



Project Overview

*Future proofing agricultural soils of southern and central NSW
from acidification and soil organic carbon decline*

❑ **What is it about?**

- Acid soils cover more than 20 million ha of NSW, limiting agricultural production and causing economic loss of more than \$400 million annually;
- The project provides land managers and their advisors with new knowledge and tools to effectively manage soil acidification and declining soil organic carbon.

❑ **Where is the data coming from?**

- Soil chemical properties representing diverse farm management practices sourced from:
 - Commercial farming paddocks in central and southern NSW
 - Historic and current acid soil research sites
- Temporal data from research sites for model validation

❑ **Key outputs from project:**

- Updated acid soil management guidelines informed by an online decision-support system.

Acknowledgements

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NLP Project code: 4-CS70YJ8

We thank all participating partners:





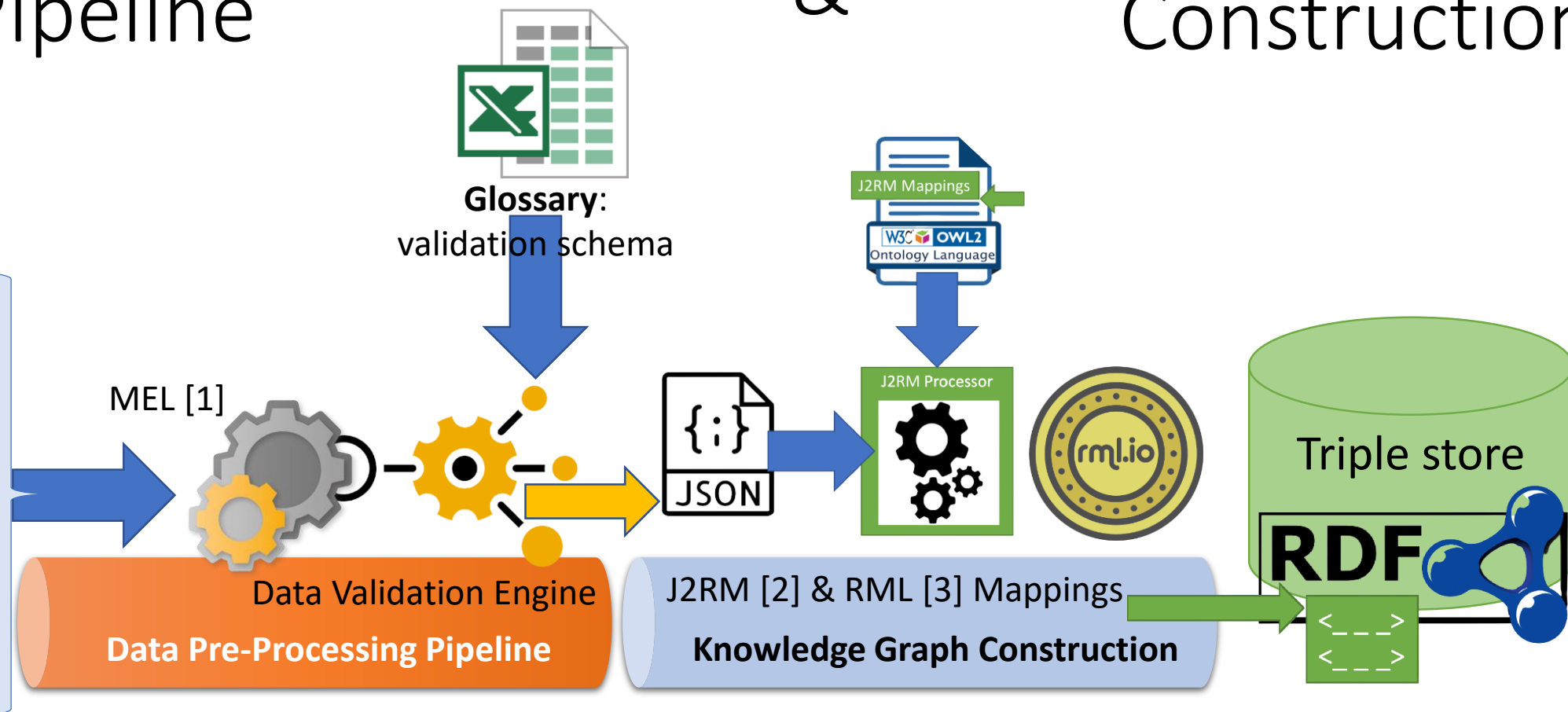
Data Pre-Processing Pipeline

& Knowledge Graph Construction

External data sources:
SALIS, TERN, G-NAF, ...



Datasets: Excel files



[1] Rodríguez Méndez S.J., Omran P.G., Haller A., Taylor K. (2021). **MEL: Metadata Extractor & Loader**. *Proceedings of the ISWC 2021 Demos and Industry Tracks - co-located with The 20th International Semantic Web Conference (ISWC 2021)*. CEUR Workshop Proceedings. Vol. 2980. Published at: <http://ceur-ws.org/Vol-2980/paper399.pdf>

[2] Rodríguez Méndez S.J., Haller A., Omran P.G., Wright J., Taylor K. (2020). **J2RM: an Ontology-based JSON-to-RDF Mapping Tool**. *Proceedings of the ISWC 2020 Demos and Industry Tracks: From Novel Ideas to Industrial Practice - co-located with The 19th International Semantic Web Conference (ISWC 2020)*. CEUR Workshop Proceedings. Vol. 2721. Pp. 368-373. Published at: <http://ceur-ws.org/Vol-2721/paper593.pdf>

[3] RDF Mapping Language (RML). <https://rml.io/specs/rml/>

Decision-Support System Architecture

