

# Consortial Certification Processes – The Goportis Digital Archive. A Case Study

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## ABSTRACT

The Goportis Consortium consists of the three German National Subject Libraries. One key area of collaboration is digital preservation. The Goportis Digital Archive is jointly used by the consortial partners. As part of their quality management the partners strive to obtain certifications for trustworthy digital repositories. The Goportis Consortium successfully applied for the Data Seal of Approval (DSA) [1] and is currently working on the application for the nestor Seal [2].

The poster illustrates the collaboration of the Goportis partners during the certification process (distribution of tasks, time frame, etc.). This way it could serve as best-practice example for other institutions interested in consortial certification.

## Keywords

Certification; Consortium; Consortial Certification; Audit; Digital Archive; Digital Preservation

## 1. INTRODUCTION

In Germany there are three National Subject Libraries working together in the Goportis Consortium: the German National Library of Science and Technology (TIB, Hannover), the German National Library of Medicine – Leibniz Information Centre for Life Sciences (ZB MED, Cologne/Bonn) and the German National Library of Economics – Leibniz Information Centre for Economics (ZBW, Kiel/Hamburg). To ensure the preservation of their digital contents, in 2010 they jointly founded the Goportis Digital Archive. The archive is based on Rosetta, the Ex Libris software. TIB is the main licensee, ZBW and ZB MED have sublicenses. The computing centre for the Digital Archive is hosted by TIB. That is why TIB takes care of system administration and the general settings.

For the Goportis partners the certification of their digital archives is part of their quality management, since all workflows are evaluated. Beyond that, a certification seal signals to external parties, like stakeholders and customers, that the long-term availability of the data is ensured and the digital archive is trustworthy. There is an array of different options and programs for certification. Goportis chose to follow the path of the European Framework for Audit and Certification of Digital Repositories [3]. In 2015, TIB and ZBW successfully applied for the Data Seal of Approval as basic first-level certification. At present, we are working on the application for the nestor Seal, an extended second-level certification based on DIN 31644. ZB MED is currently not involved in the certification process.

The poster focuses on the certification process for the DSA and the nestor Seal. It illustrates the workflows and distribution of

tasks within the Goportis Consortium. Additionally, it offers a time frame for the certification process. There is also an outlook on future plans for third-level certification. The information provided could be reused by other consortia who want to jointly certify their digital archives.

## 2. DATA SEAL OF APPROVAL

The Data Seal of Approval was established in 2008 and is based on 16 guidelines (i.e. criteria). It is an externally reviewed self-audit which is publically available [4]. The DSA aims at ensuring "that archived data can still be found, understood and used in the future" [5]. For each applicable guideline there are four levels of compliance:

- No: We have not considered this yet.
- Theoretical: We have a theoretical concept.
- In progress: We are in the implementation phase.
- Implemented: This guideline has been fully implemented for the needs of our repository.

### 2.1 Distribution of Tasks

In general, all three German National Subject Libraries are equal partners within the Goportis Consortium. For digital preservation, though, TIB is the consortium leader, since it is the software licensee and hosts the computing centre. Due to the terms of the DSA—as well as the ones of the nestor Seal—a consortium cannot be certified as a whole, but only each partner individually. This constellation determined how the consortium applied for the DSA: In principle, each partner drew up its own application. However, for some aspects of the certification ZBW had to refer to the answers of TIB, which functions as its service provider.

Beside these external requirements the Goportis partners organized the distribution of tasks on the basis of internal goals as well. They interpreted the certification process as an opportunity to get a deeper insight in the workflows, policies and dependencies of the partner institutions. That is why they analyzed the DSA guidelines together and established a time frame. Moreover, they discussed the progress of the application process regularly in telephone conferences and matched their answers to each guideline. As a positive side effect, this way of proceeding strengthened not only the ability of teamwork within the consortium. It also led to a better understanding of the guidelines and more elaborate answers for the DSA application.

The documentations for the DSA were created in more detail than recommended in order to facilitate further use of the documents for the nestor Seal.

Section 2.2 gives some examples of DSA guidelines for which ZBW depended upon the consortium leader TIB. It explains as well which guidelines differed for each institution.

## 2.2 DSA Guideline Examples

### 2.2.1 Guidelines depending on the consortium leader TIB

Guideline 6: "The data repository applies documented processes and procedures for managing data storage." Dependence: The permanent storage of the Goportis Digital Archive is administrated by TIB in Hannover.

Guideline 8: "Archiving takes place according to explicit workflows across the data life cycle." Dependence: The general information about the workflows within Rosetta was described by the software licensee TIB. Notwithstanding this, ZBW provided additionally a detailed answer for its own collections.

Guideline 11: "The data repository ensures the integrity of the digital objects and the metadata." and guideline 12: "The data repository ensures the authenticity of the digital objects and the metadata." Dependence: Workflows that ensure integrity and authenticity depend on the Rosetta system. ZBW completed its own description with a reference to the information provided by TIB.

### 2.2.2 Guidelines that differ for each institution

Several guidelines had to be answered by each Goportis partner individually, for example, criteria concerning the archived digital data, data users, data formats and metadata (guidelines 1-3, 10). The same is true for criteria regarding the institution, its mission, the responsibility for the digital data as well as the OAIS compliance of the whole digital archiving workflow (guidelines 4, 5, 9, 13-16).

## 2.3 Time Frame

The certification process extended over six months. In each Goportis institution one employee was in charge of the DSA certification process. Other staff members provided additional special information about their respective areas of work. This included technical development, data specialists, legal professionals, team leaders and system administration (TIB only).

**Table 1: Person months for the certification process**

Institution	Person Responsible	Other Staff
TIB	~ 3	~ 0.25
ZBW	~ 1.5	~ 0.1

The time estimate described in Table 1 adds up to approx. 3.25 (TIB) resp. 1.6 (ZBW) person months. Included are twelve

telephone conferences (90 minutes each), which were held in order to coordinate the consortial certification process.

## 3. OUTLOOK: NESTOR SEAL & THE THIRD LEVEL

The nestor Seal represents the second level of the European Framework for Audit and Certification of Digital Repositories. With its 34 criteria it is more complex than the DSA [6]. It also requires more detailed information, which makes it necessary to involve more staff from different departments. Based on the good experiences of the DSA certification, the Goportis partners TIB and ZBW plan to acquire the nestor Seal following the same way of proceeding. The DSA application has prepared the ground well for this task, since important documents, like policies, have already been drafted. That is why we estimate the application process for the nestor Seal to require approx. 12 (TIB) resp. 4 (ZBW) person months.

Having completed the application for the nestor Seal, the Goportis Consortium will discuss the application for a third-level certification based on ISO 16363, which requires an external audit. A consortial certification at this level will certainly pose special challenges, e.g. because some aspects of the digital preservation are provided for all consortial partners by TIB, whereas workflows and preservation decisions are the individual responsibility of each Goportis partner.

## 4. REFERENCES

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