do not get bogged down... With e-mail, I sometimes have the feeling that problems are thrown over the wall."

The same participant also expressed that:

> "... it seems that e-mail has pushed aside normal channels of communication. I try to maintain normal personal contacts, especially in cases where we have to collaborate. However, it consumes a lot of time and energy."

Although this quote is not representative of the overall feelings of the cohort, it shows how civil servants are still searching for a balance between the various means of communication in their work. Time and an 'unconscious'-instinctive assessment of the situation seem to be the main reasons for choosing a means of communication. As these two drivers are interpreted and evaluated differently by different individuals, it also implies that they may choose *ceteris paribus* a different channel.
Personality and business culture are for sure two parameters that influence choices and preferences. Given the rather uncontrolled and constantly changing environment in government departments, most respondents expressed a devotion to free choice in communication and thought a more rigid framework of rules and regulations would inhibit rather than facilitate their work.
There are definitely patterns in ways of communicating, one of which is that virtual communication cannot and will not fully replace physical encounters. New channels have definitely speeded up communication, and have also made it more difficult to keep the overview, but at this moment, it plays an increasingly important and complementary role to personal meetings.
Reservations made towards new technologies are definitely not due to a reluctance to use them: most respondents are aware of these evolutions, but are still looking for features in these tools that lead to more efficient working. At this moment, the added value of these social media applications is in most cases too low, or not applicable to some of the activities of civil servants. Future developments, a further adoption and diffusion, integration of these tools into other existing ones, and a more active role of management promoting new applications, may impact upon use in government agencies.

Two of the main issues are the multitude of communication channels and the overload of communication and information. Some do not consider this to be a drawback and feel that they select, read and use communication and information efficiently; others are less sure of their capabilities in this respect. They are a bit overwhelmed, are still searching for effective methods to deal with this new situation, and look forward to more advanced (and user-friendly) tools in facilitating the quest for relevant information.

4.2. Information and documents: creation, management and preservation

This section analyses how civil servants are working with and using documents. One of the rationales for preferring a specific means of communication was a need for evidence. Documents, regardless of their form, indeed have the characteristic of permanence thus serving evidential needs. Creation, management and use of documents however necessitates a certain way of working, a certain rigour if people are collaborating. This section will highlight the many solutions that departments and civil servants have developed to respond to these challenges.

4.2.1. Creation of documents

Most of the information civil servants use is in documental form: whether texts on paper, websites or articles in Wikipedia. Moreover, with the exception of one participant, all other persons focused on producing written documents. The one person preferred visual reporting: he made short movies to report issues and problems to his superiors. His philosophy emerged from the current evolution in society in which images are more appealing than (long) texts, especially so for the younger generations. His aim was to synthesise and clarify an issue in a short movie. This unconventional solution presented serious challenges for this individual, as his administration didn't supply the necessary tools for his visual approach. Nevertheless, he insisted that his method was valued by senior management.

Indeed, in all cases civil servants were equipped with a standard set of tools to create documents. The Microsoft Office package is used predominantly especially Word, Excel and Outlook, to a lesser extent, PowerPoint, and occasionally Visio and Access. Internet Explorer is the preferred web-browsing tool for internet use.

In addition to these rather common applications, some respondents regularly consulted custom-made databases (for retrieval of relevant information, e.g. legislation). Other typical tools included database systems for mail registration and in a couple of administrations an EDMS/ERMS (Electronic Document Management System/Electronic Records Management System).

Most documents are created electronically, but many are printed. Asked about rules or guidelines about document creation, most respondents indicated that there were none or hardly any. Older civil servants described a more regulated period some decades ago. At that time, secretaries played a key role in administrations and had a supervising role in document creation.

One respondent remembered that, when he started some 30 years ago, he was told language, style and format were bound by very strict rules. Secretaries at that time checked these aspects of documents. In present administrations, civil servants are freer, and a new system of checks and balances has replaced the old central role of secretaries. Many documents are currently created by a team, and new colleagues are introduced to an administration's habits and customs and in the unwritten rules for document creation. Only official documents, such as memos to the Secretary-General, a document for Parliament, certain outgoing letters, etc. are formatted in accordance with rules. For intermediate or personal working documents, these are not available. Most participants didn't see added value in having such rules, but in some cases there were signs of mild irritation about how documents were written. Persons referred to inline answering and abbreviated terms and slang in e-mails, but also to language used or style in other documents. Lay-out was never mentioned.

Templates are available in all administrations, especially for the official documents (for which templates are prescriptive), and these generally had a recognisable look. In those administrations where templates had changed recently, some remarks were made, but they basically referred to the fact that one was not accustomed yet to using them.

Documents serve various goals, so different types exist. On the question whether civil servants always knew what type of document they had to create, respondents said that it was not an issue. And if there was some uncertainty, for instance with a young, starting civil servant, a colleague would help and guide him. Given the fact that a lot of documents are working documents, the document type had only a limited impact.

There was clear and universal agreement about who is responsible for the content of a document. All participants agreed that the author, individual or team, was the one who had the responsibility. Earlier in the interview, most participants were asked questions about trust, and one of the recurrent answers was that, if content seemed to be odd or incorrect, all civil servants would start to look for the source, institution and/or author. The value of content is thus closely linked to the authority of an institution and/or author, and thus this institution or author(s) are the first point of reference if questions about accuracy and reliability arise.

For generating ideas paper is still a preferred medium for 'creating'. Most respondents used paper for planning, to write some general words that are the basis for a more elaborate document, or to note down some ideas in general. The reason for this was not easy to uncover, but some of the respondents indicated that it was just the way they worked and what they were used to, that paper was always close to hand, and didn't involve a lengthy process of starting up, opening a document and saving it, etc.

One of the issues, implicitly raised in the interview was when and why civil servants create documents. We have already discussed it a bit in the paragraphs about communication, but it is important to stress in this context also, civil servants have a high degree of personal freedom. Rules apply, only to the so-called numbered or registered documents. All other documents are created on the initiative of the civil servant. It implies that, depending on the way of working of an individual, some will create more documents than others. Capturing the patterns of these various manners of working seems to be extremely difficult, and the question is whether it is worthwhile investing in it in the first place. Most respondents were satisfied with the way they are working in this respect. However, document creation impacts on the two following paragraphs, description and arrangement, and preservation, so there are indeed consequences that result from unlimited creation of documents.

4.2.2. Organising stuff: description and arrangement

Creating a document is one action, organising documents is another. Given that all participants were using paper and electronic documents –thus working in a hybrid environment– they were all organising information on two fronts. According to some, the words 'arrangement' (filing) or 'organised' did not accurately describe their unstructured way of working, although even these generally had some system, however minimal or chaotic it may be.

The previous observation implies that civil servants have some freedom in organising documents. Although there are wide variations on this theme, it is indeed true that civil servants are rather free in this. Unsurprisingly, the respondents who were working in a team felt a greater need to be organised than those who were working individually. It is even fair to say that persons, who changed from isolated (personal) work to team work, also changed their way of working. Such a change implied a need for more organisation and more agreement about how to organise documents.

It also resulted in a much lower degree of satisfaction with the arrangements as the naming, structure and hierarchy of documents were always a compromise that never perfectly corresponded to individual needs and wants.

In practice, it meant that civil servants who were personally responsible for some areas of policy, without interaction or collaboration with others, basically worked the way they wanted. Even if there were rules in their department or division about naming files or structuring and organising documents in a tree hierarchy, they mostly ignored them and created a system that was custom-made and facilitated easy working for them. This personally generated system included consistent naming and arrangement in a meaningful hierarchy with folders and subfolders. Civil servants working individually were also more prone to exclusively preserve their electronic documents on a personal drive. Since there was no immediate need to share documents, it was generally not done by these individuals.

A different pattern and perspectives emerged if persons changed to a team based way of working. Sharing information and documents become key for efficient collaboration and individual's preferences had to be replaced by practices that can be learnt and understood by all partners.

Three main issues, well known in archival science, arise: naming, version control and arrangement of documents in a folder based structure. Naming and version control may be the most trivial, but Dutch civil servants in particular (although some Flemish civil servants voiced problems too) seemed to have issues sticking to the agreed rules regarding naming electronic documents. Since nobody centrally was responsible for controlling individual practices, many participants indicated that the names of electronic documents caused problems with interpretation and thus resulted in wasted time. Naming conventions were also different from one division to another. The order in which various parts of the name were structured, date, short description of content, author, type of document, etc. all depended on the arrangements made in a division, but also on individual preferences. Where divisions collaborate, naming conventions could cause an issue, as naming could be implemented differently within them.

Asked whether participants adhered to the agreed conventions, most of the interviewees indicated that they did with some exceptions. The problem of not following the conventions was nearly always an issue to other colleagues. A couple of participants also observed that some agreements lost momentum, as problems had to be solved quickly or due to natural laziness of individuals.

An exception where naming issues were not experienced was official or numbered documents. The naming of these documents doesn't in itself cause problems, but the allocation of key words did in some ministries, where the secretaries or registry were doing the labelling rather than the creating officer (author). Since these civil servants do not necessarily know the most applicable key words, they sometimes attributed wrong labels.

Another issue, voiced by one respondent, referred to the increasing rate at which terms change. This is especially the case with areas of policy that are politically or socially sensitive, and, increasingly, a term may be changed after some time. This presents problems for retrieval and organisation, as it is imperative for the user to know the evolving meanings of words and terms.

In document management systems, documents must be named and labelled before they can be saved in the system. People working with such EDMS/ERMS were –in relation to naming– not more satisfied than others. One of the recurring criticisms about these systems was that they required too many actions, including too many fields to fill in. As a result, many of the users pointed out that they only added text in the required fields or the fields that they were using. Fields regarded as not having value were simply ignored, although they irritated some as these additional fields would fill the computer screen. A user of such EDMS/ERMS added that she had noticed that colleagues were only using a consistent terminology for the official documents. With other documents, naming and labelling remained as diverse as before the introduction of the EDMS/ERMS.

Although it was difficult to put the finger on, it seems that those divisions which discussed the arrangements for naming electronic documents were more successful in creating an atmosphere in which most employees applied the rules. However, two elements seem to be very important and influential:

- the character and personal opinion of civil servants, and
- the importance a manager of a division places on the issue.

Some civil servants are just not willing to make an effort to get in line with arrangements. One participant asserted:

> "... But I just think that it will be impossible to introduce it in this organisation [a more consistent way of naming and arrangement]; there are so many priggish persons …"

Since there is no follow-up, and since document management is not a priority in ministries, there is no incentive to change ways of working. The interviews also revealed that naming is more of a nuisance, than a real issue. No one mentioned it as interfering with the normal conduct of affairs; it is more of an irritant and it costs time.

The role of the manager of a division is likely to be key to improving naming and other conventions. Where naming is regularly discussed in meetings, employees have had a chance to voice their preferences, and the manager does regular follow-ups or designates someone to be responsible for helping and regulating others, there is more chance a more uniform method of naming will come about. Although there were only few participants from whom this could be deduced, it seems that some direction and compulsion by management is necessary to move to more organised names.

Lastly, it may be somewhat trivial to mention, but no one referred to naming of paper documents as an issue.

The approach to filing or organising information presents similar issues as naming. Again, the main problem is civil servants have been used to organising their documents as they please. Civil servants indicated that they didn't have problems finding their documents, whether in the paper or electronic environment, as long as they were using their 'own' system, a few and very rare exceptions notwithstanding. Asked how participants organised their documents, it became clear that a thematic arrangement is the most common. Themes include topics for which a person is responsible, or is involved in, and can be general or specific.

This thematic approach is the unifying element; how it was further developed and elaborated, varied widely, depending on the preferences of individuals. Some used a lot of folders and sub-folders to organise their documents, others hardly had any subdivisions. Some used the same system for filing Office documents (in Explorer) and for the organisation of e-mails (in their account); others had different structures for these two systems. Some were extremely pleased with their own arrangement; others indicated that they found their system still too chaotic. Moreover, arrangement of documents is not only a personal matter, it is also an evolving matter, as themes can change or grow in importance and thus result in a more elaborate system of folders and subfolders.

To discuss arrangement, four systems can be differentiated:

- the personal drive;
- the shared drive;
- the personal e-mail account;
- the ERMS/EDMS, if applicable.

In some instances, arrangement is more or less the same in every system; in others, they have their own logic and structure. Generally the systems in the personal sphere –local drive and e-mail account– have a similar hierarchy, whereas the hierarchy used on the shared drive and ERMS/EDMS can be totally different.

The basis for filing systems are the main activities of a person or the team. Although a thematic approach is mostly used, some documents are not placed in these themes. More general documents like minutes of various meetings are arranged separately and are not linked to specific themes. Themes can be divided in subthemes, thus creating a fully thematic arrangement, but can also be subdivided into phases or types of documents related to a specific theme. The decision to choose one system of subdividing is purely personal and depends on a person's way of working. In most cases, the choice of one of these subdivision systems is consistently applied to all themes.

As long as documents were placed in a hierarchy that was personally developed, most asserted that it was clear where to put a document. Some admitted they changed their structure as time sometimes showed that the primary folder structure was not the most efficient, and led to folders remaining empty and others being overly full. Nearly everyone had been confronted with documents that could be filed in more than one theme or folder. Some would put a copy in both relevant folders, others would put the document in the most relevant folder –relevant meaning the most relevant at the moment they had to assign it to a folder– and less than a handful would put it in one place and make a link to that place from anywhere else.

Additional questions related to the differences between organisation in the e-mail account and personal drive revealed that the folder structure is mostly similar, but some folders or subfolders do not exist in one of the two systems.

While the majority of respondents organise incoming mail into a folder structure, they do not organise outgoing e-mails and leave them in the folder 'Out'. A small minority of participants didn't arrange e-mails at all and left them unfiled in their Inbox. They all indicated that this way of working was just easier and less time consuming than constantly putting e-mails in appropriate folders. The search facilities and the possibilities to arrange e-mails by date, or sender, were sufficient for these persons to retrieve e-mails.

The responses to the question about the number of e-mails in the Inbox (as shown in figure 7) suggest organising e-mails is not a frequent activity for most civil servants. Most explained that arranging e-mails was not a priority, and was done in a quiet period. Some persons did their filing once a year, every three to six months, monthly, biweekly or weekly, or when they felt it was necessary to clean up a bit. In a few cases, such an effort to sort out their files was instigated after a problem retrieving an e-mail.

Opinions about the organisation of documents on the shared drive or the ERMS/EDMS were, however, varied. Experiences ranged from 'very bad', 'very time-consuming' and 'frustrating', to 'easy' and 'well-structured'. However, in many cases this system differed from the arrangement on the personal drive, and thus caused some dissatisfaction. In divisions in which employees had participated in the organisation of the folder structure, they showed more satisfaction and understanding of the hierarchy. If persons had not been involved, participants used words that clearly referred to a system that was not logical to them, showed another way of working, or was overly focused on functions that had to be done by a division, but didn't follow the actual way these functions were executed.

In ministries and divisions where employees were allowed to create new folders on shared drives, most persons were arranging documents in self-made or small team-based hierarchies, thus resulting in a shared drive for placing documents, but not a shared filing system.

In the few ministries where an EDMS/ERMS was used, respondents had similar issues as with shared drives: if the structure was not logical to them, it caused a feeling of dissatisfaction and also resulted in evasive behaviour, in the end saving documents on the personal drive too. All participants doing this explained their behaviour from a perspective of efficiency. As they couldn't retrieve documents easily on the shared drives or EDMS/ERMS, they simply kept relevant documents in a personal environment, in which all documents were organised in a way that was straightforward to them. They all realised that such behaviour definitely went against the idea of introducing shared infrastructure, but at least their own efficiency was not jeopardised by structures that were experienced as being illogical.

Persons having used shared infrastructure or EDMS/ERMS for a while told about their past experiences and pointed out that it took some time to get used to such new collaborative systems,

including application of a shared arrangement scheme. Nevertheless, these systems have various shortcomings: they are too slow, are not user-friendly and straightforward, icons are ambiguous. In short, they are not up to the standards civil servants are used to, either from other software tools at work, or from similar tools that they are using at home.

Interestingly, civil servants who had recently changed jobs from the private sector or another government administration often pointed out that the arrangement used by their previous employer was better. Asked why they thought this was different, one respondent boldly stated that a private company is organised efficiently to maximise profit. According to her, clear rules about filing and preservation of documents were part of this business culture. But she found the extremely structured way of handling documents to be too restrictive. The absence of structure in her present administration was not the ideal solution either though. Indeed, we heard frequently that there should be some, but not too much, structure.

One participant proposed a system in which general rules apply to the top layers of the classification scheme, and should be strictly adhered to by all colleagues. At the lower levels, every civil servant and/or team should have a rather substantive degree of self-regulation, in order not to impose too many rules that wouldn't be adhered to anyhow. Others went one step further, and were convinced that civil servants were smart enough to organise themselves. Not rules, but common sense should be leading and decisive in organising documents.

4.2.3. Preservation of documents

Preservation is a multi-faceted word. For some, preservation means long-term retention of documents, for others it may mean saving documents for as long as they are needed for a case. For civil servants, the latter is more important. They have an interest in saving the documents they use (regularly). Long-term preservation was not considered a responsibility of civil servants. However, some civil servants were actively preserving old (electronic) records, on a personal basis. They created back-ups on a personal drive, or would make copies of e-mails and documents on CD's or DVD's. They considered this as a personal archive, for reference in case anything they had done, had to be accounted for. Such collecting behaviour was also observed with some participants in academia.

Obviously, a civil servant taking these measures is of the 'preservation mindset', which is one of the several types that could be discerned during the interviews. Broadly, there are two extremes: civil servants who keep most of their documents, and those who dispose of most documents. The first group share a concern about accountability, on a personal and governmental level; the latter group takes a more selective approach to what should be retained. These people see appraising what should be preserved and what not as part of their job –although a marginal part– and something to be done infrequently or during quiet periods if no other urgent matters occur.

The reason cited most often for retaining documents was accountability: civil servants wanted to keep a trace of what had been decided so that decisions could be explained and reconstructed later. How long and how far accountability extended was a totally different matter, and divided civil servants in the two groups. For some, accountability, meaning the ability to show how a decision had been formed (through intermediate documents, like minutes of working group meetings, drafts, etc.) was of no use after the decision had been formalised by the Secretary-General or the Minister. These persons would regularly destroy documents and/or files. As long as the decision itself was preserved, there was no problem. Such behaviour implied that the meaning and utility of documents changes over time. One interviewee said she was interested in the path that had been taken to arrive at a decision, and understanding the opinion of others. Another civil servant pointed out:

> "... the document with the final decision is archived, and afterwards, we 'clean desk' as it is described here. I just delete those documents that are not relevant anymore. [...] It implies that a case file becomes thinner throughout the years, as it becomes less relevant to preserve [some] documents. In the end, only a small part [of the original file] is kept."

Many others voiced similar practices and described how intermediate documents would lose their value once a final decision was taken and signed off. However, this was not an ongoing activity, but an activity that took place when a file was closed and the decision taken whether to keep or delete it. The opposite *modus operandi* –employees saving all documents– also occurred. Some of the respondents were preserving all documents deliberately, pointing out that this way they would always be able to account for their contribution to a decision, without being dependent on their or others' memory. For one respondent, it was simple: he deliberately preserved all documents, as it was less time-consuming to keep everything than go through all documents and appraise them regularly. As search

technologies were so advanced, he couldn't imagine why he would spend time on appraising and deleting: the added value was simply too small.

In other cases, entire files that had not benefited from document management were handed over. In these cases, a lot of documents in these files were rather meaningless to the successor. The story one person told is rather indicative for this:

> "When I started working in this division, I became responsible for a regulation. I received a battery of files from my predecessor, totally unorganised. My predecessor had taken over the regulation of someone else, who hadn't been arranging, appraising or preserving in a consistent way. So neither of these two persons were organised. I even found napkins with handwritten notes in the file. In addition, there were official, original documents in the file. So, there are colleagues who are preserving all documents and are keeping them in their personal files."

Finally, there was one civil servant, going as far as to say that keeping documents was frowned on in his administration.

In general, a huge majority of the participants agreed that they themselves and their colleagues were saving too much information and documents, rather than too few.

Preservation in a hybrid environment is not only a question of what to keep, but also of how to preserve it. Most participants indicated that they prefer to keep documents in electronic form. There is the advantage of easy retrieval, reduced pressure on shelf space, which has been minimised in most administrations, and some respondents voiced a 'green' urge to avoid printing too many documents in the first place. Central documents, e.g. documents with crucial and personalised information (text with marginal notes), relevant legislation, manuals or other key documents, are often kept in paper form as these are consulted regularly and the preference is to read them on and leaf through paper. In some administrations, there were still opportunities to keep paper files. However, once the file was closed, most persons destroyed the paper documents. For most of this paper, electronic documents were available, and since they were easy to retrieve (as long as they were saved in a personal setting), paper documents were more often disposed of.

Whether long-term or short-term preservation, someone should be responsible for keeping documents. While civil servants consider themselves to be responsible for the preservation of the documents they have created, the degree of responsibility is a diminishing curve. Once a file is closed, or once a file is handed over, or a person is discharged, the responsibility for preserving it has changed. Transferring files to the archives department of the ministry –a practice that is hardly occurring if persons interviewed are typical of government administrations– is another point when responsibility for and care of the files is transferred. Such transfers to archival divisions of the ministry may be rare as some participants pointed out that once transferred and processed by this archival division, documents and files were difficult to retrieve, as they were reorganised, renamed and placed in a hierarchy that was not meaningful to those who had transferred them. These negative responses were sometimes hearsay and should not be taken as mainstream opinion. Others pointed out that their experiences with the archives department of their ministry were very satisfying, as these colleagues had helped them retrieve documents. Given that most civil servants only use recent documents, it should be stressed that the previous observations are based on not more than handful statements.

Asked about the retention period for documents, only a small portion indicated that they didn't know when they could dispose of documents. However, the majority of civil servants indicated (without batting an eyelid) their documents had a retention period of between on average 3 to 50 years and without differentiating between document types. Some were aware of archival legislation, but didn't know how it was applicable to their documents. An individual knew about the existence of retention schemes for her ministry, and indicated that she would consult it when an issue about retention and disposal cropped up. In any case, with the exception of the registered documents, all civil servants were personally deciding on disposal of their documents, and they all voiced the opinion that they recognised it to be good practice. Only a few indicated that they would appreciate help or guidance by professionals, advising them on disposal, and more widely about the organisation of documents.

Preservation of electronic documents and keeping them legible and usable was hardly experienced as an issue. One participant reported problems with opening a workbook that was created in an older file format. Others didn't remember having had problems with opening old electronic documents, although some added it could have happened, but definitely not recently.

Preservation issues as identified and studied in the Planets project are thus not recognised as an issue by civil servants in these administrations. It shouldn't come as a surprise if we add that:

- in most administrations surveyed, batch upgrades of documents were done when upgrading systems;

- most civil servants don't regularly use electronic documents that are older than five to seven years; most documents are even only one to three years old;
- most documents are created in one of the Microsoft Office file formats.

Issues relating to 'newer' versions of file formats were mentioned, and were caused by administrations not having (one of) the last version of software. Civil servants, regularly working at home or having contacts with third parties, using more recent versions of software or using other software, e.g. the OpenOffice package, were extremely critical about the infrastructure that was provided. From individual responses, there was a general sense of dissatisfaction. Other concerns included the time to start up computers, security measures, seriously affecting performance, lack of all functionalities when working home.

4.2.4. Retrieval in a hybrid world

Use and reuse of information and documents, is at the heart of what civil servants do on a daily basis. One of the participants confirmed this by stating:

"It is better to steal [ideas or solutions] in a smart way, rather than (re-)invent [them] in a bad way".

Searching and retrieval are thus an important part of the work in civil service. Literature on searching and retrieval is extremely large and has exhausted many themes related to the topic. Rather than repeating what is already known, we will focus on some issues that haven't always been analysed in detail.

One of these issues is whether civil servants prefer to search in a paper or an electronic working environment. Unsurprisingly, there is no one answer, as it depends on circumstances and personal preferences.

When searching in a large quantity of documents, all civil servants preferred to do this in an electronic environment, as search capacities are extremely powerful. Key word searching is generally the most common starting point. There are some exceptions. One of these is if the person knows their way around the folder structure. The advantage is that one doesn't need to wait for the search process to end, and it won't result in numerous irrelevant documents.

A secretary involved in a commission to do research about past activities of a ministry indicated she would search by key word in her current department, but would search in the folder structure for research in the past as this method of retrieval also reveals the logic of the documents (assuming there is logic and structure in the hierarchy).

A comment coming from persons working with an EDMS/ERMS was that, since all documents were saved in the system, a key word search would list so many documents that this strategy was not a viable and time-efficient method of retrieval. Responses were similar for civil servants working with a heavily-used shared drive. However, other search strategies were not better, as users always had to fight their way through numerous irrelevant documents. Inconsistent and improper naming added to the difficulty of retrieving documents quickly. If not found within an acceptable period of time, many participants said that they would turn to a colleague who they thought would know where to find the relevant document.

One of the participants said he was aware of the value of an EDMS/ERMS, but the actual way it was used in his ministry made him feel that it couldn't decide on whether to adopt the *archival* function (resulting in preserving many documents) or the *use and activity-facilitating* function (not capturing all documents in the EDMS/ERMS, but only a limited amount of 'final' documents).

Not immediately related to searching, but relevant nevertheless, were comments about links to documents, that were sometimes not working as the documents were located on drives to which the recipients didn't have access. With the exception of personnel-related or confidential documents, access rights were often interpreted as being too strict and not allowing easy consultation and collaboration. These comments did not refer to situations in which members of the same ministry were collaborating –in these instances access was mostly not an issue– but to the increasing number of collaborative efforts between various departments.

More elaborate systems, where all civil servants could log in and had access to a shared workspace for all ministries were favoured by everyone.

A more fundamental issue is how to process all the available information. This issue was apparent when civil servants were browsing the internet for additional information. Clearly, reliable sources with a certain level of authority were to be preferred, although sources like Wikipedia and hits by Google were sufficient to get an initial idea of an issue. When working on a theme or file, such Internet

searches were however rather unusual as most work was not so much about the content of issues, but about how to translate these issues into solutions as exemplified in policies or laws.

One source of information that frustrated many participants was the Intranet of their ministry. Searching in this resource was nothing less than a complete disaster, according to many. When looking for a document that should be on the Intranet, but could possibly also be available on the public website of the ministry, everyone invariably preferred to use a Google search approach on the public site, as the Intranet search engine was of inferior quality and the arrangement of information and documents on the Intranet was for many more of a mystery than an easy to browse refuge for employees.

5. Conclusions

5.1. Main observations

One overall main observation is that civil servants' focus is more on communication and immediate retrieval than on preservation issues. Asked at the end of the interview what they wanted to be improved, most participants came up with examples and issues relating to communication (and retrieval on websites). During the interviews, there was an implicit understanding that civil servants are primarily working to finish a case in a timely manner. Preservation as one small part in this effort is simply marginal as it doesn't add too much to the end result; especially if we bear in mind there is increasingly less time to check previous or similar cases. The need to preserve from a user's point of view, whether long-term or short-term, is mainly based on utility in proving what has been done, or not. Moreover, preservation issues that are the heart of the Planets research –how to keep 'old' electronic documents readable and usable– are of no significance to civil servants.

Other traditional archival issues like naming and arrangement of documents are more relevant to civil servants as they affect their daily work and efficiency more deeply. However, practices are so different that it is extremely difficult to satisfy all wants and needs. One solution could be to introduce stricter rules, were it not for the fact that many civil servants hardly comply with rules relating to document management and such a measure will more likely result in new evasive behaviour, and possibly also a more negative attitude towards document management.

Hoping that technology will come up with an overarching solution is not realistic currently. Some participants boldly stated that technology will not solve naming and document management issues, but that employees should change their behaviour. As mentioned before, how far such behavioural measures may penetrate is not easy to determine. What is an initial step for one is already too much interference for someone else...

One thing is for sure at this moment: current practices are so widely different and very personal that it may be expected that documents, not earmarked as official, numbered and registered documents, will come –if they ever make it– to archival institutions in a rather unorganised way.

In general terms, civil servants are satisfied with what they are able to do, although many voiced interest in more advanced tools that would allow them to work more efficiently. As may be expected of civil servants, they are critical about new developments and technologies and only embrace them if there is added value. Social media are only marginally adding to civil servants' efficiency, and are thus not used by many. Tools that would enhance collaboration in various stages are the most wanted.

New technologies preferably enhance what civil servants can already do: more channels of communication, sources of information, or tools to create or manage documents bring the risk that civil servants, already using many tools and sources, will become overwhelmed by the multitude and variety. During the interviews, civil servants indicated that the amount of information that is waiting for 'processing' can be somewhat daunting when returning from holiday. It is the result of what one participant described as a general feeling that most people want to be involved in everything. The difference between 'need to know and nice to know' as coined by a civil servant, is very small, and makes constant evaluation of information a complex activity. It seems that such integration of various services is not only being encouraged by commercial players in electronic services and platforms, but is also what civil servants want.

Integration frequently also means standardisation. For document management, it implies that the so-called "local folklore" on personal drives or custom-made classification schemes need to be addressed so that the "document hygiene" –as one participant clinically described how people should work with documents– would improve. Before addressing this issue, management should decide whether more orchestrated efforts are wanted and necessary. In the end, one could simply wonder whether the current situation, in which there are only clear-cut rules for a limited number of documents, is acceptable, but maybe not ideal. Maybe, these registered and numbered documents are sufficient trace of decision and policy making in ministries.

Communication in ministries has become a labyrinth of various channels. Paper is still playing a significant role, as a carrier of official documents, but also as a medium that is easily transported, easy to read and leaf through, and allows easy note taking. Of course, using all available channels of communication depends partly on people's personality. There were for instance some persons who hardly ever used a telephone, simply because they didn't like it. However, patterns in use exist. The rationale behind the choices are less straightforward, but when confronted with the question 'why' do

you use device X, answers were surprisingly consistent, although many pointed out that such choice was more instinctive than well-thought through.

E-mail had perceived advantages as auditable channel, with the opportunity to address a very large number of people at once, giving addressees the freedom to respond at their moment of choice; telephone and face-to-face contact to formulate quick questions or to make appointments for further personal or group contact; and group meetings as a way to address rather complex issues that need input or approval, all channels of communication were given one or more strengths. These needed to be weighed up against disadvantages, including an assessment of the time involved in communicating and the particular culture in an administration, before deciding to use a particular channel.

Although not touched upon in the findings, it seems that, with the exception of e-mail, the changing use of communication channels doesn't affect the creation of different types of documents. E-mail is the only new means of communication reported to have resulted in creation of new document types that are worth preserving. Records universally believed to be worth preserving are still paper based, as signatures are invariably set in an analogue manner. Most new means of communication are interpreted as channels to support existing means of communicating by facilitating quick exchange. Information from social media sources is 'nice to have' and can give additional background information in decision processes.

5.2. Recommendations

Based on the outcomes and observations that were reported in the previous paragraphs, some recommendations and issues, as identified in information and archival science, can be enumerated. However, recommendations are not based on individual's responses, but are an interpretation from an archival perspective, on how to proceed and address some of the issues.

1. Given the high level of freedom and self-regulation that is given to civil servants to organise their documents, it is to be expected that documents, with the exception of registered, official records, will be organised in highly different and sometimes even personal manners. Further analysis should show whether this is a desirable situation, or not.

2. Disposal schemes and retention periods are not known; it is not clear whether files should be transferred to the archival service of the ministry, thus making it dependent on individual's assessment of the importance of documents and files. This situation holds the risk that documents that should be preserved are disposed of too early or are lost. An analysis and identification of all documents to be preserved could overcome this situation.

3. Observing that retrieval in other person's documents is initiated by a search into the logic of the classification structure, one implication in the long run is that access and use of these documents may prove to be problematic, if not impossible as a result of personalised classification schemes.

4. The undeniable tendency to allow civil servants freedom in their way of arranging, naming and appraising most documents, and high turnover of civil servants hold the risk that not all necessary documents are preserved by the administration. Either a stricter regime should be re-introduced or a closer follow-up and audit system with civil servants could be considered. Both will not be favoured by a majority of civil servants as they value their freedom and independence. A soft policy of striving to change attitudes could be introduced, but heavily relies on constant follow-up.

5. Given the fact that civil servants in ministries hardly ever use records that are on average older than 5 to 7 years, it could be considered to facilitate a quicker transfer to an archival institution, in order to ensure appropriate and systematic proactive preservation.

6. Administrations using or introducing a new records management system should pay special attention to integration of tools that facilitate quick search. More recognisable icons and a more user-friendly interface are important for easy and smooth adoption and internalisation of the system.

7. In administrations using or introducing a (new) records management system, training should be more closely linked to the date of introduction and the threshold for support should be lowered. Such effort should be available for a considerable time, as introducing and using new facilitating systems are demanding for civil servants who are not primarily concerned with this. A period of at least one year, possibly stretching to two years, is a minimum.

8. Although civil servants voiced a general feeling of satisfaction about the availability of communication channels, the availability of some more modern tools and a higher rate of responsiveness of systems would help to increase efficiency and general satisfaction.

9. Archivists, records managers and information managers should consider and include users' perspectives more in system design and in defining of requirements of archival and records management systems. If not, attitudes and practices of civil servants will inhibit a successful information and document management programme.

Appendix A: Interview protocol (translation from Dutch original)

[Translation from original in Dutch]

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http://www.planets-project.eu/

Interview protocol

Introduction: explanation about the Planets project and the purpose of the research
Approximately 5 to 10 minutes (dependent on answers and questions of interviewee)

Demographic questions
Approximately 5 to 10 minutes (dependent on answers and questions of interviewee)

- Sex [is not asked]
- Year of birth
- Highest educational degree
- Field of study
- Number of years working in this administration (or a predecessor)?
- Number of years working experience in general?
- Number of years working experience as a civil servant?
  If applicable questions about previous employer (only if not too long ago [possible follow-up questions for comparison government-private sector]

- In which salary range (Dutch)/in which level (Flemish) do you work? -> sheet with salary ranges (Dutch) and levels (Flemish)
- Official title of function
- Direction/department
- How many hours/week do you work (full-time/part-time) officially/in reality?
- How many e-mails do you have unorganised in your Inbox at this moment?

- Can you tell me how an average working day looks like?
- Can you tell me what types of activities you do during an average week? [open question]
  - meetings
  - creating and managing (case) files
  - research as preparation of files
  - ...

Question related to communication
Approximately 10 to 20 minutes (dependent on questions and answers interviewee)

- What is –in your opinion– the most important manner of communication that you use in relation to your colleagues? [open question]
    - Which other ways/tools/means of communication do you use?
    - When do you use them?
    - In which circumstances do you use them?
    - Do you use these ways/tools/means of communication consciously?
- Have you ever been confronted with disadvantages of certain means of communication?
- Why do you prefer in situation [X] means of communication [A], rather than for example means of communication [B]?
    - E-mail: if not explicitly mentioned by the interviewee: how important is e-mail?
    - When is use of e-mail important to you?
- Do you regularly use telephone or a form of electronic conversation, like Skype, MSN Messenger, etc.?
    - Is the use of such electronic tools allowed in your institution?
- Do you keep/preserve information/notes of the conversations/meetings?
    - If yes, how?
    - Why do you prefer this type of communication? [possibly overlap with previous questions]
- Does your institution/department have any rules that apply to the use of certain means of communication?
    - If yes, what are they about?
    - If no, do you think it would be good to have such rules?

- How do you prefer to read information? On paper, on a screen (electronically), or do you have no preference?
    - Why? [No suggestions by interviewer]
- Do you find digital information easier to consult than printed information? [Question is deliberately a bit vague and ambiguous. Let interviewee explain all possible interpretations]

- Do you trust printed information more than digital information? Why?

- Do you know web 2.0 applications [explain if necessary]?
    - Do you use them?
    - Do you think that social software [explain if necessary] would have/has added value for your work?

Transition to preservation

- Which software programs and applications [explain if necessary] do you use to create documents?
- Do you (still) write documents with pen/pencil?
    - If yes, when and why?
    - Are these paper documents digitised later or are they used in digital documents?

- Does your institution/department have any rules or procedures that apply to the creation of documents?
    - If yes, what is prescribed? Do these rules or procedures exist both for paper and electronic documents?

Questions related to preservation
  Approximately 30 to 45 minutes (dependent on answers and questions interviewee)

- How do you organise your documents (both electronically and on paper)?
  [general question; let the interviewee explain all issues, and wait and see if
  interviewee comes up with all types of documents]
    - Do you keep/preserve these documents yourself?
    - Where do you keep/preserve these documents? On a local drive, on shelves, in
      drawers, on a public, shared drive, …
    - Why do you keep/preserve these documents there?
    - (Does your way of working violate any rules and/or procedures of your institution?)
    - Do you feel personal responsibility for the documents and/or information that you
      create? Do you feel personally responsible for the preservation of these documents
      and/or information?
    - Do you know how your colleagues do this?

- Do you use your own methods of preservation for some or all (your)
  information/documents? (for example self created folder structure, own system of
  duplicate files for easy retrieval) [possibly some overlap with previous questions]

- Are you aware of any procedures or rules about document and records management in
  your institution?

- Do you destroy/delete documents on your own initiative, without any intervention or
  approval of others (specialists)? If applicable, which types of documents do you
  destroy/delete?

- Do you have the feeling that document and records management is an important issue
  for the executive management of your institution?
    - Are there any rules coming from the executive management?
    - Is there a way of auditing or control in this matter?

- Do you know how long documents have to be preserved?
    - Do you find that you should know retention periods?
    - Whose responsibility is it to know retention periods?

- Do you find that your administration should keep/preserve more information?
    - Why (not)?
    - If applicable, which types of information?

- Do you find that interim information/documents, such as drafts, should be preserved?
    - Do you keep/preserve these documents?
    - How long do you keep/preserve them?
    - Whose responsibility is it to keep/preserve these documents?

- Do you find that all documents and information that you are working with or have
  worked with, should be accessible for your colleagues?

- Have you ever been unable to retrieve information and/or documents that you needed?
    - If yes, what was the reason?

- Have you ever experienced problems opening or using old, electronic
  information/documents because it was old, and not accessible?

- If you work in an electronic work environment, do you have the feeling that this has an influence on (an increase in) stress or work pressure?
    [question suggests a specific answer; wait to see how interviewee responds]

- Imagine that someone would ask you what you want to see changed so that you could work more easily, related to communication or information and document management, which changes would you suggest?

- Are you satisfied with the possibilities and means that are offered by your institution to communicate?

- Are you satisfied with the possibilities and means that are offered by your institution to search information?

- Are you satisfied with the possibilities and means that are offered by your institution to create documents/information?

- Are you satisfied with the possibilities and means that are offered by your institution to preserve documents/information?

    To end, do you have any questions or suggestions or do you want to raise an issue that was not covered during the interview?

Appendix B: Consent procedure and consent form

Consent procedure

At the start of the interview, the researcher went over a couple of administrative issues. These included:

- Goals of the research project;
- Average duration of interview;
- Divisions of the interview;
- Rights of the participant;
- Statement on privacy and anonymity;
- Use of individual responses;
- Use of aggregated and anonymised results in Planets report or other forms of publications;
- Mention of risks (none) and reward (none);
- Question about permission to record the interview;
- Presentation of a consent form (translation in annexe B) that participants could sign, ignore or accept as an overview statement of the commitment of the Planets project.

Consent form

[Translation from original in Dutch]

http://www.planets-project.eu/

Consent form for interview as part of Planets research

Purpose
Through interviews with employees of ministries, the research team of the Planets project wants to get a better insight in how civil servants communicate and manage information in their (electronic) work environment.

Procedure
Participation consists of an interview (expected duration: 1 to 1,5 hour).
At the beginning of the interview, the researcher will explain the procedure. After approval and consent, the interview will start.
The interview is recorded, if consent is given by the participant.

Confidentiality
The identity of each participant is treated as confidential. With the exception of your name and some demographical data, no personal information will be asked for during the interview. However, some questions relate to your background (level of education, expertise, etc.). These questions are included to get a better understanding of you as an employee.
If you would like that information given during the interview, is deleted or secured in an additional way, then we will take necessary steps to ensure this.
Results of this and other interviews will be used in aggregated and anonymous form in reports of the Planets project and other publication forms.

Remuneration/compensation
There is no remuneration for participants.

Risks
There are no risks involved as a result of participation.

Contact
If you have questions, or if you would like to receive additional information about the Planets project, then you can consult the Planets website on:
http://www.planets-project.eu/
or you can contact the following person:
bart.ballaux@nationaalarchief.nl

Consent

By signing this form, the participant acknowledges that he/she was informed about the following issues.

- Interviews are recorded and are temporarily preserved in an anonymous manner. After transcription and coding, recordings are permanently deleted. Forms are deleted after being linked in an anonymous manner to transcriptions and recordings.

- Only the researcher of the National Archives of the Netherlands and a very limited number of Planets researchers have access to the information coming from the interviews.

- All information provided during the interview is treated as strictly confidential. Names of persons or institutions are not mentioned in reports or any other publication form.

- The participant has been informed that he/she can ask –at any time– any type of question related to the content or the procedure of the research.

- The participant has been informed that he/she can end or refuse further participation at any time.

- The participant acknowledges that he/she has been informed about the fact that results of the interviews will be used in an aggregated and anonymous form in reports of the Planets project or other publication forms, and he/she gives permission for this.

....
Signature of participant   Date

....
Name of participant

....
Signature of researcher   Date

....
Name of researcher

This document was made in two copies, one for the
participant and one for the Planets project.

Appendix C: Interview data in aggregated, tabular form

Table 1: Distribution men-women

	percentage	absolute numbers
Dutch women	43,4%	33
Dutch men	35,5%	27
Flemish men	5,3%	4
Flemish women	15,8%	12
	n=100%	n=76

Table 2: Age categories

	percentage	absolute numbers
51-65	26,3%	20
41-50	25%	19
31-40	29%	22
30-	19,7%	15
	n=100%	n=76

Table 3: Educational level

	percentage	absolute numbers
Secondary school	11,8%	9
Bachelor degree	21,1%	16
Master degree	64,5%	49
Doctoral degree	2,6%	2
	n=100%	n=76

Table 4: Salary range

	percentage	absolute numbers
basic level	10,5%	8
mid-basic level	13,2%	10
mid-top level	63,1%	48
top level	13,2%	10
	n=100%	n=76

Table 5: Working time schedule

	percentage	absolute numbers
Full-time	77,6%	59
Part-time	22,4%	17
	n=100%	n=76

Table 6: Number of unorganised e-mails in Inbox

	percentage	absolute numbers
<10	5,3%	4
10<x<50	23,7%	18
50<x<100	6,6%	5
100<x<500	38,1%	29
500<x<1000	2,6%	2
>1000	23,7%	18
	n=100%	n=76

Table 7: Educational background

	percentage	absolute numbers
Arts & Humanities	7,9%	6
Exact & Applied Sciences	6,6%	5
Facility Management	18,4%	14
General education	7,9%	6
Health Science	1,3%	1
Information Sciences	4%	3
Social Sciences	53,9%	41
	n=100%	n=76

Table 8: Years of experience and age

years of experience →	5-	6<x<10	11<x<20	21<x<30	30+	TOTAL
↓ age category ↓						
51-65		3	6	9	2	20
41-50	1	4	7	6	1	19
31-40	7	10	5			22
30-	13	1	1			15
TOTAL	21	18	19	15	3	