# Session 4.2

##### Session 4.2 (SEMANTiCS)

#### Time: Thursday, September 19, 2024 - 13:40 to 15:00

#### Chair: TBA

## **Talks**

### Semantic Manufacturing Chains - Leveraging Graph Technology for Efficiency and Waste Reduction [SP]

| Dan CollierSemantic Partners |
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### Knowledge Graph Matching for deriving Recommendations of Digital Agricultural Technologies to Farmers

| Daan Di Scala | David de Best | Jack Verhoosel |
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### Towards Efficient Exploitation of Large Knowledge Bases by Context Graphs

One problem related to the exploitation of knowledge graphs, in particular when processing with machine learning methods, is the scaling up problem. We propose here a method to significantly reduce the size of the used graphs to focus on a useful part in a given usage context. We define the notion of context graph as an extract from one or more general knowledge bases (such as DBpedia, Wikidata, Yago) that contains the set of information relevant to a specific domain while preserving the properties of the original graph. We validate the approach on a DBpedia excerpt for entities related to the Data\&Musée project and the KORE reference set according to two aspects: the coverage of the context graph and the preservation of the similarity between its entities. The results show that the use of context graphs makes the exploitation of large knowledge bases more manageable and efficient while preserving the properties of the initial graph.

| Nada Mimouni | Jean-Claude Moissinac |
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