




National Research Council of Italy

'Grey crossroads' in cultural heritage preservation and resource management

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Grey Literature, Cultural Heritage, Digital Preservation and Management/1

- Cultural heritage fields: art and architecture, archaeology, preservation and restoration, archive keeping, codicology and librarianship, applied sciences and engineering, tourism, management, etc.
- Solving problems through scientific inquiry: one of the main focus of cultural heritage preservation
- *Providing access to a huge number of unpublished fieldwork reports and all GL produced in occasion of assessments, surveys and fieldwork → Grey Literature Digital libraries, e-resources and archives are crucial for professionals working on multiform branches of cultural heritage*
- The 'ideal' GL digital archive, especially for arts, architecture and archeology, might be a 'living' archive making reports available both to researchers and to the civil wider community, allowing grey literature even to feed future research.



Grey Literature, Cultural Heritage, Digital Preservation and Management/2

- ▮ It's crucial to preserve internal documents and technical reports, maps, graphs and digital images for future generations: citizens, technicians and professional users (e.g. for cultural heritage restoration and preservation campaigns)
- ▮ Some requirements:
 - ▮ long-term preservation
 - ▮ accessibility and readability
 - ▮ access and copyright disclosures
 - ▮ ...

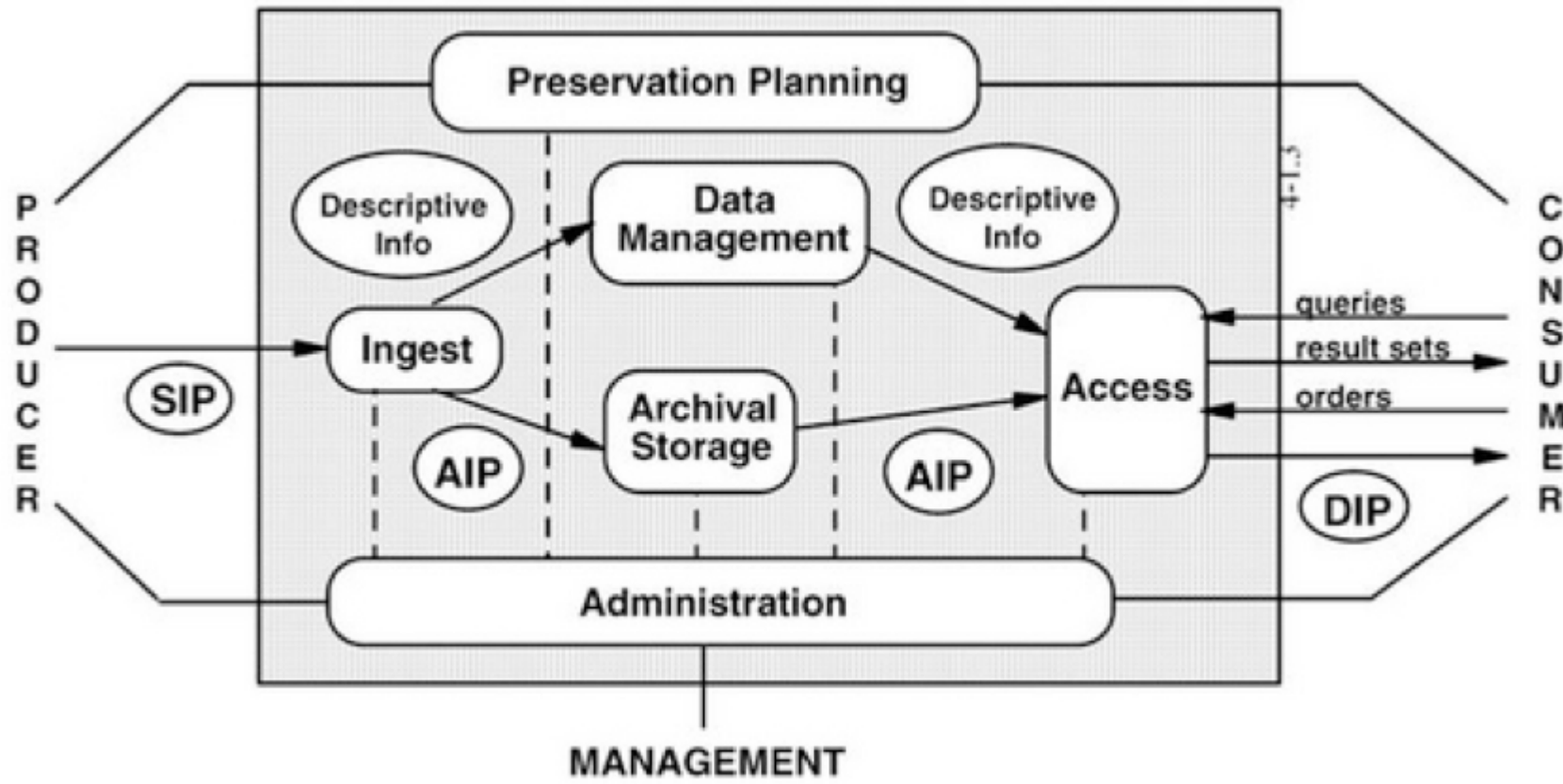


Digital preservation: legal aspects

- Legal obligation for digital preservation in many countries
- Italy's case: many laws □ not easy to deal with
 - DPR 28/12/2000, n. 445
 - DPCM 13/1/2004
 - Dlgs 82 2005 (Digital Administration Code)
 - DPCM 3/12/2013 (Technical rules)
 - Agid Guidelines for digital preservation
 - ...

(Dates in Italian format dd/mm/yyyy)

OAIS Model





Main workflow

The **Content Producer**:

- ▢ Identifies preservation needs
- ▢ Selects contents for preservation
- ▢ Generates and submits SIP for preservation

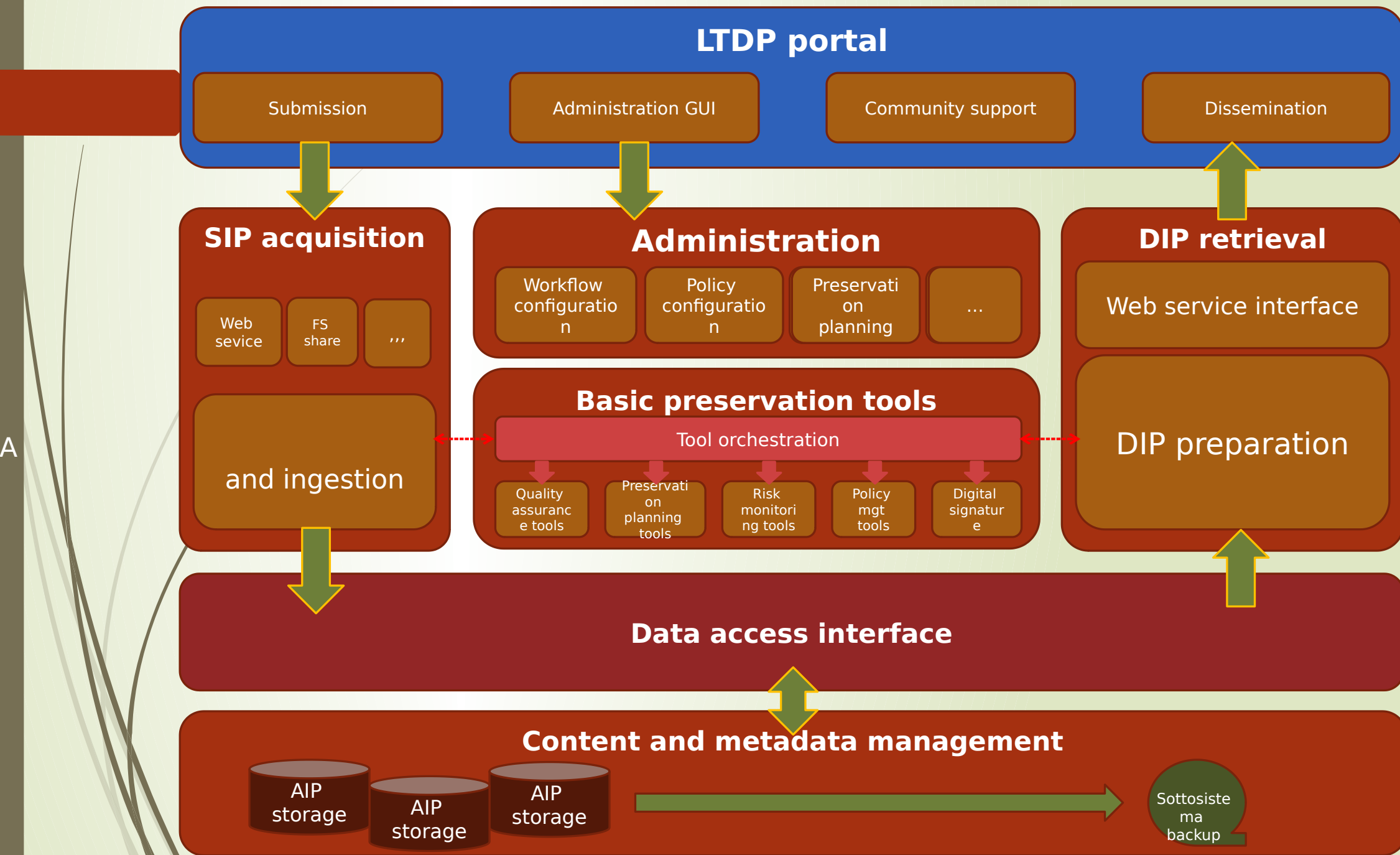
The **Preservation Manager**:

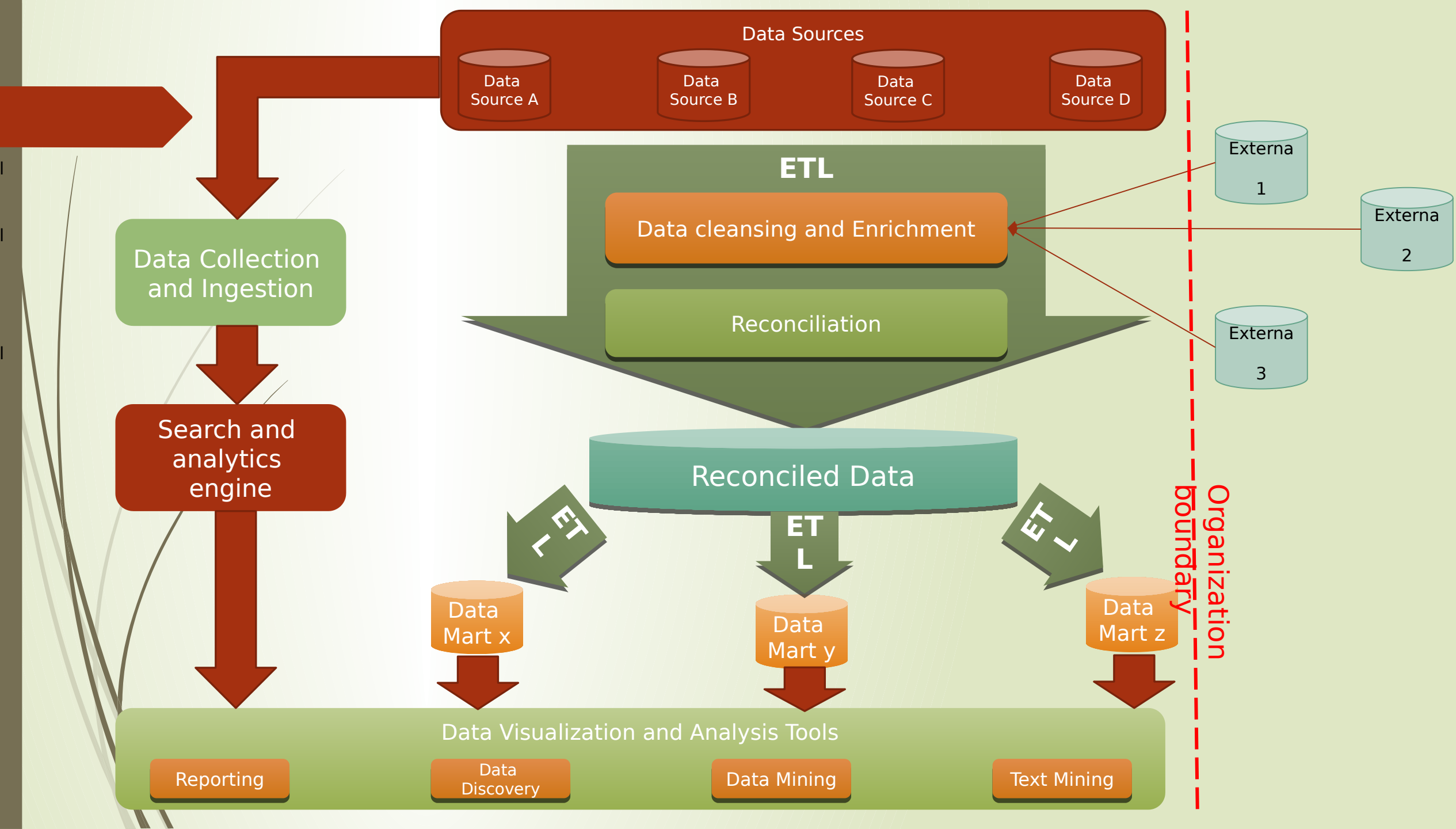
- ▢ Receives and takes SIP in charge
- ▢ Verifies the compliance of SIP formats and contents to rules and policies agreed with content producer
- ▢ Sends acceptance or refusal notification to content producer
- ▢ Creates Submission Report
- ▢ Creates AIP(s)
- ▢ Digitally signs AIP(s)
- ▢ Sumits AIP(s) to repository



Other workflows

- ▢ Dissemination
- ▢ Periodical checks about AIP integrity, format obsolescence
- ▢ Format migration
- ▢ Preservation System Monitoring







Platforms



- ▮ **Preservation:** Fedora
- ▮ **ETL:** Talend
- ▮ **Data base:** Postgres
- ▮ **Business Intelligence:**
 - ▮ **Reporting:** Jasper
 - ▮ **Data Discovery:** Qlikview
 - ▮ **Data Mining:** Knime
- ▮ **Text search and analytics:** Elastic Stack



Importance of metadata

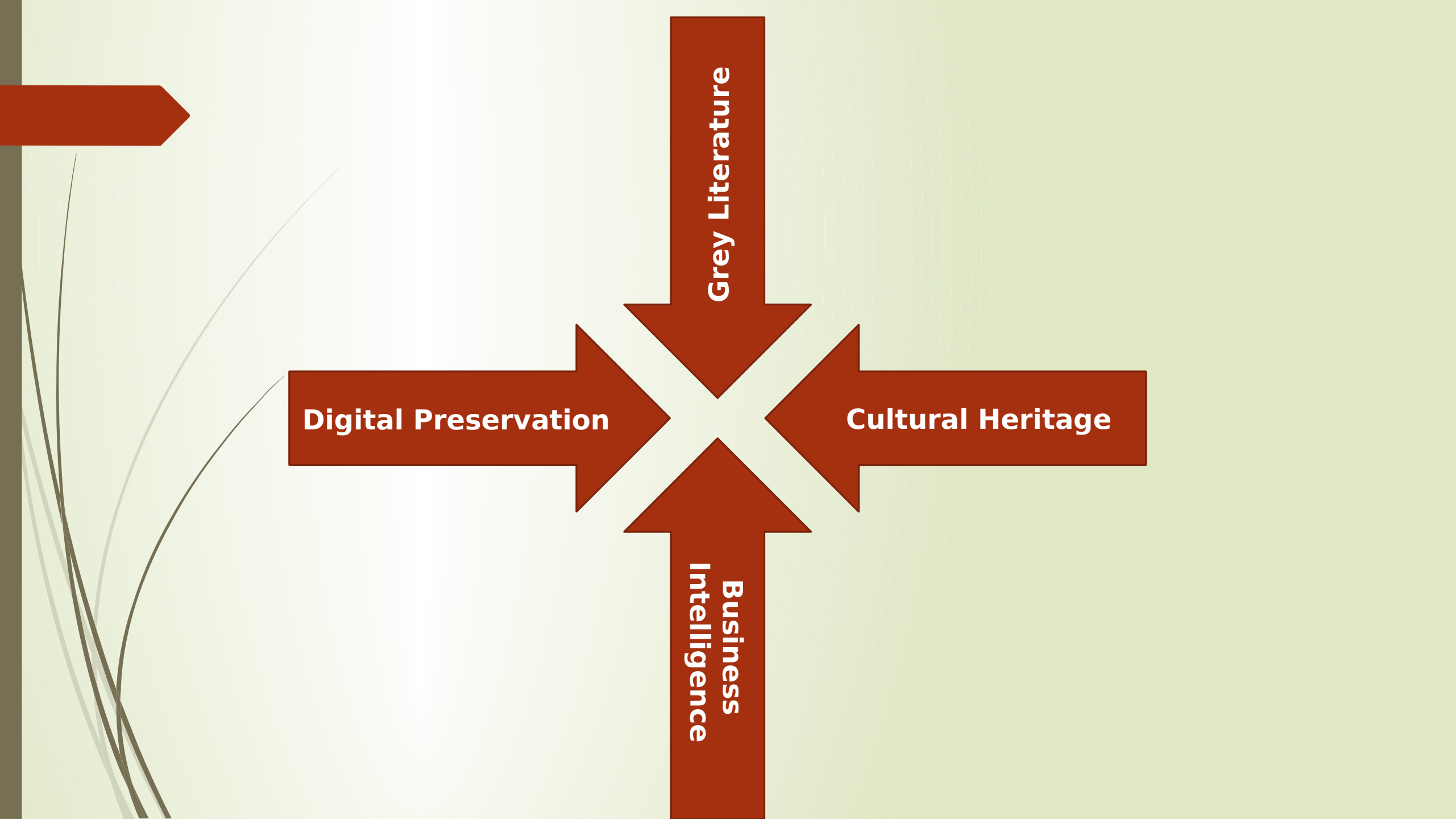
The Board of Directors meeting minutes case. Useful information:

- ▢ **Discussion points**
- ▢ **Decisions by type**
- ▢ **Yearly budgets approved**
- ▢ **Budget variation amounts**
- ▢ **Other**



Possible Insights

- ▢ Correlation between BoD decisions and organization's performance
- ▢ Discussion topics frequency
- ▢ Approval/rejection frequency
- ▢





Conclusions



In our opinion:

- ▮ Much insight could be gained by the analysis of digitally preserved GL assets
- ▮ It is crucial to enrich, normalize, cleanse contents and add high quality metadata
- ▮ Legal obligations provide a chance to build high quality data warehouses covering long periods, where interesting queries can be performed but ...
- ▮ Legislation should be an asset and not an hindrance

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