



ExpeER: Experimentation in Ecosystem Research

Integration of semantics, data and geospatial information for LTER



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Linking Geospatial Data

Integration of semantics, data and geospatial information for LTER

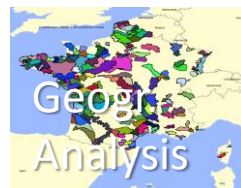
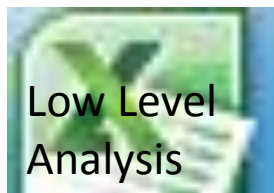


Presentation structure

- 1 Data of LTER Europe
- 2 Test of linkedData services
- 3 LinkedData services for Integration
- 4 Components needed

Data challenges of LTER

The long term ecological monitoring and research network (LTER) in Europe^[1] provides a vast amount of data with regard to drivers and impacts of environmental change (Mirtl & Krauze 2007, Mirtl et al. 2013).

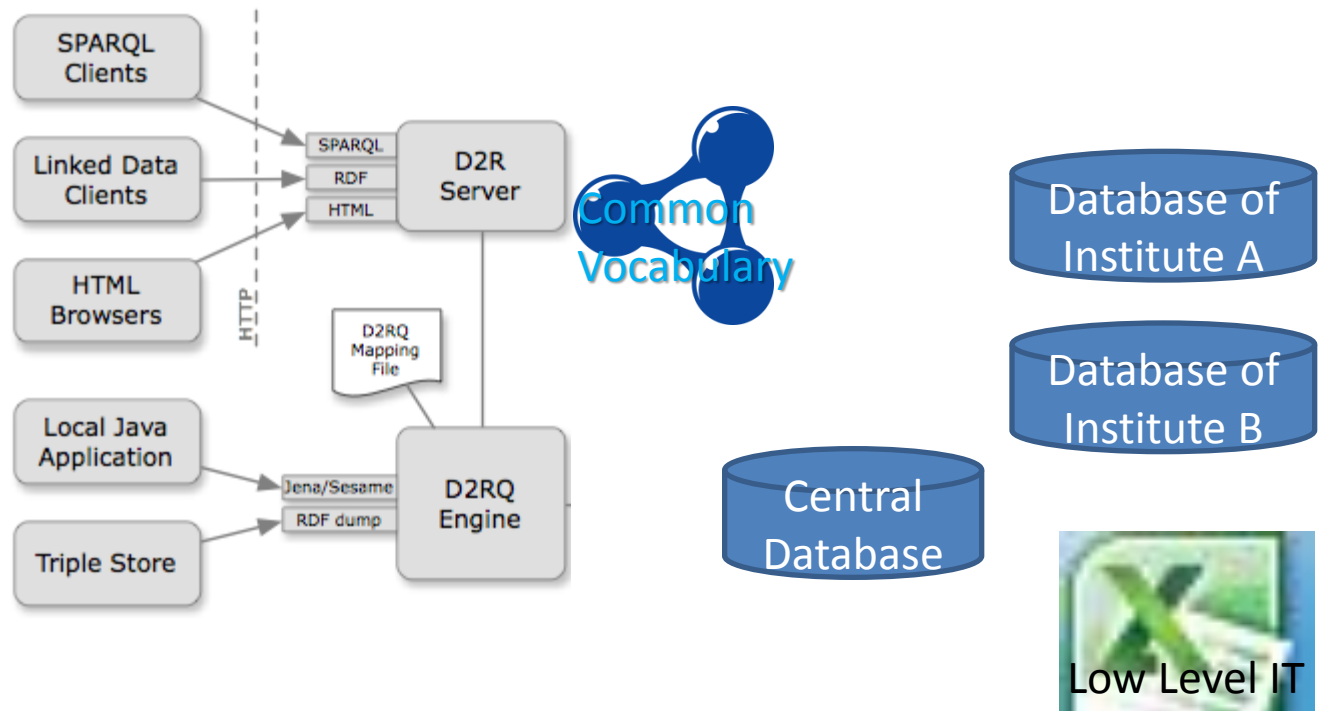


Distributed Analysis



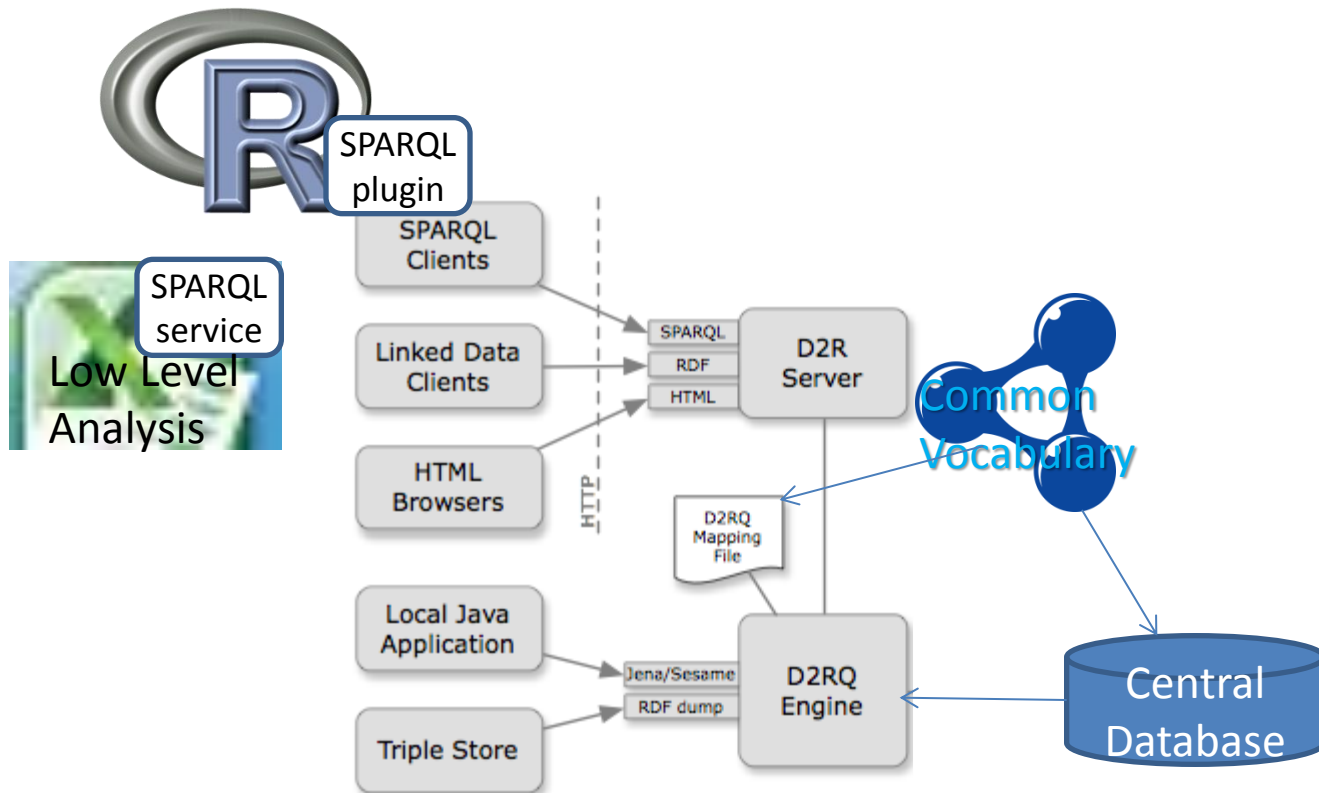
Distributed Data

The EnvEurope Test



The EnvEurope Test

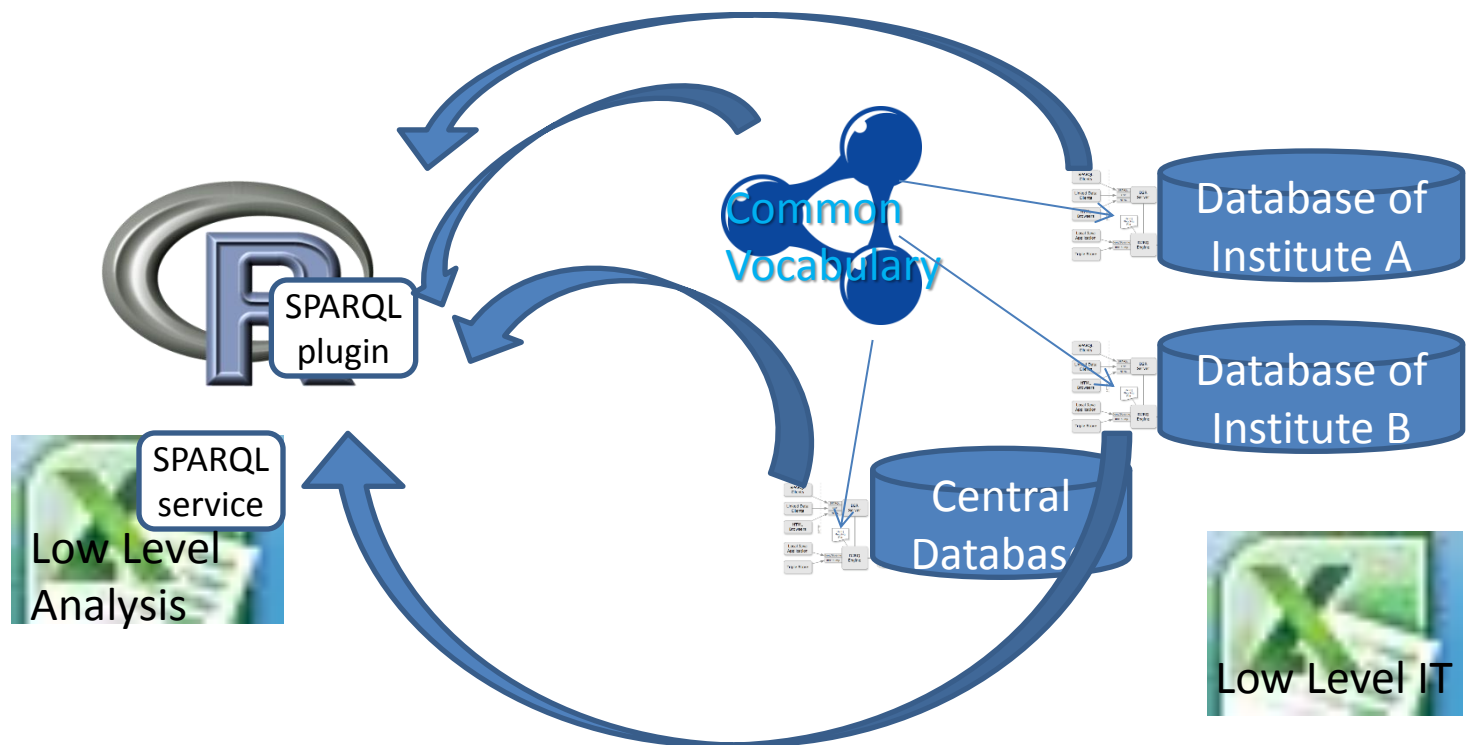
Expose the data of the central database with D2RQ service
Test SPARQL plugin of R and SPARQL service for EXCEL



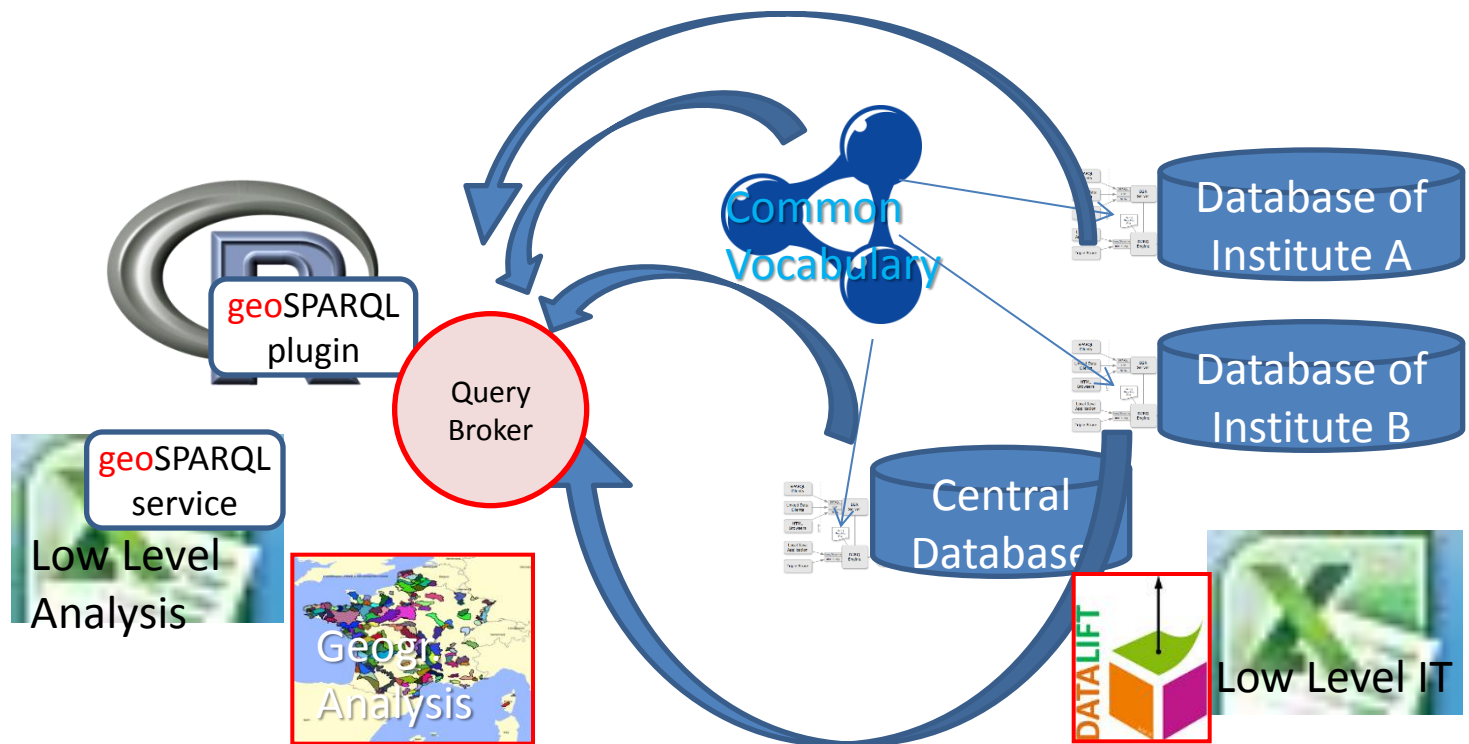
Proof of concept for

Semantic integration (syntactic and semantic harmonization) of distributed
Data

Query distributed data with SPARQL



Query **Broker** to enhance performance by parallelisation



links

<u>EnvThes</u>	http://vocabs.lter-europe.net/PoolParty/EnvThes3
<u>EnvThes SPARQL</u>	http://vocabs.lter-europe.net/PoolParty/sparql/EnvThes3
EnvThes EDIT	http://onto.nerc.ac.uk/PoolParty/index.jsp
EnvEurope DATA	https://secure.umweltbundesamt.at/enveurope
D2RQ	http://d2rq.org/
R PLUGIN	http://linkedscience.org/tools/sparql-package-for-r/
EXCEL SPARQL service	http://www.snee.com/sparql/spreadsheetSPARQL.html
<u>ONTO Broker</u>	http://www.semafora-systems.com/de/produkte/ontobroker/