

# FIGARO and Open Access to Electronic Information Objects

Presentation of the initiative and of some related technical considerations

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# Overview



- **The FIGARO project**
  - **Objectives and Partners**
- **Open Access in FIGARO/GAP**
  - **Organisational, economic, legal, policy aspects of 'Open Access' mostly have been covered by Bas Savenije in his talk in Louvain (Oct. 2002)**
  - **Technological aspects are the core of this presentation**
    - **Open, vendor independent document models**
    - **Poining, linking, identifying**
    - **Authentication, authorization**



# Why FIGARO (and GAP)?

- ❑ The critical situation in scholarly publication and communication forces universities to act in their role as content generators and users of content (much could be said about the schizoid position of scientists in the line of Stevan Harnad in that respect ...)
  - ❑ The internet is evolving into the primary publication and communication platform in an increasing number of disciplines
  - ❑ Digital publication still is heavily modeled on the print-analogy: the innovative potential of electronic platforms is almost not used at all.
  - ❑ Individual university presses are too weak (economically and technically speaking) to change these basic contextual parameters
- ➔ „German Academic Publishers“ (**GAP**, funded by DFG, kicked off 01.12.2001) and **FIGARO** (funded by EC, kicked off 01.05.2002) to create a technical and organizational co-operation model for academic e-publishers.

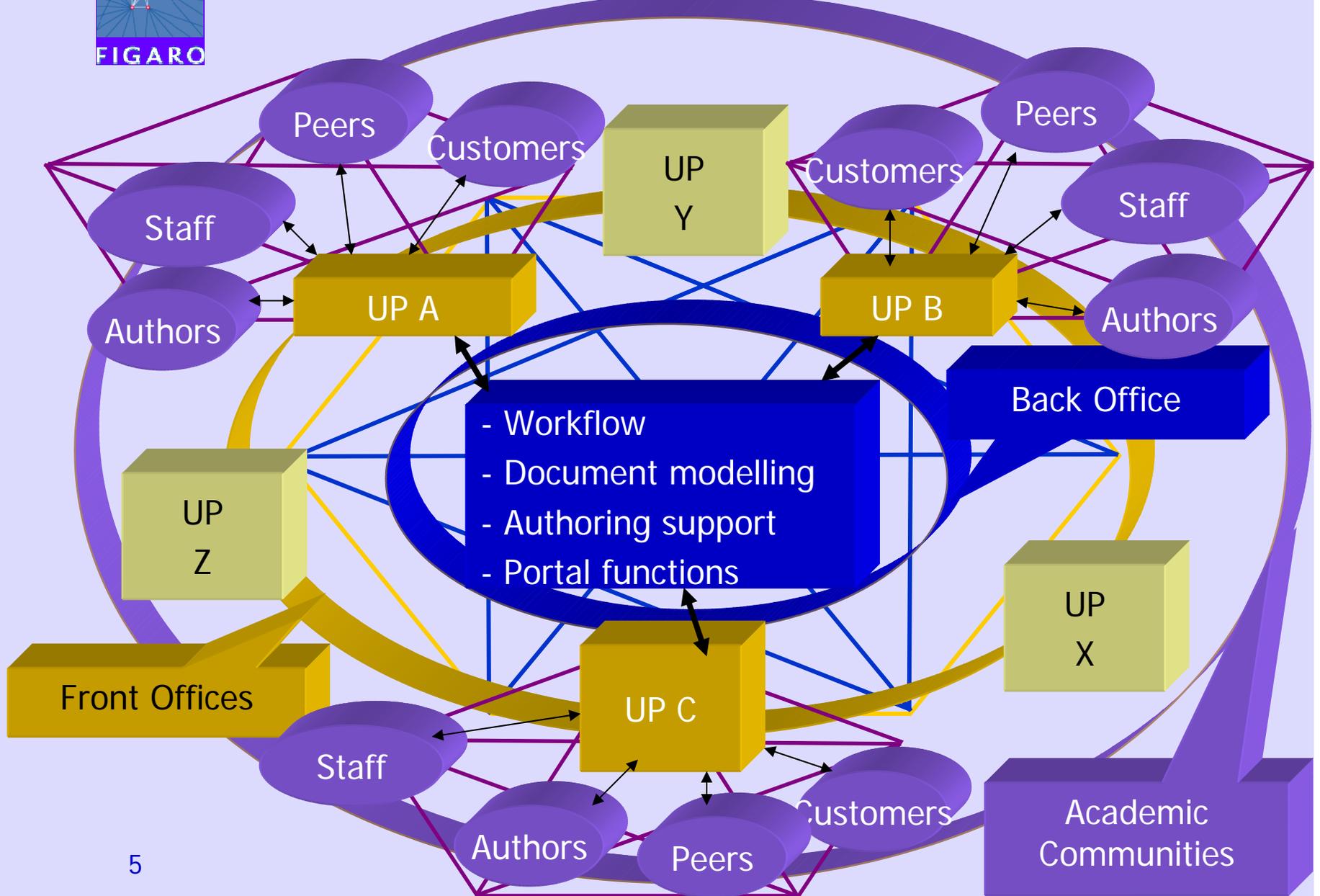


# FIGARO: Objectives

- ❏ Overall: **stimulate and support scientific communication and return science to scientists** by
- ❏ Building an **open, Europe-wide co-operation framework for federating academic e-publishing institutions** including
  - ❏ Shared/distributed **technical facilities**, e. g.
    - **Shared WWW-based workflow**
    - **Supporting tools for open, standard based object modeling**
    - **Generic authentication layer** pluggable in SSO architectures
  - ❏ Common **organisational/exploitation components**, e. g.
    - **Business model**
    - **Legal framework**
- ❏ **Make this framework sustainable**
- ❏ Investigate **new models of article publishing** ('post-journals') and of **quality assurance** ('public peer reviewing')



# The Federation Model





# The FIGARO Consortium

- **Full Partners (Development and usability evaluation)**
  - **Utrecht University (Consortium Leader) and Delft University (NL)**
  - **Hamburg University (Technical Coordination) and Oldenburg University (D)**
  - **Daidalos bv IT in Publishing (NL)**
  - **Firenze University (I)**
- **Associate Partners (Content Provision)**
  - **Academic content providers: Stichting Delft Cluster (NL), Leuven University (B), Lund University (S)**
  - **SME publishers: Uitgeverij LEMMA B.V. (NL) and Wydawnictwo DiG sc. (PL)**
  - **Association of Research Libraries/SPARC (US)**
- **Subcontractor (XML based document modelling)**
  - **SUN Microsystems/StarOffice (D)**



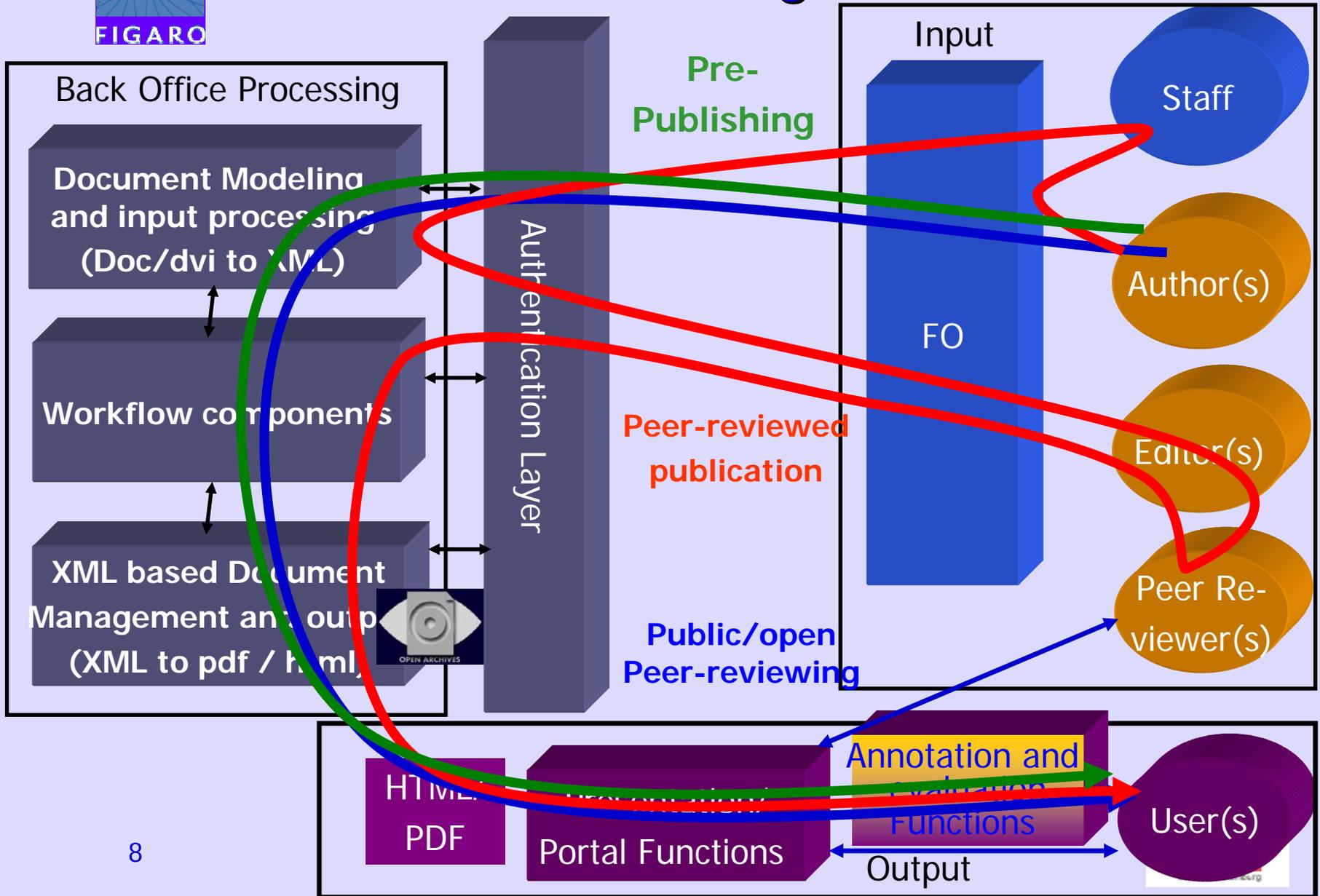
# Standard Based Innovation as a basis for Open Access

- ❑ Achieve functional innovation via integration and adaption of standard based (and wherever possible open source) building blocks and do not start own developments we cannot sustain
- ❑ Examples of such standards:
  - ❑ Metadata (has been covered by Andy and often is overestimated, anyway)
  - ❑ OAI-protocol (covered by Andy, as well)
  - ❑ Open, generic document models expressed in XML (Schema) and derived from operational modeling proposals such as DocBook and OO-XML
  - ❑ Open, URN-based linking and pointing
  - ❑ Open, generic authentication methods using LDAP



# Functional Building Blocks

FIGARO and Open Access



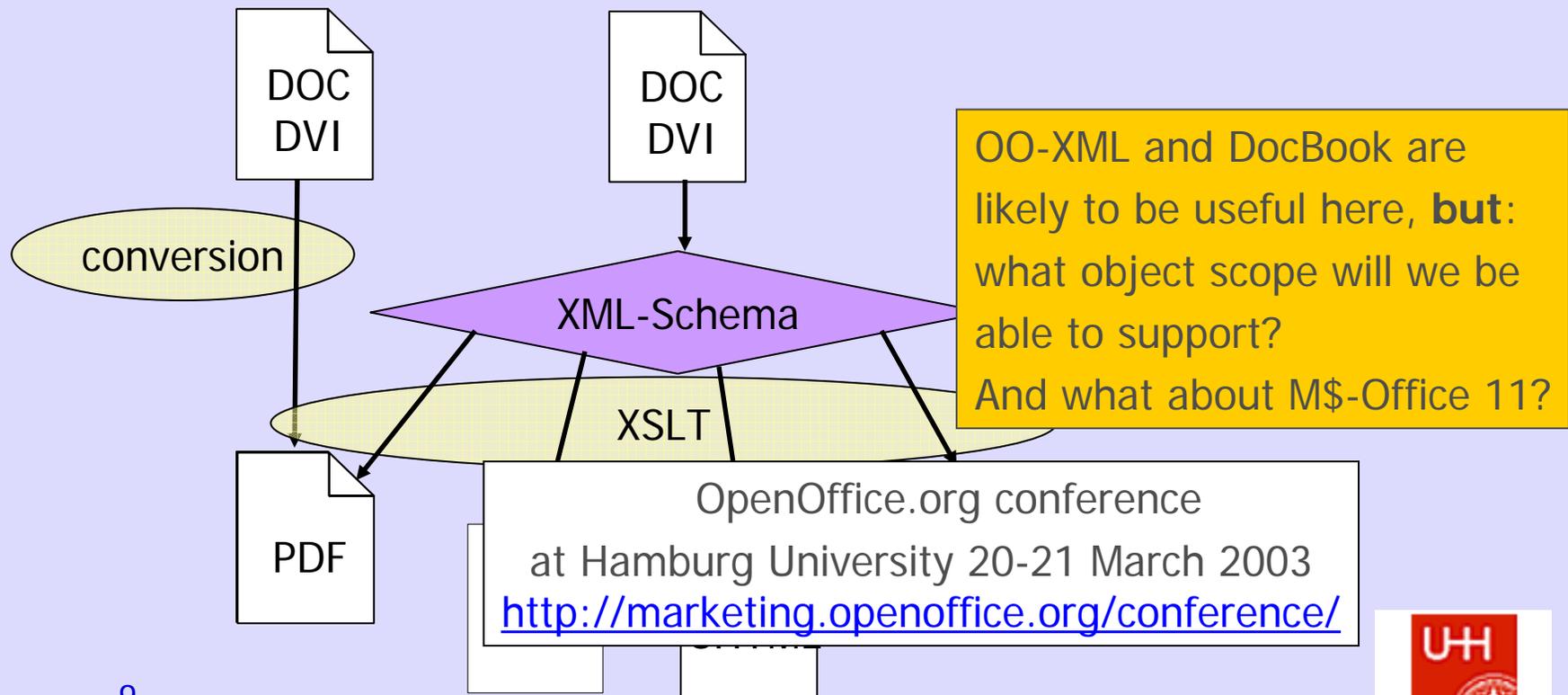


# Document Modeling

- Use standard based, open models for digital information objects in authoring support and to support new and innovative publication objects

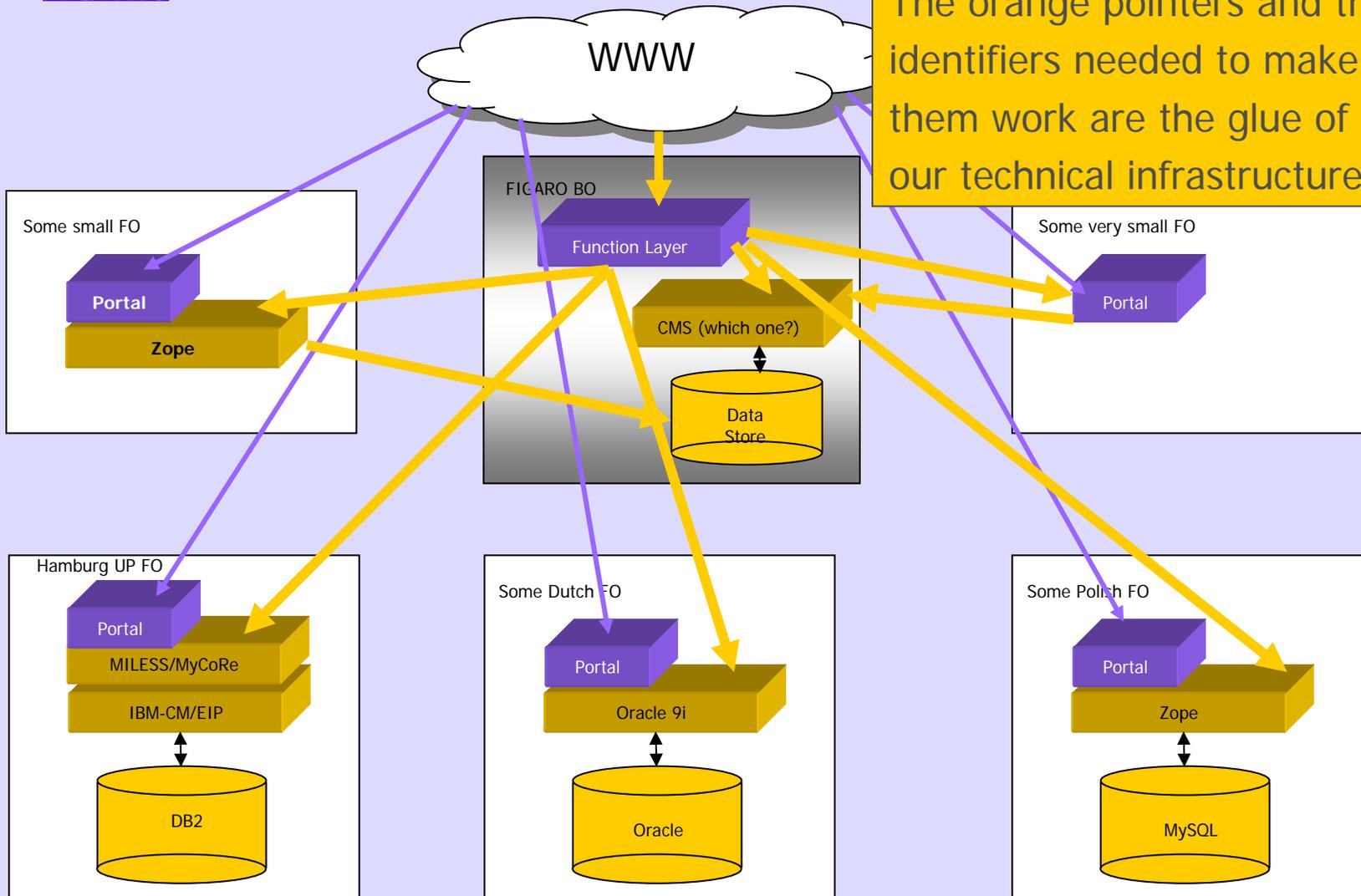
,electrified'  
publishing

,real' e-publishing





# Storing Information Objects in a heterogeneous and distributed setting



The orange pointers and the identifiers needed to make them work are the glue of our technical infrastructure!





# Open Access and Pointers & Identifiers: some lessons learned

- ❑ Full grown CMSs are degraded to simple digital object stores in such an approach
- ❑ Details regarding pointers and identifiers
  - ❑ URL will not do the job (mind persistency aspects and the longevity of scholarly quotations!)
  - ❑ XLink & related standards are intensely observed, but not yet a sure bet
  - ❑ We may well go for URN – but then have to determine a syntax, find resolving partners etc.
  - ❑ And: beware of DOI ...!



# Open Access and Authentication & Authorization

- **WHO** - e. g. authors, customers, editors, reviewers, annotators ...
- may apply **WHAT** kind of operation - e. g. read, write (think of collaborative authoring!), annotate, stabilize ("freeze"), apply different status-levels such as 'rejected' 'ready for public reviewing', copy/attempt pirating
- On **WHICH** object (or which **specific part** of such an object) - e. g. overall document ID but also micro-structures to be referenced as part of compound MM-documents as well as of uniform complex objects ('books' and the like)
- In which **CONTEXT** - e. g. "scientific use" (teaching/studying) vs. commercial use, pre-publishing, public reviewing, publishing etc.
- In other words: identify **Actors, Entities, Operations, Context** and organize these in a **4-dimensional matrix** in a **secure, reliable** way using available building blocks and **standards** wherever possible



# Which Authentication Methods for Open Access?

- ❑ **.NET / AD**
- ❑ Proprietary
- ❑ Centralized
- ❑ Vendor-controlled (M\$)
- ❑ Clear potential of being unsecure

## Liberty Alliance / LDAP

Based on open standards

Distributed

Controlled by ourselves (?)

Secure??

### 3 conclusions:

- ❑ **There are little (if any) ,innocent' technical choices. Open Access strategies need to be aware of this.**
- ❑ **Control over content has little value without controlling the means to access, manipulate and use that content.**
- ❑ **Purely ,political' initiatives without conscience of the implications of technical choices are naively dangerous**
- ❑ **Merci di votre attention ...**