

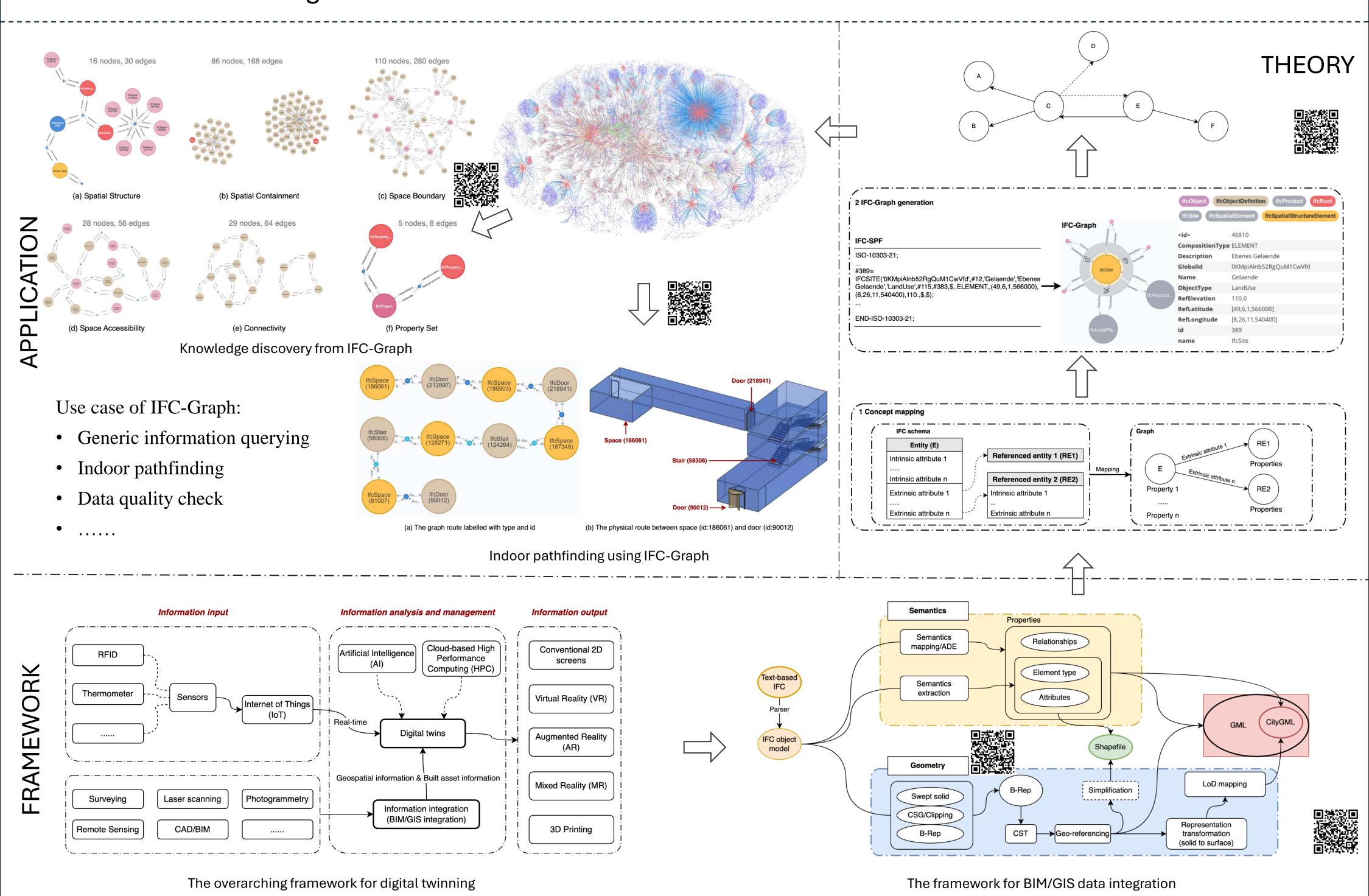


A Graph-centric Framework for Digital Twinning

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Overview

This project aims to design a framework for digital twinning for both the natural environment and the built environment by integrating building information modelling (BIM), geographic information system (GIS), and property graph. The purpose is to facilitate information integration and knowledge discovery from heterogeneous and large-volume geospatial and built asset information in digital twins to support evidence-informed decision making.



What next?

A further exploration on using graph in digital twinning for information integration and knowledge discovery.

- GraphRAG-based information query
- LLM-based human-DT interaction
- Graph-based information integration BIM, GIS, IoT

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References

• J. Zhu, N. Nisbet, M. Yin, R. Wei, I. Brilakis, Cypher4bim: Releasing the power of graph for building knowledge discovery

















