

# KnowText

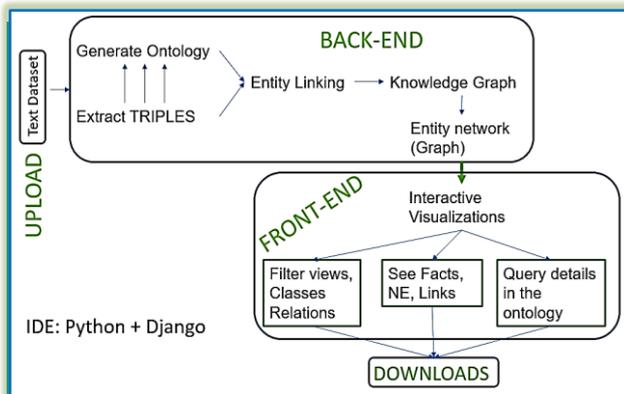
## Knowledge graphs for semantic enrichment of text corpora

### MARKET NEED

There is an information overload from unstructured text used as business leads (knowledge on customers, markets or technologies) from which users need to find the *Facts*: the relevant *Entities*, the *Links* between *Entities* and their evolution.

Extracting practical information from text is a complex task requiring human understanding of semantics. The *Knowledge Graph* (KG) technologies bring a competitive edge as part of the Semantic Web.

KGs can capture the network of Relationships between Entities in a graph structure, while also building a Knowledge Base (KB), designed to enable automated reasoning.



**The KnowText workflow.**

Existing open-access industrial knowledge graphs have mapped billions of entities from large scale web data and use as KB various expert-built ontologies, graph databases or triple stores.

The use of wide scope platforms require expert knowledge and can be time and computationally expensive – as very large KG become difficult to query, while domain-specific understanding of text may require generating new models.

### TECHNOLOGY SOLUTION

The KnowText demonstrator performs automated Knowledge Graph extraction from a collection of texts and enables users to visualize and query the KG and its background ontology.

Facts extracted as <Subject, Predicate, Object> triples are represented as a graph and linked to an automatically extracted OWL Ontology featuring 16 Classes of Named Entities and domain vocabulary words, within a basic schema.

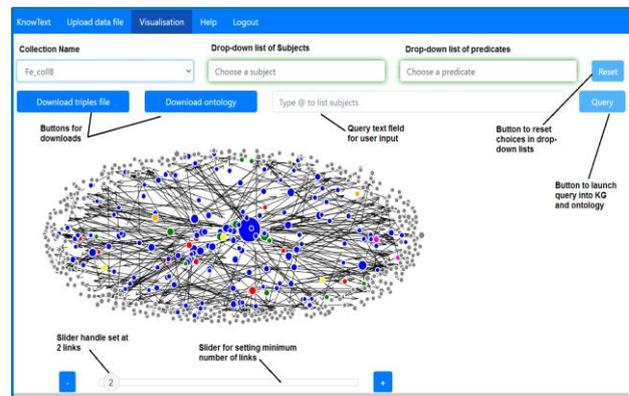
Both the extracted triples and the OWL ontology files can be downloaded and further explored.

### APPLICABILITY

The KnowText demonstrator provides:

- Automated generation of a domain specific KG (within a company domain of interest) using as information pool only data uploaded by the user;
- Interactive visualisations of the text collection as a Knowledge Graph (filtering & exploration of Entities & facts);
- Easy query methods based on Entities & Relations search or free typed text.

KnowText is a python based web application: portable, flexible, scalable, accessible via a web link, easy to use by non-expert users.



**The KnowText visualisation tab, explained.**

### RESEARCH TEAM

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