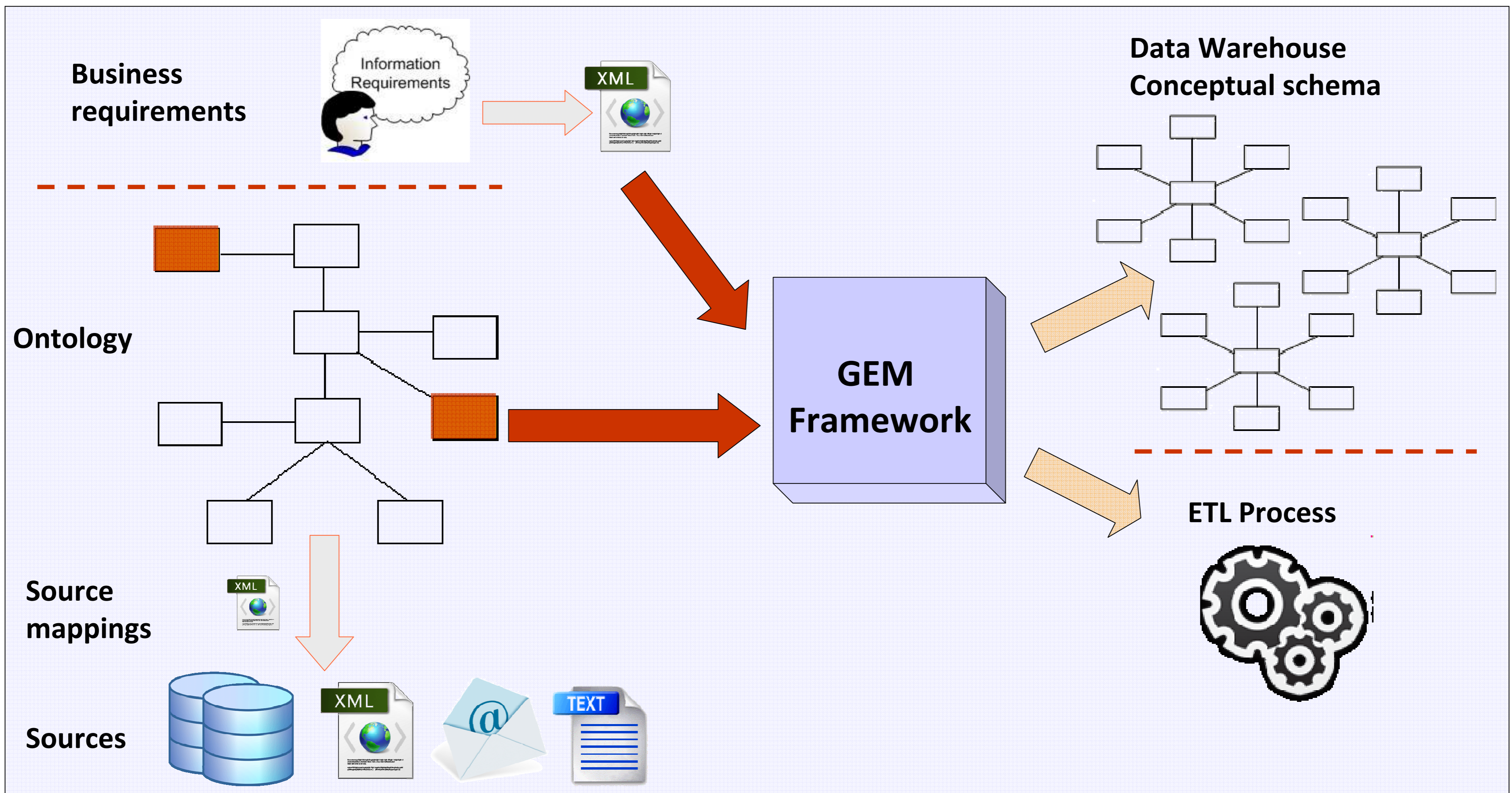


GEM Framework: Automation of Multidimensional and ETL process design

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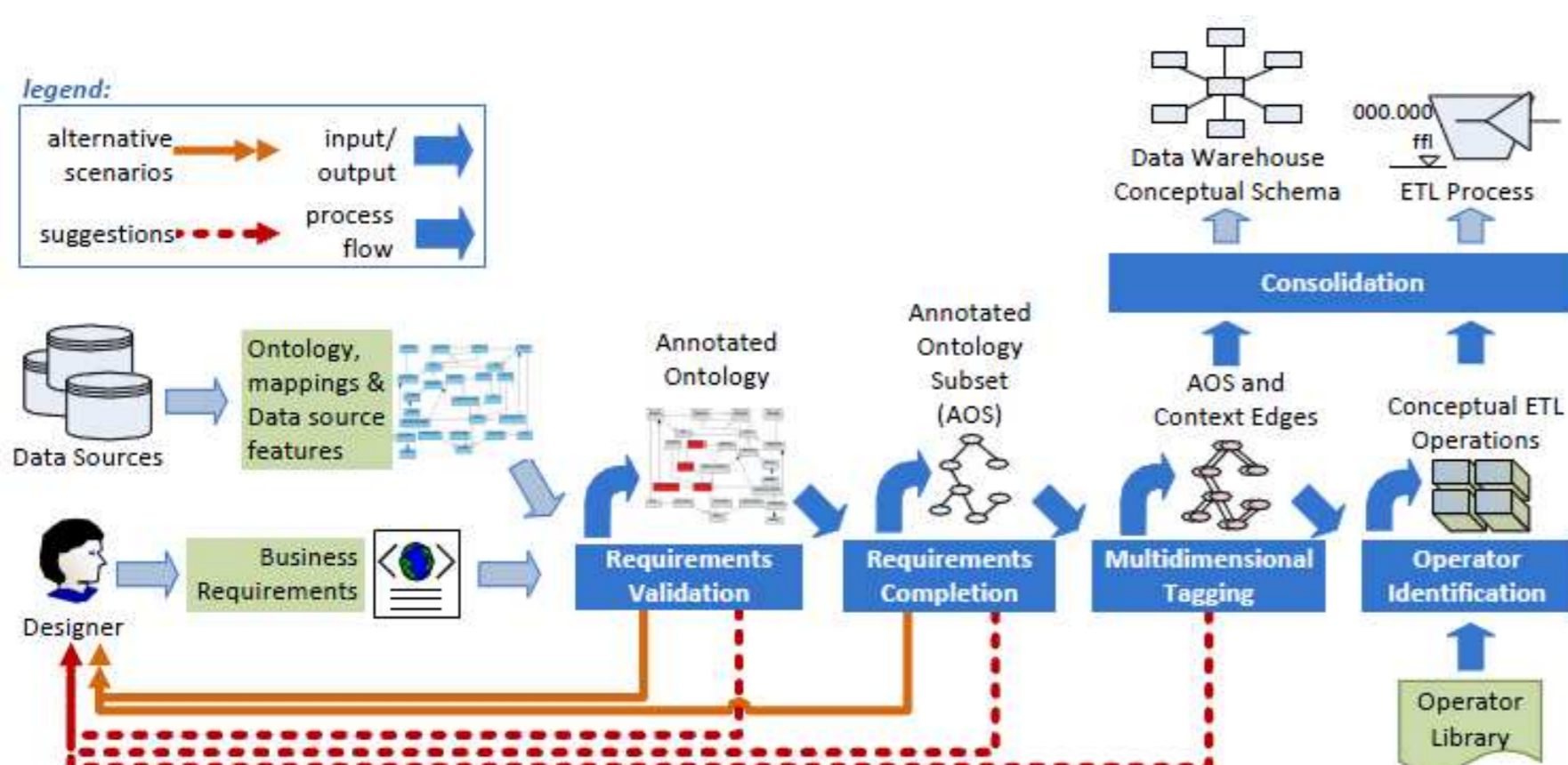
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Our proposal to automate the multidimensional and ETL process designs of data warehouses, considering business information needs...



- Capturing different formats/technologies of the data sources (structured/unstructured).
- The OWL ontology that is specifically tailored, captures all sources.
- Structures storing the mappings of the ontology concepts to the real data sources should be also provided.
- Information requirements gathered from the business specialists.
- Designer translates requirements into the XML structure while identifies the multidimensional concepts inside the requirements.
- At the output GEM should provide Multidimensional design of the target schema and the design of the supporting ETL process.

GEM inside:



GEM goes through four different stages

- 1) Requirement Validation**
Concepts from requirements are identified in the ontology, labeled with MD label and mapped to the sources
- 2) Requirement Completion**
The concepts identified in the requirements are related according to the ontology
- 3) Multidimensional Tagging and Validation**
Concepts on the paths between the tagged concepts are tagged and complete tagging is validated
- 4) Operation Identification:**
According to the mappings of the concepts to the sources and the tagged and validated MD schema the design of the ETL process is created