



Diligent

A **D**igital **L**ibrary Infrastructure
on **G**rid **E**nable**D** Technology

DILIGENT

Digital libraries powered by the Grid

Donatella Castelli
ISTI-CNR, Italy



Information Society
Technologies

General Info

- Duration: 3 years
- Commencement Date: September 2004
- Effort: 1024 p/m
- Cost: 9.8 M Euro
- EU funding: 6.3 M Euro

- Consiglio Nazionale delle Ricerche – ISTI (Italy, Scientific Co-ordinator)
- European Research Consortium for Informatics and Mathematics (France, Administrative Co-ordinator)

- University of Athens (Greece)
- Swiss Federal Institute of Technology Zurich -ETH Zurich (Switzerland)
- Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. – IPSI (Germany)
- University for Health Informatics and Technology Tyrol (Austria)
- University of Strathclyde (United Kingdom)

- Engineering Ingegneria Informatica SpA (Italy)
- Fast Search & Transfer ASA (Norway)
- 4D SOFT Software Development Ltd. (Hungary)

- European Organization for Nuclear Research (Switzerland)

- European Space Agency – ESRIN (Italy)
- Scuola Normale Superiore (Italy)
- RAI Radio Televisione Italiana (Italy)

Research today

- Research is carried out by groups of individuals, belonging to different institutions, that dynamically aggregate to carry out projects together
- By sharing their resources these individuals create better conditions for their research
- Digital libraries, by maintaining and making worldwide accessible the produced knowledge, are becoming key instruments for scientific collaboration in many research areas

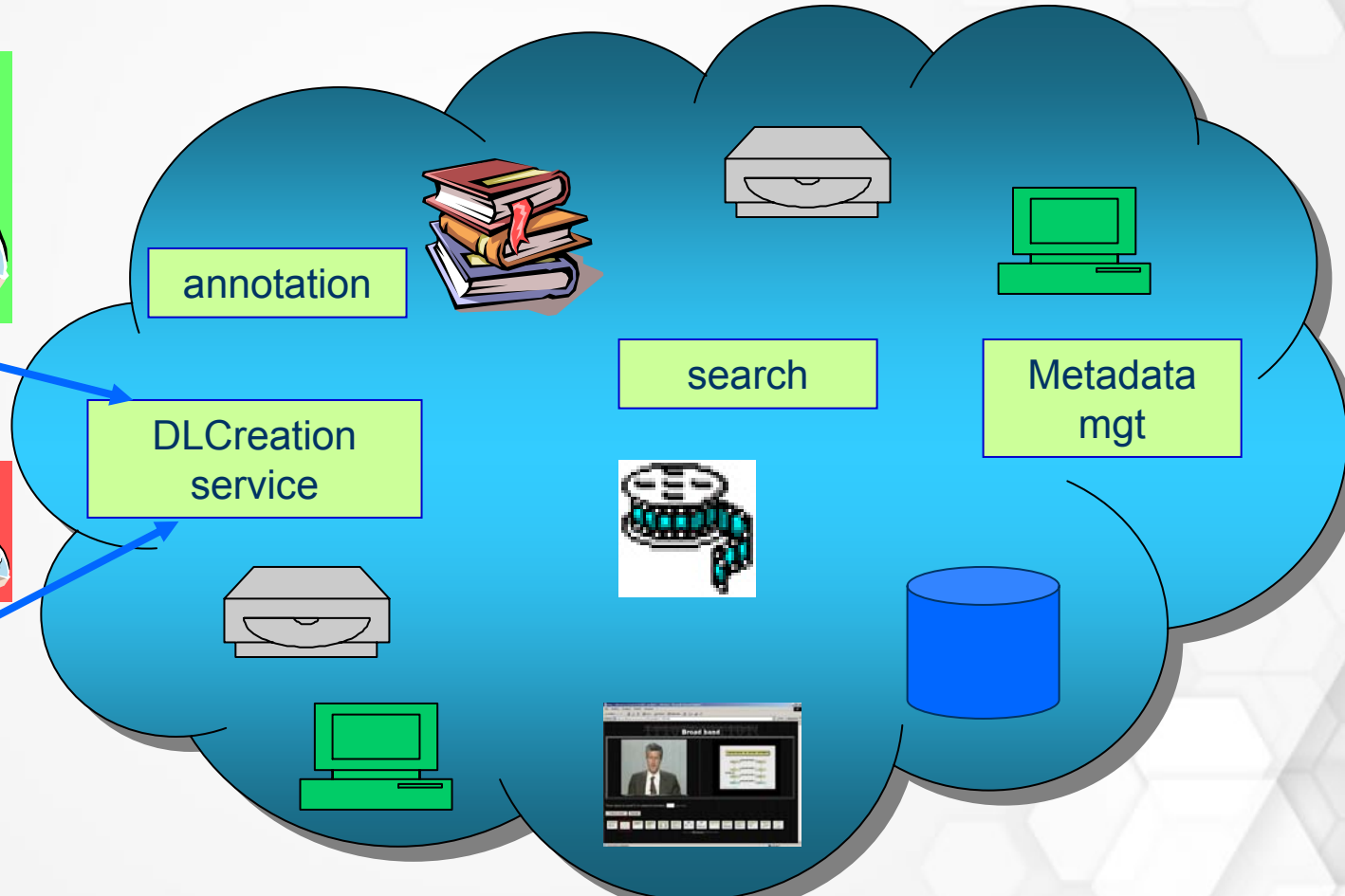
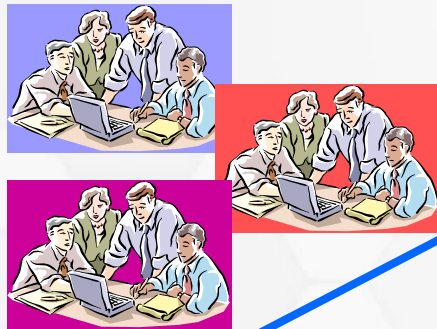
The current digital library technology

- The construction and management of a DL requires high investments and specialized personnel
- Years are spent in designing and setting up a DL
- Multimedia and multi-type handling, the new DL frontier, is very limited since the storage and processing of these new types of documents requires high capabilities

DILIGENT objective

Create an advanced **Digital Library Infrastructure** that will allow members of dynamic virtual research groups to create on-demand transient digital libraries based on shared computing, storage, multimedia, multi-type content and application resources

DILIGENT Framework

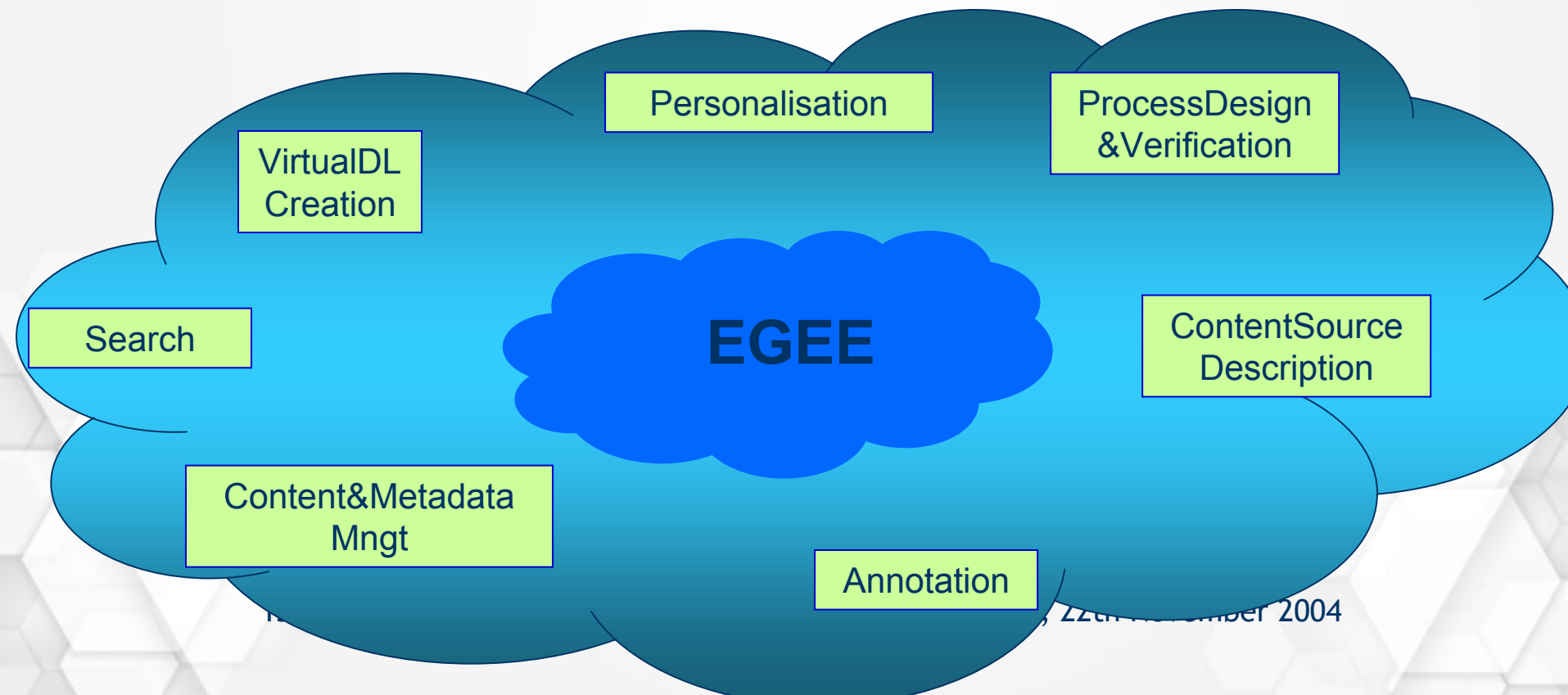


Technical approach

- DILIGENT will obtain its objectives by exploiting Grid technologies as a means for providing
 - ◆ High computing and storage capabilities for the handling of a wide variety of information objects
 - ◆ Controlled sharing of resources

Technical solution

- The high computing and storage capabilities will be obtained by relying on the EGEE infrastructure
- The DILIGENT project will develop the knowledge management services and the services that are needed to handle them



Expected results

- A “knowledge eInfrastructure” for supporting research
- A test-bed for serving two of our user communities
 - ◆ Culture heritage domain
 - ◆ Environmental science domain
- A number of experiences/solutions that can be shared/reused by other applications
 - ◆ Sharing of content and application resources
 - ◆ On-demand service activation
 - ◆ Dynamic virtual research organizations
 - ◆

Contact us

Co-operation with other projects/communities is welcome

www.diligentproject.org

Contact people:

- Donatella Castelli, Pasquale Pagano
ISTI-CNR
donatella.castelli/pasquale.pagano@isti.cnr.it

- Jessica Michael
ERCIM
jessica.michel@ercim.org