



European Approaches to Digital Preservation and the role of Digital Preservation Europe (DPE)

Hans Hofman

SAA conference, 3 August 2006

Washington D.C.



Information Society



Overview

- European scene
- Digital Preservation Europe: DPE
- PLANETS
- Summary



European scene

- FP6 – IST European Commission
- Many initiatives under different frameworks
 - FP5: ERPANET (2001-2004), Minerva (until 2005), Prestospace (2004 – 2006), BRICKS (2004 – 2007), ...
 - FP6: PLANETS, Digital Preservation Europe, CASPAR – all started in 2006
 - FP7: from 2006 on to 2009



What is *DPE*?

- *Digital Preservation Europe (DPE)* fosters collaboration & synergies between existing national initiatives across the European Research Area.
- Co-ordination action
- *DPE* addresses the need to improve coordination, cooperation, and consistency in current activities to secure the longevity of digital materials.
- 9 partners:
 - from UK, Netherlands, Austria, Italy, Czechia, Denmark, Lithuania
 - principal partner, University of Glasgow



The *DPE* Vision (1)

- Create a coherent platform for proactive cooperation, collaboration, exchange and dissemination of research results and experience in the preservation of digital objects.
 - Identify and raise awareness of sources on the issues surrounding the curation and preservation of digital objects.
 - Contribute to the elimination of the duplication of effort of research activities
 - Create a conduit between the research community and practitioner community
 - Stimulate research in digital preservation in key areas
 - Encourage the development of standards and research agenda



The *DPE* Vision(2)

- To increase prevalence of preservation services and their viability and accountability.
 - Promote the development of a European-wide approach to the audit and certification of digital repositories
 - Stimulate ICT companies and software developers to incorporate some of the curation and preservation thinking into newer generations of software.
 - Relate the digital preservation research agenda more directly to the development of exploitable product opportunities
- Improve awareness, skills, and available resources.



DPE: Advocacy and Outreach

- Associate Partners Forum Established
- Briefing Papers and Fact Sheets
- FP6 Preservation Showcase Annual Conference
 - 23 November 2006, Glasgow
- Awareness Workshops and Presentations
- Coordinate and develop collaborative mechanisms for current awareness across Europe



Audit and Certification Services

- Collaboration Agreements
- Define audit and certification practices
- Create Self-Audit Tool
- Piloting of the DPE Audit and Certification Scheme
- Certification Result Repository
- Repository Validation Scheme
- Collaboration with DCC, RLG-NARA and NESTOR work



Research and Practitioner Integration

- Pilot Research and Industrial Exchange Programme
- Creation of a Research Database
- European Digital Preservation Challenge
 - Undergraduate and postgraduate competition



PLANETS

- **P**reservation and **L**ong Term **A**ccess
NETworked **S**ervices
- 16 Partners
 - 5 libraries, 3 national archives, 4 universities, 4 technology companies
- 4 year project funded under FP6 – IST
- c. 15 M euros



PLANETS - Objective

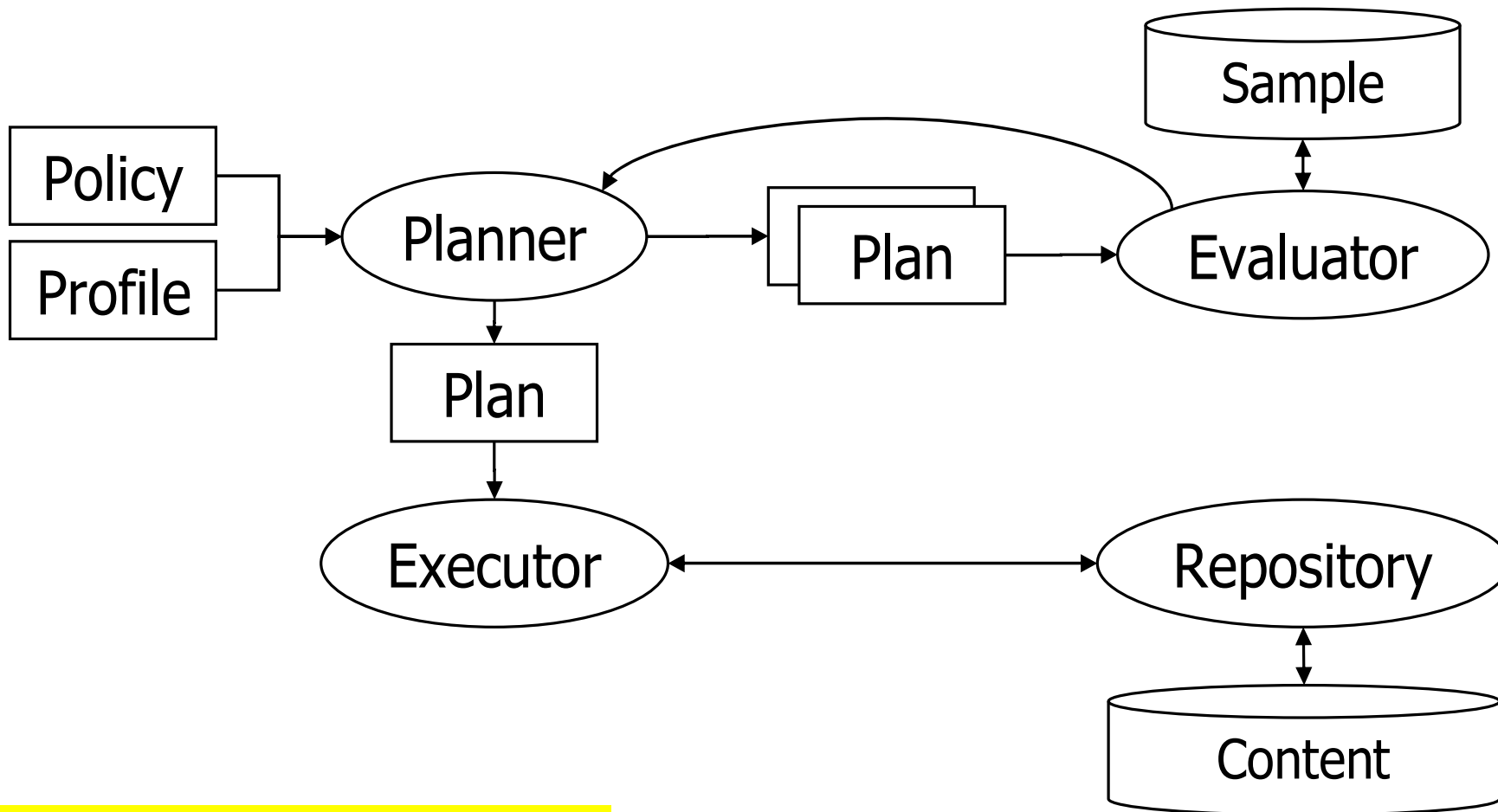
- *“to develop systems and tools which will support the accessibility and use of digital cultural and scientific resources, specifically through the development of novel concepts, techniques and tools to preserve the availability of digital resources over time.”*



PLANETS - Structure

- Sub-projects (apart from project management):
 - Preservation Planning
 - Preservation Characterisation
 - Preservation Action
 - To provide the tools and services that are required to execute a broad range of preservation plans
 - Testbed
 - empirical evaluation of different preservation plans and for testing and evaluating preservation action and characterisation services.
 - Interoperability Framework
 - Dissemination and training
- Each Subproject consists of several Workpackages





Preservation Planning

Preservation Action

- Evaluate existing preservation tools
- Develop a registry and populate it
- Identify gaps and create new tools
 - migration
 - emulation (hardware, UVC, virtualisation)
 - new emerging approaches (e.g. context aware objects, binary code translation)
- Support databases, office formats, images, sound, other (?)



Characterisation of Digital Objects

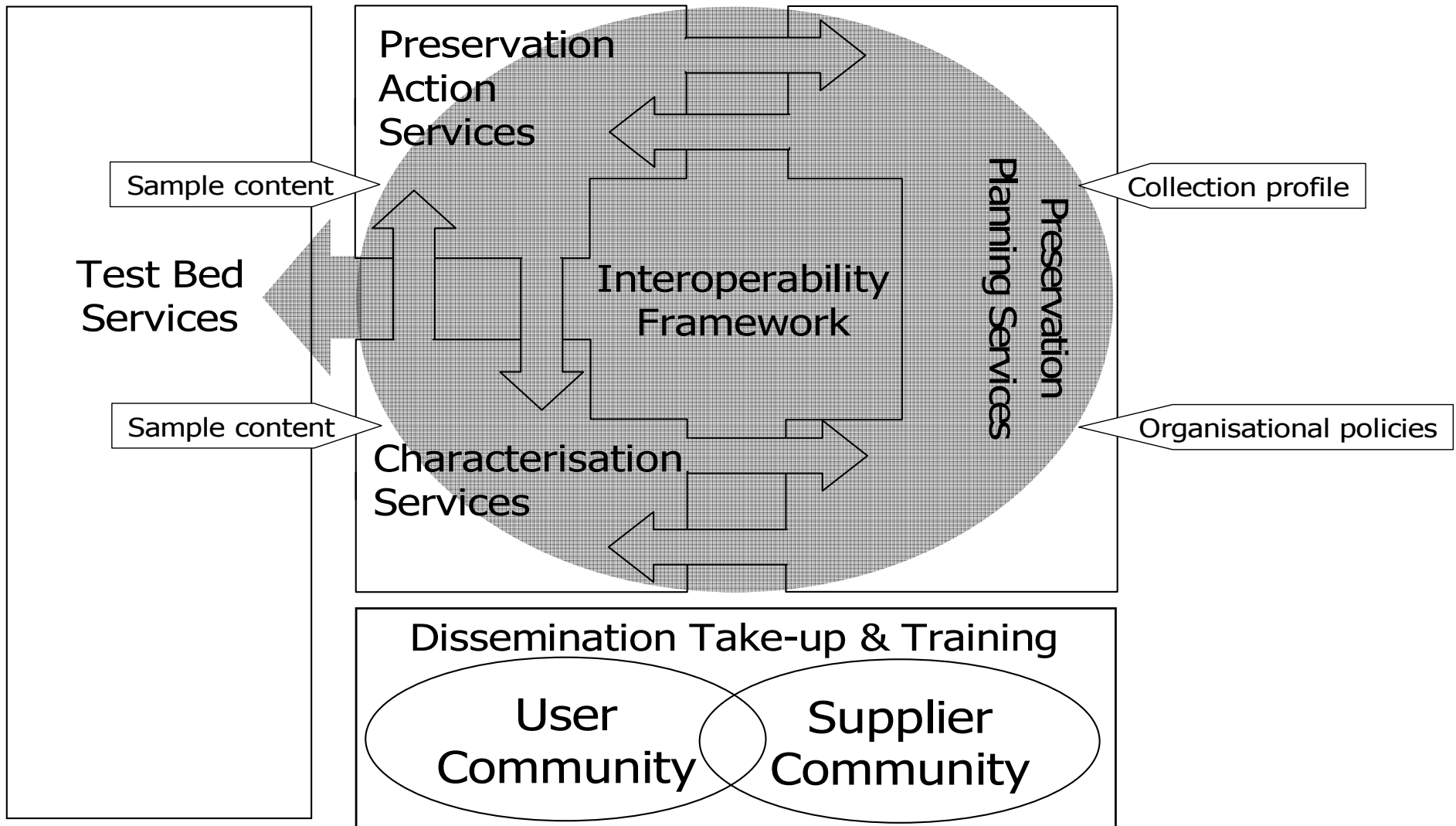
- Significant characteristics
 - both technical and intellectual
 - requires high degree of automation
- To develop an interoperable, format-independent standard for their description
 - eXtensible Characterisation Definition Language (XCDL) + a proof-of-concept XCDL interpreter
- and
 - an eXtensible Characterisation Extraction Language (XCEL) to specify how these significant properties can be extracted from within a given object type, in order to generate an XCDL description

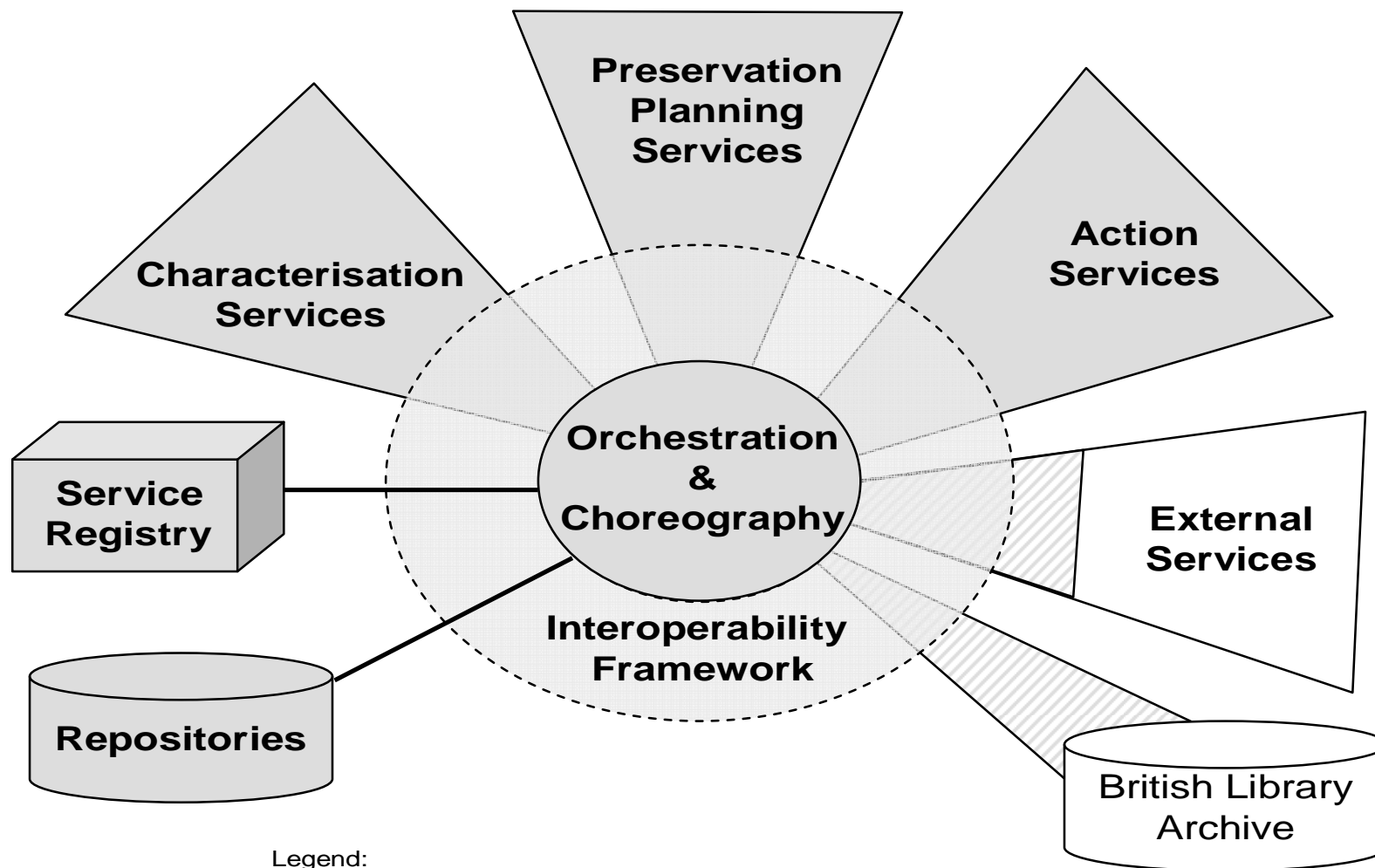


Testbed

- Develop a reproducible Testbed infrastructure
- (Objective) evaluation of preservation actions and characterisation services to assess the effectiveness of preservation plans
- Experimentation within the project as well as to third parties
- Scenarios for benchmarking
- In the end also vendor certification services







Legend:



PLANETS
internal



3rd party



PLANETS
Adapter

CASPAR

- **C**ultural, **A**rtistic and **S**cientific knowledge for **P**reservation, **A**ccess and **R**etrieval
- 4 year project
- 17 partners
- c. 16 M euros
- OAI based
- Scientific, cultural and artistic digital objects



The CASPAR Consortium

ACADEMIC

UG, UU, UL

RESEARCH COUNCIL

CCLRC, CNR, CNRS

INDUSTRIAL

ENG, IBM

SMEs

MW, ACS, @Sem

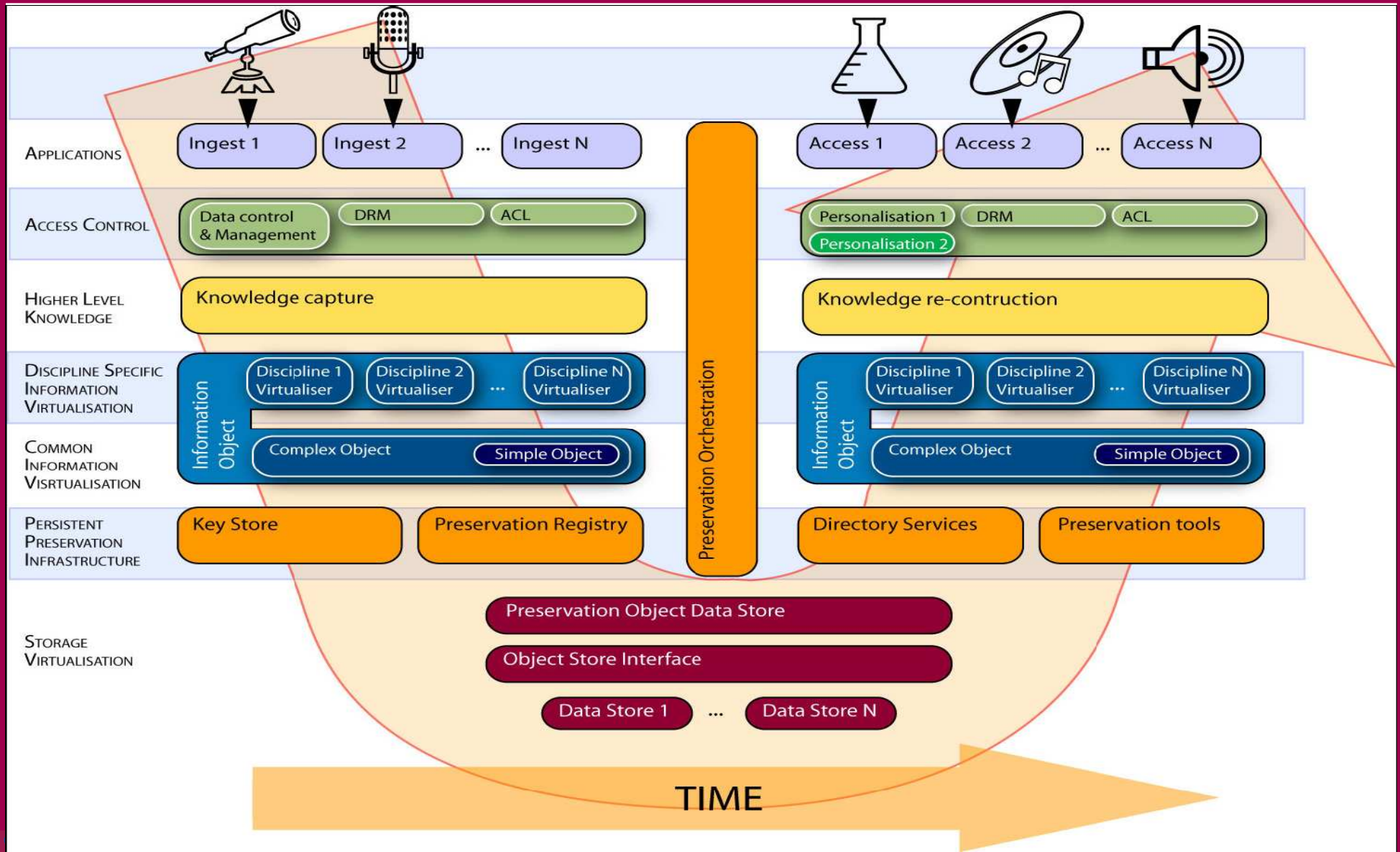
INTERNATIONAL ORGAN.

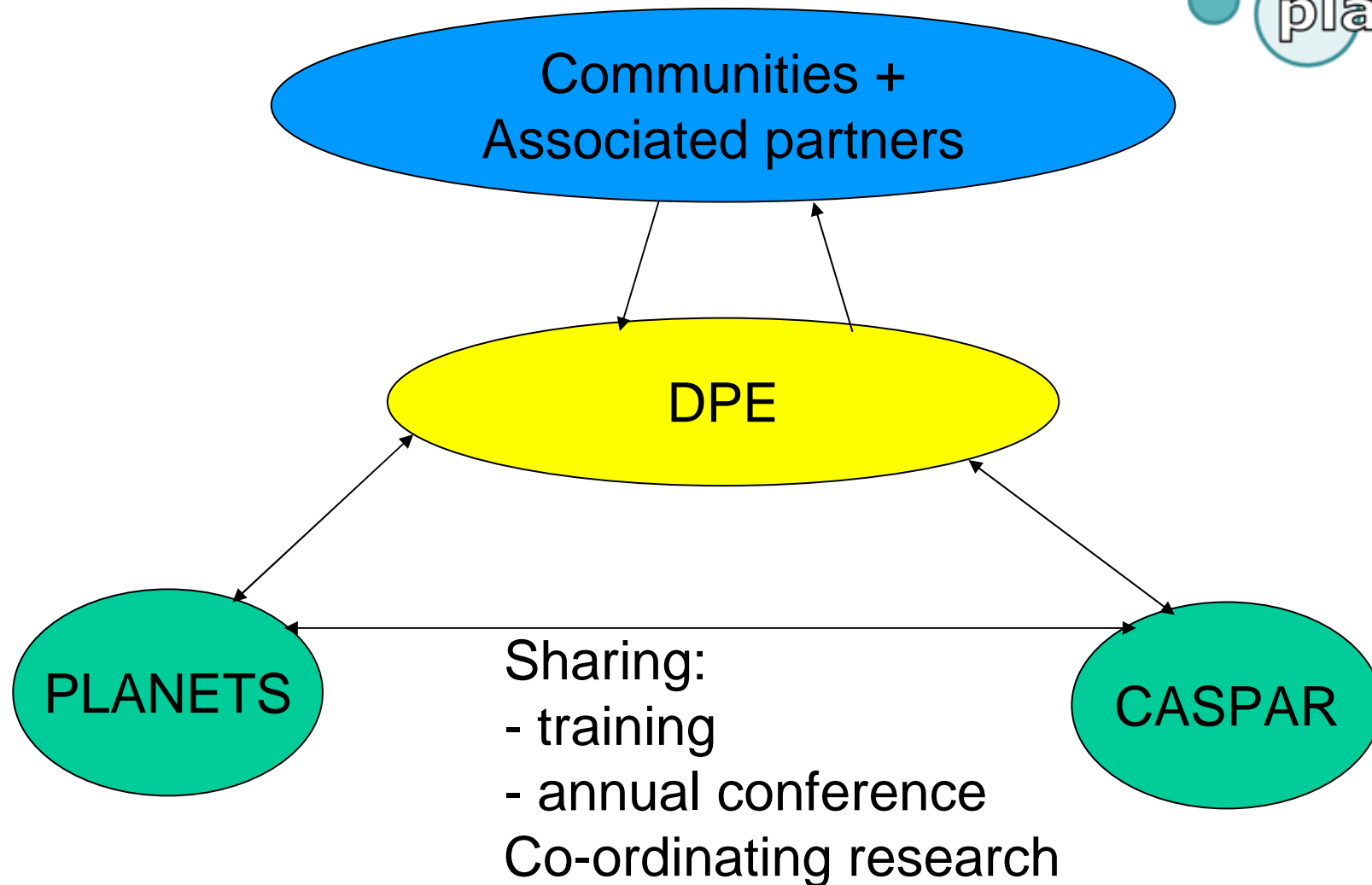
ESA, UNESCO

NATIONAL ORGAN.

INA, IRCAM, CIANT, FORTH







Summary

- 3 new major projects reflecting the interest of the EC into Digital Preservation
- Push forward the development of concrete and tested preservation tools based upon existing and emerging technologies/ approaches
- Develop an interoperable framework in which these tools can be used
- Develop services based on this environment for third parties and vendors



Websites

- DPE: <http://www.digitalpreservationeurope.eu>
- PLANETS: <http://www.planets-project.eu/>
- CASPAR: <http://www.casparpreserves.eu/>

