




# kopal

*Data into the future*

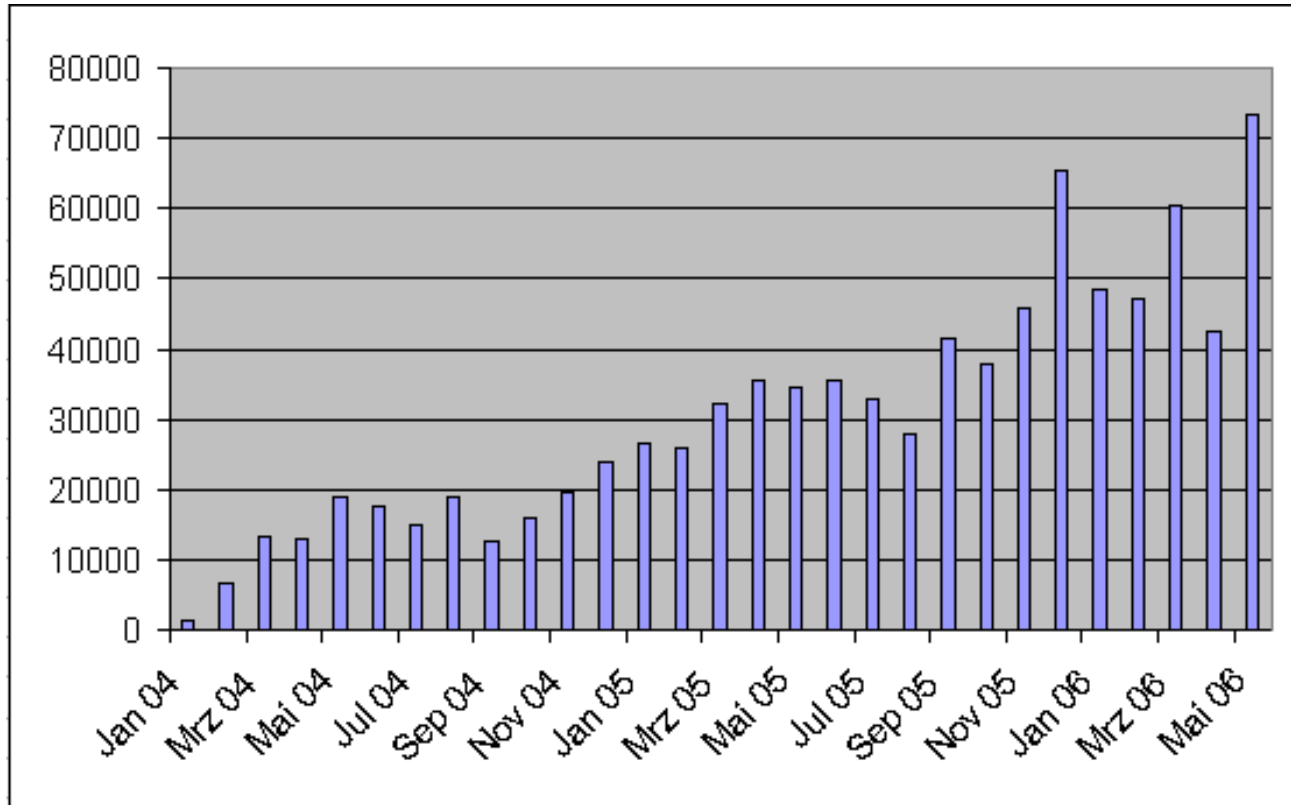
## Co-operative Development of a Long-term Digital Information Archive

iPRES2006 conference, Cornell

Reinhard Altenhöner / Tobias Steinke, DNB

- Long-term preservation: Raising awareness and creating a network of expertise: The nestor initiative 
- Pressure comes from a new legal deposit in Germany
- Need for a practical solution for heterogeneous groups of users and data-sets
- Need for a reliable and reusable solution

# www.langzeitarchivierung.de



Page Impressions 2004 – 2006 (IVW)

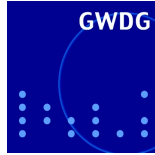
- Long-term preservation: Raising awareness and creating a network: The nestor initiative
- Pressure from a new foundation for a legal deposit in Germany
- Need for a practical solution for heterogeneous groups of users and data-sets
- Need for a reliable and reusable solution

- Funded by the Federal Ministry for Education and Research
- Financial volume: 4,2 Mio € + self-financed activities of all partners, duration: 1.7.2004 – 30.9.2007
- Task: Development of a standardized long-term preservation solution to facilitate long-term preservation for other libraries / industries
- Solution should be a facilitator for co-operation between libraries
- Cooperation - Standardization - Reusability

GEFÖRDERT VOM



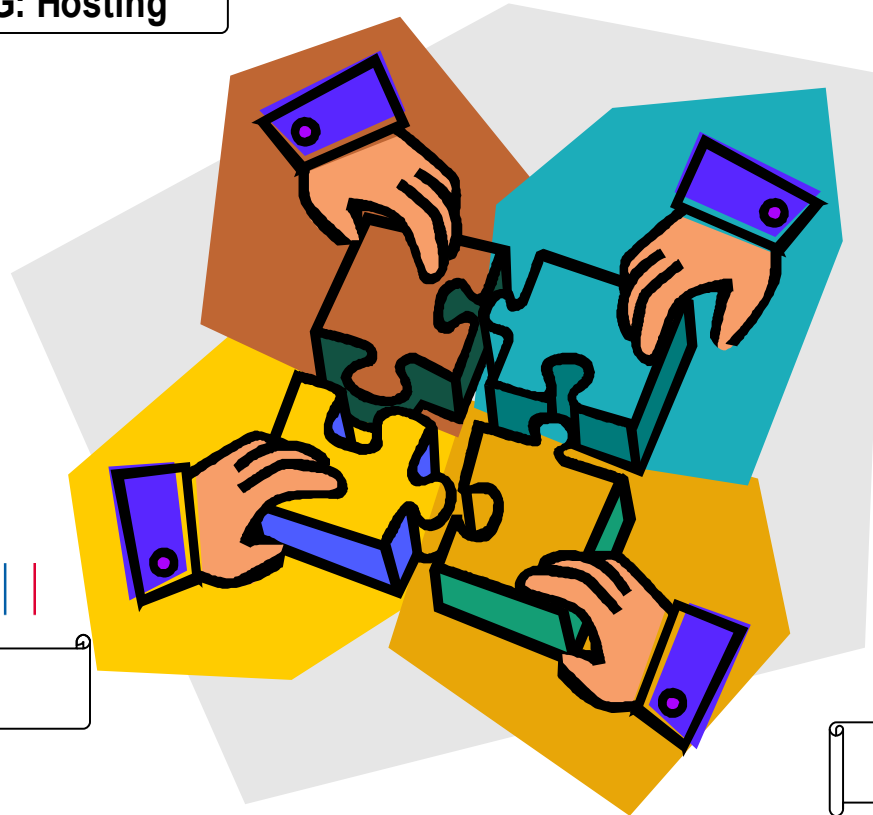
Bundesministerium  
für Bildung  
und Forschung



GWGD: Hosting



IBM: Archiving SW



Deutsche Nationalbibliothek 

DNB: Ingest/Access SW

 NIEDERSÄCHSISCHE STAATS- UND  
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN 

SUB: Ingest/Access SW

Common activity: Preservation Planning

## DIAS-CORE

### Basic development

E1

Basic installation incl. multi-user support

Format support and administrations functionalities

### Preservation planning

E3

Planing / Concept  
workflow definition

development and integration in  
DIAS-Core

## Local systems

### Basic connection

E2

Builder:  
universal / individual

Access:  
universal / individual

### Exemplary data transfer

E4

material and development from  
Deutsche Nationalbibliothek

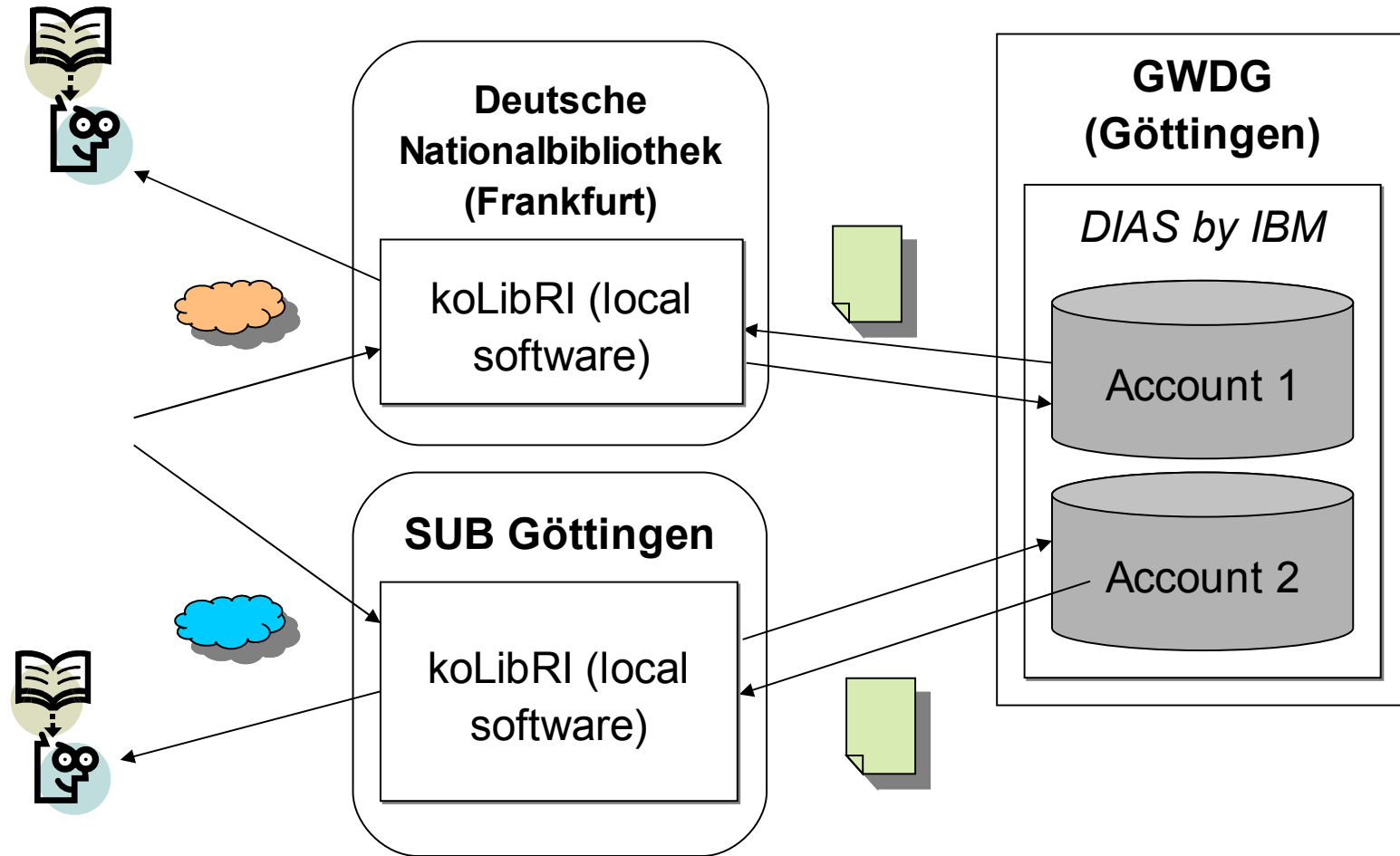
material and development from  
SUB Göttingen





- We want to provide a modular service in a customer-based perspective
- We offer general consultation, support, services
- And we release know-how (standards), partnership/cooperative use, full service
- Our model must guarantee the refunding for our offers
  - One can keep guidance and aid
  - One can take a partial stewardship
  - One can order a complete system

- Global core (DIAS) and local software (koLibRI)
- Open interfaces: Universal Object Format
- Preservation Planning: Migration Manager and File Format Registry



- DIAS
  - IBM development for the National Library of the Netherlands
  - Conforming to the OAIS reference model
  - Based on IBM standard software (Content Manager, TSM, etc.)
  - Enhancements for kopal: open interfaces (Universal Object Format), multi-user support, query interface to Data Management
- koLibRI
  - kopal Library for Retrieval and Ingest
  - Open source development by DNB and SUB Göttingen
  - Tools to generate technical metadata (using JHOVE), create ingest packages and migrate objects

- Generic description of packages for archiving and exchanging of digital objects
- Based on METS (special METS profile) and LMER (Long-term preservation Metadata for Electronic Resources)
- One packed file (e. g. ZIP or tar) per logical object, containing one METS file with descriptive metadata (e. g. Dublin Core) and technical metadata for long-term preservation (LMER)
- In kopal used as SIP and DIP (OAIS); metadata (Dublin Core and LMER) is stored in Data Management of DIAS

- DIAS: Query interface to Data Management (technical metadata and optional Dublin Core)
- koLibRI: Migration Manager to perform queries, call conversion tools and re-ingest migrated objects
- Planned support for a File Format Registry: Database about file format characteristics, view paths, migration paths and emulation environments

Visit <http://kopal.langzeitarchivierung.de>

- Download of koLibRI (beta)
- kopal demonstrator (Flash animation)
- Specifications of the Universal Object Format