

# **Policies, Certification and Preservation Planning**

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## **nestor-workshop**

4C/DPC conference

‘Investing in Opportunity: Policy Practice and  
Planning for a Sustainable Digital Future’

London, November 2014

- ..■ A quick word about nestor
- ..■ Preservation Policies
  - ..■ Writing institutional policy documents – a nestor-guide
  - ..■ The Scape-Policy-Levels (Barbara Sierman, KB)
- ..■ Certification
  - ..■ The Data Seal of Approval (Ingrid Dillo-DANS)
  - ..■ The nestor-Seal
- ..■ Preservation Planning
  - ..■ The nestor guideline on preservation planning

**nestor**  
—  
**German network for digital  
preservation**

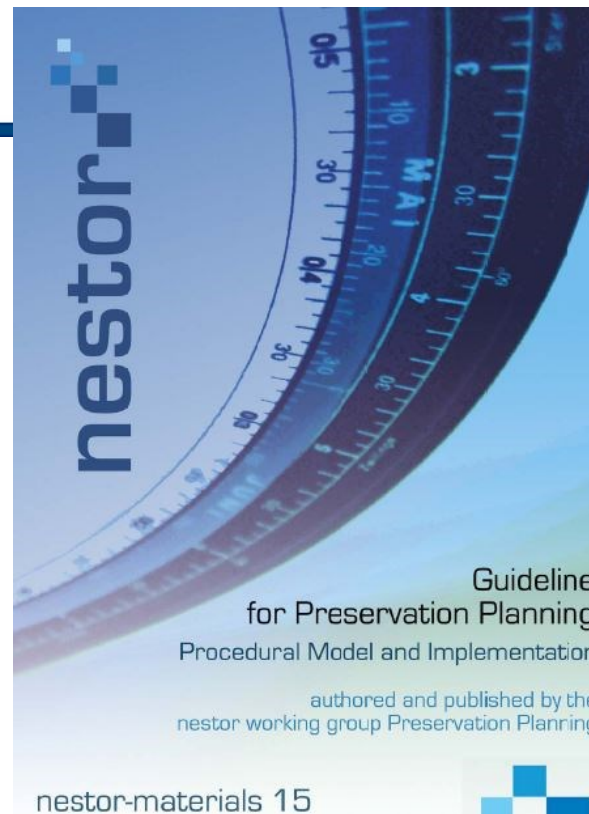
Armin Straube  
nestor-office, German National Library

- ..■ 2003-2009 project sponsored by the German Federal Ministry for Education and Research
- ..■ Since 2009 continued on an independent basis by the nestor-partners
- ..■ Partners sign a cooperation agreement, assume responsibilities and provide resources for the network
- ..■ 20 nestor-partners + more than 30 other institutions active in nestor working groups



- ..■ Policy WG
- ..■ Certification WG
- ..■ Costs WG
- ..■ Legal WG
- ..■ Preservation Planning WG
- ..■ Cooperation and Networking WG
- ..■ Qualification
- ..■ Emulation WG (with Gesellschaft für Informatik e.V.)
- ..■ Research Data WG (with DINI e.V.)
- ..■ Media WG
- ..■ File Formats WG
- ..■ Web Archiving

## Recent English Publications



- Policy Guidelines:  
[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_18-eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_18-eng.pdf)
- nestor-Seal notes:  
[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_17\\_eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_17_eng.pdf)
- Preservation Planning Guideline:  
[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_15-eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_15-eng.pdf)



## [www.digitalpreservation.de](http://www.digitalpreservation.de)

- ..■ Heike Neuroth, Stefan Strathmann, Achim Oßwald, Regine Scheffel, Jens Klump, Jens Ludwig (ed.): [Digital Curation of Research Data: Experiences of a Baseline Study in Germany](#). 2013
- ..■ Christoph Becker: [Trustworthy Preservation Planning](#). nestor-edition Vol.4. 2011
- ..■ Astrid Recker: [The Preservation of Digital Objects in German Repositories](#). nestor-edition Vol.3. 2010
- ..■ nestor WG Standards: [Catalogue of criteria for assessing the trustworthiness of PI systems](#). nestor materials 13. 2009
- ..■ nestor WG Certification: [Catalogue of Criteria for Trusted Digital Repositories](#), Version 2. nestor materials 8. 2009
- ..■ Stefan Rohde-Enslin & Keith Allen: [Nothing Lasts Forever. Guide for Digital Preservation in Museums](#). 2nd Edition. 2009
- ..■ nestor WG Standards: [Into the Archive - a guide to the information transfer to a digital repository](#). nestor materials 10. 2008



- .. Many more publications are available in [German](#)
- .. Website, Wiki, Mailing list, Newsletter, Calendar
- .. List of Experts in digital preservation
- .. List of [permanent preservation activities](#) (English)
- .. List of [Projects](#) (English)

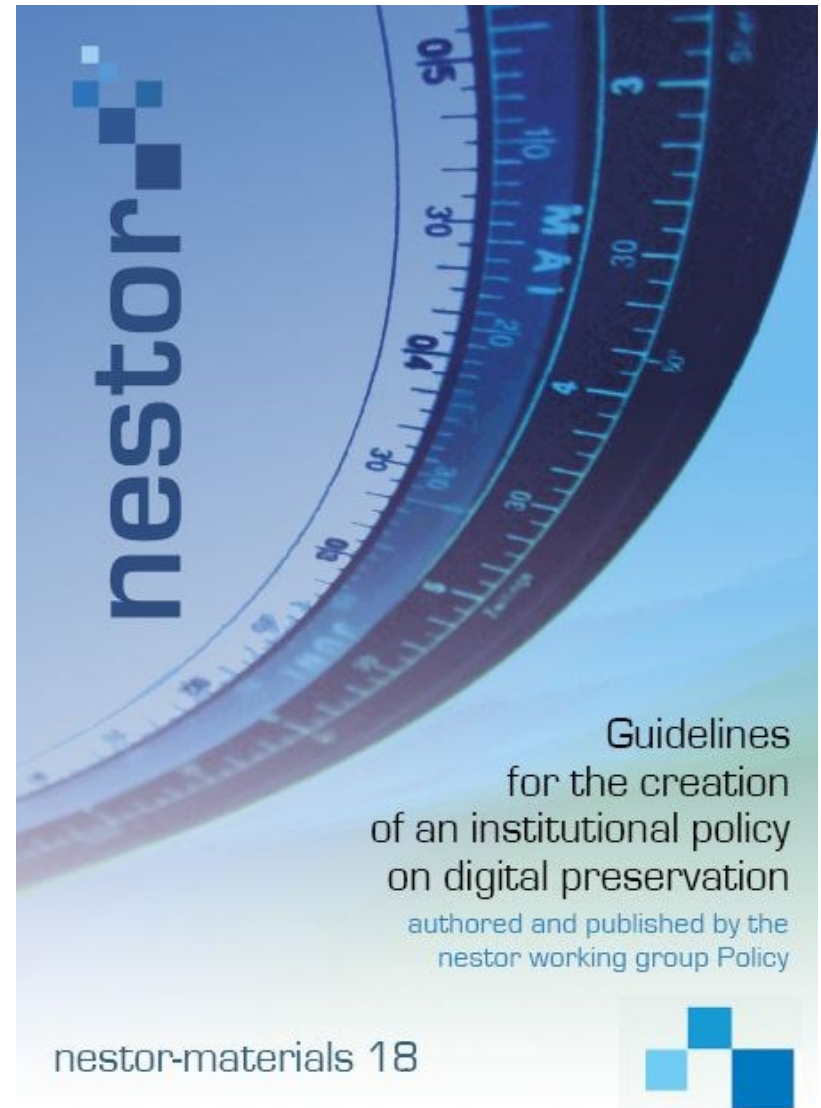


# **Guidelines for the creation of an institutional policy on digital preservation**

Armin Straube  
nestor-office, German National Library

- ..■ Growing need to draft institutional policies
  - ..■ Transparency
  - ..■ Advocacy
  - ..■ Certification
  
- ..■ Aims of the guidelines
  - ..■ Simplify a difficult task
  - ..■ Provide options and key questions
  - ..■ Give examples

- .. ■ What is the purpose of a policy?
- .. ■ What should a policy cover?
- .. ■ How is a policy produced?
- .. ■ Generic Policy



- ..■ Introduction
  - ..■ e.g.versioning, related documents
- ..■ Part 1: Description of the digital archive and aims of the policy
  - ..■ e.g. legal mandate, mission, responsibilities
- ..■ Part 2: Principles and objectives of digital preservation
  - ..■ designated community
  - ..■ community and technology watch
  - ..■ preservation of integrity, authenticity, readability and completeness
  - ..■ persistent identifiers
  - ..■ metadata and preservation standards (DIN 31644/ ISO 16363)
  - ..■ technical infrastructure
  - ..■ human, technical and other material resources
  - ..■ cooperation arrangements
- ..■ Part 3: Durability of the policy
  - ..■ reviews and future plans

.. The Guidelines are available at:

[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_18-eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_18-eng.pdf)

.. Any questions?

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# **Guideline for Preservation Planning – Procedural Model and Implementation**

Armin Straube

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(with slides by Christian Keitel)

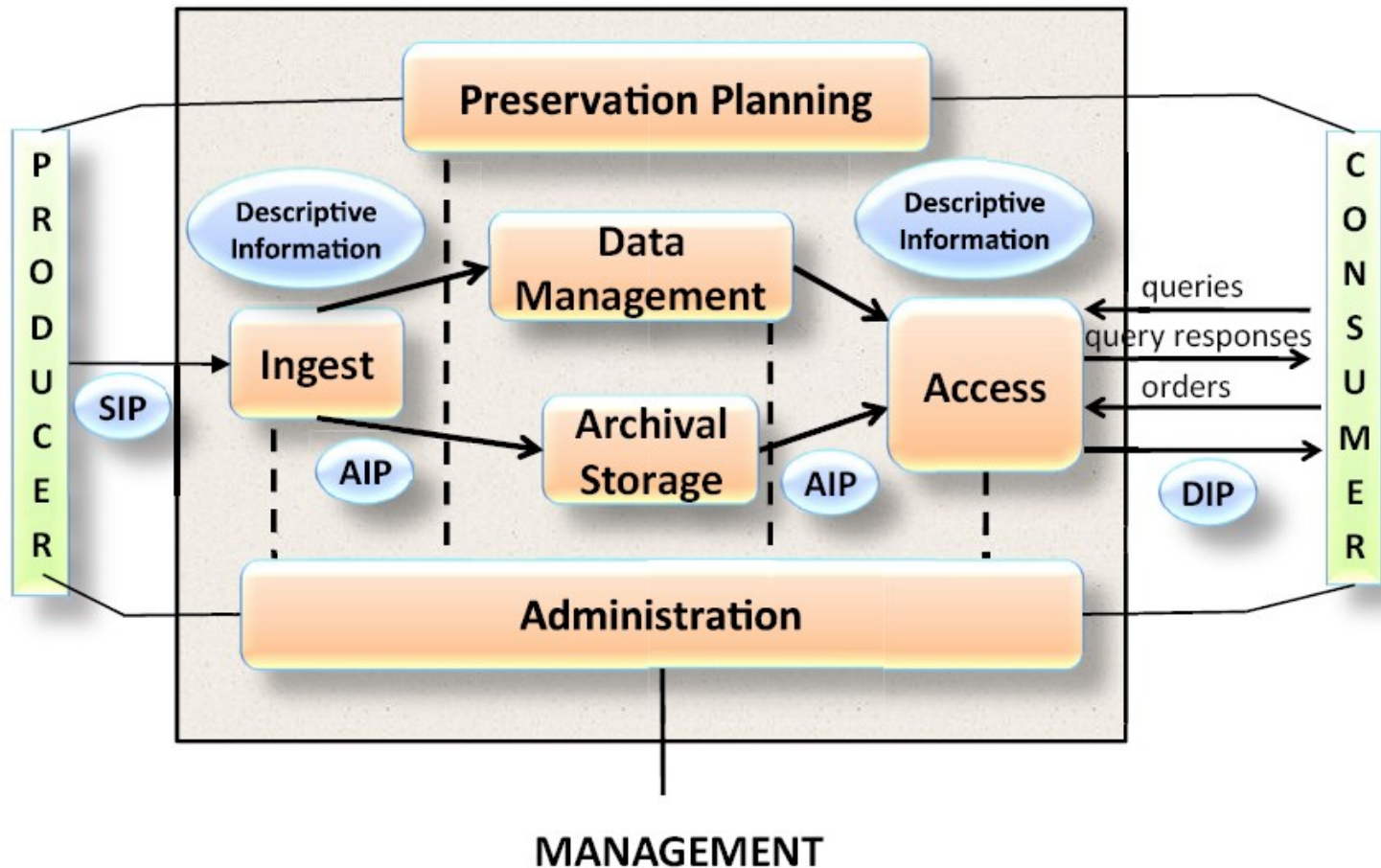
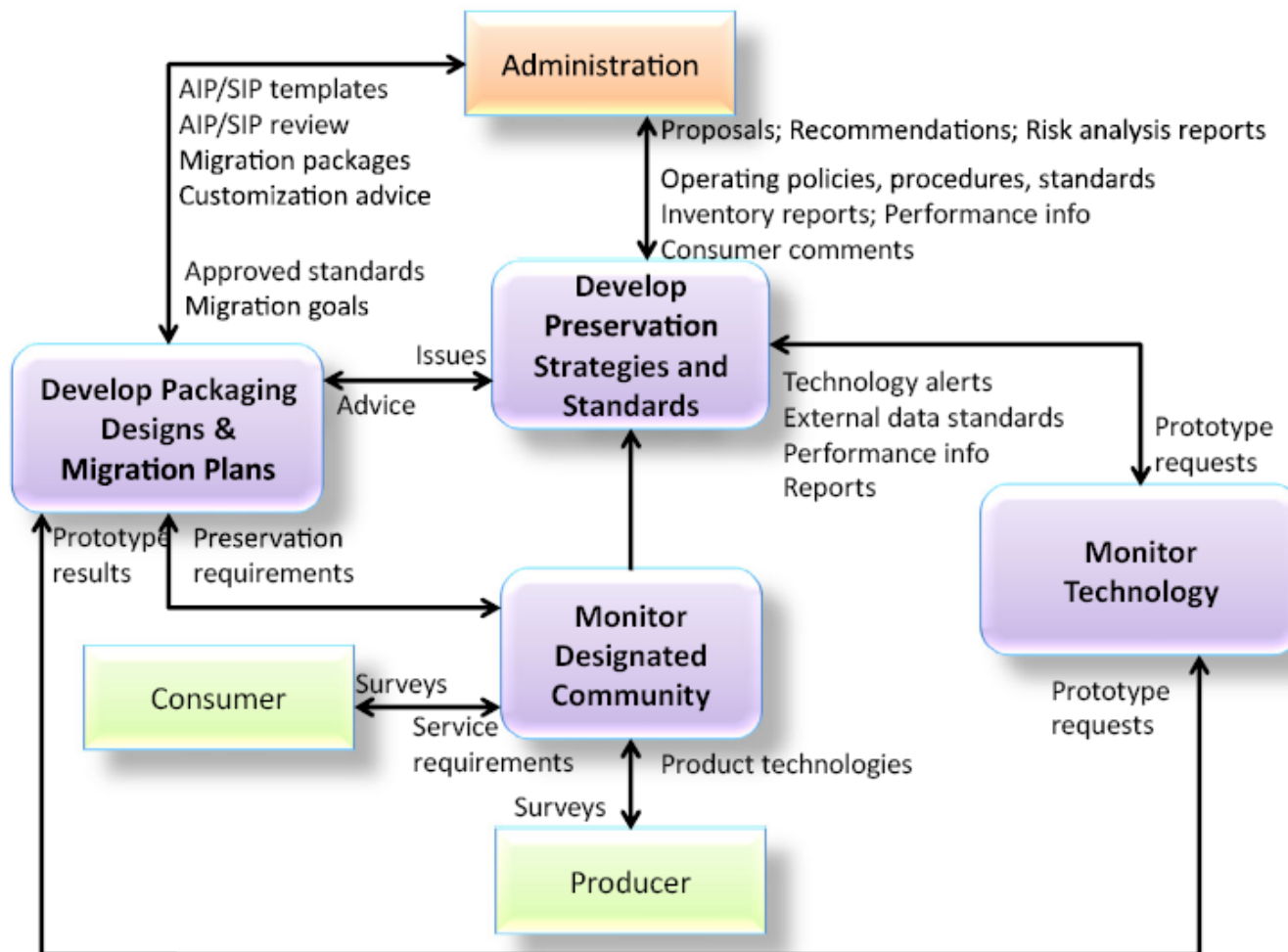
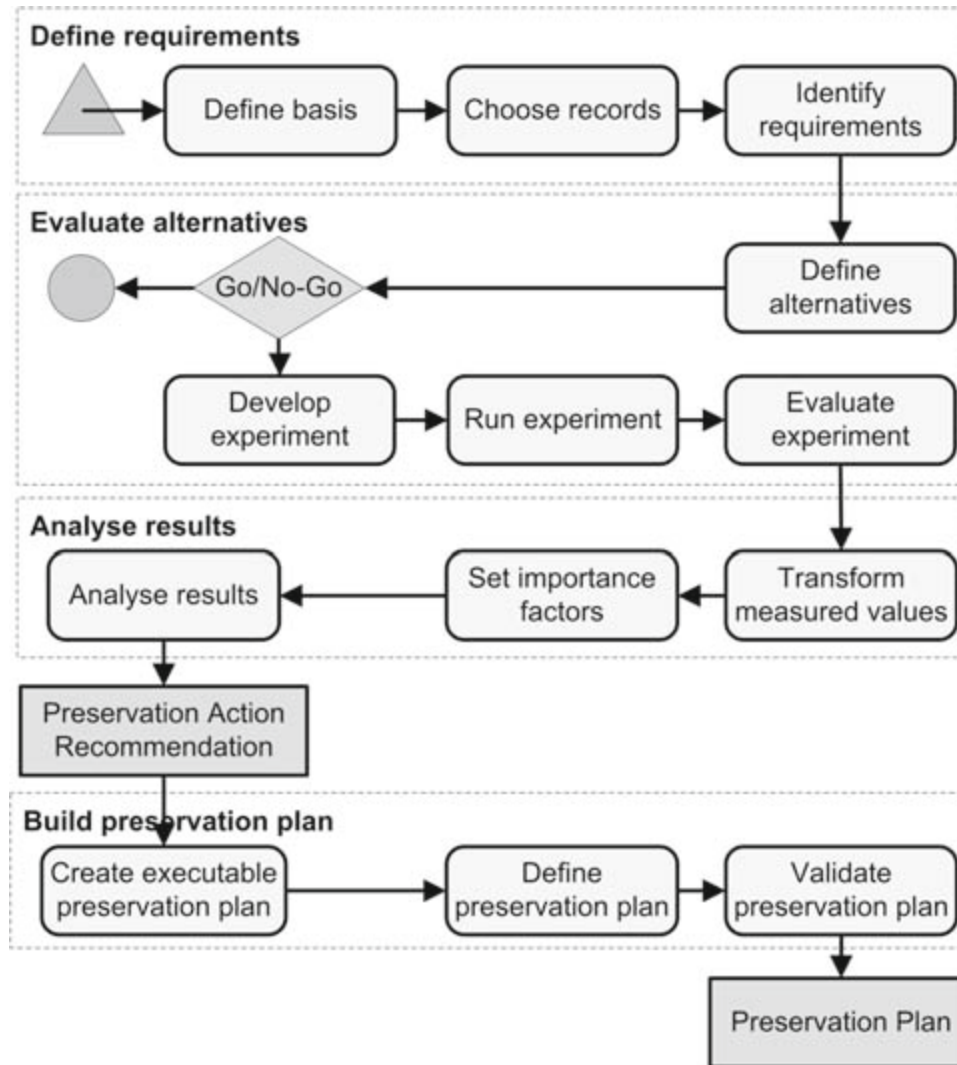


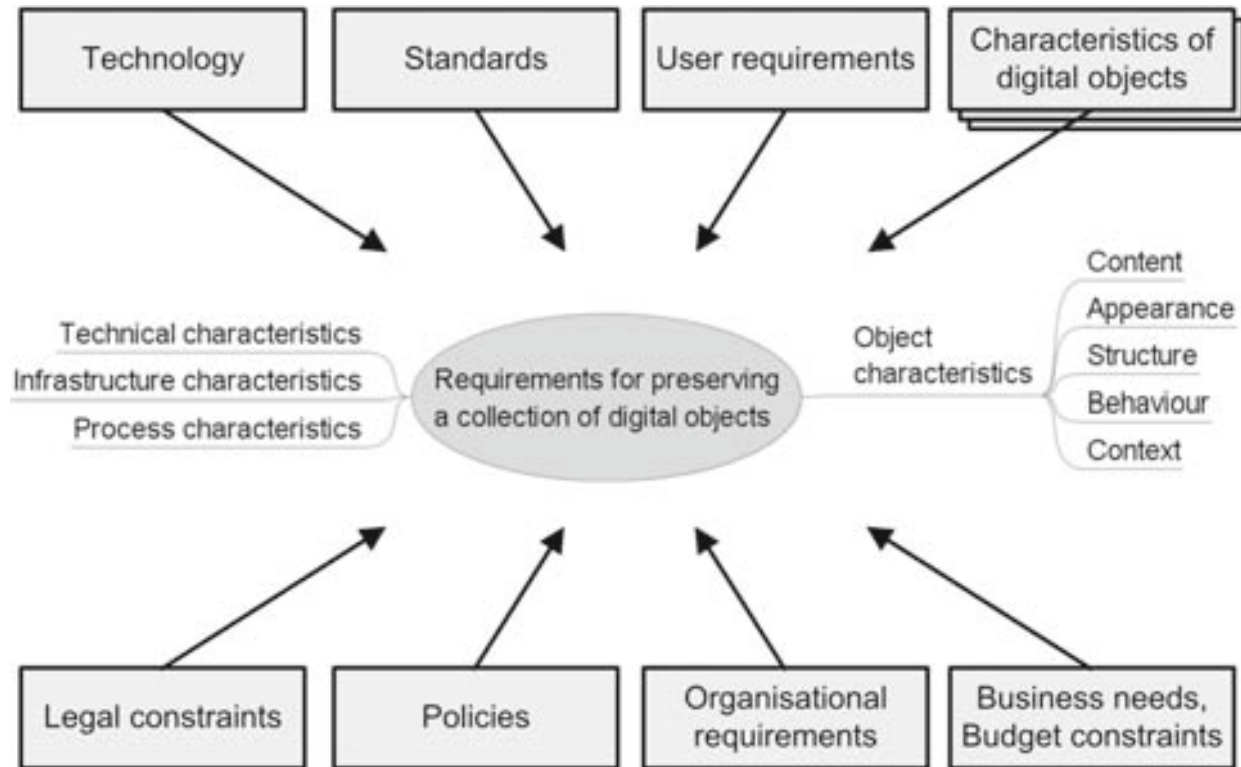
Figure 4-1: OAIS Functional Entities





**Figure 4-6: Functions of the Preservation Planning Functional Entity**

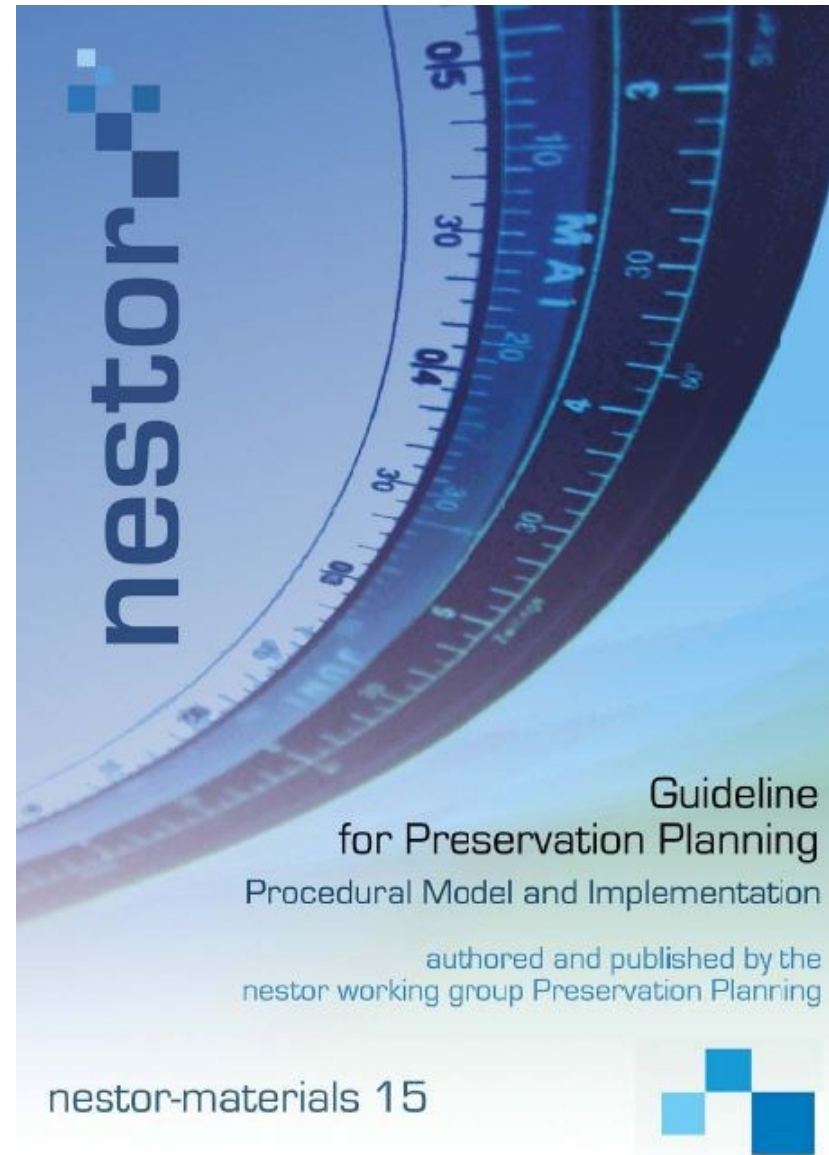




All cit: Becker, Christoph ; Kulovits, Hannes ; Guttenbrunner, Mark ; Strodl, Stephan ; Rauber, Andreas ; Hofman, Hans: Systematic planning for digital preservation : evaluating potential strategies and building preservation plans. – In: International journal on digital libraries. 2009

1. PLANETS answers the questions in preservation planning on current problems, but...
  - ..■ Loose integration of other concepts like designated community or significant properties
  - ..■ For the long term preservation these concepts must be integrated
  
2. PLANETS assumes the existence of limited objects after the transfer from the producer, but...
  - ..■ During the appraisal/selection (i.e. Pre-Ingest) fundamental assumptions have to be made.

- [Guideline for Preservation Planning](#). Written 2009 – 2011, version 2.0 in 2012, translation 2014
- Coherent to the nestor [Catalogue of Criteria for Trusted Digital Repositories](#) (2009) and the nestor Guideline “[Into the Archive - a guide to the information transfer to a digital repository](#)” (2008)



- ..■ Procedural model (determining the preservation groups)
- ..■ Definition of representation information
- ..■ Preservation strategies (migration, emulation)
- ..■ Monitoring tasks (community & technology watch)
- ..■ Appendix: Possible properties, designated communities and designated uses of information types(text, image, audio, moving images, structured information, GIS, software)

- ..■ Significant Properties (1999, Cedars Project)
  - ..■ We can't preserve all properties
- ..■ Designated Community (2002, OAIS)
- ..■ Performance Model (2002, National Archives of Australia) & OAIS
  - ..■ Information matters (not data)
  - ..■ Human Reception is part of the definition process
- ..■ Intellectual Entity and Representation (2005, PREMIS)
  - ..■ Separate description of logical and physical units

- ..■ Financial viability
- ..■ Authenticity
- ..■ Adequacy
- ..■ Potential for automation



- ..■ Define an Information type
  - ..■ First classification of objects to be archived
  - ..■ For instance text, pictures, video...
- ..■ Define a Preservation group
  - ..■ Second classification of objects to be archived
  - ..■ Objects with the same preservation requirements
  - ..■ Means: Objects with the same significant properties
  - ..■ Means: Objects, which could be managed together
  - ..■ Means: Objects, which could be managed automatically

- ..■ Designated community
  - ..■ Preservation depends on concrete use cases
  - ..■ Too abstract to delimitate preservation groups
- ..■ Aims of usage
  - ..■ Which actions shall future users be able to do?
- ..■ Objects with the same designated communities and aims of usage need the same significant properties... They belong to one and the same preservation group.

- ..■ Perceive the object (performance)
- ..■ Define the information object
- ..■ Appraise the information object
- ..■ Determine preservation group and significant properties
- ..■ Ingest and Archiving

- ..■ Appraisal and classification to a certain preservation group
- ..■ Performance
  - ..■ Inventory of the values of each significant property
- ..■ Search for a format/emulator which supports all significant properties
- ..■ Migration to representation # 2 or emulation
- ..■ New Performance
  - ..■ Inventory of the values of each significant property of representation # 2
- ..■ Comparision of the values from performance # 1 and #2
- ..■ Scope for automation

..Questions and remarks are welcome now or later:

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# DIN 31644 and the nestor-Seal

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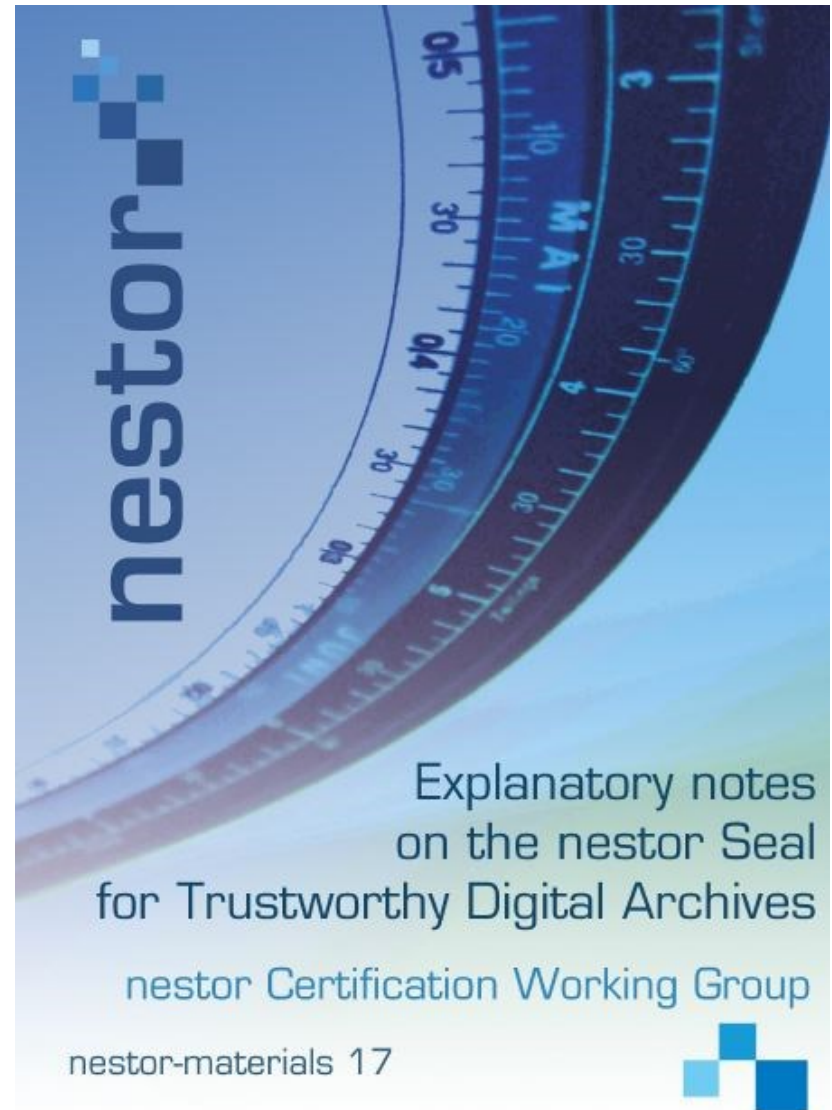


- 2010: Memorandum of Understanding for a Framework for Audit & Certification  
<http://www.trusteddigitalrepository.eu>

- ..■ 2004: nestor working group on trustworthy digital archives and certification
- ..■ 2006/2008: Catalogue of criteria for trusted digital repositories  
[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_08\\_eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_08_eng.pdf)
- ..■ 2012: DIN 31644 – Criteria for trusted digital repositories



- 2013: Explanatory notes on the nestor Seal for trustworthy digital archives  
[http://files.d-nb.de/nestor/materialien/nestor\\_mat\\_17\\_eng.pdf](http://files.d-nb.de/nestor/materialien/nestor_mat_17_eng.pdf)



- ..■ 34 criteria cover
  - ..■ organizational aspects
  - ..■ technical aspects
  - ..■ Infrastructure and security
- ..■ Extended self assessment and documentation
- ..■ Reviewed by two auditors
- ..■ 500 € fee

..■ Information:

[http://www.langzeitarchivierung.de/Subsites/nestor/EN/nestor-Siegel/siegel\\_node.html](http://www.langzeitarchivierung.de/Subsites/nestor/EN/nestor-Siegel/siegel_node.html)



Criteria covering:

- ..■ Funding
- ..■ Staff
- ..■ Exit strategies
- ..■ Technical documentation
- ..■ Preservation planning



## C 19 Authenticity: Use

The digital archive allows the users and the administration of the digital archive to check and maintain the authenticity of the representations. This includes the transformation from archival information packages into dissemination information packages.

### To what extent must the criterion be met?

An average of 7 points must be achieved in the assessment of the applicable criteria C13 - C34.

**Explanation:** A trustworthy digital archive should allow each user to check whether the requested representation is authentic as far as the digital archive's area of responsibility is concerned. The archive should also be capable of generating dissemination information packages which fulfil the authenticity requirement. C19 is necessitated by C13 "Significant properties"

**State of the art:** Complete fulfilment of this criterion is not currently expected due to the close link to C13.

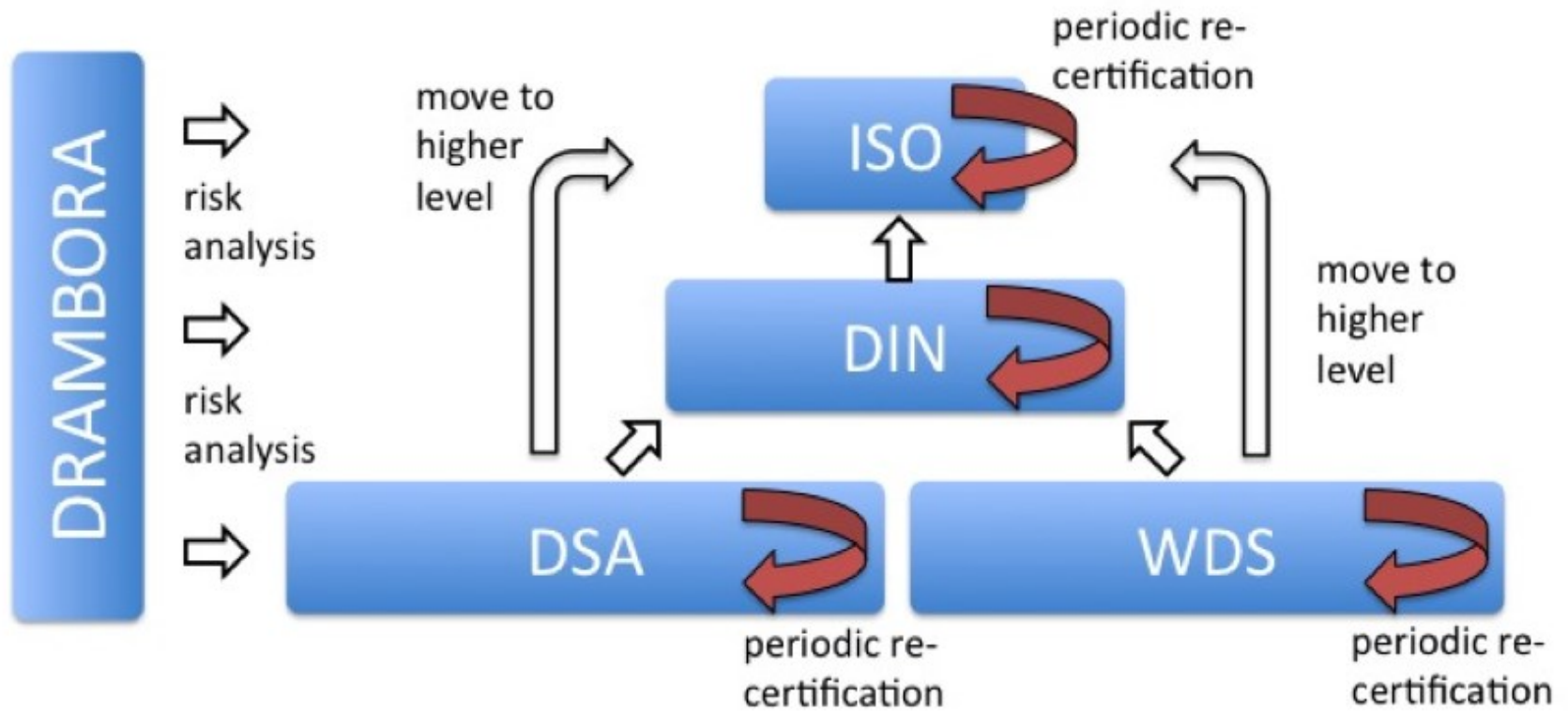
### Questions

- During transformation of the archive packages into dissemination information packages, how is the authenticity maintained, how are the significant properties preserved?
- Which possibilities does the user have for checking the authenticity of the archived information from the time of transfer to the digital archive?

### Documents:

Technical documentation of the user interface including all processes, access system





.. 2014 Proposal for EU-project CTRUST under Horizon 2020

..Questions and remarks are welcome now or later:

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