An Evaluation of an Implementation of Electronic Document Management in the Ostalb-County of Baden-Württemberg

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Abstract

Whilst most of the literature on electronic document management in public administration focusses on the implementation, papers on evaluations after the implementation are quite rare. Some years ago, this electronic way of administration has been implemented at job centers run by the Ostalb-County (Federal State of Baden-Württemberg, Federal Republic of Germany); so an impartial evaluation was on the agenda. That particular Electronic Document Management, which by 2020 will become mandatory within the public administration of Baden-Württemberg, is a huge step towards a transparent, effective and customer-oriented public administration in the 21st century. Although, it is also obvious, that it is not a "sole remedy", and it is not good for anything on its own, without other aspects, like user awareness and user readiness, it is still a great technical asset. The current paper is mostly based on empirical analysis - except for the introduction of the technological, management and legal background, and connecting fields, like the relevant pieces of EU-regulation, and issues of data security. The assessment was done by staff of the Job Centers of Ostalbkreis, who were interviewed in extensio, so the article is in an overwhelming part based on primary data. This is why the reader will encounter only a few references to the otherwise vast professional literature of the topics involved. The interviews and the assessment carried out by the staff, have been digested in the bachelor thesis of the lead author, Ms. Pahnke. Hence valuable lessons learnt can hopefully be derived from this contribution.

1. Introduction

Electronic Document Management (EDM) is a well known E-Government Application and common in most public administrations in Europe (for an introduction see [1] and [2]). Unfortunately, in Germany, probably due to the highly federative design of the administration, it is not so common. The electronic filing of court documents at local courts in Stuttgart became possible in January 2016 – Decades after e.g. the Austrian Courts introduced such services in 1990[4], or years after the Hungarian court system introduced similar solutions in the mid-2000's.

In German administrative tradition the file and hence the electronic file too, are heavily regulated. Therefore, an implementation of EDM must fully comply with these regulations. According to these laws, especially the VwVfG[5], the written form is mandatory, which means either:

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[4] See https://www.justiz.gv.at/web2013/home/e-government/elektronischer_rechtsverkehr_erv~2c9484852308c2a6012 3708554d203e7.de.html (as per February 15th, 2017)
[5] Law regulating administrative procedures; it exists both on the level of the Federal Republic of Germany and also in each of the 16 Federal States, so 17 highly identical laws in total.

- Qualified Electronic Signature (QES) according to the eIDAS-Regulation (which replaced the Directive 1999/93/EC)[6];

- De-Mail, a German national solution for secure E-Mail which has been made equivalent to the QES by German law;

- Entering data into electronic forms, which are provided by authorities (e.g. some government portal with user-ID and password);

- Other secure means, which have been declared secure by authorities[7].

The most important step towards E-Government in Baden-Württemberg was the E-Government Law, which entered into force on January 1st, 2016[8]. § 6 leg. cit. requires administrations of the Federal State of Baden-Württemberg to introduce EDM by January 1st, 2022 (sic!)[9]. The law also lists some conditions an EDM solution must meet, which are mostly obvious, like ensuring readability over time (i.e. archiving service; which is btw. also required by eIDAS), ensuring authenticity, etc.

2. The introduction of EDM in the Ostalb-County in 2013

In 2013, EDM has been introduced in all of the four job center locations in the county. Job centers have the function to look after people who receive unemployment benefits and to help them into a new employment relationship. According to German law, such job centers can be managed either by the Federal Employment Agency or by the respective county on its own. Ostalb-County decided to run the centers on its own, employing 174 staff in four locations (see [3], p. 21). The project was planned in 2012 and went live on October 21st, 2013. The people are dependent on the services of the job centers. That is the reason why all processes have to be handled as quickly as possible. The introduction of EDM aimed amongst other things a higher customer satisfaction and more transparency by a uniform management of files - summarized a process optimization.

But in the Ostalb-County the first incentive for inventing EDM was, strange enough, a move to new premises, which did not provide the necessary storage resources, so that there was a strong need for a way of working which demanded less storage resources for paper files. A fully electronic workflow was established, despite the necessity to keep historical (paper) files in a physical archive due to a lack of legal regulations regarding a legally substituting scanning. Some 39,880 file volumes had to be put into external storage, because the new premises did not provide sufficient storage locations (cf. [3], pp. 21).

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[6] Note that the § 3a VwVfG still refers to the SigG which was the implementation of the Directive 1999/93/EC; the law(s) have not been adapted as per today.

[7] See http://www.lexsoft.de/cgi-bin/lexsoft/justizportal_nrw.cgi?xid=146963,5 (per February 15th, 2017); the Online Portal of the Ministries of Justice of Germany.

[8] Note that most other European Union Member States introduced E-Government legislation long before 2016. For the status of E-Government in Germany, which can be considered as quite improvable, see [4], pp. 80.

[9] Note that this is some 20 years after EDM became mandatory in Austrian Government, and also falls about 10-20 years behind Hungary (in case of courts: 20, in case of public administration: 10), and that this legal provision is not applicable for municipal administrations, i.e. town halls and local authorities may still work paper-based.

2.1 Empirical analysis in 2016 (post-introduction of the EDM)

Some time after the introduction Management wanted to evaluate the project, finding out lessons learnt. Hence a Bachelor Thesis was developed, with the goal of an empirical analysis based on interviews with the staff involved or affected by the introduction of EDM in 2013.

For the empirical analysis at one of the four job center locations interviews were conducted. This location in the city of Schwäbisch Gmünd includes 77 employees of the Ostalb-County. The interview partners again were all part of the unit for granting of benefits. Basically everyone of the job centers uses the new EDM but the unit for granting of benefits works with it the most part.

The management decided the selection of interview partners. They tried to select both critical and non-critical employees for the interviews. Therefor the emotions at the beginning of the project were considered. In the end, nine employees and an executive at the age of 25 to 65 were selected.

To check the satisfaction of the users relating to the EDM a standardized guide with open questions was used for the interviews. So all respondents were asked the same following questions (cf. [3], p. 55):

-      How the electronic file system has changed your working day? (Advantages/ Disadvantages)

-      How do you feel about EDM from today's point of view? (Change Management/ Acceptance)

-      Where there any topics in the course of the project in which you would have preferred to be better involved / informed about? (Project Management Issues)

-      Which advices would you give other employees who are still introducing EDM ?(recommendation)

-      What should be the functions of the future EDM? (Lessons learnt)

Managers have a special responsibility and role in the implementing process. They assume a role model and can promote the acceptance of the project by their behavior.[10] So another interview was conducted with an senior executive. In addition to the questions already listed above the following questions were asked:

-      What were the biggest difficulties introducing EDM?

-      Which factors do you think are decisive for the successful implementation of a organization project?

-      In which parts is still work to do?

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[10] Bundesministerium des Innern: Organisationskonzept elektronische Verwaltungsarbeit - Leitfaden für verantwortliche Führungskräfte, 2012, downloadable at http://www.verwaltung-innovativ.de/SharedDocs /Publikationen/Organisation/leitfaden_fuer_verantwortliche_fuehrungskraefte.pdf?__blob=publicationFile&v=1 (as per March 31st, 2017)

When questions are closed, the interviewee has a choice of answers only from a defined grid. In the case of open questions, the interviewee can freely formulate his response, attitude or conviction and is not restricted by a grid of predetermined answers.[11] Since you get very different answers, it is natural that these kind of interviews are harder to evaluate.

These three findings could be derived from the interviews:

- There were no indications that adaption to change is dependent on the age of the employee. Among the younger and among the older participants critical settings were available;

- For nearly all interview partners the advantages of EDM are outstanding now (2016). Only one person stated that there's a draw between the advantages and disadvantages. But a return to paper based work also this person couldn't imagine;

- Opinions may change. Several times rejection against EDM was mentioned. But these rejections existed at the beginning of the project (compared to basic Statement two the difference becomes visible).

- The ex-post review in 2016 unveiled the following notable findings:

  o Neither the organizational chart nor the processes have been altered significantly, the whole introduction of EDM was a "minimal-invasive" operation;

  o Indexing is a critical success factor. Only good keywords enable a fluent workflow;

  o A concept of key-users enabling and motivating their peers is also important for a successful transition;

  o Training is a crucial success factor.

3. Was it a success or failure?

The interviews conducted in 2016 lead to an evaluation by the employees affected. Notable findings were (cf. [3], pp. 33 and the interviews quoted in the appendix of [3])

- Perceived advantages of EDM

  o Increased availability, both in time and ubiquity of the data;

  o Shared access between different hierarchic levels;

  o Gained flexibility when reallocating human resources due to ubiquity of the data, also the possibility of introducing home office work;

  o Environmental-friendliness and no big file lockers in the offices;

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[11] See https://www.fragebogen.de/aufbau-der-fragen-bei-umfragen.htm (as per March 31st, 2017)

- Perceived disadvantages of EDM

  o Hardware issues and system failures lead to inability to work;

  o Special requirements of working at computer workplaces call for management attention and specific measures like medicine or tools prescribed for the employees (like special glasses for those in need of such because of working in a largely computerized working environment);

  o Reduction of face-to-face communication with workmates;

  o When dealing with administrative courts, the electronic workflow breaks and paper must be produced[12];

  o The historical files mentioned above were not scanned, hence inconvenience was perceived when dealing with historic cases.

As already mentioned, another important aspect of implementing EDM is the user readiness. This element should not be underestimated because in fact in the end the users decide whether EDM is working successfully or not. This was also the biggest challenge in the Ostalb-County. At the beginning, the project encountered rejection by many employees because they were afraid of the new system or did not see any advantages in EDM compared with their previous paper-based work. Now, three years after implementation, none of the respondents wanted to go back to the paper files. In order to achieve acceptance one should consider e.g. (cf. [3], pp. 36):

- Taking worries seriously and taking them into consideration when proceeding further;

- Communication - so that processes and decisions are transparent for everyone;

- Creating the possibility of participation. By forming employee working groups, ideas and concerns can be introduced in the implementing process. The employee will feel more connected to the project because they can affect it;

- Making the benefits tangible for the users in their daily work. Some benefits of EDM the user will not notice until the system is live or there is the possibility to work with a test version of the EDM (e.g. the benefit that the storage of documents works faster with EDM than in the paper-based system);

- Assisting the employees in the initial phase. Here it can be an advantage to realize assistance on an employee level.

There were many targets before implementing a project like EDM. In the end, the question arises whether they have been achieved and EDM is a success, or not. German public administration has still a lot of work to do and possibilities for improvement. It will be furthermore a learning process. However, the project of the Ostalb-County and especially the feedback of the affected employees

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[12] Note that administrative court procedures are common in German Social Laws and hence daily business for job centers.

show that many initial visions could be achieved. The whole staff now perceives the advantages. Nevertheless, they also see areas that can be made even better in the coming period.

4. Practical Recommendations

The following recommendations can be derived from both the analysis and the interviews:

Top Management Commitment

Support of the transition by the top administration officials is as crucial. Only a fully committed authority leadership team can achieve high acceptance.13

Staff involvement and training

Taking time for individual discussions with staff is also crucial for the success. Just the usual mandatory trainings is not sufficient, the project team must take its time to convince the staff members in face-to-face communication. In addition, individual training and coaching must be made available next to the mandatory training, especially in the first weeks after going-live and qualified trainers must be available at very short notice to support those staff members, who are facing issues.

Involve staff

A concept of key-users enables management to get staff really involved. Convince staff and make the project team members is more promising than just to let them be „treated" by the project team.

Do not try to save hardware costs

Cost savings regarding hardware like workplace screens does heavily effect acceptance. Especially at the first introduction of EDM it is better not trying to save costs.

5. Additional Conclusions

One of the major findings of the interviews was that a transition to EDM makes much more sense if it is total, i.e. covers the whole administration. Partial transitions, like only the job center and not the other administrative and juridical authorities / bodies involved in workflows, make less sense. This rather theoretically sounding conclusion could be found in many interviews. Mentioned disadvantages were e.g. the coordination between different departments requires a lot of time because it's furthermore paper based or the fact that they print the whole files when it's necessary to send them to lawyers or other external partners. A gradually implementation includes the risk that in the end the individual solutions are not compatible with each other.

From an overall perspective, the highly federative character of the German Administration, where one Federal Republic interacts with 16 highly independent Federal States and also highly independent municipalities, a common approach must be found. It makes less sense if one level

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13 Federal Government Germany, 2009, http://www.verwaltung-innovativ.de/SharedDocs/Publikationen/Presse __Archiv/20100224_anwendungshilfe_change_management.pdf?__blob=publicationFile&v=2, (as per March 31st, 2017)

introduces EDM whilst the others stuck paper-based. So a kind of „big bang approach" seems more recommendable than a one-after-the-other policy of introducing EDM, otherwise the transition may spread through an enormous timeframe, decades even.

6. References

[1]   National Archives of Australia, downloadable at http://www.naa.gov.au/information-management/managing-information-and-records/systems/EDRMS/index.aspx (as per March 3rd, 2017)

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[3]   PAHNKE, D.-M.: Einführung der E-Akte - der Tag danach. Auswirkungen elektronischer Aktenführung auf die Verwaltungsarbeit; Bachelorthesis at the University of Public Administration and Finance Ludwigsburg, Ludwigsburg 2016.

[4]   Expertenkommission Forschung und Innovation (EFI): Jahresgutachten zu Forschung, Innovation und technologischer Leistungsfähigkeit Deutschlands 2016; downloadable at http://www.e-fi.de/fileadmin/Gutachten_2016/EFI_Gutachten_2016.pdf (as per April 10th, 2017).