Free Guide

ISO 19650: Building Information Modelling

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What is ISO 19650?

ISO 19650 is a five-part series of international standards that provide guidelines and requirements for managing information about buildings and civil engineering works using building information modeling (BIM).

BIM is a digital representation of the physical and functional characteristics of a building or infrastructure. It is used for design, construction, and operation throughout the entire lifecycle of a project.

Here's a quick look at each part of ISO 19650.

- **Concepts and Principles ISO 19650-1.** Provides an overview of BIM concepts, emphasizing collaboration, data quality, and the use of common data environments.

- **Delivery Phase of the Assets ISO 19650-2.** Focuses on asset delivery, outlining requirements for BIM deliverables and data management during design, construction, and commissioning.

- **Operational Phase of the Assets ISO 19650-3.** Covers the operational phase, emphasizing the transition from delivery to operation, with requirements for BIM data management during maintenance and decommissioning.

- **Collaborative Production of Information ISO 19650-4.** Focuses on collaborative information production, specifying requirements for information management, data quality, and structured approaches.

- **Asset Information Requirements ISO 19650-5.** Addresses asset information requirements (AIR), defining the process for identifying, documenting, and delivering AIR through BIM data.

Who needs to be certified in ISO 19650?

ISO 19650 certification is typically pursued by organizations involved in the construction and architecture industries to demonstrate compliance with BIM and information management standards.

While it is generally not mandatory by law or regulation in most countries, ISO 19659 may be required or specified by clients, contracts, or industry organizations as a prerequisite for participation in certain construction projects.

The benefits of implementing ISO 19650

Implementing ISO 19650 offers several benefits to organizations. Some key advantages include:

Improved collaboration

ISO 19650 promotes a collaborative approach to BIM, fostering better communication, coordination, and cooperation among project stakeholders. This leads to smoother project workflows and reduced conflicts.

Enhanced data quality

The standard emphasizes data quality and security, which can result in more accurate and reliable information throughout a project's lifecycle. This, in turn, reduces errors, rework, and costly project delays.

Global compatibility

ISO 19650 provides a standardized framework that is recognized globally, making it easier for organizations to work with international partners and clients. It ensures consistency in BIM practices, leading to better interoperability and knowledge sharing across borders.

What are the ISO 19650 certification requirements?

To obtain ISO 19650 certification, an organization must adopt compliant BIM processes and information management systems, document their procedures, engage a certification body for an audit, then address any non-conformities. Upon successful compliance, the organization will receive an ISO 19650 certification.

Renewal requirements for ISO 19650

ISO 19650 certifications are typically valid for three years. To renew or retain validity, organizations must undergo two surveillance audits – one each in the second and third year of the certification period.

The challenges in implementing ISO 19650

Implementing ISO 19650 may pose several challenges to organizations. They include:

Change management

Transitioning to ISO 19650-compliant processes often requires significant changes in workflows, roles, and responsibilities. Resistance to change among employees and stakeholders can hinder adoption.

Data management

Effective data management is crucial, but it can be complex and resource-intensive. Ensuring data quality, security, and interoperability throughout the project lifecycle can be challenging.

Cost and training

Compliance with ISO 19650 may involve investments in technology, training, and resources. Smaller organizations may find it financially challenging to implement and maintain compliant systems and processes.

Tips and strategies for preparing for ISO 19650

Here are a few tips for preparing for an ISO 19650 certification:

- Educate your teams about ISO 19650 standards and its implications for projects.
- Evaluate existing BIM and information management processes to identify gaps and areas for improvement.
- Create a clear implementation roadmap with specific milestones, responsibilities, and timelines.
- Provide comprehensive training to staff on ISO 19650 requirements and best practices for compliance.
- Consider engaging BIM consultants or experts who can guide you through the ISO 19650 implementation process.

Resources for ISO 19650 certification

For more information and guidance on ISO 19650 certification, you can refer to the following resources

International Organization for Standardization (ISO). The ISO 19650 page on the official ISO website provides the ISO 14001 standard document, news updates, and additional resources.

Accredited certification bodies. To pursue ISO 19650 certification, you can reach out to accredited certification bodies that offer certification services in your region. These bodies have the expertise to guide you through the certification process. You can find a list of accredited certification bodies on the website of the International Accreditation Forum (IAF) or contact your local accreditation body.

Construction skills matrix. AG5 offers a free skills matrix dedicated to the construction industry. You can use it to identify, track, and manage the skills your employees possess, as well as those they may need, for your organization's ISO 19650 certification.

Skills management

Skills management for ISO 19650

AG5 stores all certifications in the cloud, providing all authorized personnel with access to the right version of approved certifications. This helps you easily keep track of all data and documentation related to an ISO 19650 certification across your organization.

Using AG5's skills management software, you can monitor the status of any type of certification that is relevant to your workforce, leveraging intuitive dashboards that provide you with a clear understanding of exactly what is needed to keep your employees skilled and safe.

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FAQs about ISO 19659

What is the scope of ISO 19650?

The scope of ISO 19650 encompasses the management of information related to the entire lifecycle of buildings and civil engineering works using BIM principles.

Is ISO 19650 certification mandatory?

ISO 19650 is not mandatory, but may be required for certain construction projects.

How long does it take to obtain ISO 19650 certification?

Once the standards are implemented in your organization, ISO 19650 certification typically takes between eight and 12 weeks.

What are the cost considerations for ISO 19650 certification?

The cost considerations for ISO 19650 certification may include fees for certification audits, consulting or training services, technology investments, process modifications, and ongoing compliance maintenance.

What is the validity period of ISO 19650 certification?

An ISO 19650 certification is typically valid for three years.

Can ISO 19650 be integrated with other management systems?

Yes, ISO 19650 can be integrated with other management systems like ISO 9001 (Quality Management) or ISO 14001 (Environmental Management) to create a holistic approach to organizational processes and standards.

How can you learn more about ISO 19650 certification?

You can visit the ISO 19650 page on the official ISO website or find a list of accredited certification bodies on the website of the International Accreditation Forum (IAF),

Sources

ISO 19650. ISO. https://www.iso.org/standard/68078.html
International Accreditation Forum. https://iaf.nu/en/home/
ISO 19650 Building Information Modelling (BIM). British Standards Institution. https://www.bsigroup.com/en-GB/iso-19650-BIM/
ISO 19650 Certification. Simply Certification. https://simplycertification.co.uk/iso-19650-certification-application

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