

# A Dutch approach in constructing a network of nationwide facilities for digital preservation together

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## ABSTRACT

In November 2016 this research was rewarded the Digital Preservation Coalition Award 2016 in the category Research and Innovation [3]. According to the jury the research report presents an outstanding model to help archives and memory institutes to share facilities and create a distributed, nationwide infrastructure network for Digital Preservation. In this workshop participants will be able to gain a deep understanding of this collaboration model and will be provided exercises to work with and apply it to their own archiving facilities in order to explore the possibilities of a similar shared network for digital preservation in their own environment.

The goals of the workshop are: (1) to introduce the participants to the model, gain understanding of the way to define supply and demand for DP-services, Then (2) to apply these elements to their own situation by rating and ranking the grid with essential DP Building Blocks; and (3) to explore the appropriate means to acquire the Services needed within a nationwide collaborative network. Throughout these 3 steps, practical examples are given of distributed use of infrastructure in the Netherlands.

## KEYWORDS

Long term digital preservation, Infrastructure, Services, Facilities, Building Blocks, Supply, Demand, Rating & ranking, Means.

## 1 INTRODUCTION

### 1.1 Organisational setting

As part of the national strategy for Cultural Heritage in the Netherlands, under the umbrella of the Network Digital Cultural Heritage [1] (Dutch acronym: NDE), a model [2] for a network of distributed facilities to ensure long-term accessibility of digital cultural heritage was developed. This model is part of a nationwide strategy of development of collaborative Services based on three pillars: to make the digital heritage wider visible, better usable and more sustainably preserved. The network was established on the initiative of the Ministry of Education, Culture and Science and consists of a number of large organizations occupying key positions in the field of digital heritage [4].

Work packages are established for each of the pillars, outlining the projects necessary to achieve its central goals. The development of the network of facilities is part of the Sustainability work package, which is carried out by the Dutch National Coalition for Digital Preservation (NCDD) [5] between 2015 and 2017. The first concepts of the collaborative model were actually developed by the

NCDD as part of its strategy to set up distributed national infrastructure based on a collaborative approach. The NCDD acts as the national platform for exchange of knowledge and expertise and has a role in coordinating and facilitating the establishment of a national network in which long term access to digital information =which is of crucial importance for science, culture and society= is guaranteed.

Within the framework of the Digital Heritage Network a catalogue of existing preservation Services to be used in a collaborative infrastructure, has been developed. Alongside, a range of case studies will bring the model to a practical level. Having a theoretical model is very helpful, but bringing it to an operational level is even better.

### 1.2 Very brief description of results of the research

In this workshop we will focus on practical implementations of the model for a network of distributed facilities. How can we move from theory into practice?

The workshop will help the participants to gain a deep understanding of the underlying concepts of the model. What are the steps we took in the development of the model?

Two basic concepts of the model are depicted in the two following diagrams.

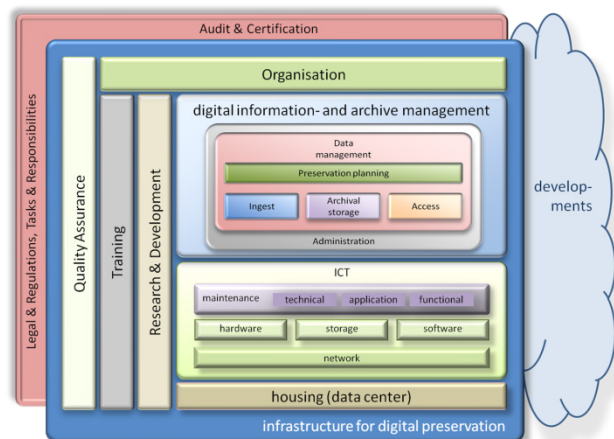


Fig 1 Infrastructure for digital preservation

In Figure 1 the constituent elements of the catch-all term “infrastructure for digital preservation” are put in a model. This allows for an overall look at all the required elements and its relations. This shows that the necessary elements are not just IT-elements, but also involve knowledge, policies, quality control, training and many more organisational aspects.

Based on this high-level model and other sources [6] we developed a “Business – IT stack” for digital preservation, with Building Blocks representing all elements we think are the parts of the digital preservation environment.

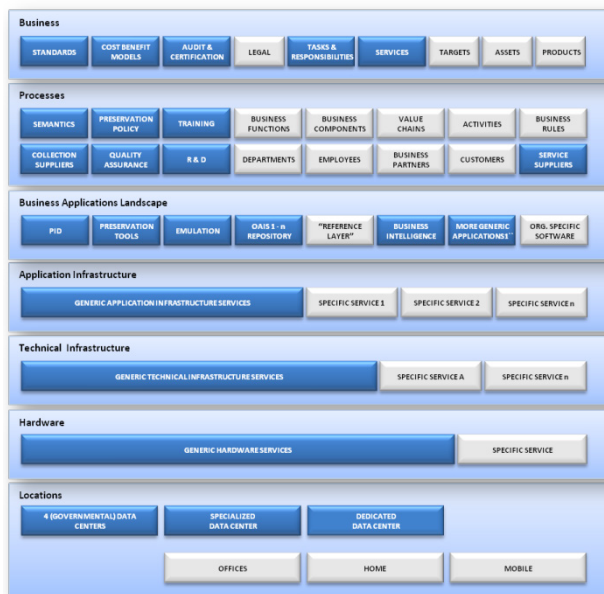
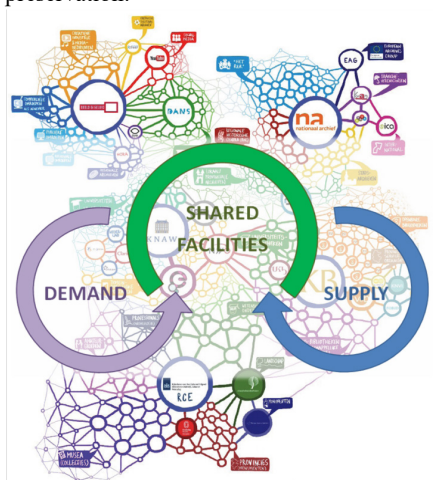


Fig 2 Building Blocks for digital preservation

In figure 2 all these elements are depicted as Building Blocks. From IT-elements as storage facilities, to standards, training, R&D, and semantics. Any organisation, or collaborative effort, obligated to ensure long-term access to digital information should have (most of) these elements organised. The model then focuses on those elements which could be shared within a network or a collaborative effort. The *dark blue* Building Blocks are the ones that are potentially shareable. The *grey* ones seem by definition organisation specific. Having the shareable elements defined, scenarios were developed to set out the lines for collaboration. In this, collaboration is always based on two sides of the coin: the Supply and the Demand for Services.

## 2 TOPICS

In the workshop we will connect Supply and Demand for Services for digital preservation:



In order to do so, the workshop will consist of **five** parts:

1. The participants will be introduced to the underlying concepts of “distributed facilities for digital preservation”;

2. In a first exercise the participants will try to articulate the demand of sample organisations. A hand out is given;
3. In the second session the participants will identify suitable Building Blocks on the Supply side for the Demand they have articulated in their first session;
4. Two [7] or three practical examples will be given of cooperation in the Dutch context;
5. In the last session the same work groups are now asked to select the proper Means to achieve their goals for cooperation. A hand out is given with a provisional list of possible Means.

If and when email addresses of participants are available, we intend to send the participants a concise reader with background material as a preparation to the workshop [8].

Total time of the workshop, including breaks, is 3:00 hours.

## 3 INTENDED AUDIENCE

Anyone interested in learning more about creating a network of distributed facilities for digital preservation. This tutorial has a strong practitioner focus and will be especially interesting for those working with Digital Archives and Digital Collections. Custodians of these collections who are faced with a multitude of questions and developments will gain a better understanding of the subject.

## 4 EXPECTED LEARNING OUTCOMES

After the workshop, participants will have knowledge / understanding of:

the notions of “Infrastructure” and “Services” for Digital Preservation; existing facilities in the Netherlands; how to articulate Demand for a Facility; Building Blocks, determine the most important ones, identify “quick wins”; what Means are available; what type of Means are suitable for various Services.

## 5 PRESENTERS

**Marcel Ras** is the Program Manager of the Dutch National Coalition for Digital Preservation (NCDD).

**Joost van der Nat** is the principal researcher.

## 6 REFERENCES

- [1] The Network Digital Cultural Heritage in the Netherlands: <http://www.ncdd.nl/en/ncdd-projects/digital-heritage-network/>
- [2] Link to English Summary of report: [http://ncdd.nl/site/wp-content/uploads/2014/06/summary\\_NCDD\\_research\\_DEFWEB.pdf](http://ncdd.nl/site/wp-content/uploads/2014/06/summary_NCDD_research_DEFWEB.pdf)
- [3] Link to DPC, winners of Digital Preservation Award 2016: <http://www.dpconline.org/events/digital-preservation-awards/the-winners>
- [4] The participants in this network are national organizations with large digital collections and a mandate to preserve them, like the National Library (Koninklijke Bibliotheek or KB), the Institute of Sound and Vision (BenG), the Royal Netherlands Academy of Arts and Sciences (KNAW), the National Archives (NA), the Cultural Heritage Agency of the Netherlands (RCE) together with other partners like for example the knowledge centre Digitaal Erfgoed Nederland (DEN) and the National Coalition for Digital Preservation (NCDD).
- [5] Link to the Dutch National Coalition for Digital Preservation (NCDD) (English): <http://www.ncdd.nl/en/about-the-ncdd/>
- [6] Amongst which the Work package “D21.1 OVERVIEW OF PRESERVATION SERVICES” of the APARSEN Project (Alliance for Permanent Access to the Records of Science Networks). See: [http://www.alliancepermanentaccess.org/wp-content/uploads/sites/7/downloads/2014/06/APARSEN-REP-D21\\_1-01-2\\_1\\_incURN.pdf](http://www.alliancepermanentaccess.org/wp-content/uploads/sites/7/downloads/2014/06/APARSEN-REP-D21_1-01-2_1_incURN.pdf)
- [7] The case of video-recordings of the Dutch Parliament is one, the need for “storage” of small(er) Frisian museums is another.
- [8] The reader will contain (1) a Summary of the Research, (2) a graphic of the model of the Building Blocks with a short description of each Block, (3) the program of the workshop, and (4) the intended hand outs