



Danmarks
Hukommelse

Implementing DBPTK as the Access Tool for Born Digital Records at the DNA

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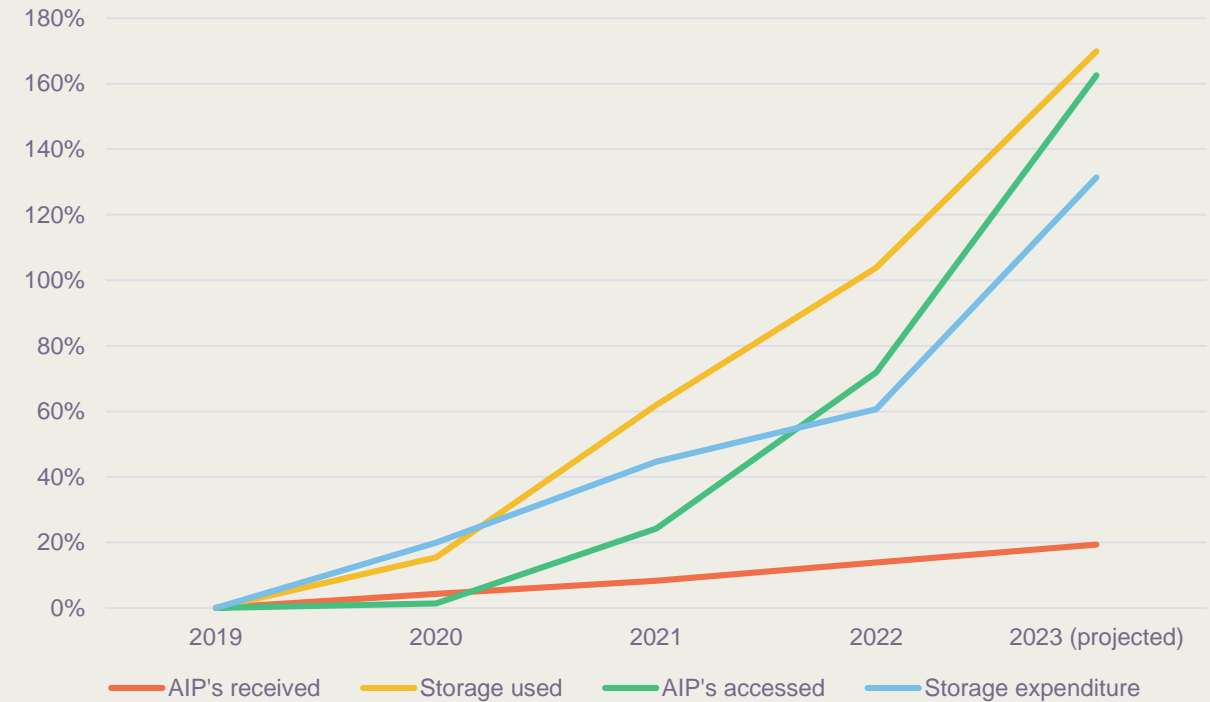
Brief overview of our collection of born-digital data

- The Danish National Archives have collected digital records from Danish public administration since 1975
 - Over 9.000 AIP's in our collection today:
 - 6.000 from (primarily) government agencies and private organizations
 - 3.000 research data sets
 - 500 AIP's from government agencies and 2.200 research data sets are now publically available
 - Of those approx. 750 are freely available as downloads
- Examples of born-digital data in our collection:
 - Records management systems from all over the public sector
 - Registries from public and private research centres
 - Election surveys from the 1970's and up
 - Gallup/Omnibus surveys from the 1960's and up



Development in the use of born-digital data

- The demand for access to our collection of born-digital data has historically not been very high
- Three recent developments have changed that:
 - The law of "Egenacces" (own access)
 - The pension scheme "Tidlig pension" (early retirement)
 - The agencies' need for data they no longer access to in their own systems
- General developments:
 - Most of the archival material that we receive today is born digital
 - As our collection gets older, more data will become available to the general public





Dissemination of born-digital data at the DNA

- Dissemination is a broad term used for all the ways in which we make our data available to our users
- Two main ways:
 - Publication of metadata and freely available data (as download packages) on digidata.rigsarkivet.dk
 - Conversion from AIP's to DIP's (relational databases) for use in our search and access system Sofia

The screenshot shows the Rigsarkivet search interface. At the top, there is a search bar with the text "Hvad leder du efter?" and a "Søg" button. Below the search bar, there are filters for "Datatyper" (Administrative data: 6097, Forskningsdata: 3152) and "Årstal" (1776 - 2023). The search results show 9249 results. The first result is "Befolkningsstatistikregisteret (2002)" by Danmarks Statistik. The second result is "Lærere Ved Statsseminarierne Og Ved Private Seminarier (1977)" by Undervisningsministeriet. The third result is "Vejsektorens Informationssystem - Vejdata (1972-1996)" by Vejdirektoratet, Københavns kommune, Frederiksberg kommu...

The screenshot shows the Sofia search interface. It has a menu bar with "Filer", "Vis", "Opslag", and "Hjælp". Below the menu bar, there are tabs for "Egenskaber" and "Journalopslag". The search results are displayed in a table with columns: "Saggruppenr.", "Saggruppetekst", "Sagsnummer", and "Sagstitel". The table contains 6 rows of data.

	Saggruppenr.	Saggruppetekst	Sagsnummer	Sagstitel
1	1	Arkiv	1	Arkiv
2	2	dagbøger	2	dagbøger
3	3	erindringer	3	erindringer
4	4	erindringsskitser	4	erindringsskitser
5	5	ture i danmark	5	ture i danmark
6	6	udenlandsrejser	6	udenlandsrejser

Sofia

- Sofia is DNA's current access and search system for born-digital data and consists of an user interface and a backend SQL server, where the IPs are loaded by a conversion-tool
- Sofia was developed for accessing IPs submitted according to the regulations from 2005 and later adjusted (more or less) to handle IPs submitted after the subsequent regulations of 2010 and 2020
- The main function is to allow a user to access archived data and its development was defined by two questions:
 1. How do we make one system, that can provide access to many different kinds of systems?
 2. How do we create an access system, that archivists with no technical database knowledge can use? (Usability)
- In order for an user to access data and documents, an IP needs to be "prepared", where an employee connects one of three different predefined views (templates) to the IP and create relations to the documents stored on external servers outside of Sofia





Searching in Sofia

Sofia has three different search templates:

1. Template for records management systems for (IPs with documents)
2. Custom made templates for other kinds of digital records (IP's without documents)
3. SQL-queries

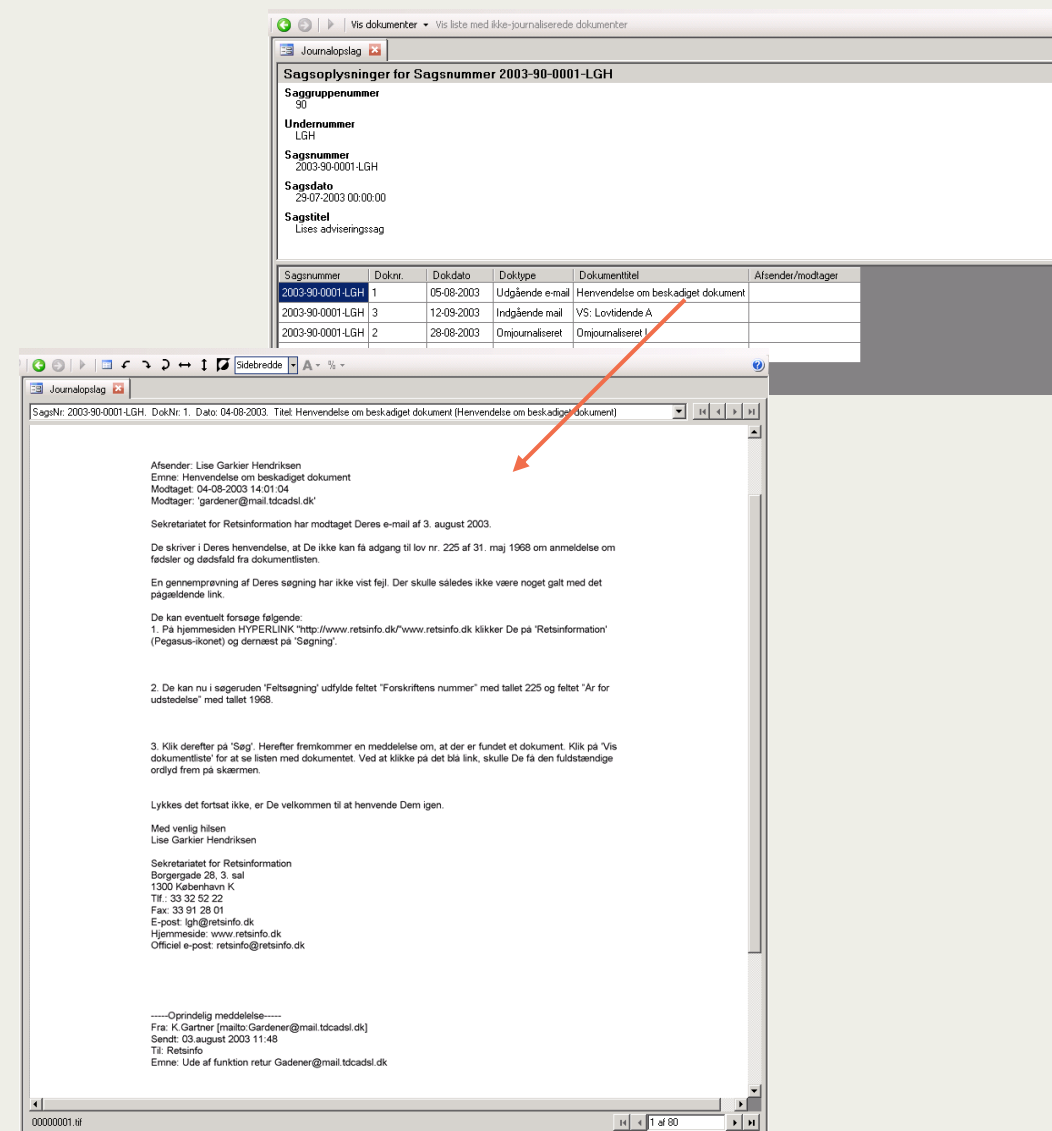
The screenshot displays three overlapping windows from the Sofia search application. The top window, 'Journalopslag', features search fields for 'Saggruppe', 'Undersnummer', 'Sagsnummer', 'Sagstittel', 'Sagsdato', 'Dokumenttitel', 'Dokumentdato', and 'Afsender/modtager'. The middle window, '10305_Vildtstatistik', is titled 'Vildtudbyttestatistik, 1941-1989' and includes fields for 'Art', 'Ar', and 'Arnt'. The bottom window shows a custom SQL query template with an E-R diagram, a SQL code editor, and a search result table. The table has columns for 'Ar', 'Arnt', 'ArntID', 'ArntID2', 'ArntID3', 'ArntID4', 'ArntID5', and 'ArntID6'. The search results are filtered by 'Sagstittel' and 'Ar'.

Ar	Arnt	ArntID	ArntID2	ArntID3	ArntID4	ArntID5	ArntID6
1956	GL	BO	0	GL	Gravning	BO	Bonhøvs Arnt
1956	GL	DK	3384	GL	Gravning	DK	Danmark
1956	GL	FR	133	GL	Gravning	FR	Frederiksborg Arnt
1956	GL	PV	109	GL	Gravning	PV	Fyns Arnt
1956	GL	KB	60	GL	Gravning	KB	Kalundborg Arnt
1956	GL	NO	408	GL	Gravning	NO	Nordfyns Arnt
1956	GL	RB	225	GL	Gravning	RB	Ribe Arnt
1956	GL	RK	212	GL	Gravning	RK	Ringkøbing Arnt
1956	GL	RO	0	GL	Gravning	RO	Roskilde Arnt
1956	GL	ST	206	GL	Gravning	ST	Storstrøms Arnt
1956	GL	SB	367	GL	Gravning	SB	Søndmø Arnt
1956	GL	VE	603	GL	Gravning	VE	Vejle Arnt



Accessing documents (TIFF-files)

- A large part of an archivist's workflow in Sofia is to identify information stored in one or more case files from archived ERMS's
- The document viewer is an essential part of the system
- Documents is found by searching with case information in the ERMS template, where identified documents can be accessed



Project "Nyt tilgængeliggørelses-system" (New Access System)

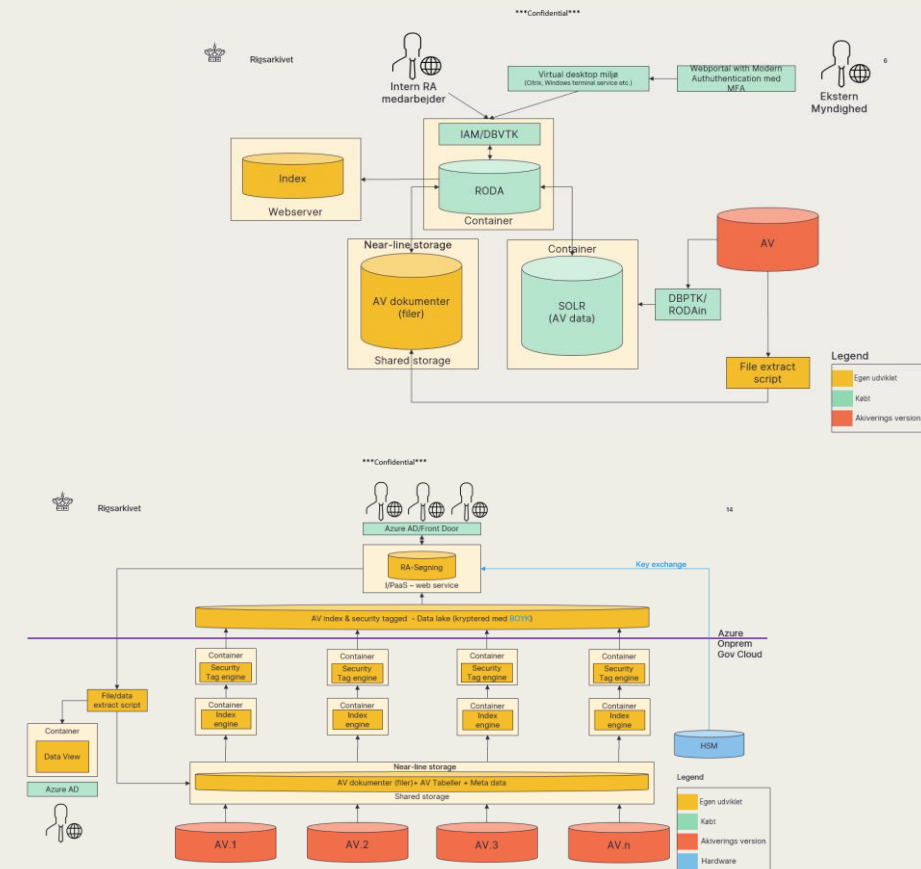
- Launch spring 2022
- Purpose: to find an replacement for our current access and search system Sofia
- Milestones:
 - User needs' assesment (June 2022)
 - System requirements (December 2022)
 - System choice (June 2023)
- Deliverables 2024:
 - Revised system requirements
 - System design
 - Tender
 - Implementation and closure of Sofia





System choice

- One of our most important demands for a new system is the option for external access, which in turn raises the security demands
- Accenture was hired in the spring of 2023. Accenture are experts within the fields of IT security, system architecture, and more
- Goal: create a number of possible technical solutions for a new system, to qualify our decision on system choice
- On this basis, a solution based on DBPTK was decided upon





Database Preservation Toolkit (DBPTK)

- DBPTK is a collection of multiple tools developed in relation to the E-ARK project
- DBPTK consist of two primary tools: a SIARD-creation tool and a SIARD-viewer, where it is possible to search through data in a "Google-like" manner
- DBPTK exists in three editions:
 1. Desktop – creation and validation of SIARD-files as well as local viewing and browsing of data
 2. Enterprise – web application to browse and search through multiple large databases. Supports multiple users simultaneously
 3. Developer – a command-line tool for scheduling, automation and systems integration

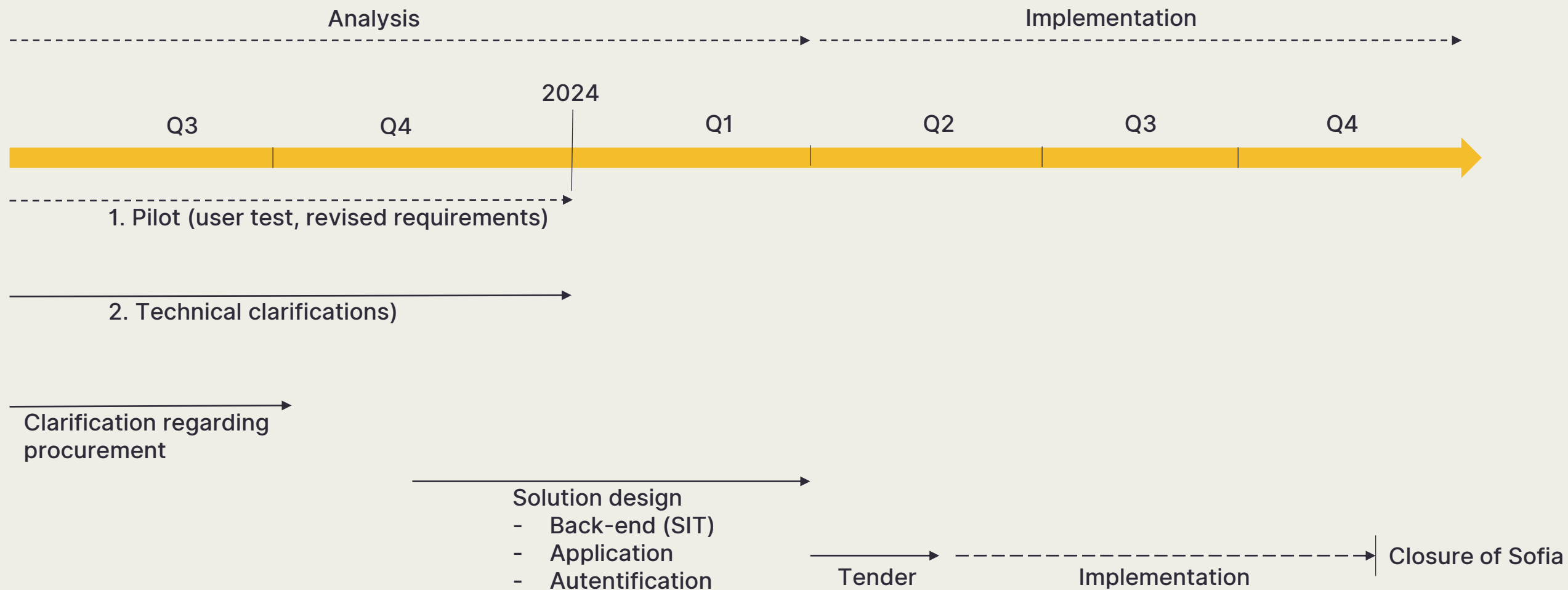


database^{toolkit}
preservation

Preliminary assesment of DBPTK

- DBPTK fulfills \approx 80 pct. of our demands:
 - Better search options
 - Faster dissemination
 - More options for customization
 - Better export options
- Missing features:
 - Full implementation of SIARD-DK
 - Lokalisation (Danish translation)
 - Integrated document viewer
- Needs clarification:
 - Search forms
 - Access and autentification







How do we help each other in the archival community?

- User group for archiving of relational databases?
- OPF?
- The main idea behind using an open source standard solution is to lower own development costs - do we benefit enough from the possibilities that we have?