

euroCRIS
**Strategic
Membership
Meeting**

8-10 November 2016

ATHENS GREECE

www.eurocris.org

Implementation and
operation of Greek CRIS
ecosystem

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ΕΘΝΙΚΟ ΚΕΝΤΡΟ
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NATIONAL
DOCUMENTATION
CENTRE

euroCRIS
Current Research Information Systems

Outline

- Current Research Infrastructure System in Greece
- CRIS Ecosystem
- CERIF Tools implemented by EKT
- Lessons learned
- Future Steps

Greece - Research Community Demographics

- 22 Universities, 14 Technological Educational Institutes, 12 Research Centres in total
- Full-Time Equivalents (2015)
 - Total: 30.837,83
 - Researchers: 78,5%
- Headcount (2015 – preliminarily)
 - Total: 58.620
 - Researchers: 67%

Source: «Research & Development Expenditure and Personnel in Greece in 2015 - Main indicators, National Documentation Centre, 2015»

http://metrics.ekt.gr/sites/metrics/files/RDstatistics_2015provisional_Greece_el.pdf

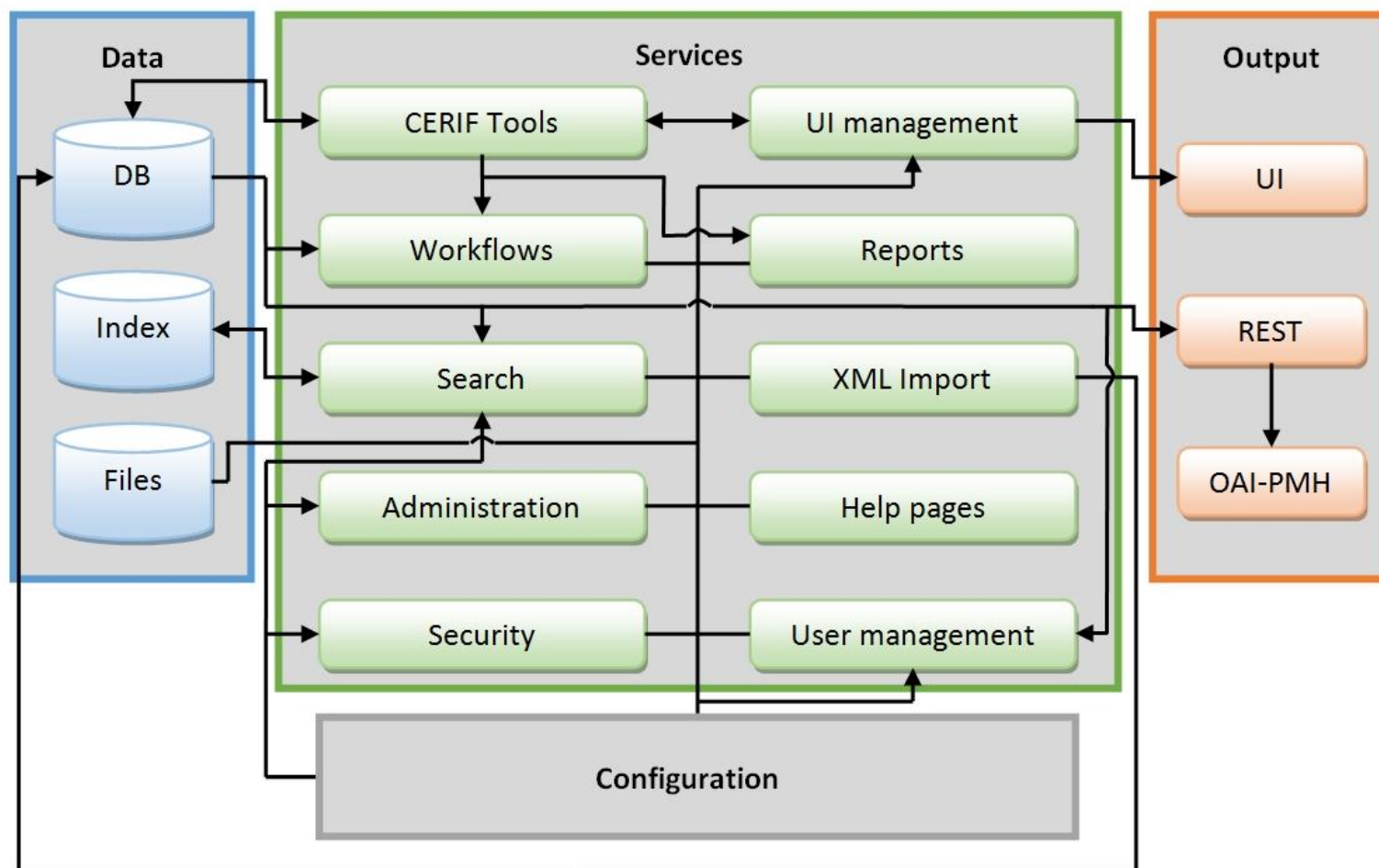
Greek CRIS infrastructure

- Each organisation operates its own institutional CRIS system
 - Policies, procedures and workflows at the institutional level
- All institutional CRIS systems are based on the same CRIS software platform
- CRIS software developed by EKT (Native CERIF database)
- A central aggregator provides a unified point of access to the entire information
- CERIF XML/REST is used for interoperability

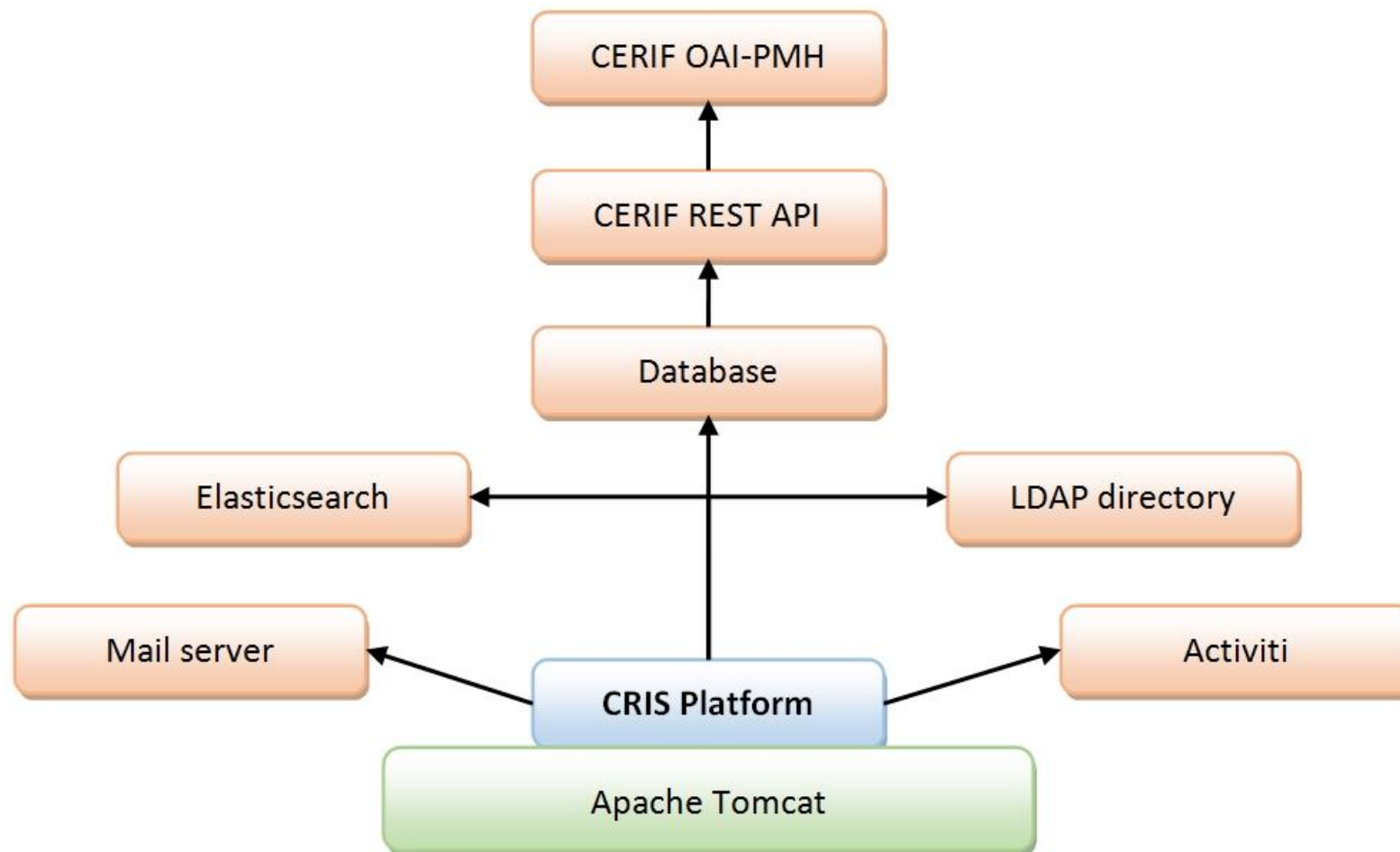
Support to institutions

- CRIS software – including documentation for installation, configuration, usage
- Online helpdesk for support
 - <http://helpdesk.cris.ekt.gr> (110 issues resolved regarding installation, usage and bugs)
- Software distribution system
 - Including certification procedure, notifications for new releases, versioning
- Semantics – vocabularies
- Tools for data import to the CERIF database
 - CERIF XML
 - Excel / CSV and Dublin Core through an open source library (Bibliotransformation-engine, BTE)

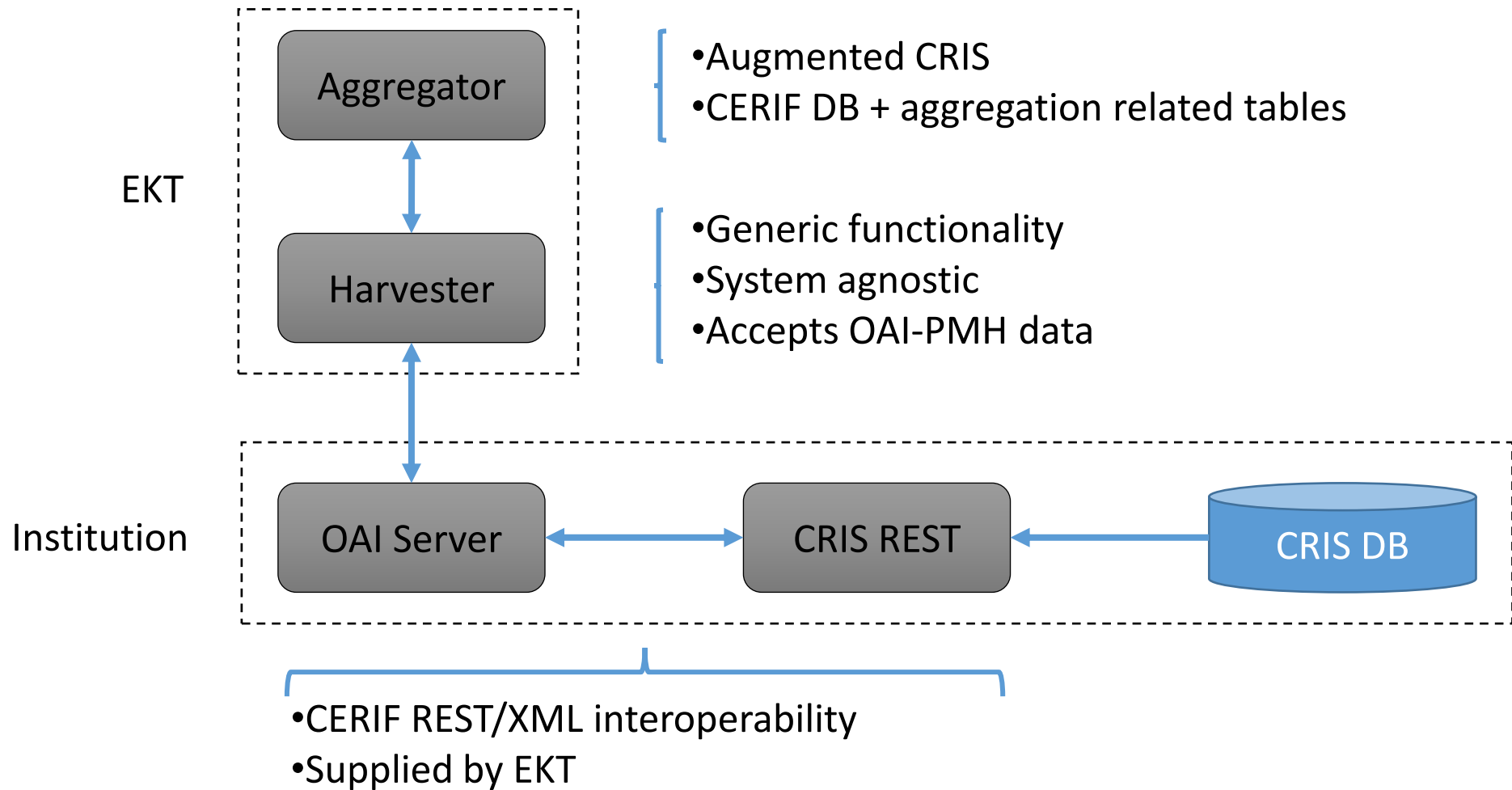
The CRIS software platform – overview



The CRIS software platform – Software Ecosystem



Aggregator - Architecture



CERIF Reporting Tool

- Plots pair of CERIF entities
- Grouping/Filtering:
 - Group entities with semantics (schemes or classes)
 - Filter entities with semantics (classes). Classes hierarchies
 - Filter entities with dates
 - Filter relations with semantics
 - Filter relations with dates
- Show data
 - Relations count
 - Relation field – Various functions

CERIF Reporting Tool

- Show/plot data:
 - Table
 - Chart
 - Maps
 - Country level data from cfCountry or class scheme
 - District level data from cfPAddr.cfStateOfCountry or class scheme
- Timeseries – For entities that have date fields. Years only
- Exports
 - PDF – includes table and/or chart and/or map
 - MS Excel file
- API based
- Configurable

CERIF Reporting Tool

Entity 1:

Entity 1 grouping: Grouping scheme: Grouping Classification:

Entity 1 filtering: Filtering scheme: Filtering Classification:

Entity 1 start date:

Entity 1 end date:

Entity 2:

Entity 2 grouping: Grouping scheme: Grouping Classification:

Entity 2 filtering: Select scheme: Select Classification:

Entity 2 start date:

Entity 2 end date:

Linking Entity classification:

Linking entity start date:

Linking entity end date:

Show relationship count (Default behaviour)

Field type:

Field function:

Data

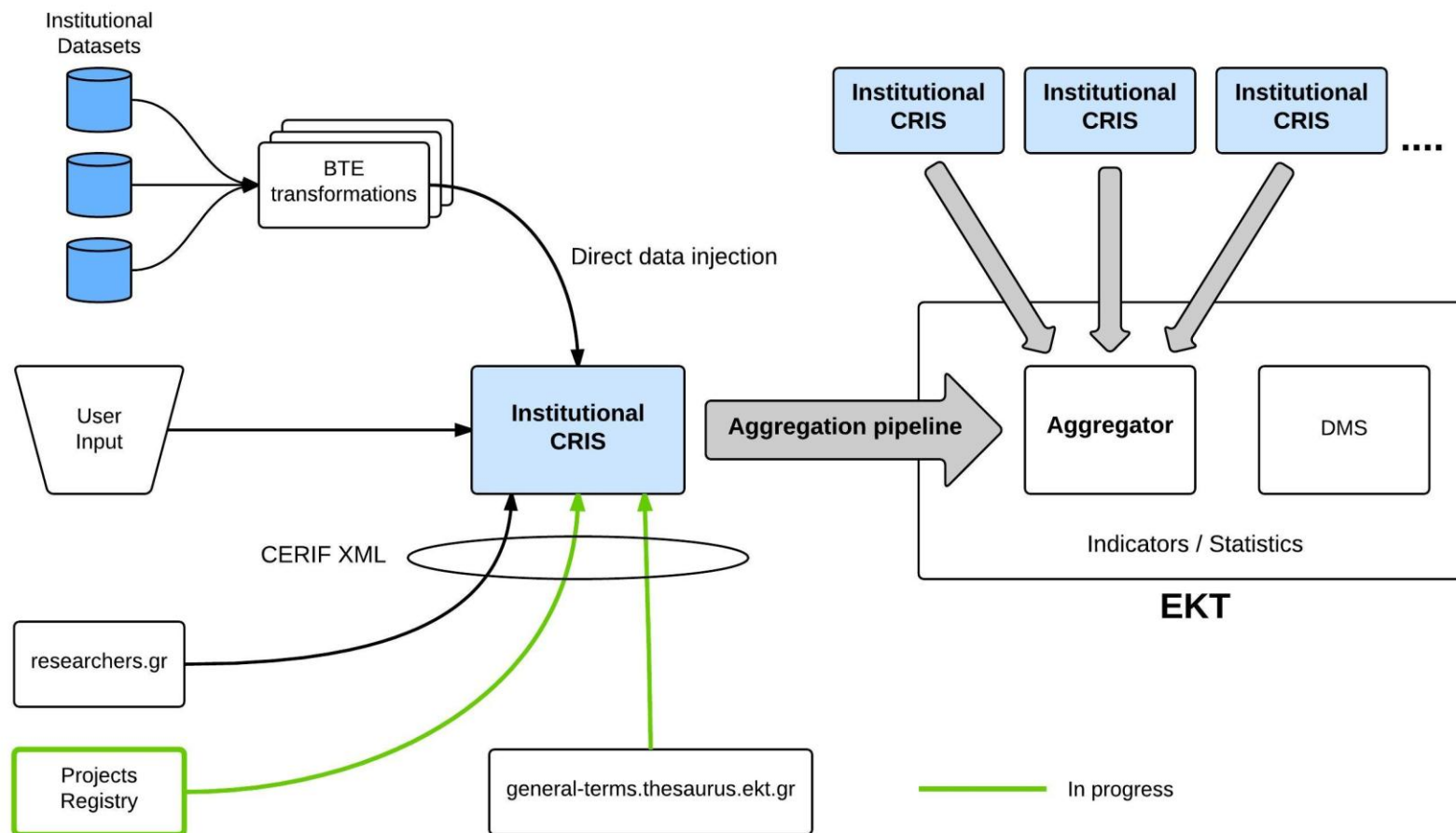
Name

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Systems that form the ecosystem

- Native CERIF
 - R&D Projects Registry (in progress)
 - R&D Data Management System (DMS)
- CERIF Related
 - Greek Researcher Directory – researchers.gr
- Non CERIF
 - general-terms.thesaurus.ekt.gr

The CRIS ecosystem

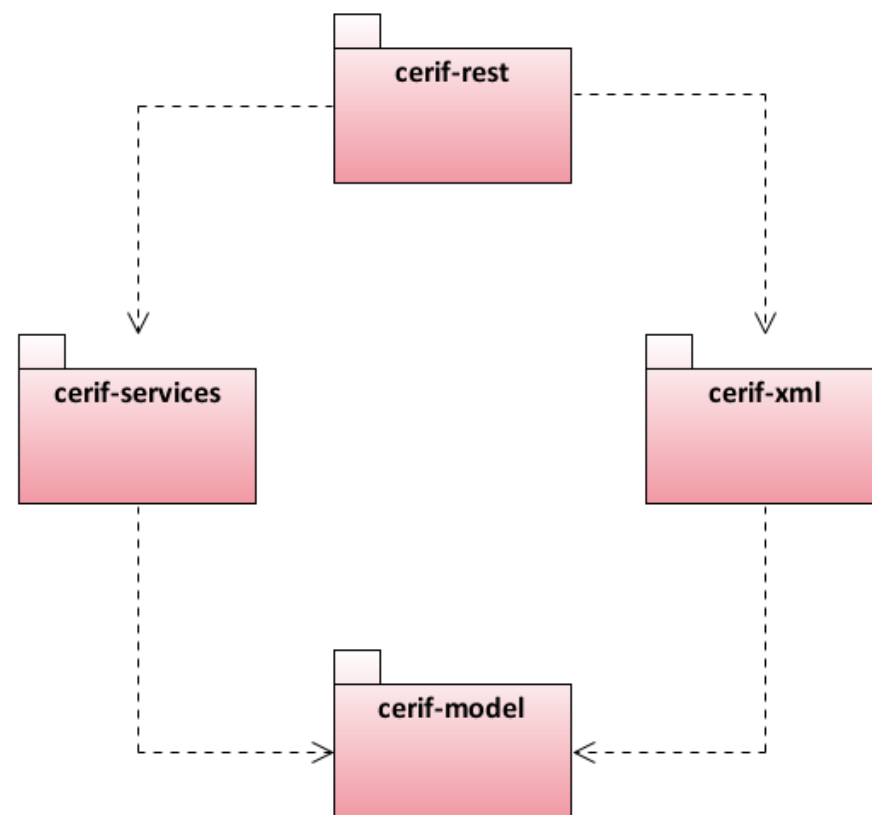


CERIF Tools Implemented (1)

- CERIF Model
 - All CERIF entities as POJOs
 - 100% compliant to the latest CERIF version
- CERIF Services
 - JPA data repositories for all entities
 - Common persistence and selection services
- CERIF XML
 - Full support of CERIF 1.6 XML Schema
- CERIF API
 - RESTful services based on current EuroCRIS draft recommendation
 - OAI-PMH – per entity retrieval

CERIF Tools Implemented (2)

- Open source
 - <http://github.com/EKT/CERIF-Tools>
- Mature
 - 5 years of continuous development
 - Deployed on a plethora of production systems
- Ongoing Maintenance
 - Tools aligned to CERIF versions
 - New features and bug fixing



Lessons Learned

- Central vs. decentralized CRIS – Keep data fresh
- Minimizing the need for data migration and manual data entry – Tackle cold start problem
- Horizontal need for persistent identifiers
- CERIF semantic entities
- User management – Integration of already existing user directories
- Security issues – Data filtering
- Policies and workflows
- Communicate the value of CRIS
- Provide added value services
- Aggregation processes – Rules, validation, provenance, etc.

The next day (2016 - 2017)

- CRIS Installations in more institutions
- Embed the Reporting tool
- Statistics/Metrics
- Validate/check data
- Data coverage
- Guidelines and/or specifications for data input
- Minimizing the need for data migration and manual data entry – Tackle cold start problem
- Data coherence

The next day (2016 - 2017)

- Organize workshops and tutorials for institutions' personnel
- Usage of aggregated information in mapping Greek RnD
- Provide services to researchers
- Access policies
- Data provenance
- Multilingual semantics
- Completion of CERIF XML export for Terms Thesaurus
- Completion of Projects Registry

The day after the next day (?)

- Private sector/Business/Innovation
- Educate the public
- Personalization and CERIF/Recommender systems
- Data mining/Decision Support Systems
- Catalog equipment (equipment/facility relation)
- Spatial search for equipment



Thank you for your attention Q&A

- More info:
 - bonisv AT ekt.gr
 - <http://metrics.ekt.gr/cris>
 - <http://helpdesk.cris.ekt.gr>
 - <http://github.com/EKT/CERIF-Tools>