The Planets Testbed
A Collaborative Research Environment for Digital Preservation

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Digital information at risk

- Society risks a gaping hole in cultural and scientific records unless we act now
- European National Archives and Libraries:
  - Have the legal responsibility and the legislative framework to safeguard digital information
  - Must provide sustained access to cultural and scientific knowledge
  - Have limited ability to ensure that today's digital information will be accessible for future generations
- Many others have obligations or business need to preserve digital data
- Meeting the challenge of preserving access goes beyond the capabilities of any single institution

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The Planets Project

- Major initiative in the Information Science and Technology (IST) Framework Programme 6 (FP6)
- Cooperation between Libraries, Archives, Research Institutes and Companies
  - 16 partners, coordinated by British Library
  - Four year project, June 2006 – May 2010
  - 15 Mio. Euro budget
- Builds on strong digital archiving and preservation programmes at European, national and institutional levels
- Addresses core digital preservation challenges
- Empirical approach to learn what works and why
- Focus on needs of libraries and archives

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Planets Goals

- Increase Europe's ability to ensure long-term access to its cultural and scientific heritage
  - Improve decision-making about long term preservation
  - Ensure long-term access to valued digital content
  - Control the costs of preservation actions through increased automation, scaleable infrastructure
  - Ensure wide adoption across the user community and establish market place for preservation services and tools
- Build practical, accessible solutions
  - Integrate existing expertise, designs and tools
  - Share and build
  - Open, extensible architecture

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How can Planets help?

- We must plan preservation: make decisions on what an how to preserve
  → Planets Preservation Tool (Plato)
- We must identify objects, extract and register their characteristics
  → XCL tools, Pronom
- We must perform concrete actions on digital objects
  → evaluate preservation action tools, provide services for action tools
- We must test how objects behave under certain circumstances
  → Testbed
- We must be able to combine different preservation tasks
  → Planets Interoperability Framework

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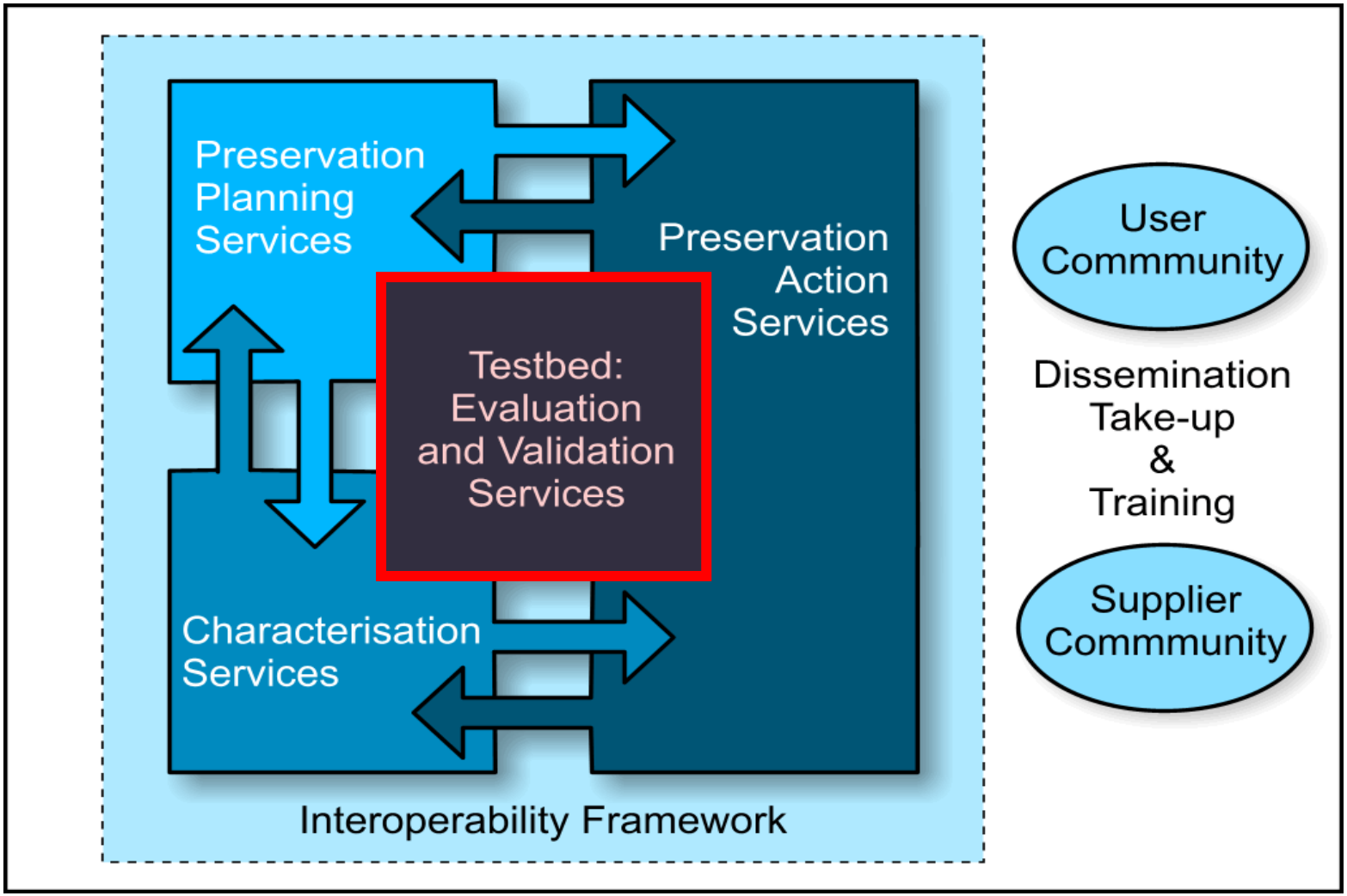
Problem Structure and Project Architecture



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Planets Testbed: Goals

- Controlled environment for experimentation and evaluation
  - enables comparison of preservation tools
  - on various digital object types (e.g. text, image, audio, video)
  - with predefined and well described content (corpora)

- Planets Testbed provides:
  - Methodology for systematic execution of experiments
  - Partly automated evaluation of experiment results
  - Shared access to the experiments themselves
  - Reproducibility of experiments
  - Long-term availability of structured experiment documentation
  - Comparison of experiments results

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Testbed Architecture

- Platform independent
  - Java Enterprise Edition
- Allows to execute experiments on a wide array of preservation tools and services
  - Web Service approach
  - Tools wrapped as web services can be accessed by the Testbed application by means of a platform-independent URI
- Part of the overall Planets software suite
  - Sharing of common components across the entire Planets project

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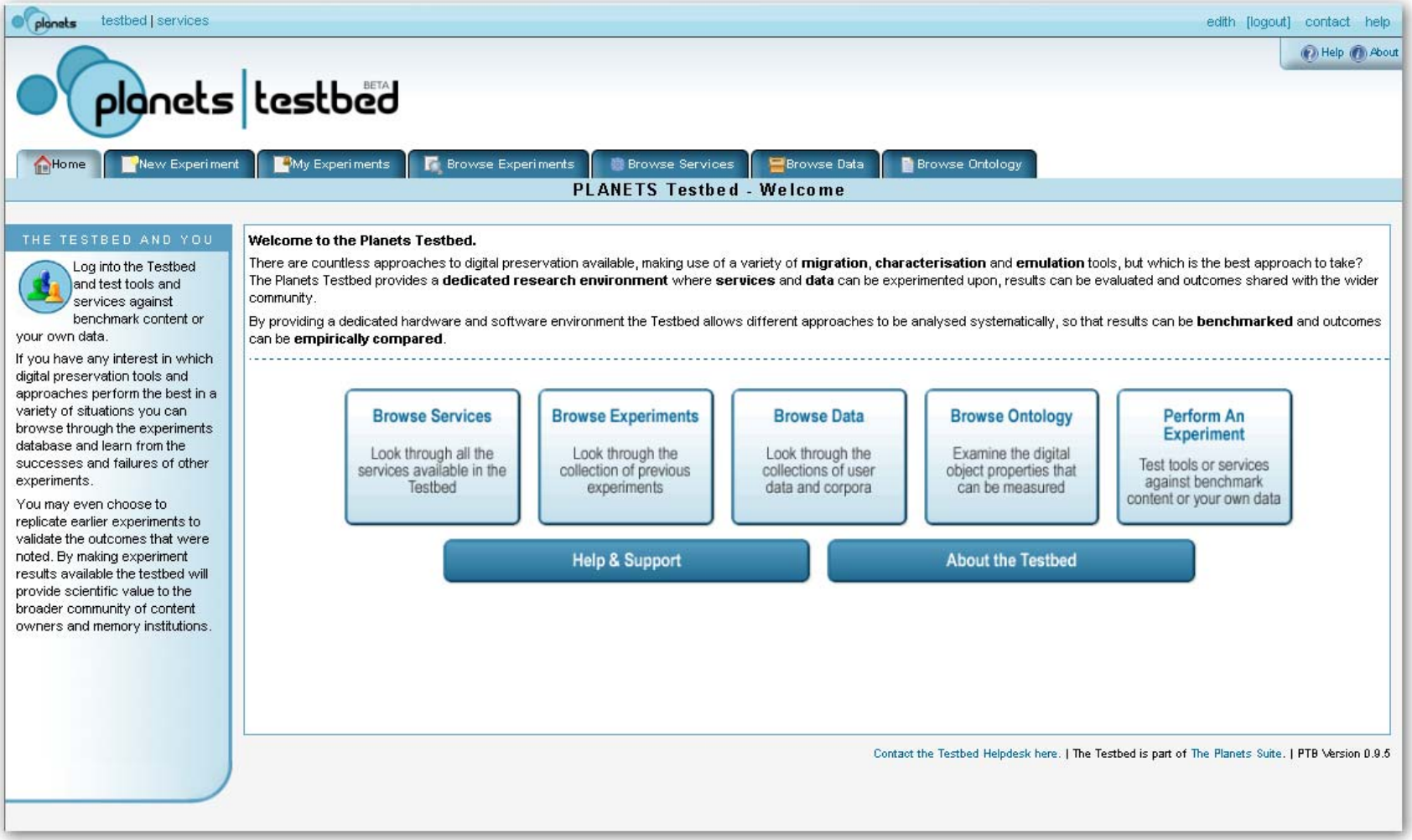
Testbed User Interface



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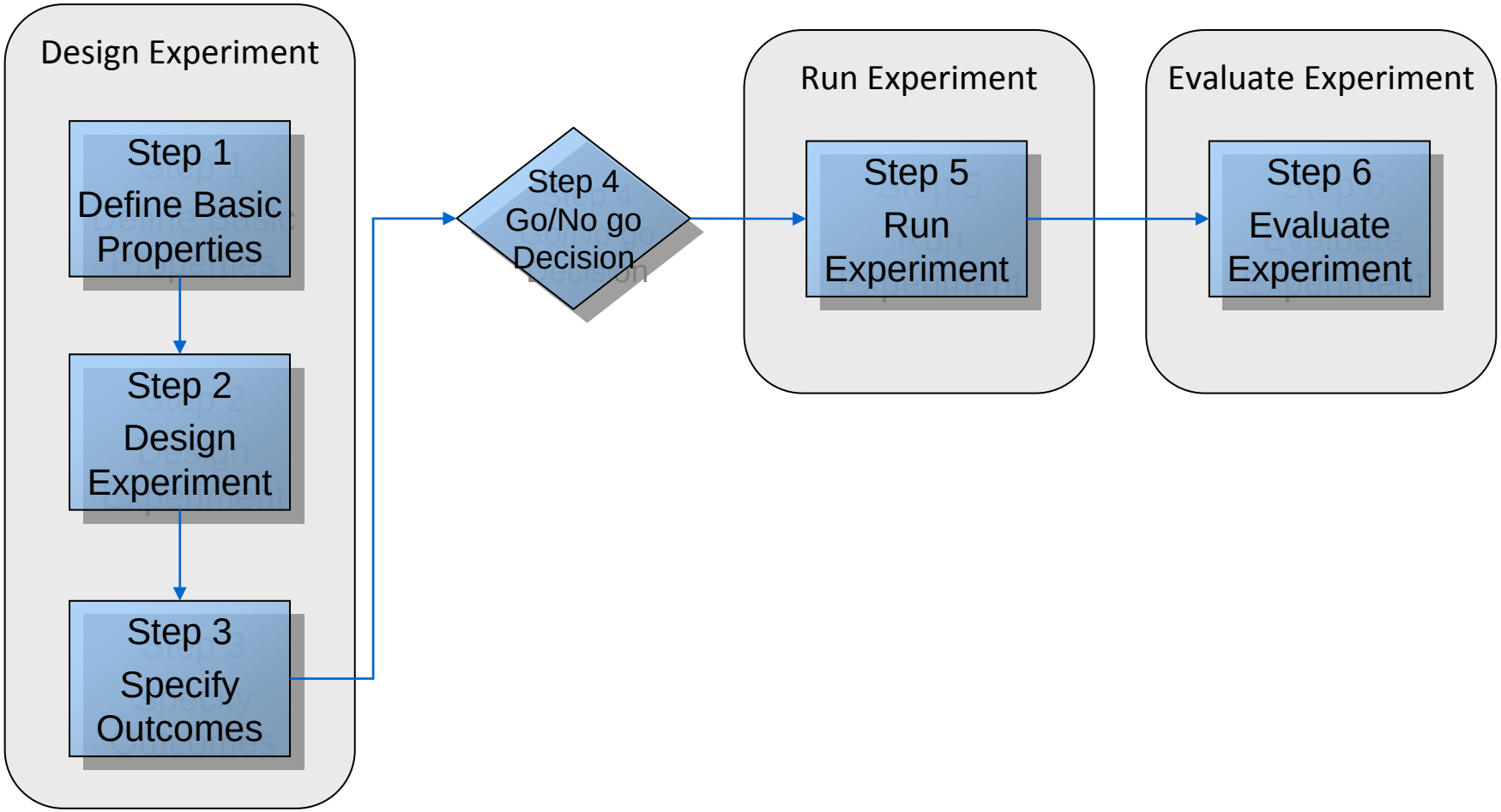
The Testbed Experiment Process



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Testbed Application

- Planets provides a Central Instance of the Testbed
  - Integrated preservation tools and services for experimentation: Identification / characterisation / migration / (emulation)
  - Testbed Corpora for experimentation
  - Integrated Planets Comparator and XCDL language automatic extraction and comparison of technical properties
- Full public release in 2010
- Downloadable instance of the Testbed software available for local installation

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Conclusion

- Planets Testbed allows users to understand which tools serve best their digital preservation need
- Provides information on the usability of preservation tools on various types of data
  - Based on the outcomes of practical experimentation
- Aggregated, structured and institution-independent data on experiment results
  - Can be made visible to the community and exported to publicly available registries
- Repeatability of experiments for validation

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Outlook

- Restricted public opening: June 2009
- Public opening: Beginning of 2010
  - Registration at: helpdesktb@planets-project.eu
- Interested in the Planets Testbed?
  - Register on the Planets website: www.planets-project.eu/community
- Carry out experiments?
  - Contact Testbed Helpdesk: helpdesktb@planets-project.eu

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Interested in Planets?

- Website: www.planets-project.eu
- Newsletters
- e-Bulletins
- Series of Planets Training Events under way
  - ✓ Copenhagen, Denmark, 22–24 June 2009
  - ✓ Sofia, Bulgaria, 16–18 September 2009
  - – Bern, Switzerland, 17–19 November 2009
  - – London, UK, 8–10 February 2010
  - – Rome, Italy, 19–21 April 2010

Next hands-on workshop on Testbed: Bern, 17–19 Nov. 2009
http://www.planets-project.eu/events/bern-2009/

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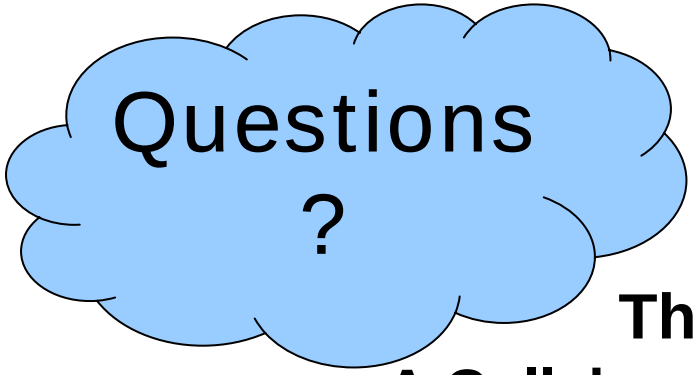

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