

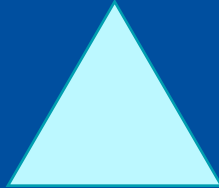
## Education & Certification Committee



**Calvin Kam**  
Chapter  
President



**Tony Rinella**  
Education & Certification  
Director



*Focus on*  
**openBIM for Infrastructure**  
*certification & webinar programs*

2026-03-19 @ 2:45 – 3:05 Central



building **SMART**<sup>®</sup>  
USA



EdCom



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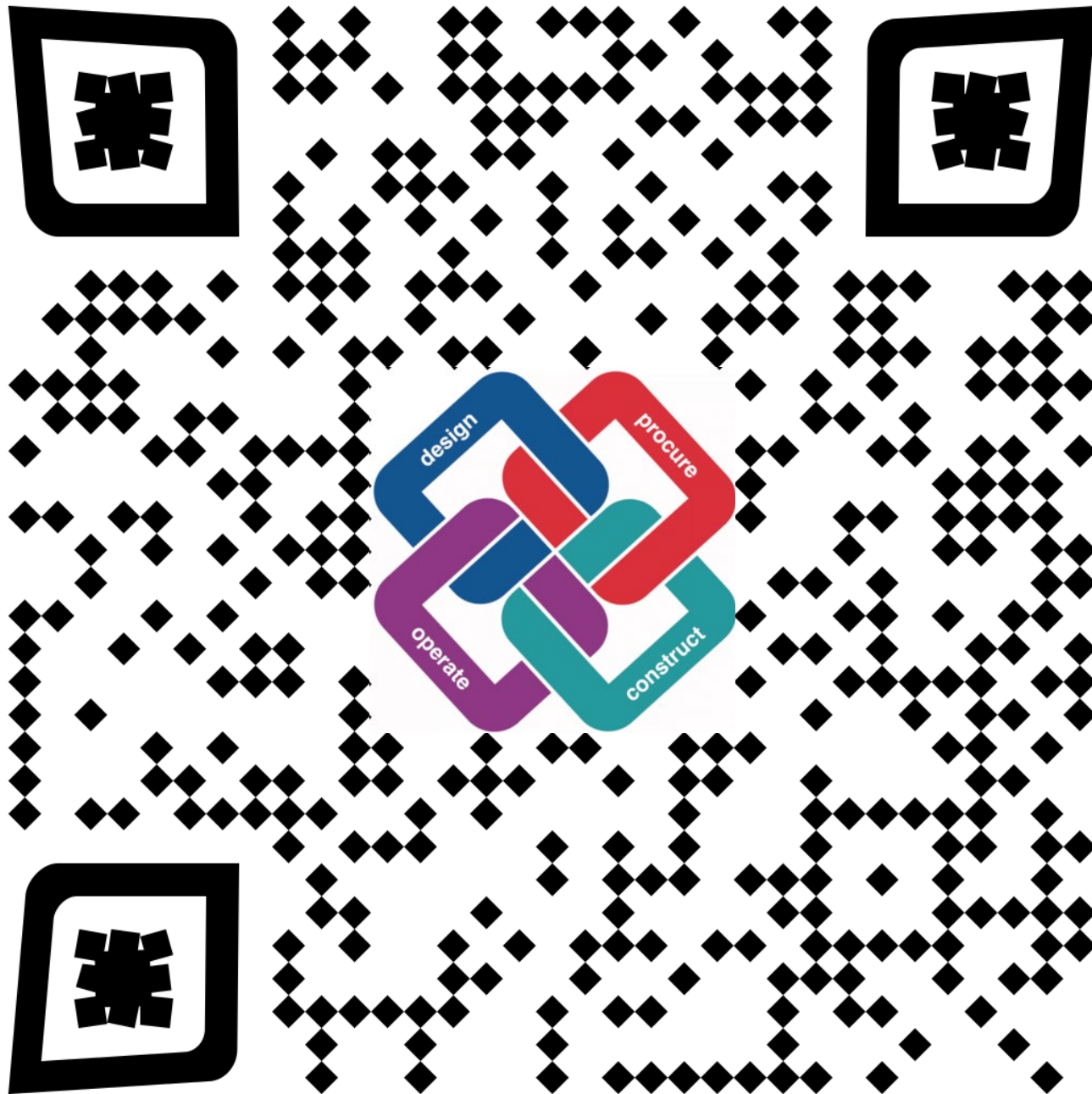


Stephen Walz  
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(HDR)



Yelda Turkan  
Member  
(Oregon State University)





Education Committee  EdCom

BSI Webinars  YouTube Videos

openBIM for Infrastructure

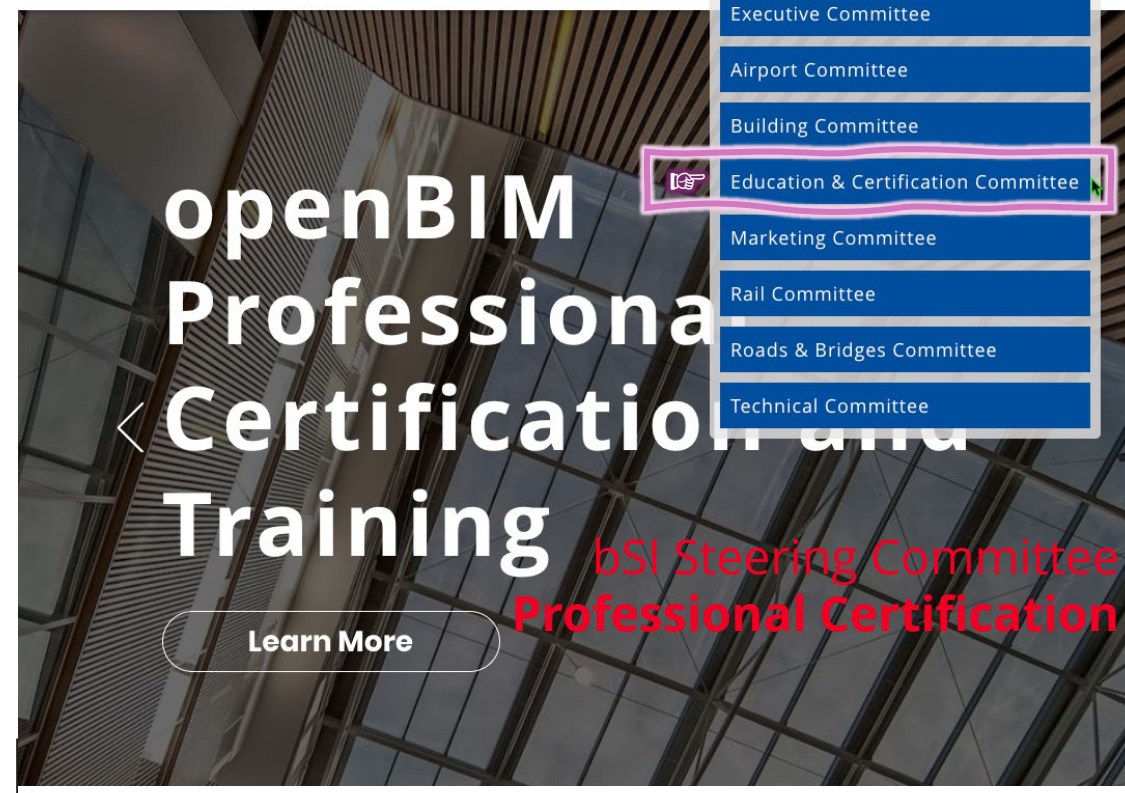
Training  Certification

Outreach: Industry  Academia



US Activities Training US Committees Get Involved About

- Executive Committee
- Airport Committee
- Building Committee
- Education & Certification Committee
- Marketing Committee
- Rail Committee
- Roads & Bridges Committee
- Technical Committee



bS-USA Webinars



openBIM® USA Events

## Newsletters

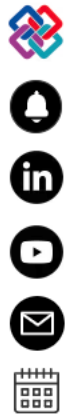
[US Activities](#) [Training](#) [US Committees](#) [Get Involved](#) [About](#) [Resources](#)

Our weekly newsletters incl  :<https://www.youtube.com/@buildingSMARTUSA>  
Subscribe to our newsletters to receive them in your inbox.

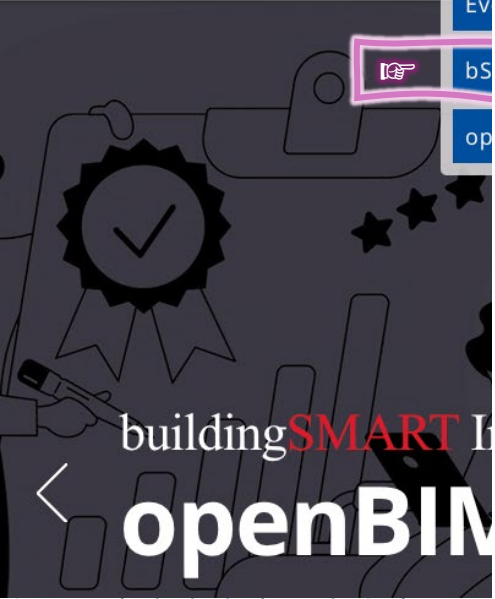
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Date	Newsletter URL
2026-03-12	<a href="https://mailchi.mp/buildingsmart/feb10-rec">https://mailchi.mp/buildingsmart/feb10-rec</a>
2026-03-04	<a href="https://mailchi.mp/buildingsmart/feb10-rec">https://mailchi.mp/buildingsmart/feb10-rec</a>
2026-02-26	<a href="https://mailchi.mp/buildingsmart/feb10-rec">https://mailchi.mp/buildingsmart/feb10-rec</a>
2026-02-18	<a href="https://mailchi.mp/buildingsmart/feb-2026-1">https://mailchi.mp/buildingsmart/feb-2026-1</a>
2026-02-11	<a href="https://mailchi.mp/buildingsmart/march-20">https://mailchi.mp/buildingsmart/march-20</a>
2026-02-04	<a href="https://mailchi.mp/buildingsmart/4th-annua">https://mailchi.mp/buildingsmart/4th-annua</a>
2026-01-29	<a href="https://mailchi.mp/buildingsmart/bimsmart">https://mailchi.mp/buildingsmart/bimsmart</a>
2026-01-21	<a href="https://mailchi.mp/buildingsmart/cde-bi-wi">https://mailchi.mp/buildingsmart/cde-bi-wi</a>
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2026-01-13	<a href="https://mailchi.mp/buildingsmart/feb-2026-1">https://mailchi.mp/buildingsmart/feb-2026-1</a>
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2025-12-23	<a href="https://mailchi.mp/buildingsmart/holiday-20">https://mailchi.mp/buildingsmart/holiday-20</a>
2025-12-16	<a href="https://mailchi.mp/buildingsmart/technical-committee-2025">https://mailchi.mp/buildingsmart/technical-committee-2025</a>
2025-12-09	<a href="https://mailchi.mp/buildingsmart/online-pmcm-dec-webinar-summit-2of3">https://mailchi.mp/buildingsmart/online-pmcm-dec-webinar-summit-2of3</a>
2025-12-03	<a href="https://mailchi.mp/buildingsmart/rail-day-summary-summit-recordings-dec-webinar">https://mailchi.mp/buildingsmart/rail-day-summary-summit-recordings-dec-webinar</a>
2025-11-25	<a href="https://mailchi.mp/buildingsmart/thanksgiving2025">https://mailchi.mp/buildingsmart/thanksgiving2025</a>
2025-11-18	<a href="https://mailchi.mp/buildingsmart/nov-webinar-rail-day-reminders-9169593">https://mailchi.mp/buildingsmart/nov-webinar-rail-day-reminders-9169593</a>
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2025-11-04	<a href="https://mailchi.mp/buildingsmart/nov-webinar-rail-day-reminders">https://mailchi.mp/buildingsmart/nov-webinar-rail-day-reminders</a>

- buildingSMART International
- bSI Awards
- bSI Summits
- AASHTO JTCEES
- BIMForum
- HEEP
- NIBS
- Articles
- Books
- White Papers
- PennDOT ADCMS Grant



# webinars



# Classroom Teaching Content & General Resource Guide

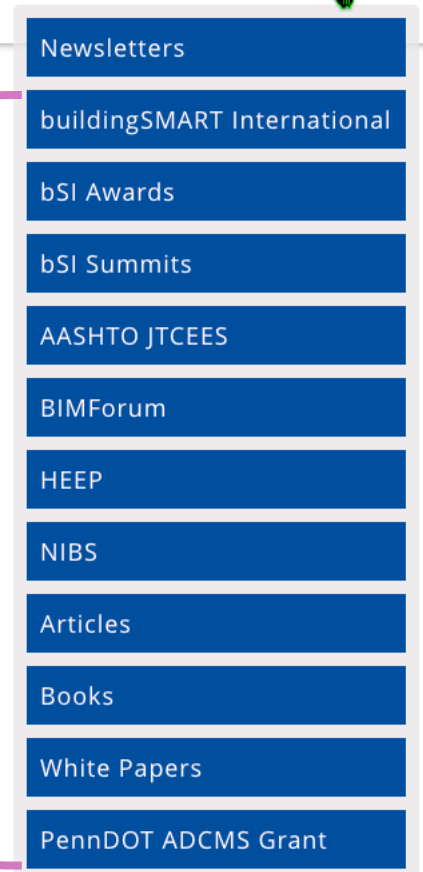
to:

- Collect, collate, and organize resource references
- Simplify navigation of industry materials and standards
- Explain openBIM concepts in simple terms.

for:

- Architects, Engineers, Builders, Owner/Operators
- Horizontal & Vertical Built Environments
- Education & Industry

Get Involved About Resources



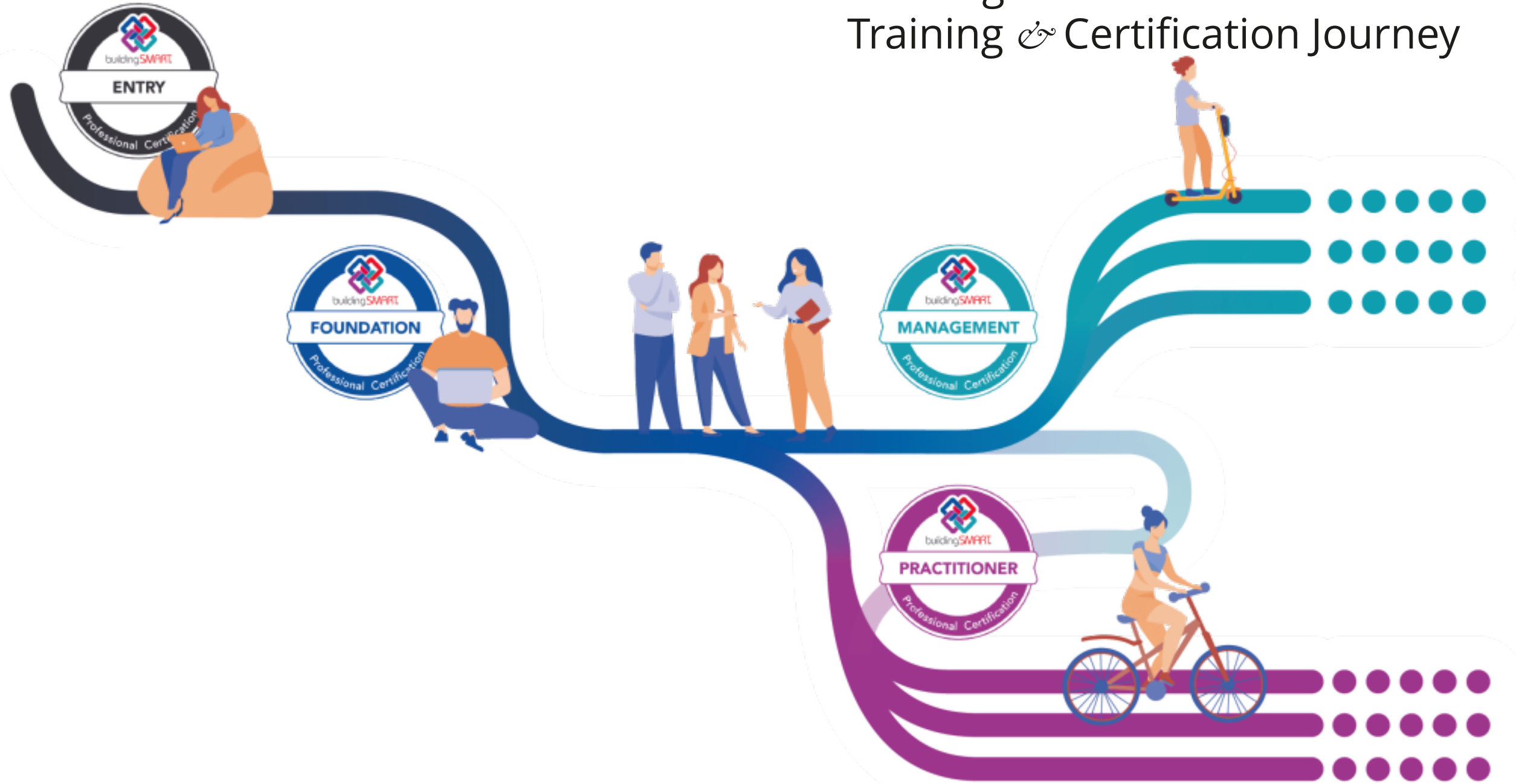
A screenshot of the EdCom website's 'Resources' dropdown menu. The menu is a vertical list of blue buttons with white text. A pink bracket on the left side of the image groups the items from 'buildingSMART International' down to 'PennDOT ADCMS Grant'. To the right of the menu, there are several social media and utility icons: a colorful geometric logo, a bell icon, the LinkedIn logo, a YouTube icon, an envelope icon, and a calendar icon.

Newsletters
buildingSMART International
bSI Awards
bSI Summits
AASHTO JTCEES
BIMForum
HEEP
NIBS
Articles
Books
White Papers
PennDOT ADCMS Grant

 Call for Participation:

 **education** @ **buildingSMART.us**

# buildingSMART International Training & Certification Journey





■ **ENTRY** — Basic Concepts — The Entry level **introduces open standards and openBIM concepts in a simple, clear and straightforward matter.**



■ **FOUNDATION** — Principles and Terminology — The training helps building owners, designers, consultants, builders and project managers **understand the opportunities and collaboration within a virtual, openBIM environment offers.**



■ **MANAGEMENT** — Strategies and Requirements — Management level is aimed at industry professionals involved in the management of digitally empowered projects. It **provides fundamental knowledge and insight at strategic and operative levels, without descending into technical detail.**




■ **PRACTITIONER** — Hands-On Experience — The Practitioner level is designed specifically for **professionals engaged in BIM delivery who possess considerable theoretical and technical knowledge**, as well as a minimum time of project experience.



**Foundation openBIM®**

→ *buildingSMART Qualification*

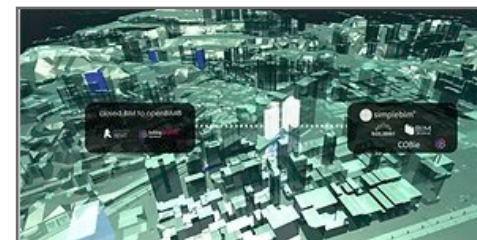
- What is BIM 
- Benefits of openBIM®
- BIM Processes
- openBIM® Standards
- Processes within an Organization



**Leveraging openBIM® for Project Management**


→ *bS-USA Cert. of Completion*

- How openBIM Changes Project Management 
- Supporting Standards & Technologies
- Digital Deliverables Management & Teamwork



**openBIM® Applications**

→ *bS-USA Cert. of Completion*

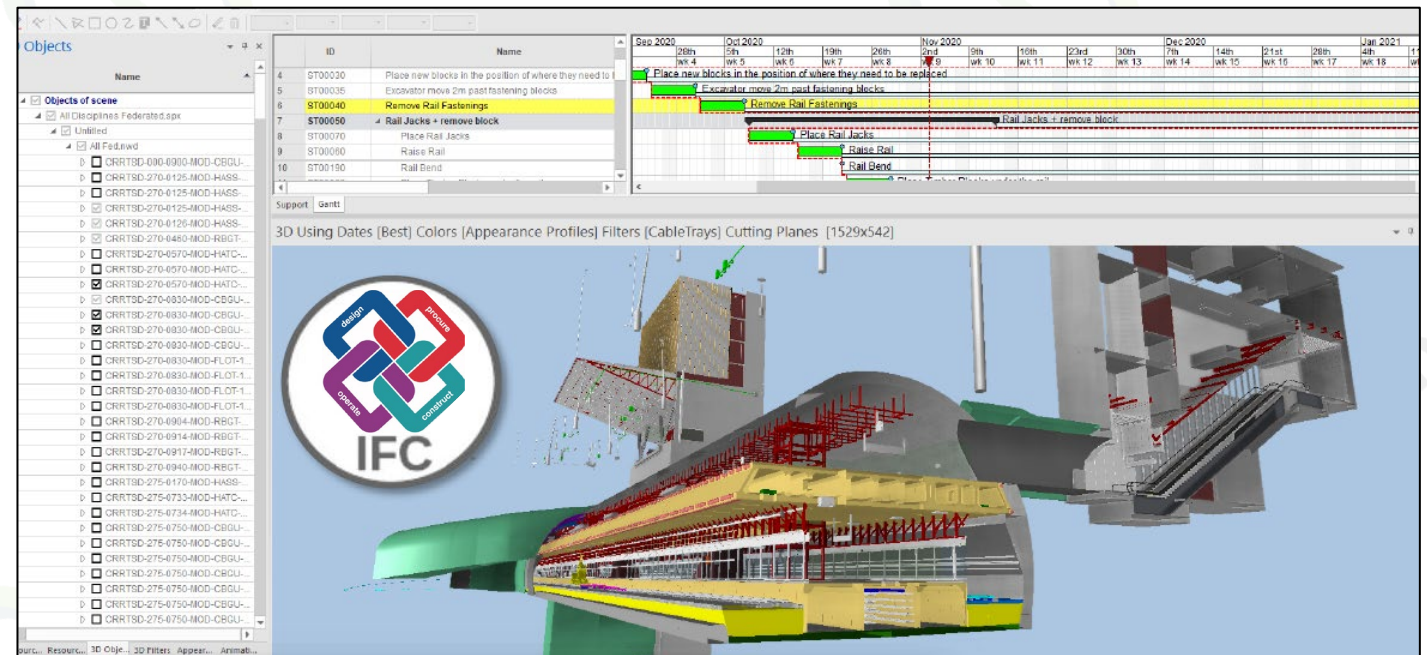
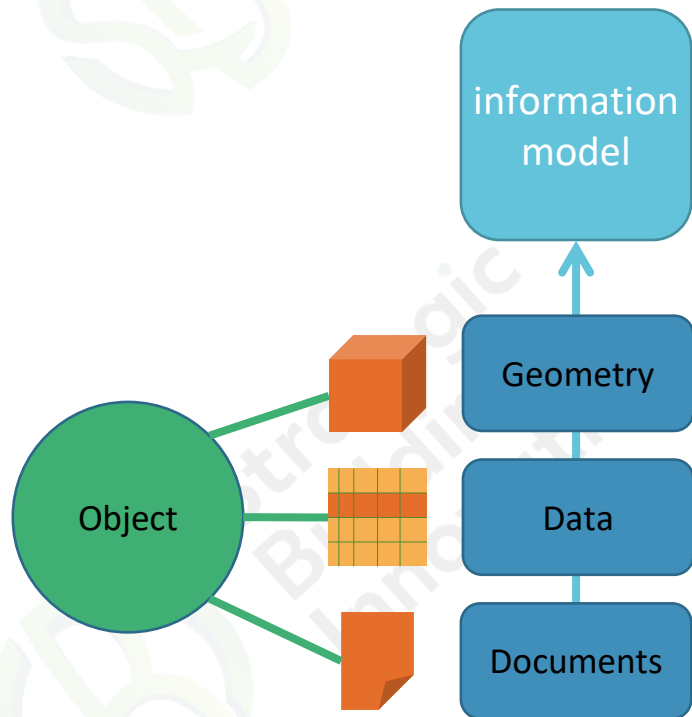
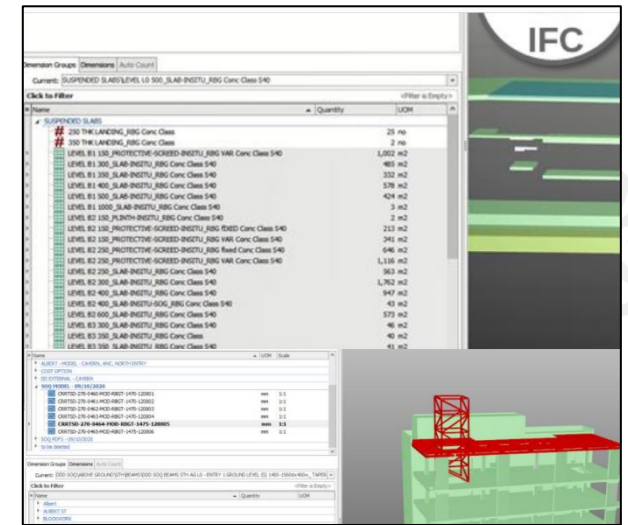
- Optimal openBIM workflow for construction companies 
- BIM Coordination
- COBie and advanced use of openBIM

**training**



# Information Model

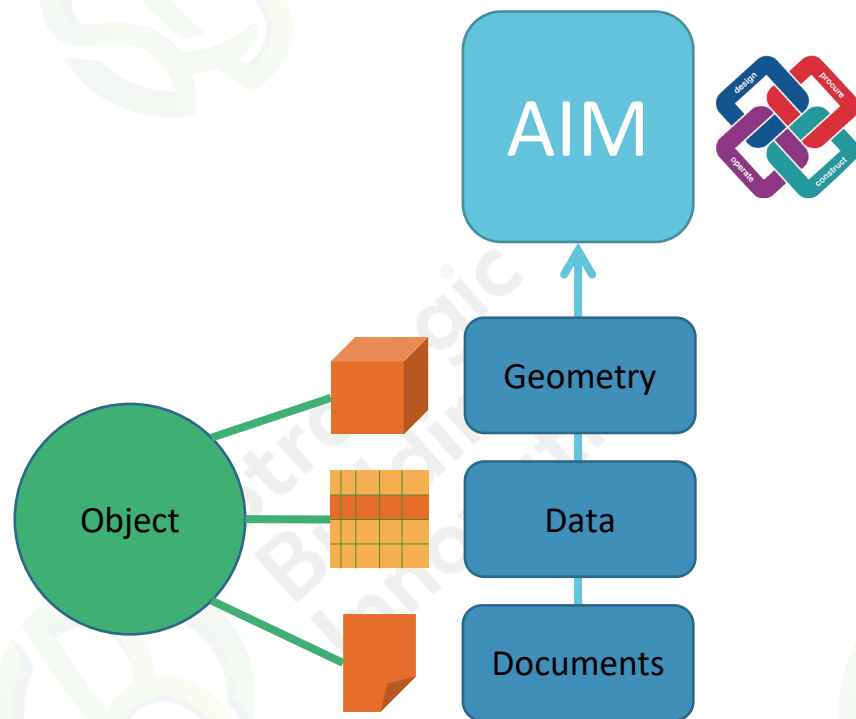
- An information model is a set of structured and/or unstructured information containing **any combination of geometric and alphanumeric data**, possibly including or referencing additional document files. Models contain information about the proposed or existing asset. Other information such as standards, protocols, and communication threads remain outside the model itself.
- In this example, the use of .ifc files is mandated by the client as a contractual requirement for design, construction, handover and service phases. Model data are used for a variety of analysis such as sequencing animation, quantity extractions, and asset management plans.



Source: Cross River Rail (CRR) Tunnels, Stations and Development Brisbane, Queensland, Australia

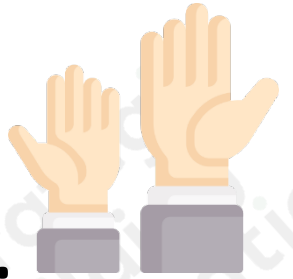
# Asset Information Model (AIM)

- Asset Information Models (AIM) are **Information Models** [as defined earlier] **containing information useful during the operation** of an asset to maintain property data, track and maintain assets, inform decisions, and generally provide the basis for asset maintenance and management during operation using whatever details are designated as required by the Employer or Appointing Party in the OIR.
- Once the data is filled in the BIM objects (hosted within BIM models), by means of Data Drops all the information can be extracted and migrated to the Asset Information Model, where the Infrastructure Manager will use the data to carry out the Asset Management.



Source: Yan Jiang Expressway  
Sichuan Highway Planning, Survey, Design, and Research Institute

# Time to Chime In!



BIM planning should be *most strongly* driven by:

- a. cheapest possible solution
- b. keeping up with latest vendor marketing messages
- c. achieving organizational goals and strategies
- d. someone with a Class B license 🙄



Education Committee  EdCom

 openBIM® for **Infrastructure**

buildingSMART Certification Program will be expanded to include the **infrastructure** sector, addressing requirements for roads, rails, bridges, and networks.

In **Summer 2026**, the international curriculum will be available for **review** in the US to identify globally applicable core elements and customize elements for **relevance in US infrastructure practice**.

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**We invite more FHWA and DOT participation.**

Those interested in **volunteering for the review** please email us:



**education @ buildingSMART.us**



# education @ buildingSMART.us

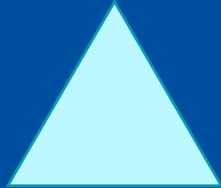
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*certification & webinar programs*

2026-03-19 @ 2:45 – 3:05 Central

# buildingSMART Professional Certification



# Global openBIM Adoption (examples)



**Finland:**

**Use-case driven**, led by government authority along with industry, specifications require technical expertise to understand;  
**2025** Require **IFC** for Permit Submission;  
**2027** As-built **IFC** Archived in National Building Information System



**South Korea:** Public Procurement Service (PPS) requires the use of BIM/IFC on all of its public projects as of today with minor exceptions.



**Denmark:** Danish ICT Regulations 118 & 119 require IFC for all public and publicly funded project bids and design phases from 2023



**Dubai:**  
**3D (BIM):** Optional  
**IFC/open BIM:** Required 2024



**Japan:** MLIT will trial BIM-based building code checking using IFC data starting in 2025, aiming for nationwide implementation by 2027



**Australia:** Transport for NSW (TfNSW) requires IFC design files with custom attributes for road, rail, and marine transport projects



**Singapore:**  
**Voluntary – 2024** submissions via CORENET-X  
**Required from 2025** (projects >30,000 m<sup>2</sup>)

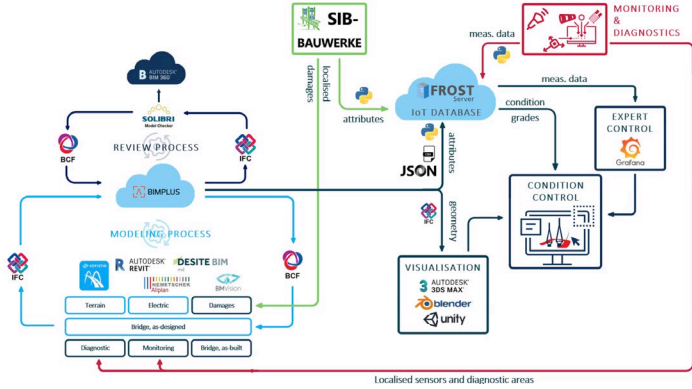
**14+ countries** have adopted openBIM mandates

- **10+ countries** require openBIM for public procurement
- **6+ countries** mandate openBIM for submission and approval

  **Public Procurement**

  **Submission & Approvals**

# openBIM Impacts in 8 Categories



26 models as IFC in CDE  
 10,000+ IFC objects modelled in CDE



**Communications & Decision making**

Improved accuracy in project quantities by **80%**

Reduced # of drawings by **95%**

**Project delivery**

**€6 million** estimated cost savings

on overall **€140million** project  
 Source: FTIA

**Value & Cost**



**357,000+** elements modelled  
**4.8 million+** properties

**Design & Design quality**

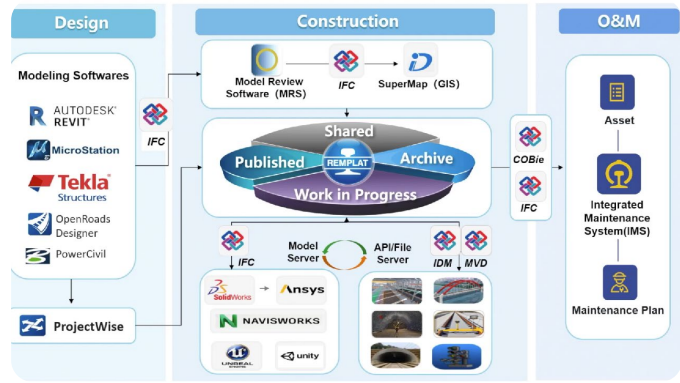
**Safety & Security**

**0 accidents** on the construction site with openBIM workflow

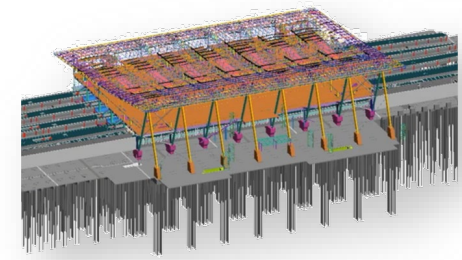
**Mgmt & operations**

**20 sites** using openBIM framework  
**500+** participants for training

**Timeline / Schedule Management**



Construction period was shortened by **144 days**



**Asset & facility performance**

Reduce assets counting time by **92%**  
 Quickly check the means of escape from 21-day Turn Around Time to **1-1.5 day**

# openBIM Business Value Workshop

BIM Forum Conference Brazil 2025  
São Paulo, Brazil | May 20, 2025

a project sponsored by



openBIM Business Value **revealed in workshops:**



**"11.28% reduction** in construction cost through IFC-based cost estimation"



**"50% more** issues closed on time"



**"60% less** rework work"

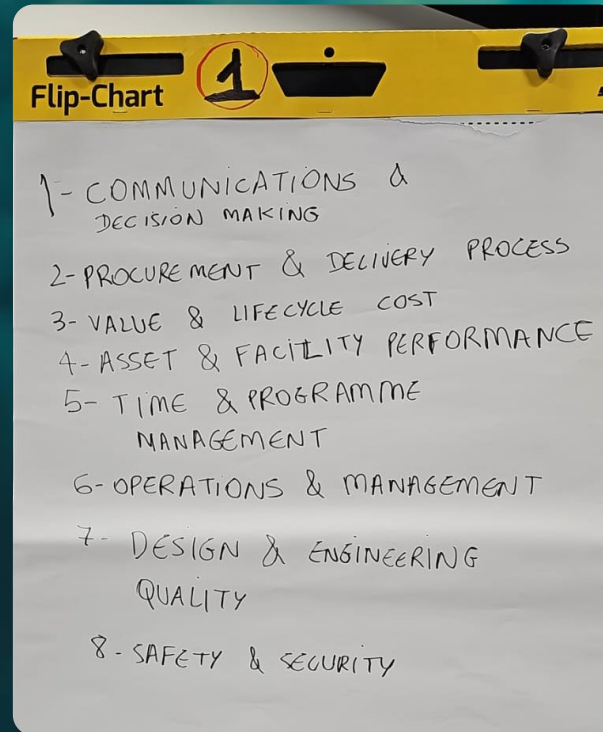


**"50% reduction** in quantity take-off labor hours"

# openBIM Business Value Workshop

BIM Forum Conference Brazil 2025  
São Paulo, Brazil | May 20, 2025

a project sponsored by



openBIM Business Value Impacts   Metrics		
EQ. 1	EQ. 2	EQ. 3
# KPI	Add a dot (•) next to 5 most impactful KPI	
<b>Design &amp; Engineering Quality</b>		
1.01 % reduction in total number of Change Orders	•••••	
1.02 % Reduction in rework / abortive work	•••••	
1.03 # of types of automated design analysis performed	•••••	
1.04 % Reduction in Preparation Hours for RFIs	•••••	
1.05 % Reduction in time to document defects	•••••	
1.06		
1.07		
<b>Communications &amp; Decision Making</b>		
2.01 % coordination improvement	•••••	
2.02 % reduction in RFIs	•••••	
2.03 % decisions revised during project design and construction	•••••	
2.04 % reduction in cost of producing visualizations	•••••	
2.05 Satisfaction: client satisfaction with project outcomes	•••••	
2.06 Satisfaction: improved stakeholder engagement due to visualizations	•••••	
2.07		
2.08		
<b>Time &amp; Programme Management</b>		
3.01 % time savings due to improved issue management	•••••	
3.02 % time savings due to interoperable (& cross-industry) models, data	•••••	
3.03 % latency reduction responding to, resolving, or closing critical issues	•••••	
3.04 % reduction in overall schedule (time for delivery)	•••••	
3.05 % time savings to develop 'openBIM model checking manual' vs. 'separate manuals for proprietary formats'	•••••	

# The openBIM Awards Program

The openBIM Awards Program, established in 2014, celebrates openBIM excellence and innovation in the built environment. Over the years, the program has grown steadily, attracting an ever-expanding pool of submissions from around the world. With its international reach, the openBIM Awards continue to recognize projects and teams that demonstrate exemplary use of openBIM standards and services in all phases of a project's lifecycle.



## Application of U.S. BIM for Bridges and Structures National openBIM Standards

By HDR

2025 Professional Research  
Special Mention USA



## TPF-5(372) BIM for Bridges and Structures Transportation Pooled Fund

By HDR

2022 Professional Research  
Finalist USA



## smartBRIDGE Hamburg | the openBIM-based digital twin for bridge maintenance

By MKP GmbH

2021 Asset Management  
Winner Germany



## Randselva bridge - Preparing for the future

By Sweco Norge

2021 Construction  
Finalist Norway



## Machine Readable Norwegian Classification Manual for Bridge Registrations

By Norwegian Public Roads Administration

2020 Client Leadership  
Winner Norway

# Industry Engagement: Events · Collaboration

**65** member /  
sponsor / partner  
organizations  
in total

**2026**

2026 TPF, bSI & bS-USA Meetings

4<sup>th</sup> Annual BIM SMART SUMMIT

2026 openBIM Roads & Bridges Transportation Summit

Rail Day 2026

**2025**

Follow the Sun Virtual Event 2025

3<sup>rd</sup> Annual BIM SMART SUMMIT & Cruise

openBIM Workflows 2025

2025 openBIM Roads & Bridges Transportation Summit

Rail Day 2025



## 24 buildingSMART International Members Supporting the US Chapter



## 13 Chapter Members



## 13 Chapter Sponsors



## 15 Chapter Partners

