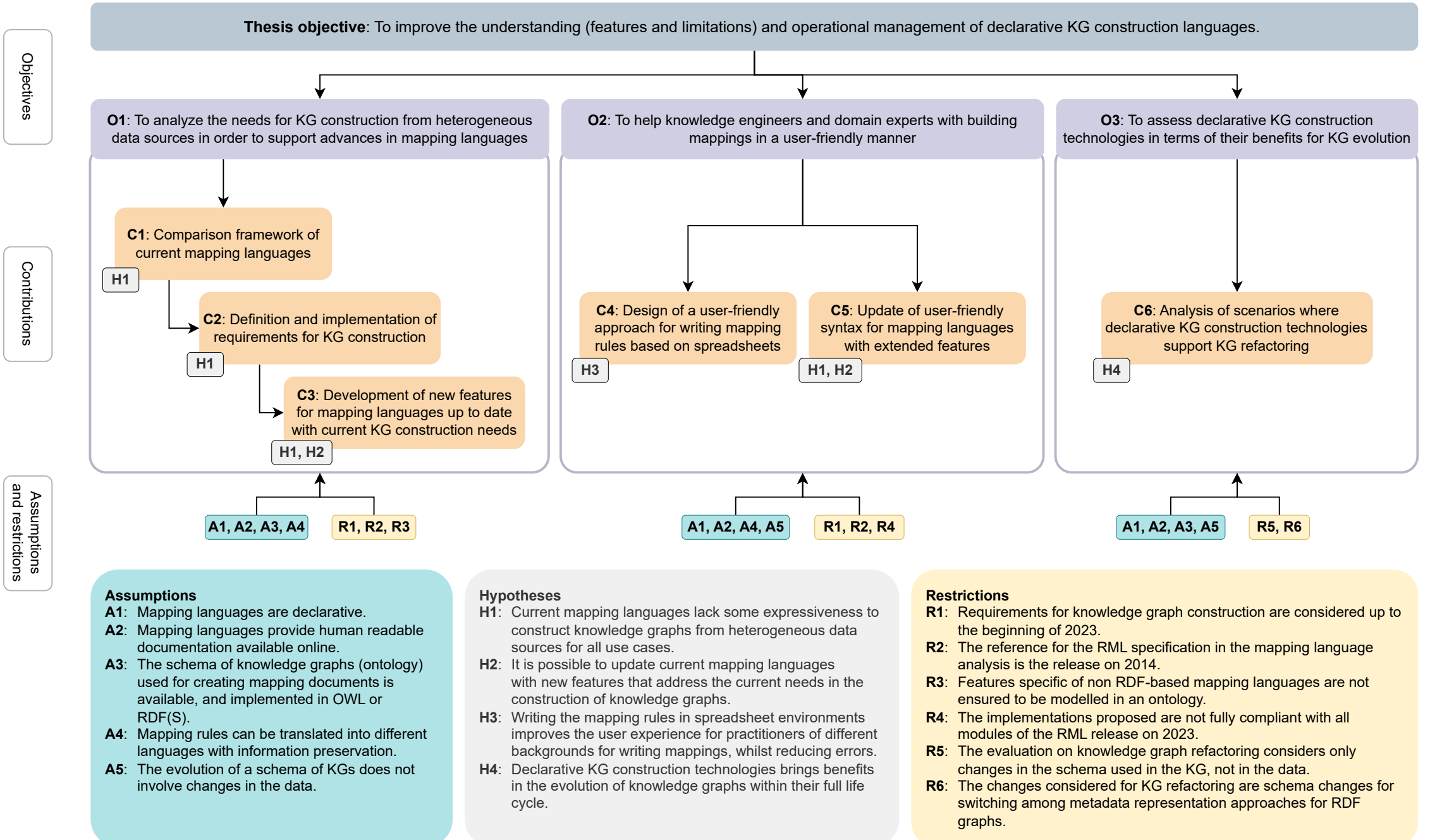

Assumptions

- **A1**: Mapping languages are declarative.
- **A2**: Mapping languages provide human readable documentation available online.
- **A3**: The schema of knowledge graphs (ontology) used for creating mapping documents is available, and implemented in OWL or RDF(S).
- **A4**: Mapping rules can be translated into different languages with information preservation.
- **A5**: The evolution of a schema of KGs does not involve changes in the data.

Hypotheses

- **H1**: Current mapping languages lack some expressiveness to construct knowledge graphs from heterogeneous data sources for all use cases.
- **H2**: It is possible to update current mapping languages with new features that address the current needs in the construction of knowledge graphs.
- **H3**: Writing the mapping rules in spreadsheet environments improves the user experience for practitioners of different backgrounds for writing mappings, whilst reducing errors.
- **H4**: Declarative KG construction technologies brings benefits in the evolution of knowledge graphs within their full life cycle.

Restrictions

- **R1**: Requirements for knowledge graph construction are considered up to the beginning of 2023.
- **R2**: The reference for the RML specification in the mapping language analysis is the release on 2014.
- **R3**: Features specific of non RDF-based mapping languages are not ensured to be modelled in an ontology.
- **R4**: The implementations proposed are not fully compliant with all modules of the RML release on 2023.
- **R5**: The evaluation on knowledge graph refactoring considers only changes in the schema used in the KG, not in the data.
- **R6**: The changes considered for KG refactoring are schema changes for switching among metadata representation approaches for RDF graphs.