ONTO COMMONS
ONTOLOGY-DRIVEN DATA DOCUMENTATION FOR INDUSTRY COMMONS

Knowledge Management Translator: skills and human resources development

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Background

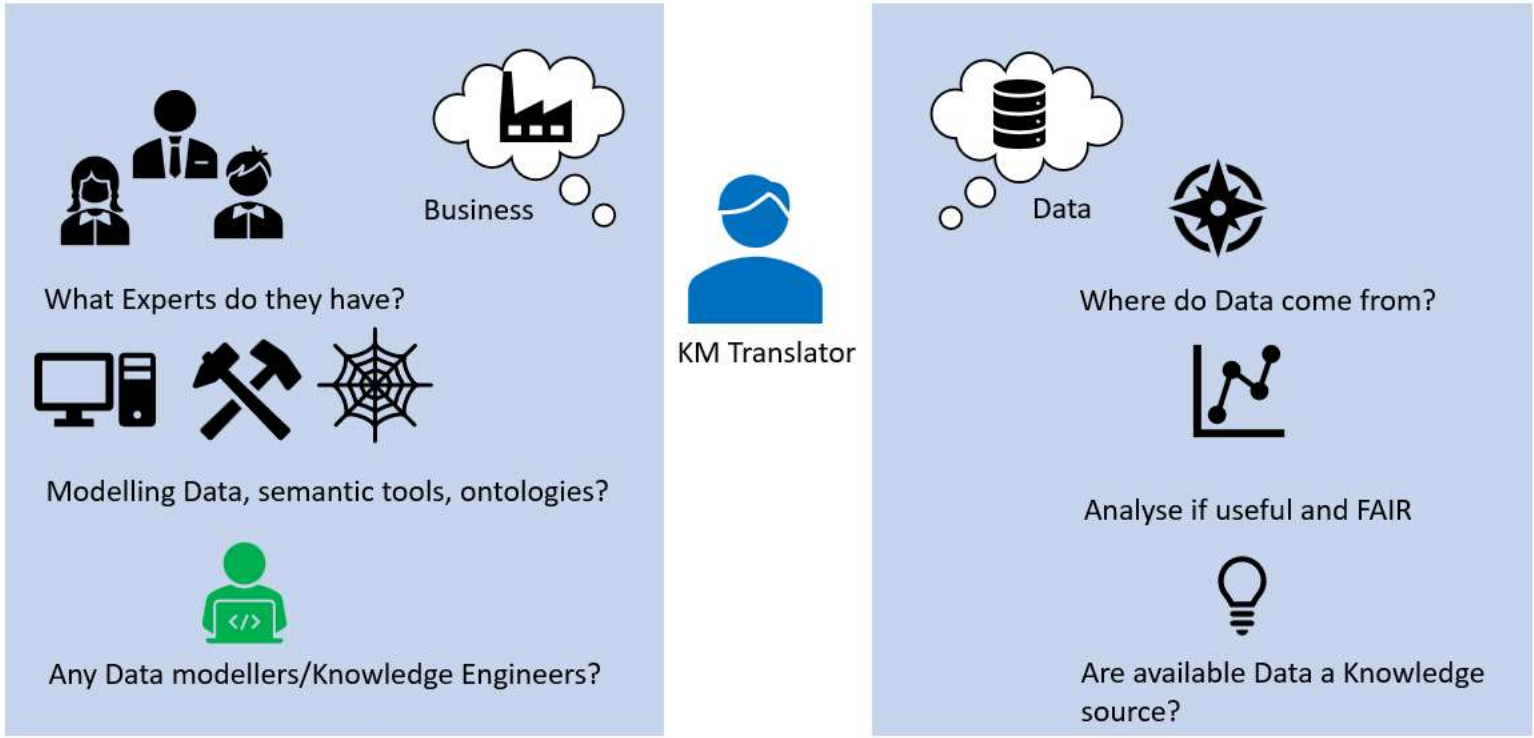
- There are two existing roles we are expanding:
  - Materials Modelling Translator- to close the “knowledge gap” between industrial stakeholders and materials modellers, thus promoting mutual understanding
  - Analytics Translator – to close the “knowledge gap” between industrial stakeholders and data experts.

The Six Steps of KM Translation

- the overall translation effort is broken down into a sequence of six steps, some more business and some more technology oriented, that are performed first successively and then in cyclic iterations.

View Of Wooden Steps Taken Underwater, by Francesco Ungaro

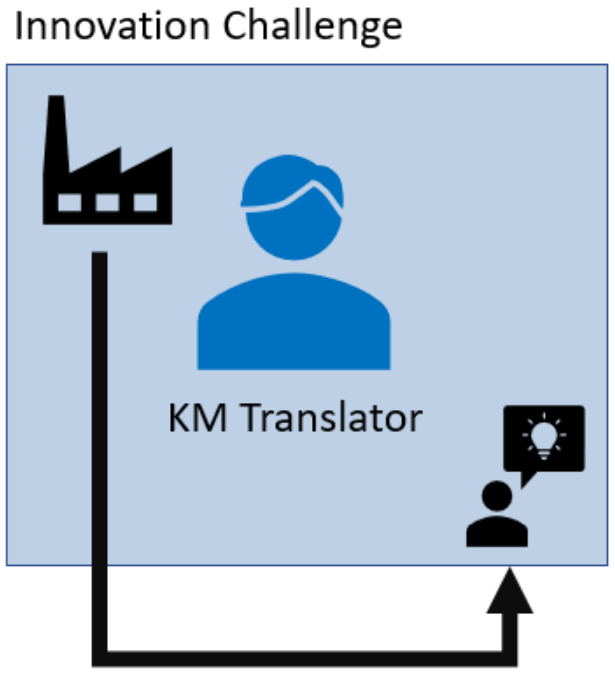
Step 0 – Readiness assessment by the Knowledge Management (KM) Translator with respect to human resource, tools, ontologies, and data maturity



Step 1: Identify innovation case and elaborate on the benefits of adopting semantic technologies

Portfolio of past Innovation challenges

Understand the businesses' global perspective



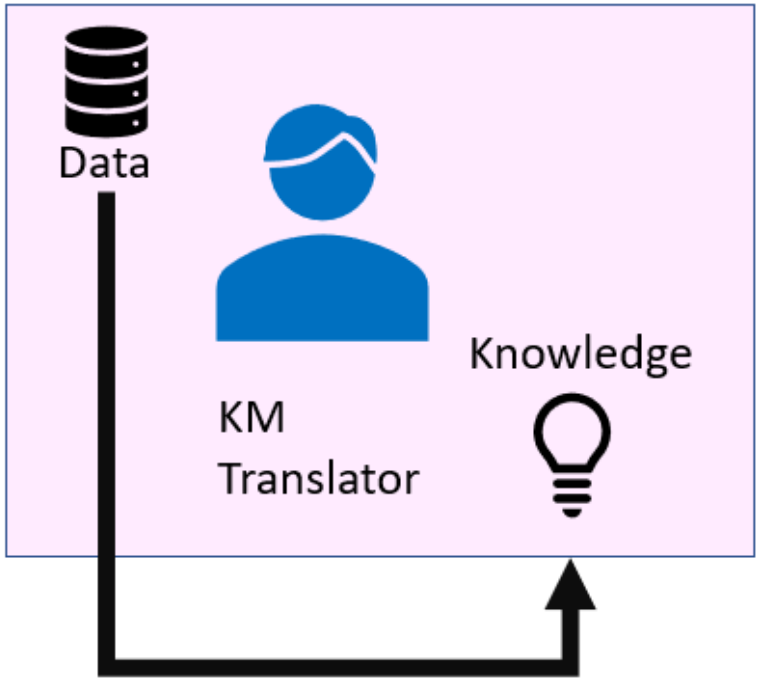
Can analyse benefits

Understand where to deploy semantic tools

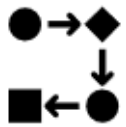
Step 2: Conceptualise the Innovation or Data-to-Knowledge Governance Case

capture and elucidate all relevant case entities of the innovation case

Work with Domain Experts

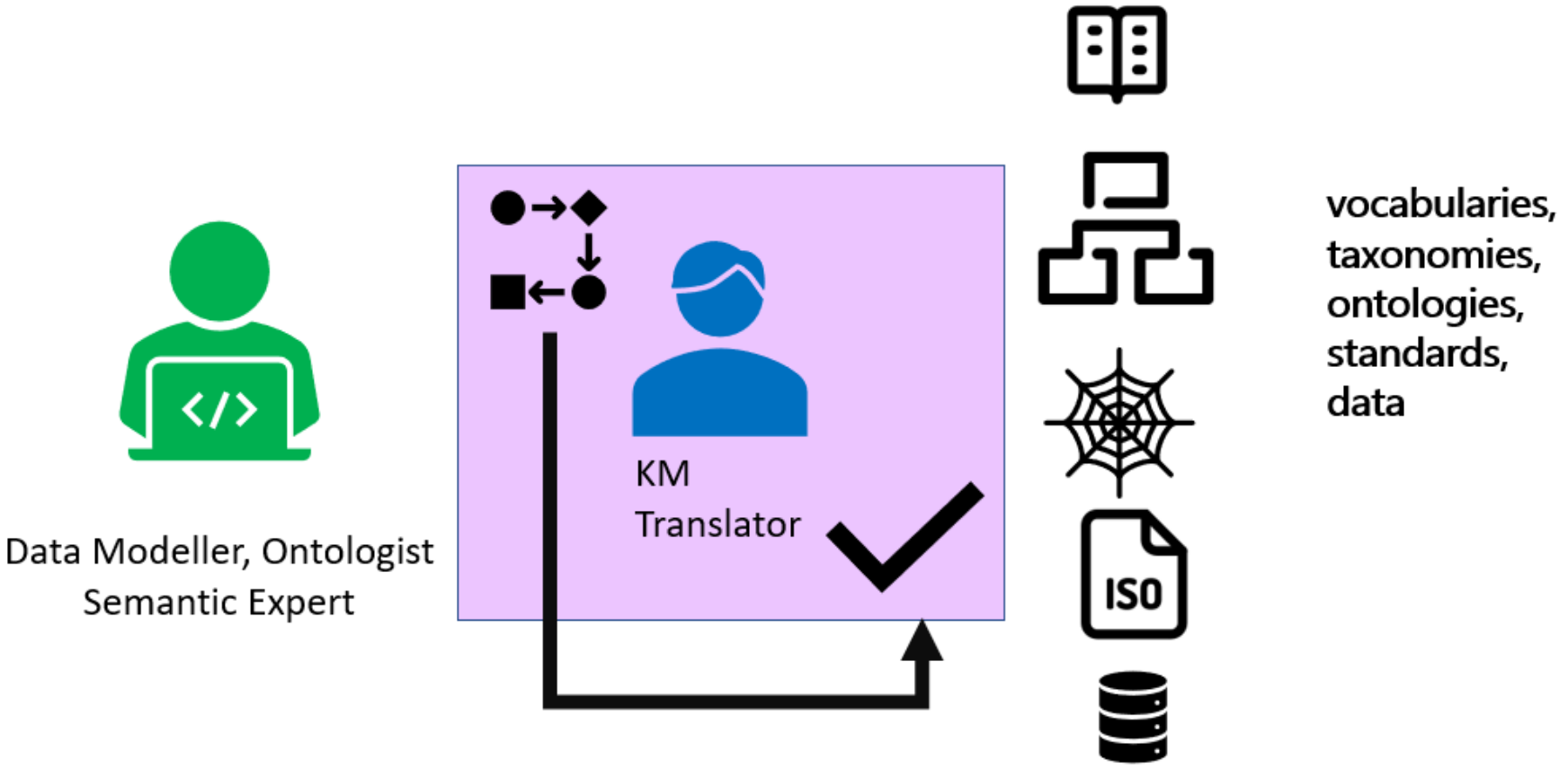


Agree on an innovation case

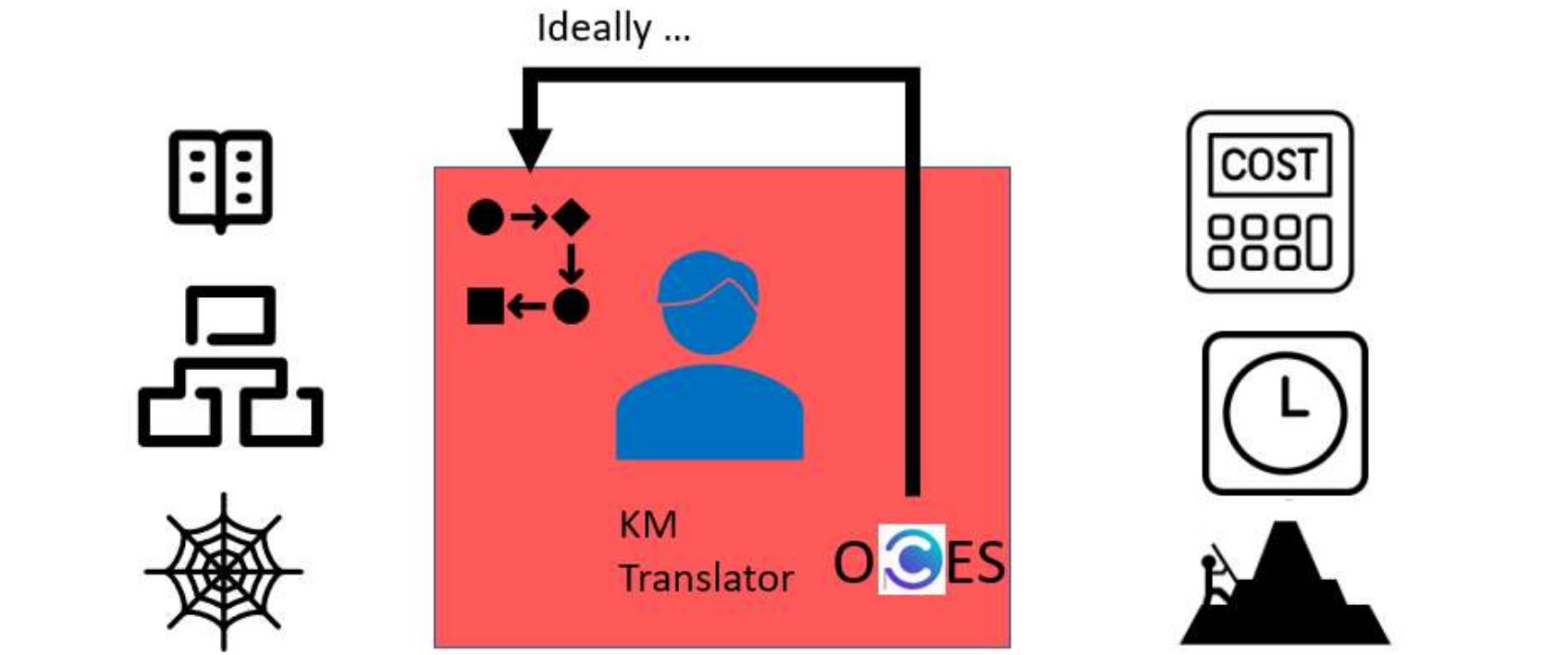


Offer and document a Workflow, capture the Process from Data → Knowledge

Step 3: Determining relevant existing vocabularies, taxonomies, ontologies, and standards as well as required data and sources



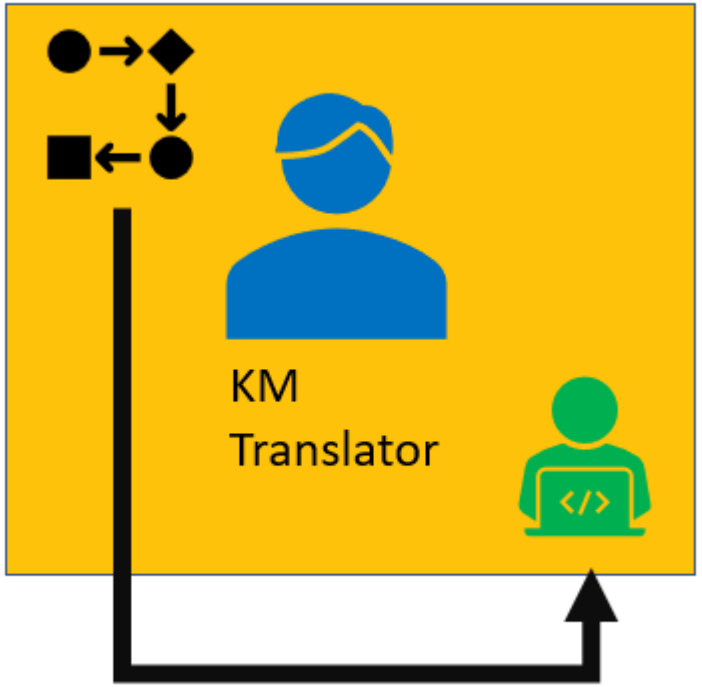
Step 4: Propose potential knowledge engineering solutions.



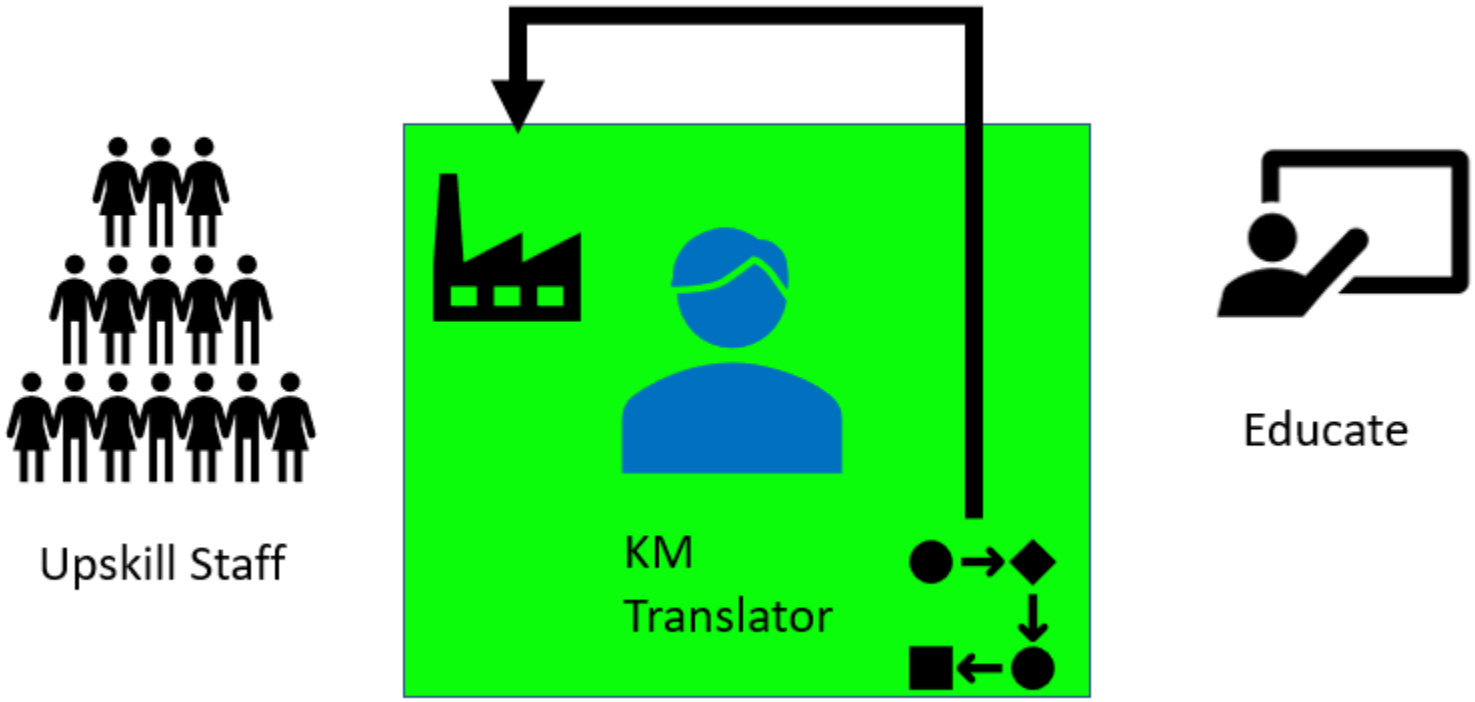
Bring in realistic semantic Solutions

Monitor Cost, Time, Effort

Step 5: Implementation work (for knowledge engineer, etc.)



Step 6: Client adoption including training

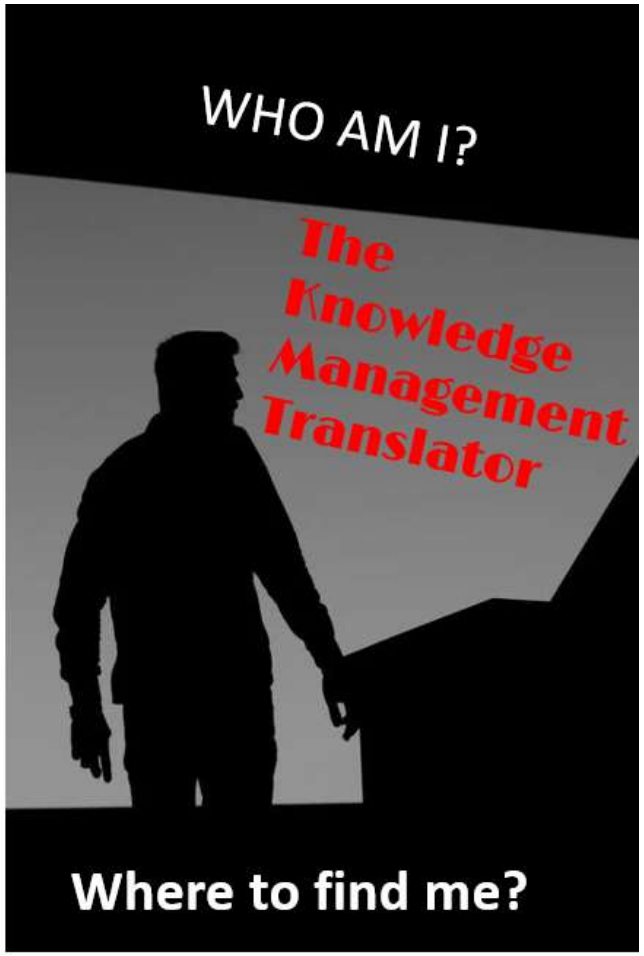


Features and Superpowers

A strong advocate and communicator

A good ‘auditor’ and benefits advisor

Technical skills in ontologies and knowledge engineering



Relevant domain expertise

Unbiased Project management

Qualifications

- PhD in a **Knowledge Engineering discipline** or a PhD in Physical Sciences and relevant post-doctoral or industry experience or MSc with several years of industry experience in Knowledge Management.

- PhD in the field of interest (other than Knowledge Management, e.g., **materials science, metallurgy, biochemistry**, etc) with 5+ years of industry experience in multidisciplinary R&D projects with an adequate second master or similar degree in knowledge management

What they will do …

- Working closely with the **business team** to map out innovation cases.
- Working with **ontology curators, ontology engineers, devops experts and data engineers** to coordinate solutions.
- Coordinating with **domain experts** for terminological curation
- Coordinating with **engineers** for the logical modelling

Call of Duty: OntoZone

- Interfacing between **engineering** (data, ontology engineering) and the **business team**.
- Perform **readiness assessment** with respect to human resource, tools, ontologies, and data maturity
- Identify **innovation case** and elaborate on the **benefits** of adopting semantic technologies
- Conceptualise the Innovation or **Data-to-Knowledge** Governance Case
- Determining relevant **existing** vocabularies, taxonomies, ontologies, and standards as well as required data and sources
- Propose potential **knowledge engineering solutions**.
- **Delegate** work to experts
- Deliver internal adoption of **solution** including training

The Future …

- 2nd WhitePaper with Solutions
- Presence at EMMC2023 and 2nd OntoCommons workshop (synergise)
- Database with Trainings Material and KM Translators
- Initiate Marie Sklodowska Curie Action Nov 2023 (train new generation of KMTs)

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