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AI IS ABOUT PEOPLE

ESWC26

A Knowledge Graph–Driven Enterprise Search System for Consulting Activities

Orel Mazor, Armita Khajeh Nassiri, Florence Benezit, Michael Völske, and Emmanuel Malherbe

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Agenda.

1. Knowledge sharing at Artefact
2. Consulting Ontology
3. System Architecture
4. Key Learnings

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Knowledge sharing at Artefact



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Status quo of Enterprise search at Artefact.

Gemini Enterprise

Search and Q&A over SharePoint and enterprise documents

Know GPT

Internal secure GPT assistant based on the open-source tool Onyx

Artefactory (Arty)

zoom on next slide

Centralized platform for people, projects, offers, staffing, and company knowledge

Claude Cowork

AI assistant supporting daily productivity and collaboration

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The Story of Artefact and How We Evolved Our Internal Operations Over the years.

The Past



Multiple SaaS platforms spread across the operation. Completing an end-to-end sale required 6 interactions across different tools.

The Present

Arty



With the help of AI & agentic coding.
We centralized multiple SaaS into one and modernized it to fit our operations, creating more adoption and reducing cost

600k EUR
Savings in license cuts

The Future



By owning all of our transaction critical systems. We can create
AI native connectors with Agentic Tools democratize and scale AI to all our organizations

2000+
Employers are able to self-create their own agentic workflows

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Nevertheless Existing Search Solutions Are Not Enough for Full Enterprise Knowledge Navigation

Gemini Enterprise	Know GPT	Artefactory (Arty)	Claude Cowork
Search and Q&A over SharePoint and enterprise documents	Internal secure GPT assistant based on the open-source tool Onyx	Centralized platform for people, projects, offers, staffing, and company knowledge	AI assistant supporting daily productivity and collaboration

What is still lacking across all existing solutions is a unified layer capable of understanding and connecting enterprise knowledge across people, projects, documents, clients, skills, and business context rather than simply retrieving isolated information.

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Consulting Ontology



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Methodology and principles

Start from use cases

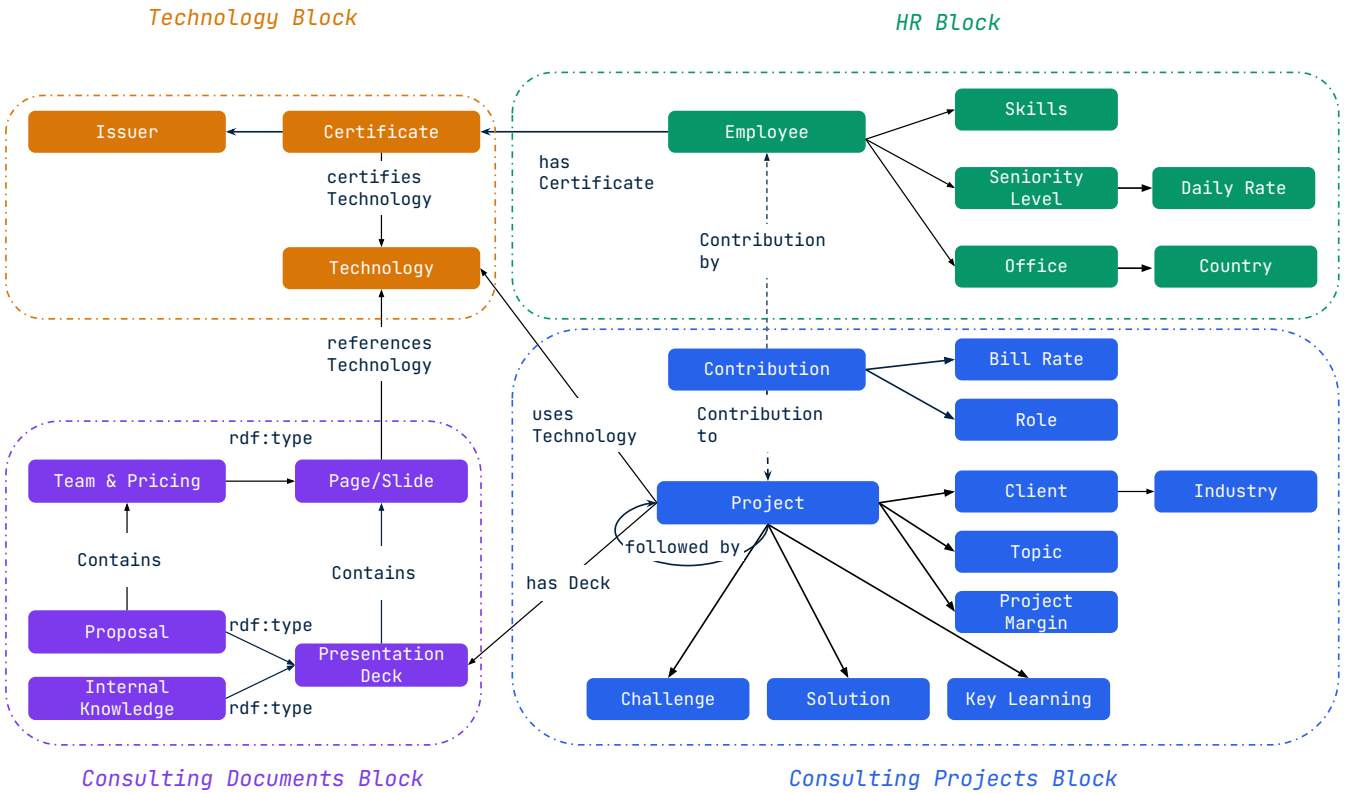
- Successful ontologies start from concrete business questions: "What projects can we propose for this client?"
- Real questions force decisions about which entities matter and which relationships are essential.

Design pragmatically

- Engage domain experts who understand the business, not just the data.
- Keep the structure simple enough that humans and systems can both reason over it.
- Start with one domain and connect others as the foundation stabilizes.
- An ontology is not static; plan for it to evolve with clear ownership and governance.

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Consulting Ontology



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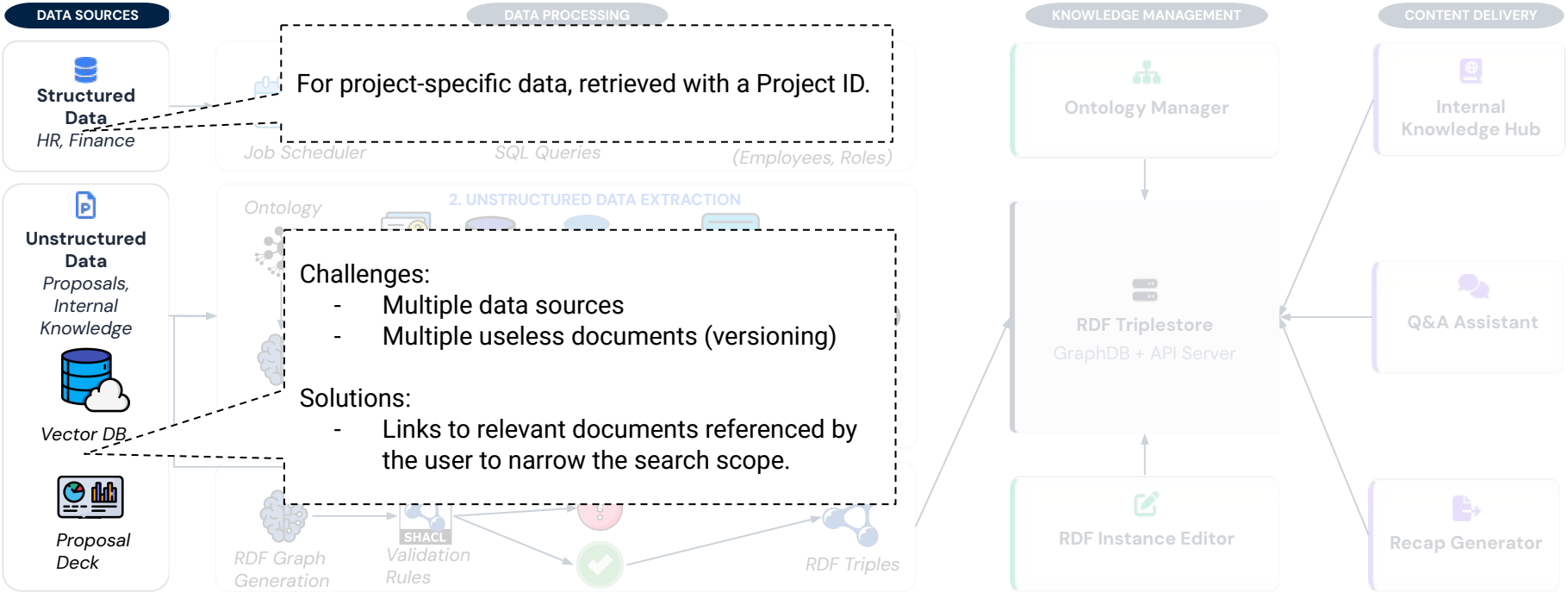
System Architecture



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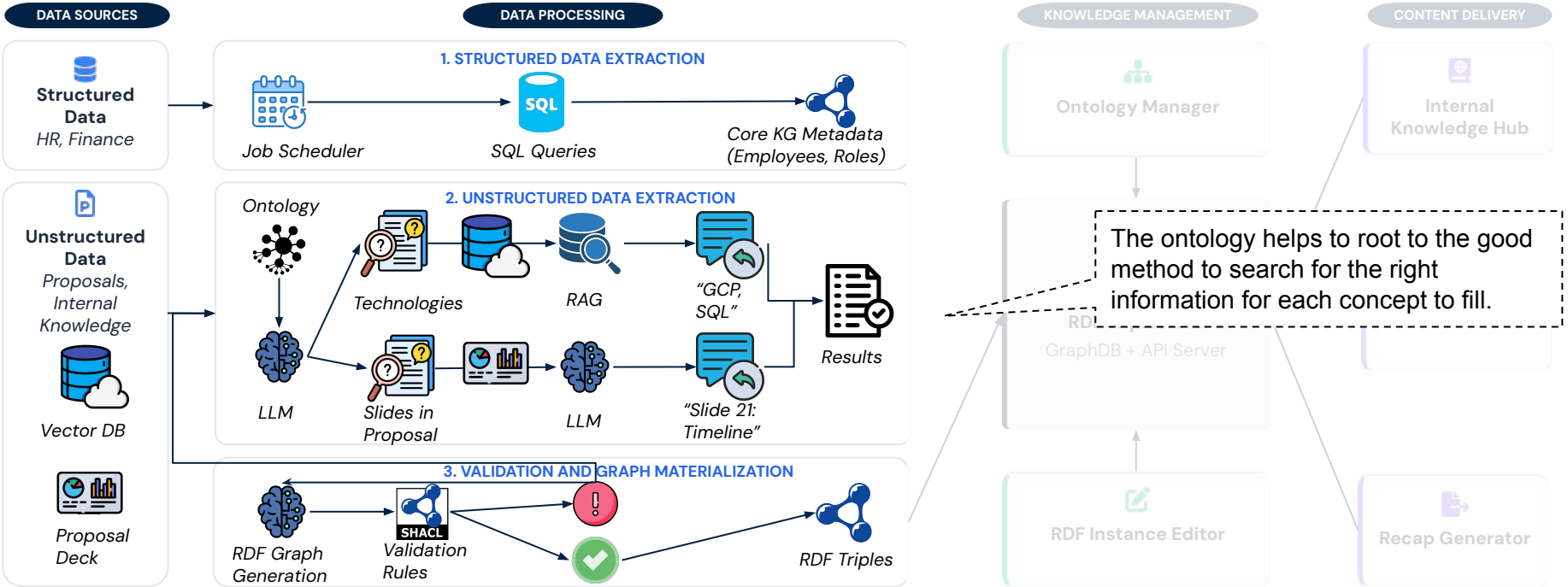
How do we populate our Knowledge Graph?



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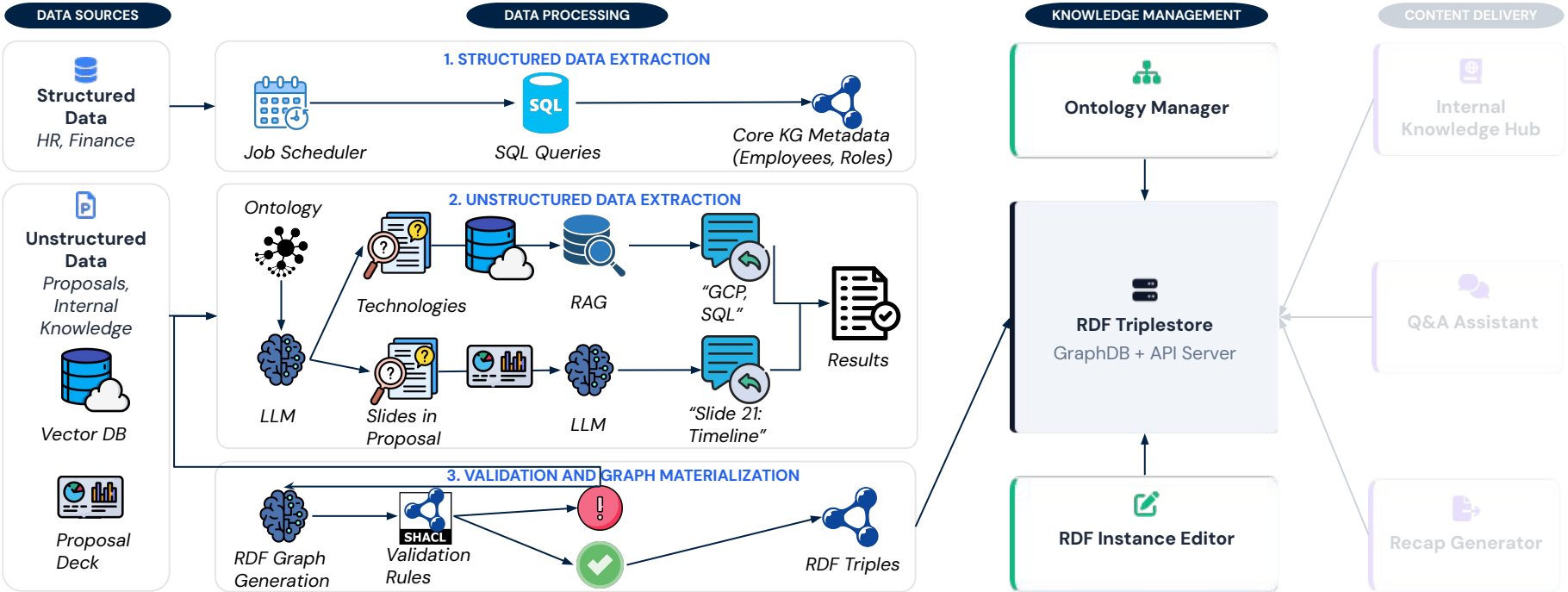
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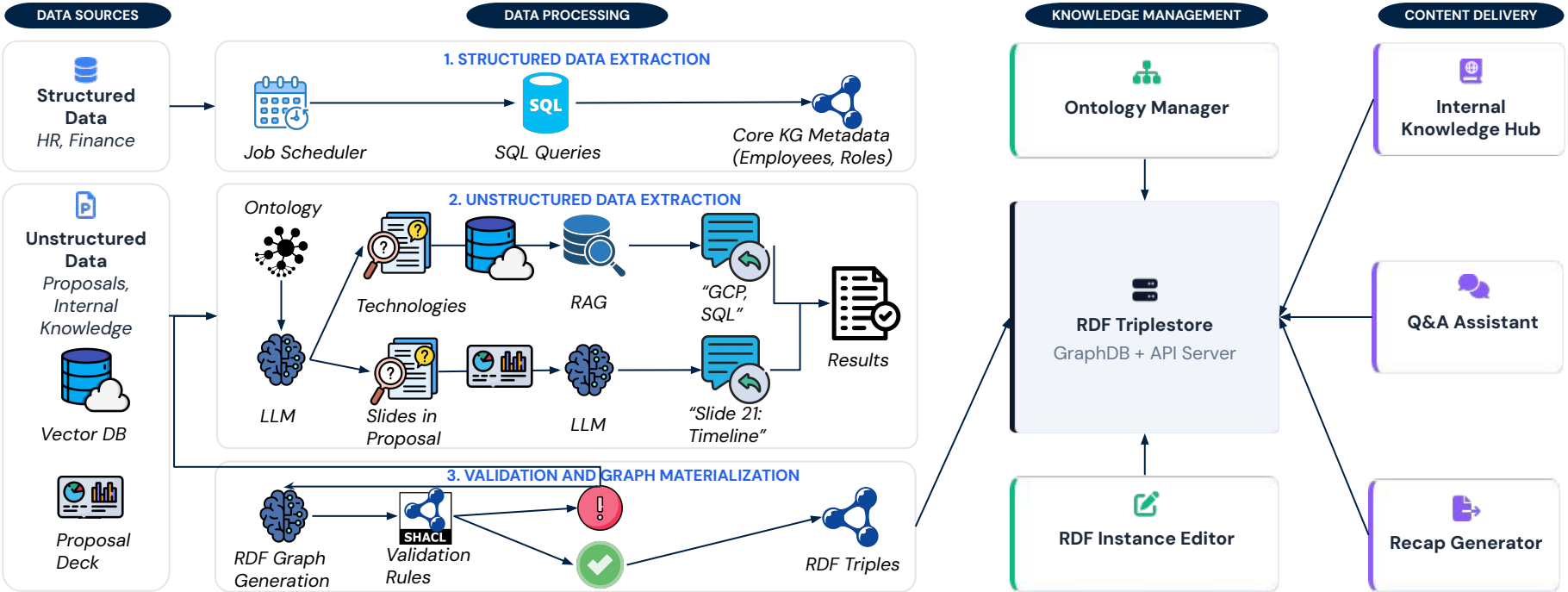
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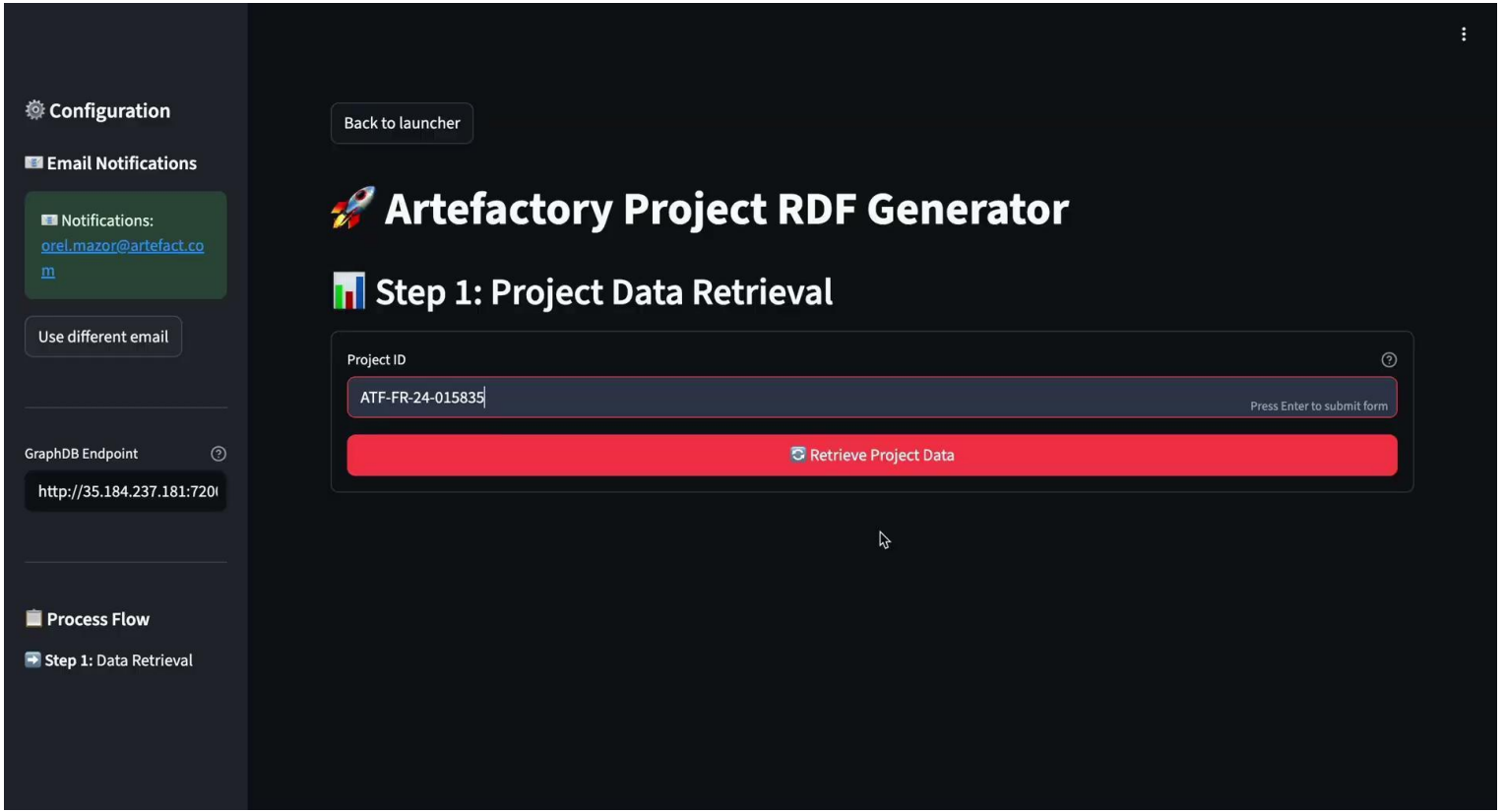
How do we populate our Knowledge Graph?



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Demo: Populating the knowledge graph at the end of a project



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Key Learnings



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Lessons Learned and Next Steps

Lessons Learned

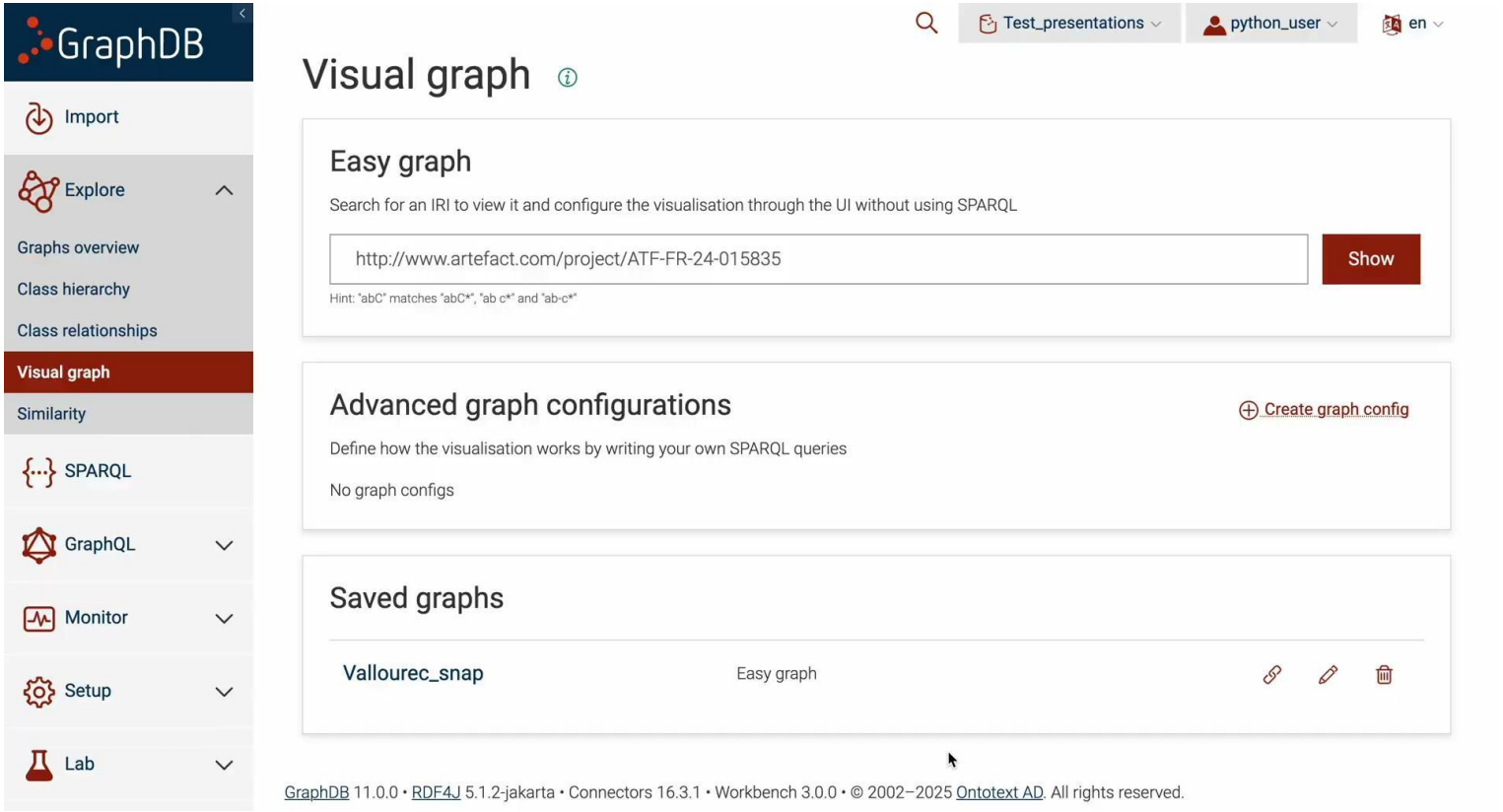
- **User Adoption:** Utility alone is insufficient. Value-add tools like the Project Recap Generator drive KG population and refinement.

Next Steps

- Deploy hybrid Q&A assistant integrating SPARQL queries with RAG/LLMs for broad-spectrum reasoning.
- Establish scalable ontology maintainability and governance frameworks.

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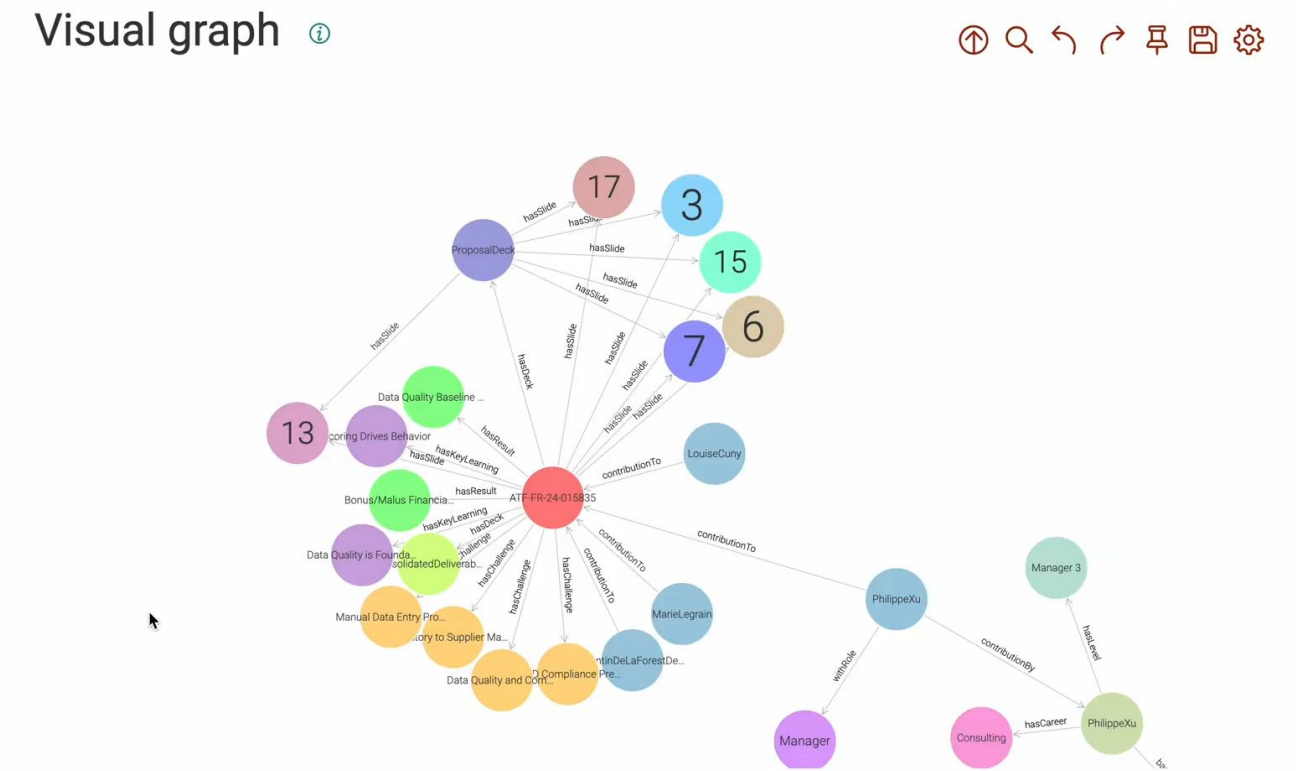
Thank You!



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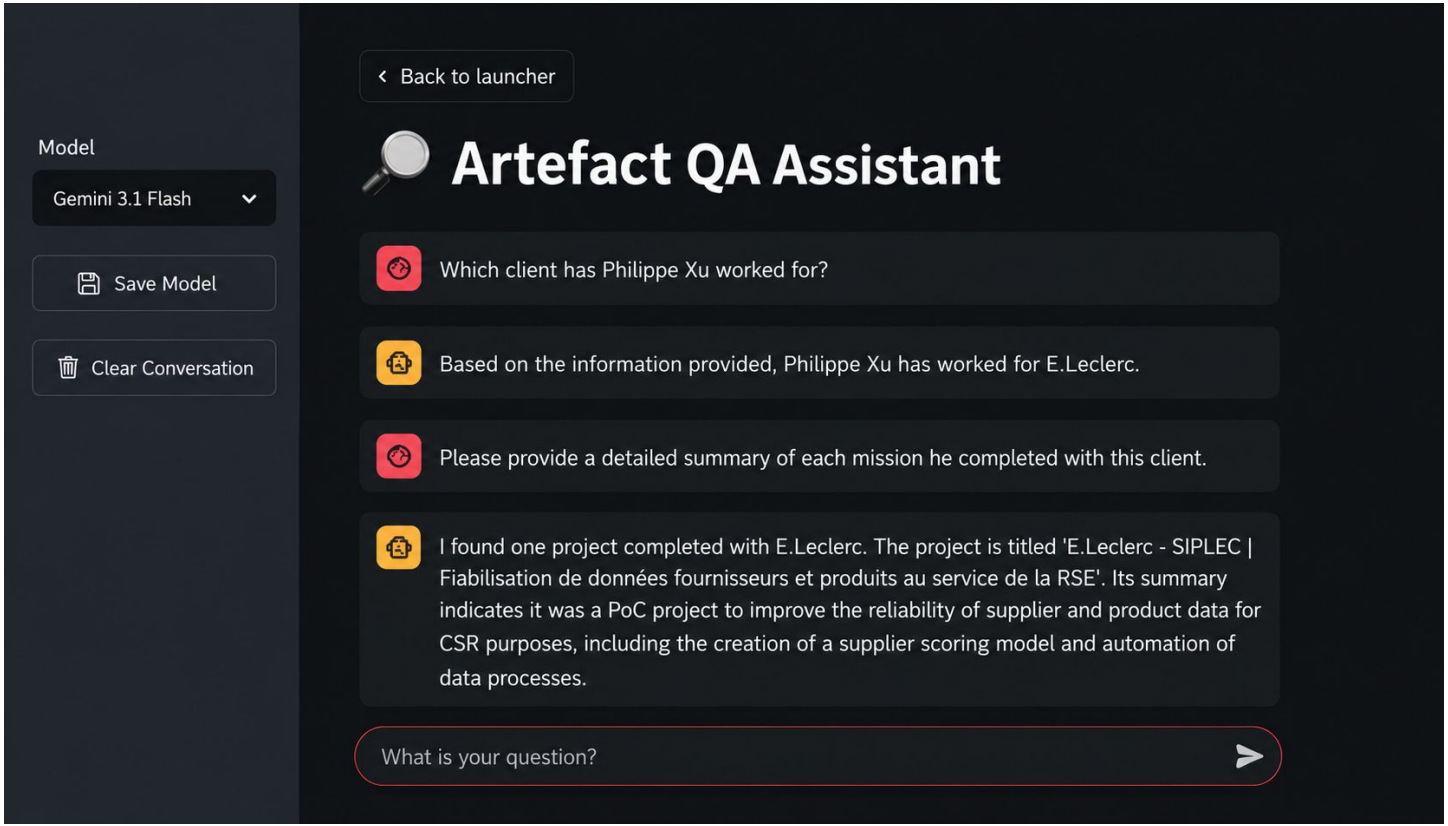
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The Knowledge graph gives the possibility of a graph visualization and can be queried to retrieve information efficiently and accurately



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Use Case: Q&A Assistant



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