



Introduction to Planets

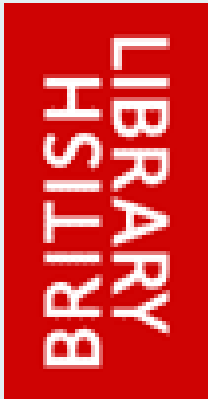
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Nationaal Archief Netherlands
Barcelona, 27 March 2009

Planets overview

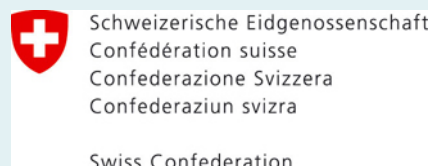
- ❑ A 4-year research and technology development project co-funded by the European Union to address core digital preservation challenges.
- ❑ Started June 2006 with €15m budget
- ❑ Coordinated by the British Library
- ❑ Involves 16 partners
 - ❖ national libraries and archives,
 - ❖ leading technology companies and
 - ❖ research universities
- ❑ Builds on strong digital archiving and preservation programmes



Planets partners (1)



- ❑ The British Library
- ❑ National Library, Netherlands
- ❑ Austrian National Library
- ❑ State and University Library, Denmark
- ❑ Royal Library, Denmark



- ❑ National Archives, UK
- ❑ Swiss Federal Archives
- ❑ National Archives, Netherlands

nationaal archief



Planets partners (2)



- ❑ Tessella Plc
- ❑ IBM Netherlands
- ❑ Microsoft Research
- ❑ Austrian Research Centers GmbH



- ❑ Hatii at University of Glasgow
- ❑ University of Freiburg
- ❑ Technical University of Vienna
- ❑ University of Cologne



The Planets team



All Staff Meeting, Feb 2007

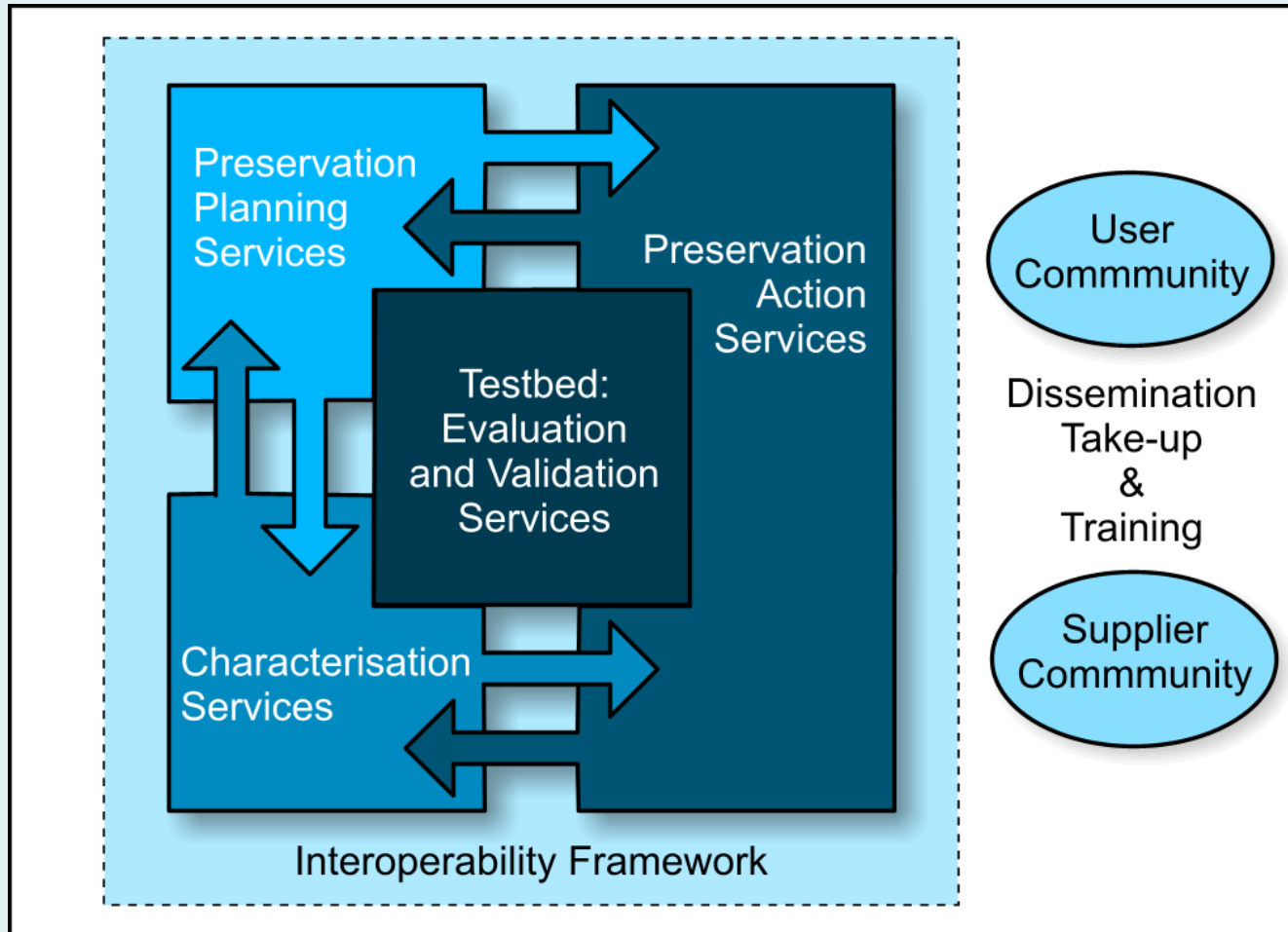


Objectives and aims

- ❑ Increase Europe's ability to ensure long-term access to its cultural and scientific heritage
 - Improve decision-making about long term preservation
 - Control the costs through increased automation, scaleable infrastructure
 - Ensure wide adoption across the user community, and
 - establish market place for preservation services and tools
- ❑ Build practical solutions
 - Integrate existing expertise, designs and tools
 - Deliver tools and services in an operational environment



Planets architecture



Preservation Planning

- ❑ Support decision-making about digital preservation including
 - ❖ Identify and analyse the organisational context
 - including a risk assessment
 - define a framework for preservation / policy
 - ❖ Identifying criteria for preservation within that context
 - ❖ Defining workflow for evaluating/ defining preservation plans
 - ❖ Developing methodologies for assessing the risks of applying different preservation strategies for different types of digital objects
- ❑ Enable formulation, evaluation and execution of high-quality and cost-effective preservation plans that suit the organisational needs
- ❑ Support the on-going evaluation of the results of executing preservation plans and provide a feedback mechanism
- ❑ Document the planning process decisions carefully
 - ❖ accountability and
 - ❖ building knowledge base



Preservation Planning (2)

- ❑ Preservation planning methodology
 - ❖ Workflow
 - ❖ Definition of preservation plan
- ❑ Collection profiling services
- ❑ Technology watch services
- ❑ Risk assessment of digital objects
- ❑ Tool support: Plato, Planning Tool to support decision making process



Preservation Action

- ❑ Transform content
 - ❖ Pluggable infrastructure for third-party migration tools
- ❑ Transform environment
 - ❖ Dioscuri: Modular emulation of the full hardware/software environment
 - ❖ Universal Virtual Computer (UVC): provides a layered durable approach to emulation
- ❑ Preservation Action Tools registry
 - ❖ XML language for describing preservation action tools



File/Content characterisation

- ❑ Characterise content to support preservation
 - ❖ Reduce up-front metadata costs
 - ❖ E.g., Harvard segmented images based on tool parameters
- ❑ Build on TNAs PRONOM for file-format identification
 - ❖ Define a characterisation language (XCDL)
 - ❖ Define an extraction language (XCEL)
 - ❖ Define an pluggable interpreter
- ❑ Extend to measure loss due to actions
 - ❖ All transformations cause loss
 - ❖ Comparator verifies effects of preservation actions
- ❑ Leverage understanding to improve file formats
 - ❖ Address a root cause of digital obsolescence



Testbed

- ❑ Provides a foundation for objective evaluation
 - ❖ Load content
 - ❖ Experiment: collect data, evaluate results, compare outcomes
 - ❖ Validate preservation plans
 - ❖ Benchmark tools and services
- ❑ Consists of
 - ❖ Data storage, hardware, Planets software, testbed software
 - ❖ Benchmark and other content (corpora: well described objects)
- ❑ Provides resources for
 - ❖ The project partners
 - ❖ The preservation community
 - ❖ External organisations
 - ❖ Tool and service certification
- ❑ Controlled environment for the execution of experiments
- ❑ Accumulated experience base collected in registry



Interoperability Framework

- ❑ Provide the glue to hold the Planets tools and services together
 - ❖ Provide service registries
 - Characterisation services
 - Preservation action services
 - ❖ Provide shared services
 - Security, authentication, authorisation
 - Monitoring, logging, auditing
 - Intermediate data, repository, file system space
 - Execute and manage workflows
 - ❖ Enable third-parties to provide tools and services
 - ❖ Enable vendors to integrate preservation services



Summary

- ❑ Planets methods, tools, and services help organisations diagnose and treat problems with their digital objects
 - ❖ integrated environment
- ❑ High levels of automation and scalable components reduce costs and improve quality
- ❑ Empirical data enables improved decision making
- ❑ Still one year to go (May 31, 2010)
 - ❖ looking how to go on after the project has finished (sustainability)
 - ❖ Integrating the results into one shared environment (Planets instance)



Thank you for your attention!

- ❑ Any questions?
- ❑ For queries or additional information, please get in touch:

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- ❑ Planets website:
<http://www.planets-project.eu/>



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