

# Optique 1.0

## How to Find the Right Data?



### Bottleneck: access to IT expert

#### Challenges in data access

- Data access has to go via an IT expert
- Miscommunication between end users and IT experts
- IT experts have to write specialised queries for different DBs
- Restricted creativity and exploration capabilities for end users



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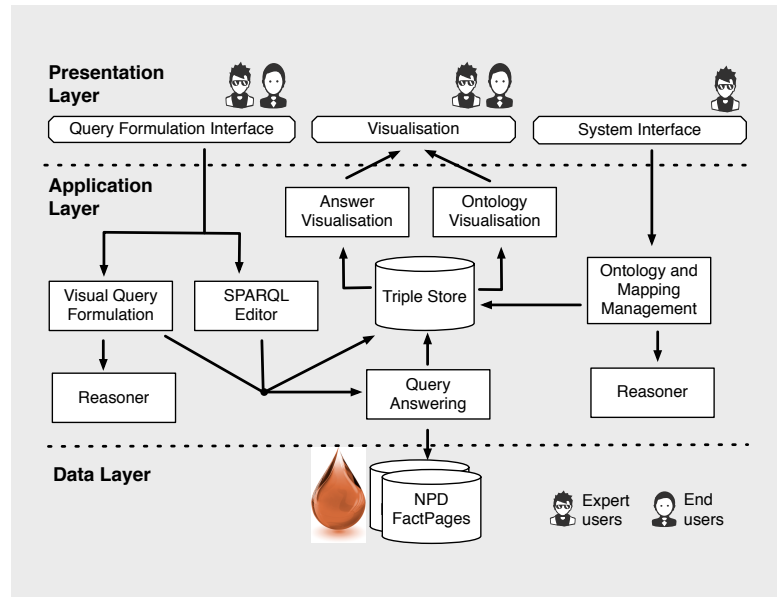
Up to 70% time on data access

Turnaround time: days

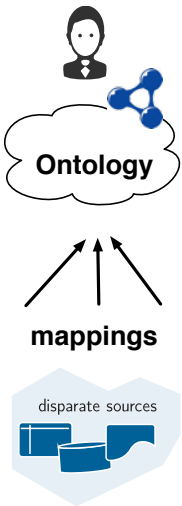
# Ontology Based Access to NPD FactPages



## Optique 1.0 Architecture

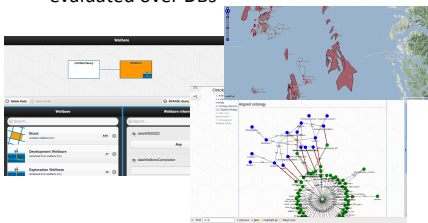


## Ontology Based Data Access



### Philosophy of OBDA

- User is confronted to an ontology and not to databases
- Ontology is connected to DBs via declarative mappings
- Queries are formulated over the ontology
- Queries are pushed to DBs and evaluated over DBs



## Optique 1.0 Modules

### Optique 1.0 Querying

- Visual query formulation interface
- SPARQL end point



### Optique 1.0 Query processing

- Query rewriting over ontology
- Query unfolding with mapping
- Query execution over RDBs



### Optique 1.0 Installation module

- Ontology bootstrapping
- Mapping bootstrapping
- Ontology alignment
- Ontology approximation



## Optique 1.0 over NPD FactPages

### Imported petro ontology

- 209 classes
- 131/229 object/data prop.
- 1271 axioms

### Bootstrapped Ontology

- 70 classes, 276 properties
- 192 domain, range restr.
- 10 subclass relations

### Mappings

- 346 direct mappings

### NPD FactPages

- 70 tables, 276 at. names
- 96 foreign keys
- 46 MB RDB
- 125 MB = 2.342.597 triples



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## Consortium

