

# Current Standardization Efforts to Achieve BIM and GIS Interoperability

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## SUMMARY

Several NGOs, namely buildingSMART, OGC, and ISO are currently working on the standardization of terms, data structures, services and processes for the interoperability of digital twins of the built environment. The interoperability of Building Information Modeling (BIM) and Geographic Information Systems (GIS) is necessary to achieve this goal.

This contribution to the FIG Working Week 2023 gives an overview of the current standardization efforts in the GIS/BIM context on International and European level. The motivation for this paper is to strengthen the general awareness of BIM/GIS standardization and specifically to promote the current work by the ISO/TC59/SC13-ISO/TC211 Joint Working Group 14 “GIS-BIM interoperability” (JWG14). In 2021 the JWG14 published the technical report ISO/TR 23262:2021 (ISO/TR) which is shortly presented as the basis for the current work on BIM/GIS. The report identified barriers and opportunities for BIM/GIS interoperability and suggests further specific standardization efforts. All results of the ISO/TR relate to standardization, not to mathematical foundations nor academic research. However, both, geospatial industry and governmental agencies benefit from the standards, because the problem domain will be structured, a unique vocabulary and best practice will be provided by the future reports, specifications and standards. In conclusion, future trends in GIS-BIM standardization are anticipated and the need for standardization is shortly presented on practical examples.

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