

the **nationaal archief** is the treasure-house of dutch history. you can find information in the form of original documents, maps and photographs.

## Digital Preservation Award 2005



# Digital Preservation Testbed

Jacqueline Slats  
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## Coming about of the program Digital Preservation Testbed

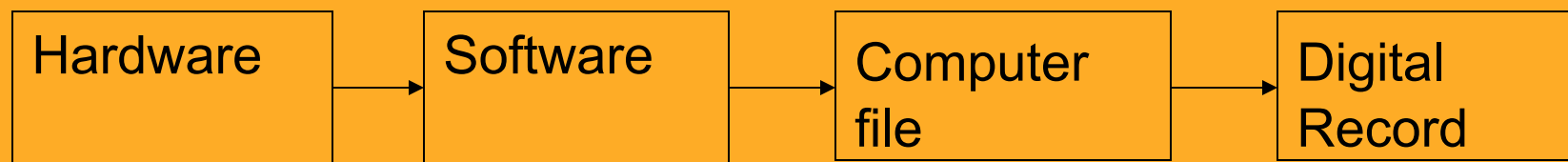
Increasingly, the government is working with digital documents:

- Dutch Cabinet objective: 65% of all transactions between government and citizens must take place using digital means by the end of 2006;
- Continuity of the working processes must be maintained in the digital environment as well;
- Digital information must be accessible, reliable and interpretable;
- Strategies, methods and techniques are required to achieve this.

## The problem of digital preservation

Technological pace of change and obsolescence; there is no guarantee that current records can be rendered with future technology.

Digital record as a combination of .....

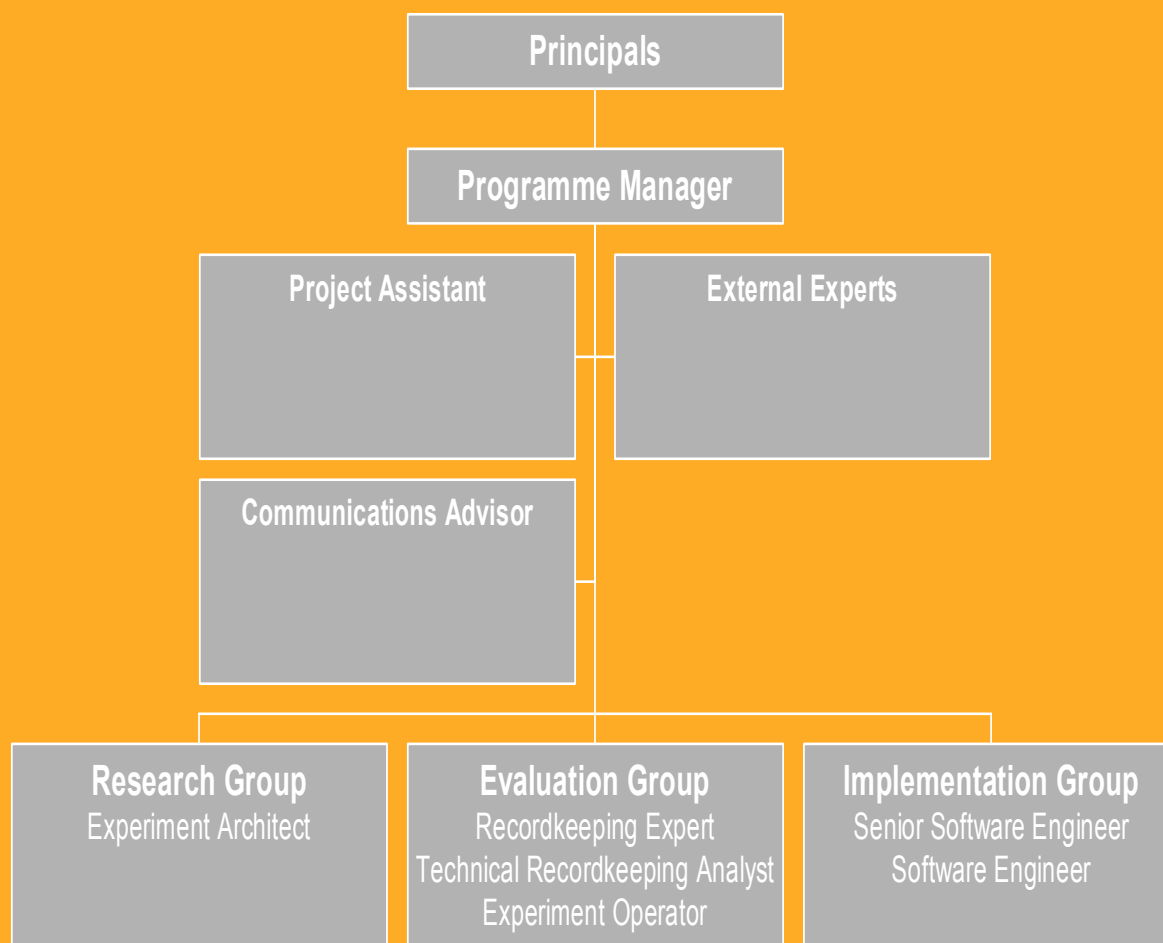


## Digital Preservation Testbed

### Background

- Established in October 2000 by
  - Ministry of the Interior
  - Ministry of Education, Culture and Science
- Carried out by ICTU till 1<sup>st</sup> July 2003
- Adopted and continued by the Nationaal Archief of the Netherlands
- Objective:
  - To secure sustained accessibility to reliable government information in the digital era

## Testbed Team



## Digital Preservation Testbed

Digital Preservation Testbed is performing experiments on three strategies for preserving records without affecting the authenticity of the records:

- Migration
- XML
- Emulation (Universal Virtual Computer)

Is assessing their practical use for the Dutch government.

## Digital Preservation Testbed

Experiments are taking place on:

- text documents;
- spreadsheets;
- electronic mail;
- databases.



## Digital record

Five record attributes:

- Context
- Content
- Structure
- Appearance
- Behaviour

## Digital Preservation Testbed

### Research Questions

- Advantages of different preservation approaches?
- Effectiveness of each approach?
- Basic Requirements for preservation?
- Which metadata are essential for preservation?

## Methodology (1)

Step 1: Definition of the process

Step 2: Preparation for the process

Step 3: Authenticity requirements and evaluation checklist

Step 4: Design of the experiments

Step 5: Resource specification

Step 6: Go/no go decision

## Methodology (2)

Step 7: Development of the experiment

Step 8: Test experiment

Step 9: Go/no go decision

Step 10: Run experiment

Step 11: Evaluate experiment

Step 12: Consider results

## Deliverables (1)

### Knowledge bank



The screenshot shows the 'Digitale duurzaamheid' website. On the left is a navigation menu with links: Digitale Duurzaamheid, Actueel, Recordsmanagement, Preservation, Digitale depots, and Kennisbank. Below the menu is a graphic of four books labeled 1, 2, 3, and 4. The main content area is titled 'Digitale duurzaamheid' and 'Kennisbank / Knowledge Bank'. It features an alphabetical index (A-Z) and a list of publications under the letter 'M'.

Digitale duurzaamheid

home | colofon | contact | zoeken | english

**Digitale duurzaamheid**

Kennisbank / Knowledge Bank

**Alfabetische lijst / Alphabetical order (M-Z)**

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

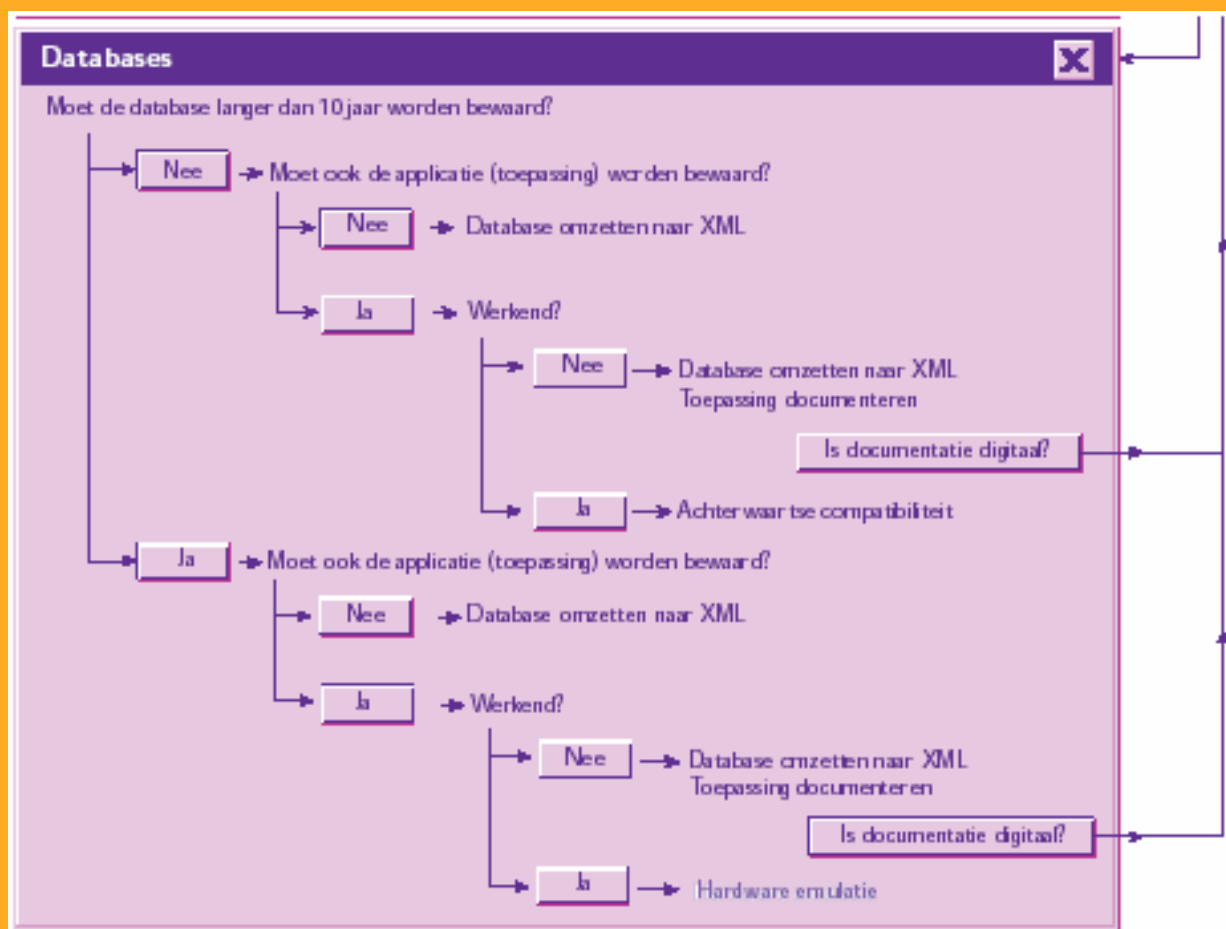
**M**

- Macdonald, Alison: Bits and Bobs: Digital Preservation and Costs (2002)
- Mackenzie Owen, John et al: CEDARS Summative Evaluation Report (April 2001)
- MacNeil, Heather: Conceptualising an Authentic Electronic Record (2000)
- Marciano, Richard et al: The Senate Legislative Activities Collection (SLA): a Case Study (2001)
- Matthews, William: Electronic Records baffle agencies (2001)
- McDonald, John (ICA): Archives and Current Records: Towards a Set of Guiding Principles
- McDowell, Kevin: Export a Word Document to XML (2001)
- McGovern, Nancy: Cornell University Electronic Student Records Systems Project Report: Appendix B - Preservation, Storage and Processing Considerations (2000)
- McKemmish, Sue & Parer, Dagmar: Towards Frameworks for Standardising Recordkeeping Metadata (May 1998)
- Meer, Kees van der, et al: Emulation and conversion: Organisational and Architectural Overview of an Electronic Archive (2001)

- More than 500 publications
- More than 25,000 hits a month

## Deliverables (2)

### Decision model



[English version](#)

## Deliverables (3)

From digital volatility to digital permanence



Recommendations for governmental organisations, including action plans for general managers, records managers, ICT specialists and end users:

- to improve business processes
- accountability and transparency of the government
- transfer of authentic archival records

## Deliverables (4)

Testbed XMaiL: implementation of the email recommendation



Demo

Pilots running in several Dutch municipalities and the Department of Defence

TestbedXMaiL is downloadable from: [www.digitaleduurzaamheid.nl](http://www.digitaleduurzaamheid.nl)



## Deliverables (5)

### Costs

- Costs of digital preservation  
Overview of different cost indicators
- Digital Preservation Costmodel  
Excel model that consists of three spreadsheets:  
Cost Basis, Time Calculation and Cost Calculation.  
  
The variables can easily be changed to fit others  
purpose/organisations or to perform If ...what...  
analyses.

## Deliverables (6)

Functional requirements for a preservation system

This document discusses the functional requirements for a preservation system to implement the recommendations.

## Deliverables (7)

### Technical Reports

- White Papers
  - Migration: Context and Current Status
  - XML and Digital Preservation
  - Emulation: Context and Current Status
- Technical Description UVC
- Schema logical Data Description UVC

## Follow up

- From June 2005 the Testbed system operates as the Digital Preservation System of the Nationaal Archief
- Evaluation Ministerial Regulation 'Ordered and accessible state archival records'
- InterLAB project: recommendations integrated in Electronic Document and RecordsManagementSystems of all Dutch ministries
- Hardware emulation project with KB