KITODO

KEY TO DIGITAL OBJECTS

How to use Open Source in Digitization Projects

The Kitodo Refactoring Update.

Challenges of a distributed development in an open source community.

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IFLA News Media Group Meeting Landsbókasafn Íslands – Háskólabókasafn
(The National and University Library of Iceland)
Reykjavík, Iceland
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What is Kitodo?

overview

1. An Open Source Software Suite for the Production and Presentation of digital objects and collections.

2. A growing community of users, software developers and service companies.

3. A legal entity and association:
„Kitodo. Key to Digital Objects e.V.“

1. Software – Kitodo. Digital Library Modules

software general

- Production + Presentation (independently usable)
- Open Source – no license cost
- multi-client capability, flexible operating models
- Platform independent, web based
- International Standards, open interfaces
  (METS/MODS, OAI-PMH2 -> DDB, Europeana, DPLA, DFG-Viewer, Catalog)
- APIs for integrastion of additional services
  (OCR/OLR, LTP, NER, scan software, …)

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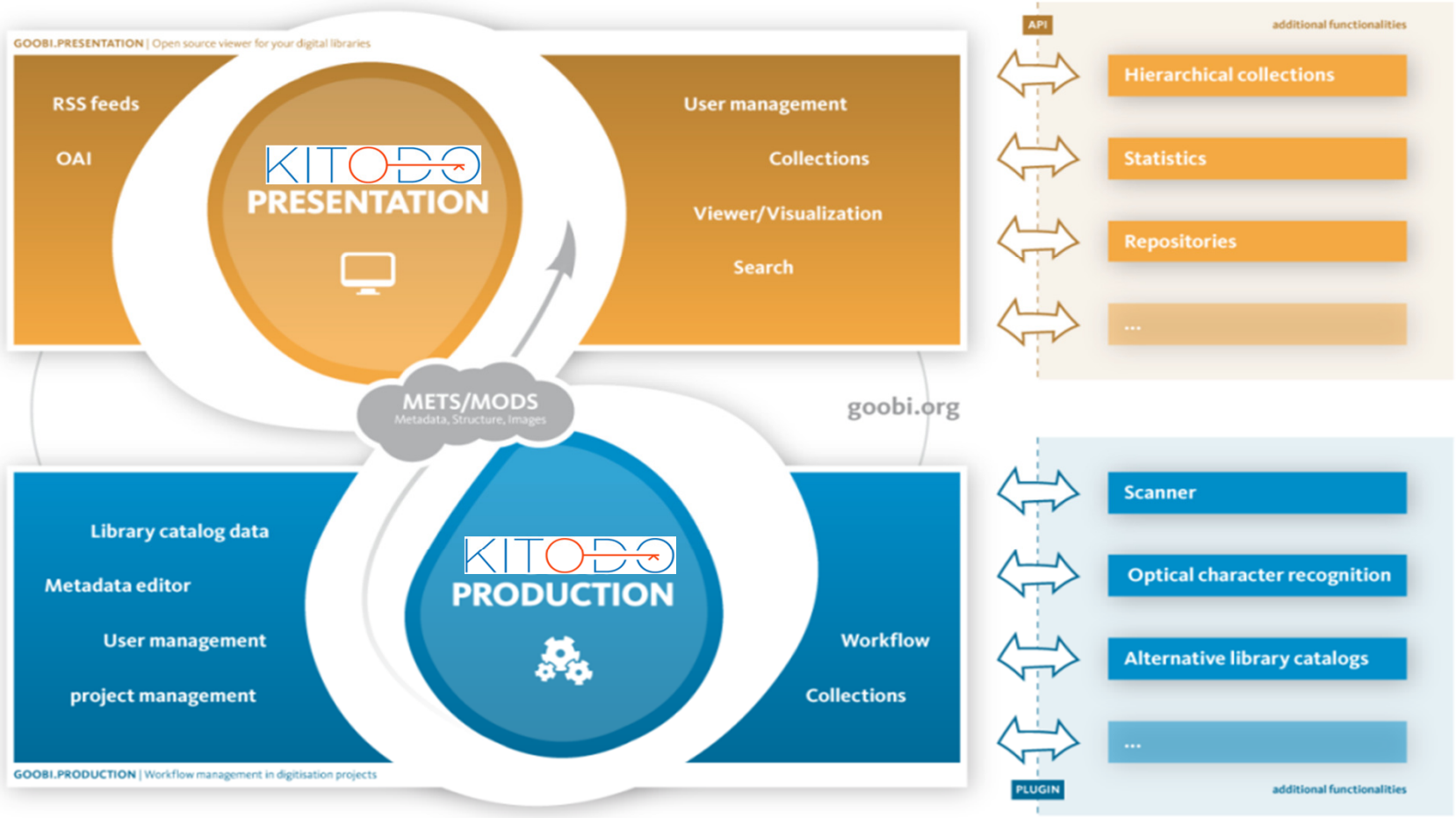
1. Software – Kitodo. Digital Library Modules

software architecture



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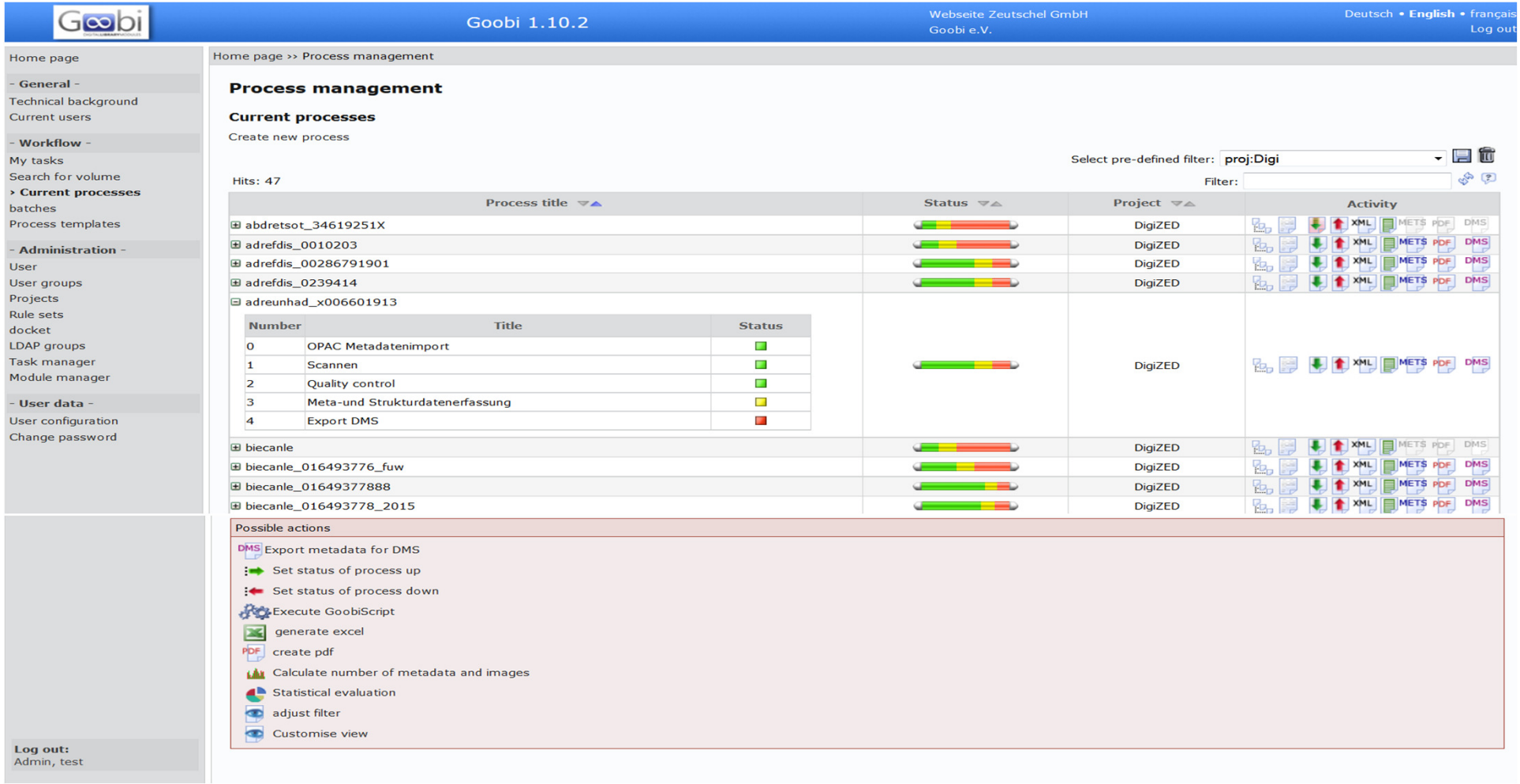
1. Software - Kitodo.Production

production

- Workflow Management
- Metadata Import from existing catalogs or other sources
- Structure-/Metadata Capturing
- Flexibility by Rule Set, Project Configuration, Workflows
- Automated and external workflow steps are possible and integrable
  (OCR/OLR, NER, Validation, …)
- granular right management
- Java-Web Application

1. Software - Kitodo.Production

production - example



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1. Software - Kitodo.Presentation

presentation

- Presentation Interface
- Collection Organization, Search Index (Lucene), (incl. Facetted Browsing, Full Text)
- Visualization of Meta- and Structure Data, Image-Viewer
- Flexibility by free field configuration (Index + Interface)
- Granular Right Management in the Backend
- Modern Templating-Engine, seamless Integration with Institution Website or Portal
- Modularization
- OAI-Interface, URN-Registration
- TYPO3-Extension (PHP5)

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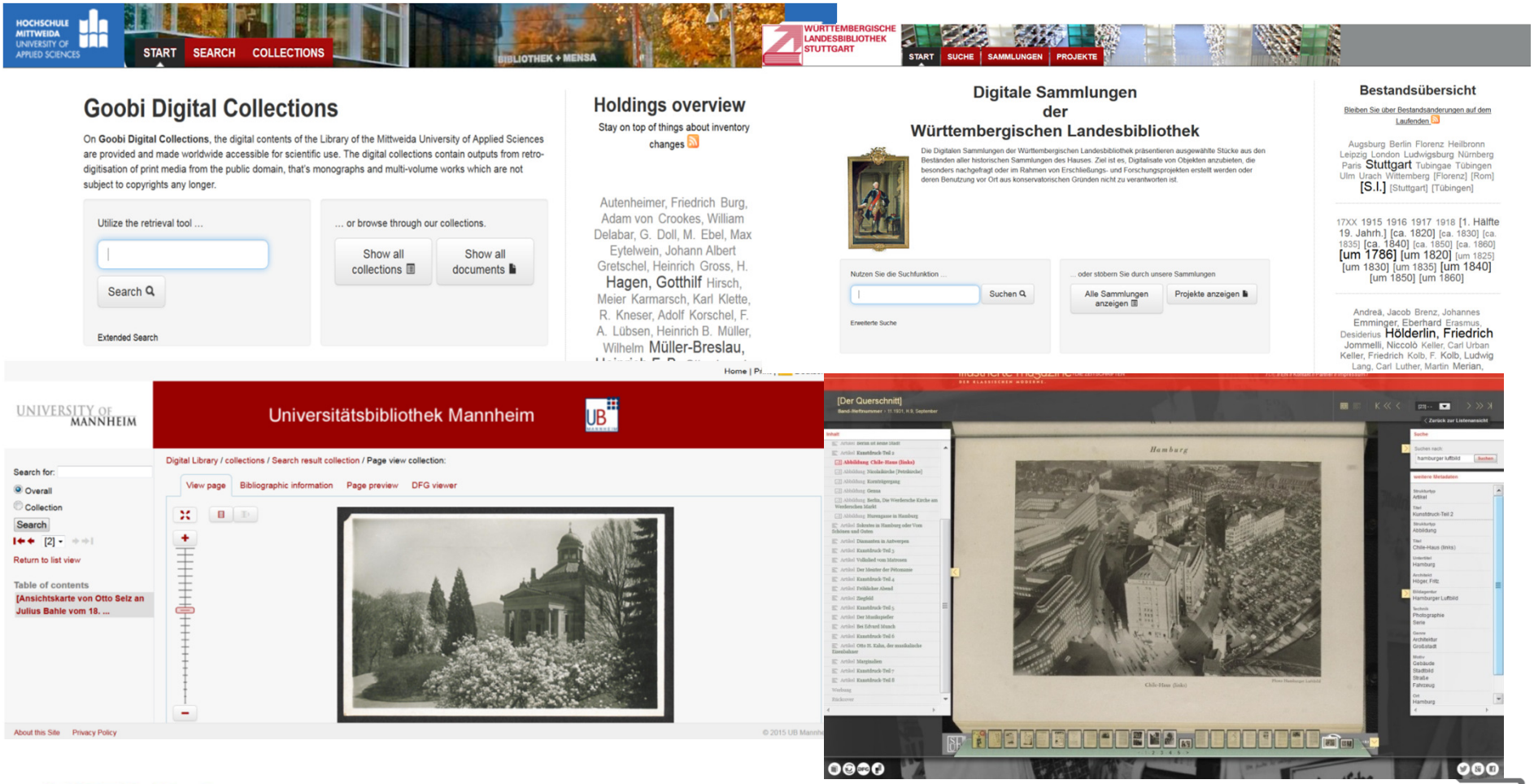
1. Software - Kitodo.Presentation

presentation



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2. User Community

community

- Over 40 international Institutions and Service Providers
- Mutual Support via mailing lists
- Public Documentation
- Users meetings
- Common ongoing development and coordinated development orders
- Relevant creation of format standards
- Synergy effects towards aggregators

2. Visions of the Community

community

- Archives, Libraries and Museums developing, sharing and using in multi-discipline manor tools for digitization and long term preservation.
- Kitodo is a wide used, sustainable standard solution for the production and presentation of digital collections – open source, platform independent and license free.
- Kitodo is a strong international community and a model for the cooperation of the public and private industry.

3. Kitodo. Key to Digital Objects e.V. - The Association

association

12/2010	4 big libraries and Zeutschel signed a Goobi Release Management Agreement and started regular meetings as a Goobi Community Board
03/2011	Begin of the half year open Goobi users meetings
05/2011	Agreement of the Goobi Community Board with intranda GmbH about future cooperation
09/2012	Establishment of the Goobi Association with 12 Libraries and private Companies
01/2013	Registration in the German Association Register
06/2016	Name change to Kitodo

www.kitodo.org

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3. Kitodo e.V. Association contributions

association

- Legally clearly defined form with legal regulations - both internally and externally.
- Financial and political stability – Independency from single persons or institutions.
- Basically democratic Organization form with similar rights and duties for all members.
- Tax advantages (Sponsoring)
- Limitation of liability risks.
- Enhanced visibility of Kitodo and the Kitodo User Community
- Formal framework for regulated cooperation of the members.

3. Kitodo e.V. – Organization

association

- Association Board (5 members)
  - Political representation of members
  - Public Relations
  - Coordination of strategic decisions
- Release Management
  - Code administration on github.com
  - Coordination of developments
  - Controlling of formal development rules (Coding Guidelines)
  - Documentation of bugs and development wishes
  - Release-Planning and –Implementation
  - Technical consulting of the Kitodo Board

github.com/kitodo/

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4. Future Developments

kitodo deveolpment

- METS/MODS-Profile for digitalized Archive material
  - EAD -> MODS-Mapping
  - Implementation in DFG-Viewer
  - Coordination with Software-Vendors archive Systems
- EAD-Import to Kitodo
  - Overtaking of metadata from find books
  - Import of existing structure data
  - Test with the Kalliope-Central Catalog
- Standardization of Rights Coding
  - granular Rights and License access on object level
  - Standardized Coding
  - Implementation to Presentation System

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4. Future Developments

kitodo development

- Kitodo.Publication
- Kitodo.Preservation
- Interface to docWorks (CCS) for article level workflow
- Re-factoring of the complete production system (DFG)

4. Future Developments

Challenges of cooperative development in an open source community

kitodo development

- Development planning and controlling
- Programming guide lines
- Programming in institutions, companies and free developers
- Communication in a distributed environment
- Cooperation between public institutions, private companies and free programmers
- Cooperation between competing companies
- Sustainability – especially in sense of support, maintenance and updating
- Budget “finding”
- Crowd Funding

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5. Kitodo.Production new

Kitodo.Production re-factoring as a common project in the next 2 years

kitodo.development

- 1.3 Mio. EURO are agreed by the DFG
- 4 consortia partners:
  - Saxonia State Library, Dresden
  - Humboldt University, Berlin
  - State and University Library, Hamburg
  - North Academy, Elmshorn

Steps:

- Definition of rolls and responsibilities
- Project management
- New system architecture
- Tenders for packages
- Integration of companies and free developers in the project
- Controlling tools

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5. Kitodo.Production new

Kitodo.Production re-factoring as a common project in the next 2 years

kitodo.development

Development package	Responsible
1.1 Modularization and interfaces	SLUB
1.2 Kernel and Workflow-/Project Management	SLUB
1.3 Rights and roles system	SLUB
1.4 Data modularization	HUB
1.5 Data management	SLUB
2.1 Hierarchical relations	SUB Hamburg
2.2 Media typological expansion (TEI / EAD etc.)	SLUB
2.3 Support for additional image formats	HUB
3.1 Improved operating concept	NAK & SUB Hamburg
3.2 Editor for Meta- and Structure Data	NAK & SUB Hamburg
3.3 Localization and Administration	NAK & SUB Hamburg
3.4 Documentation	HUB
3.5 Migration Scenarios	HUB + SUB Hamburg

5. Kitodo.Production new

Scrum -Model

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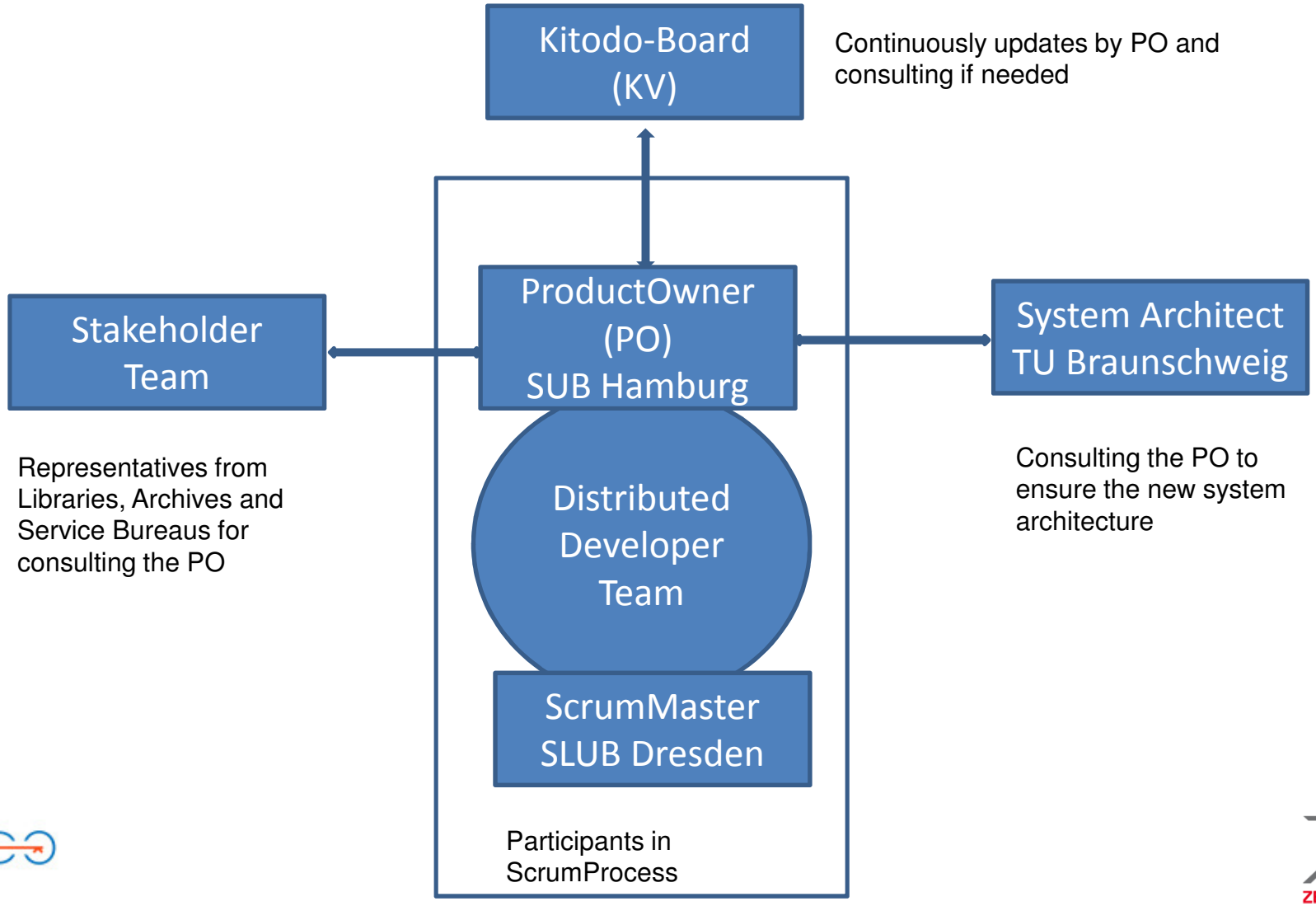

5. Kitodo.Production new

Development Organization and dates

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- Every 2 weeks Sprint Meetings (video conference) of the relevant people.
- Integration of private industry in the meetings after development contracts.
- First development tender is public now – decision beginning of May 2017.
- Next tenders should follow asap.
- Final system architecture May 2017. Developers meeting end of April 2017.
- Regular Onside meetings (Dresden, Berlin or Hamburg) will follow.
- Project and implementation plan will follow mid 2017.

More information:

www.kitodo.org

https://github.com/kitodo

www.zeutschel.com