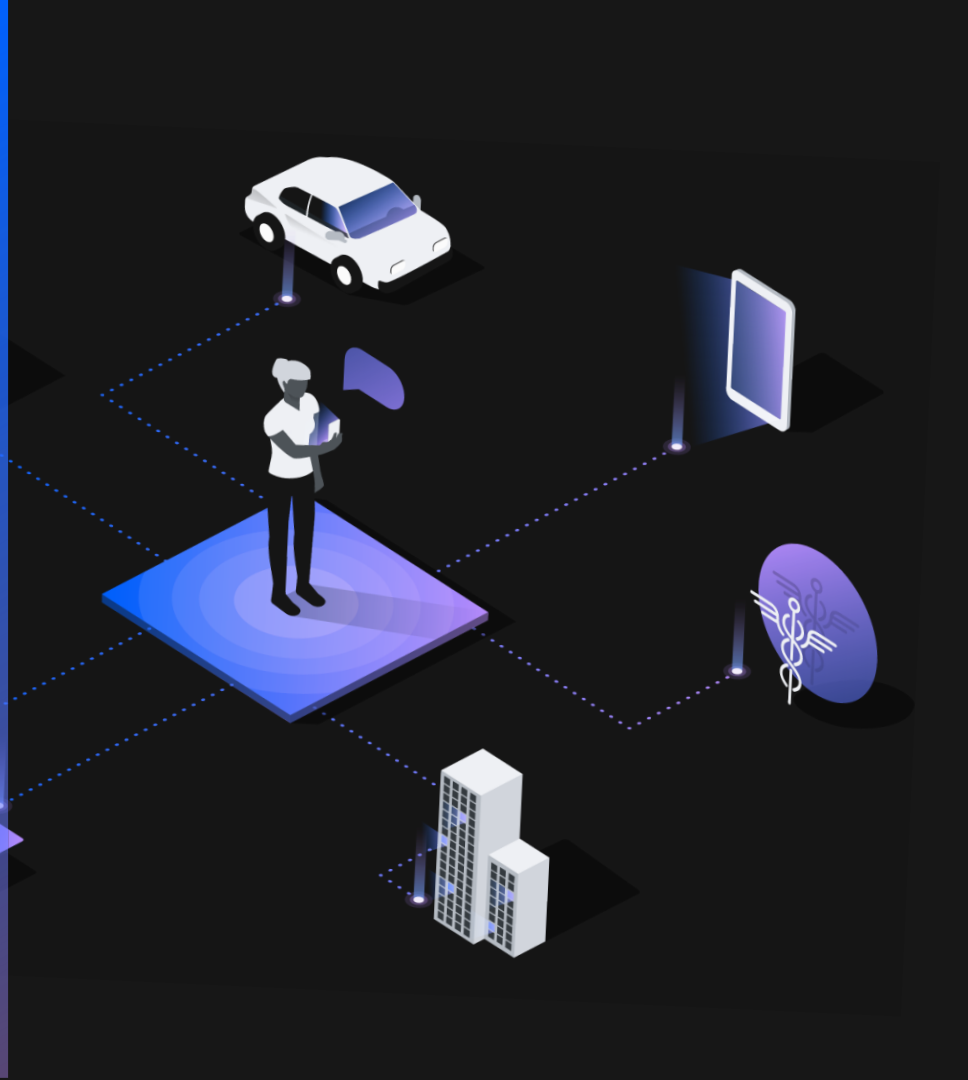
AI@Work

Knowledge Sharing Platform

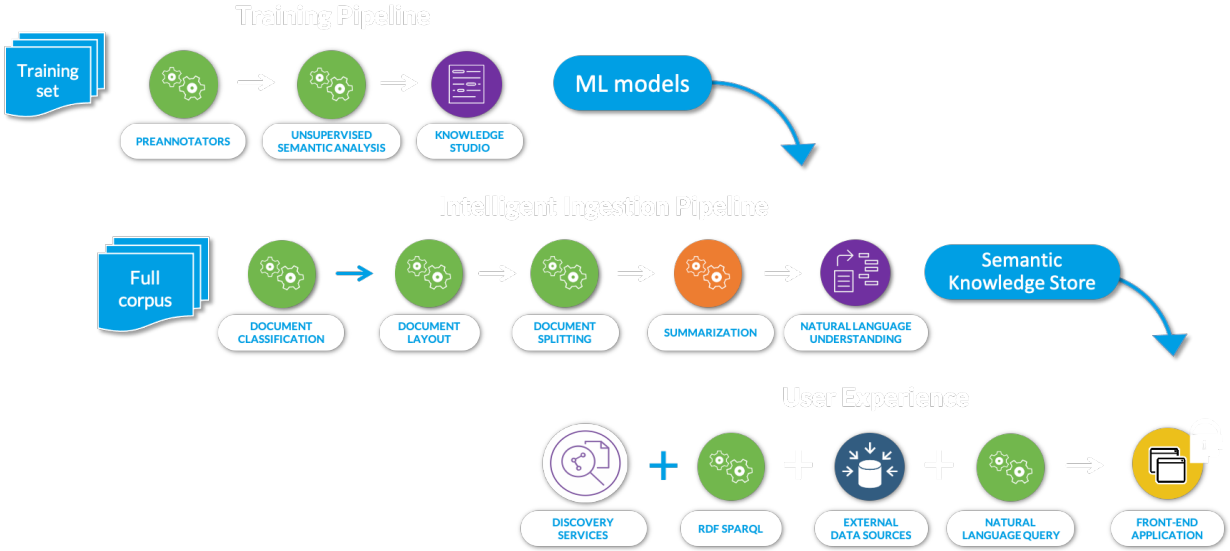


Project overview

The Knowledge Platform can automatically identify and extract all essential information to enable the comprehension of documents and multimedia contents related to the smart grids sector.

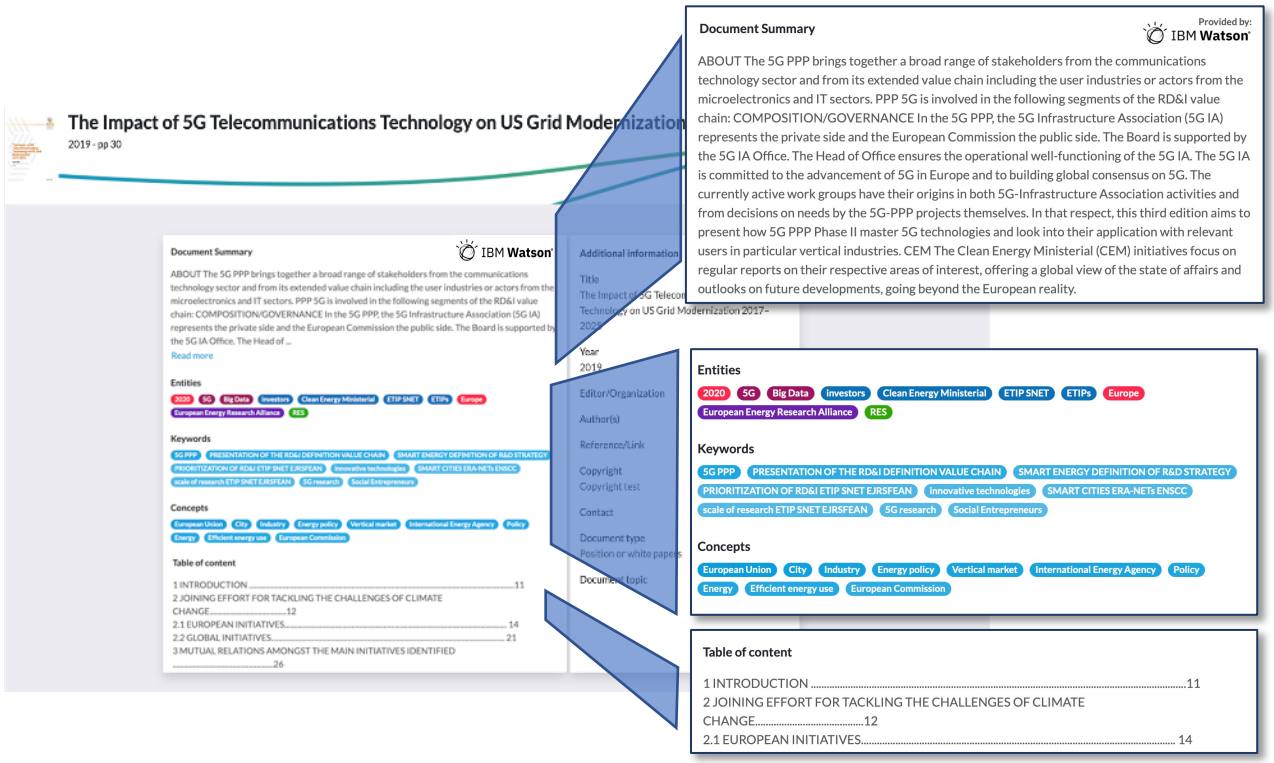
The final goals of the platform is:

- Foster and accelerate the smart grids deployment
- Enlarge the collaboration between parties.
- Identify innovative enabling technologies and business models.



Due to the research nature of the customer it was a good option to experiment new cutting edge technologies emerging from IBM Research, that either helped during implementation and training phases or provided some new functionalities inside the solution itself

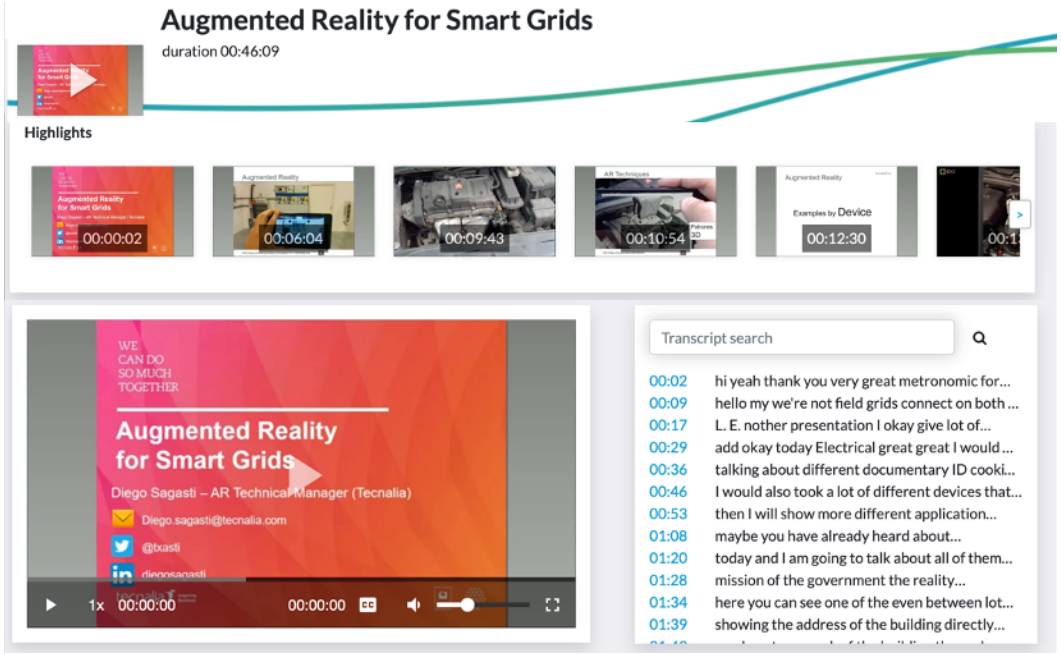
Document Understanding



on several feature:

- Domain based Entity and Relationship recognition with tools to speed up training operations
- Document layout recognition to identify and isolate only meaningful portion of the document
- Automatic summary generation
- Content classifier for document types and topics

Multimedia management



Multimedia file analysis:

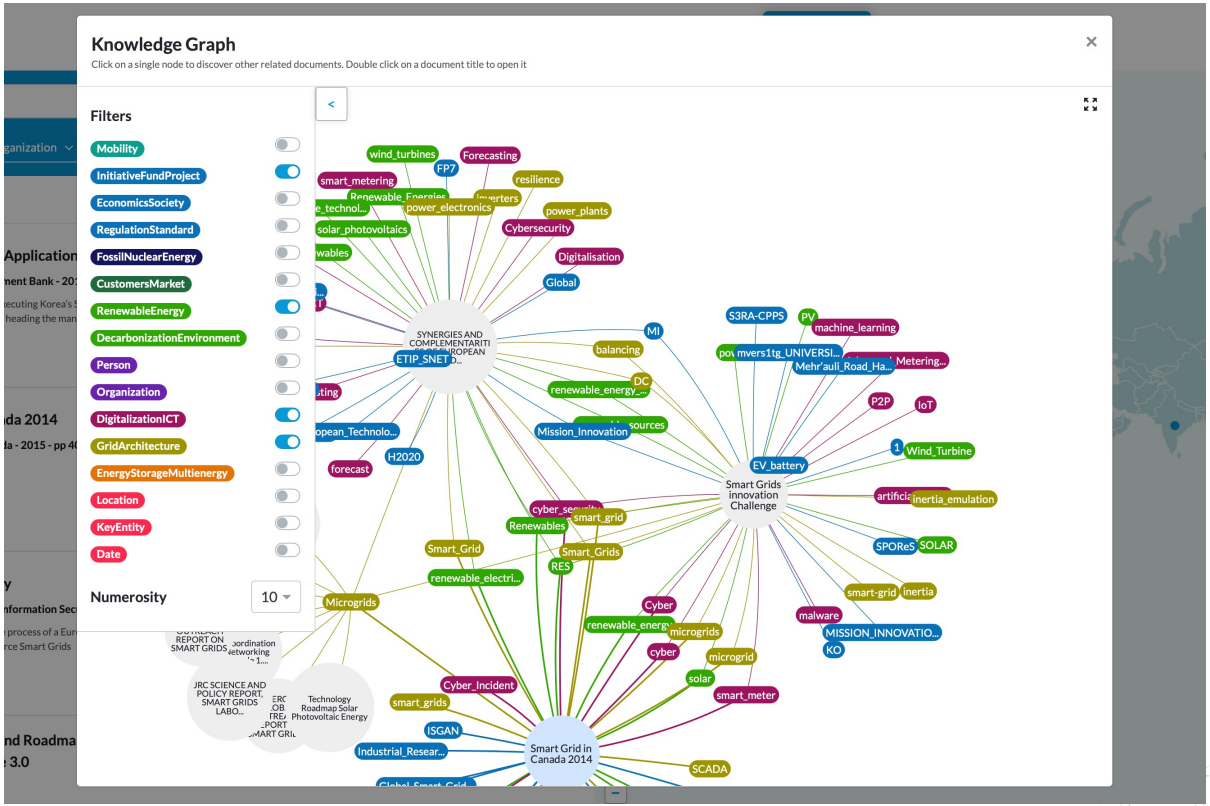
- Speech transcript extraction with trainable speech recognition (accents, inflections, dictionaries)
- Speaker labeling for scene detection
- Domain based semantic analisys over the transcript

Data exploration

User can search information in natural language in their own language.

Asked question are semantically analyzed to discover only really relevant information for users.

Knowledge Exploration is enabled levaraging entities and relationships extraction coupled with RDF descriptions and navigation (SPARQL)



Conclusion

This experience shows us many points of interest:

- Methodology, the use of IBM Garage methodology focused all the teams to synergistically work to reach the final goal, particularly effective in the task of AI services training, directly performed by real SMEs (customer people)

- Cutting edge technology, provided by IBM Research for helping and speeding up AI training tasks (unsupervised entity recognition and recommendation) or for implementing new innovative functionalities (summarization)

- Business results, platform publicly available allowing users to query in their own language, already more than 1000 smart grid domain specific documents shared through the platform, strict editorial and approval workflow for validating effectiveness and quality of published documents