

FHWA DDSG Meeting
July 27th, 2026

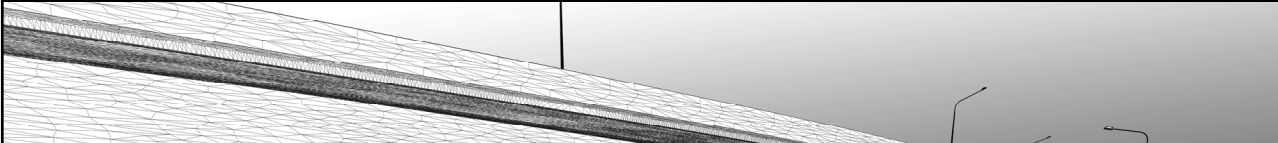
openBIM® IN U.S. TRANSPORTATION

Updates

 buildingSMART[®]
International

 buildingSMART[®]
USA

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01  buildingSMART[®]
International Overview

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The openBIM context

... providing a **sustainable, less expensive** built environment.

... improving **decision-making, automation** and **efficiency** ...

... enabling **interoperable, accessible** and **enduring data** ...

Global **open Standards** & Services from buildingSMART ...

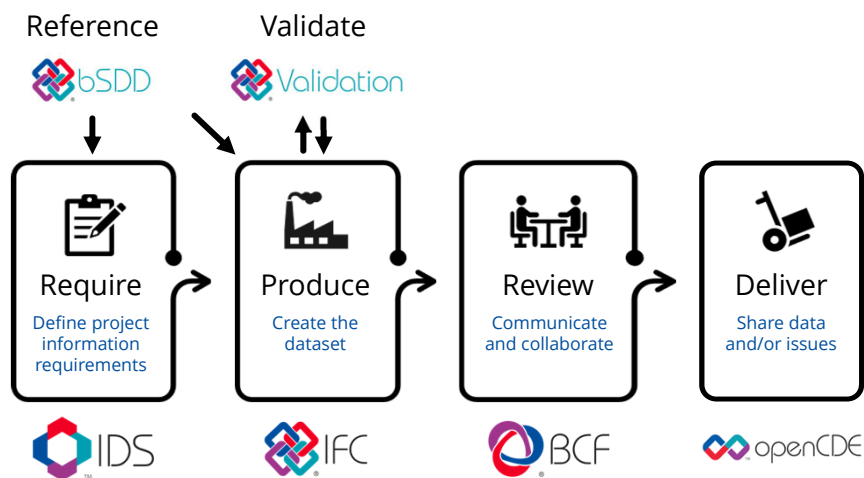


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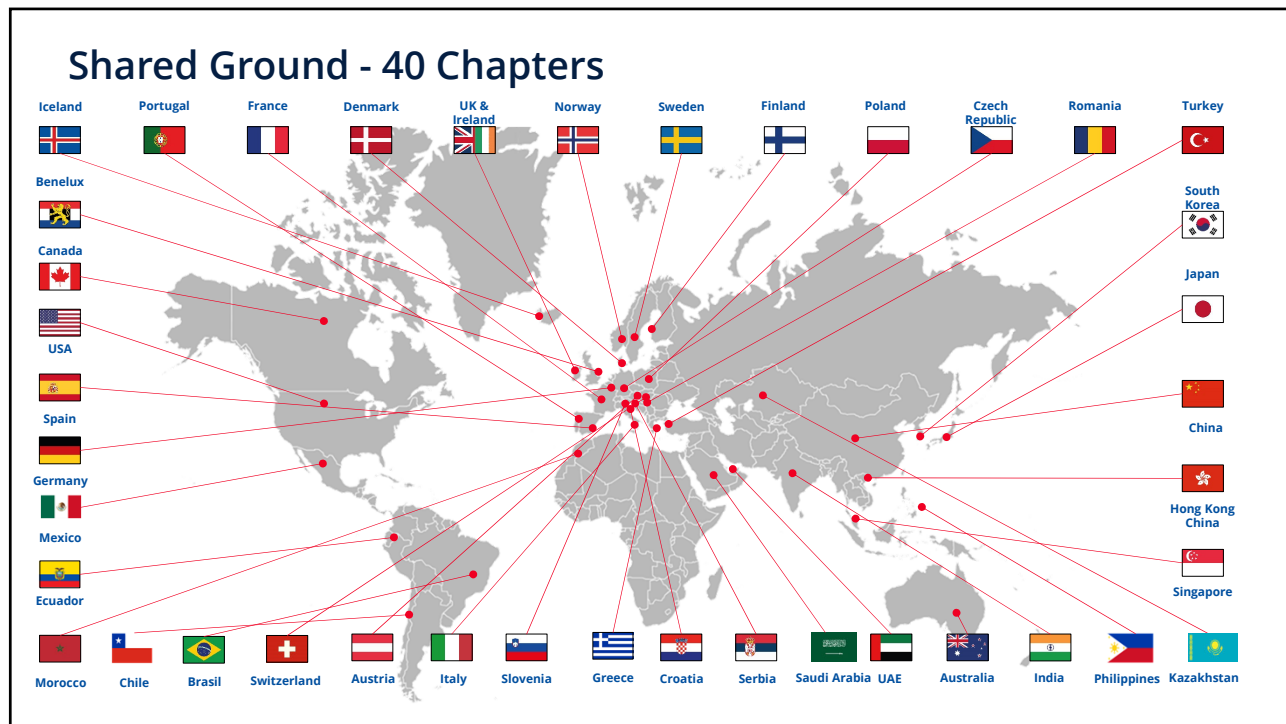
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The openBIM Workflow

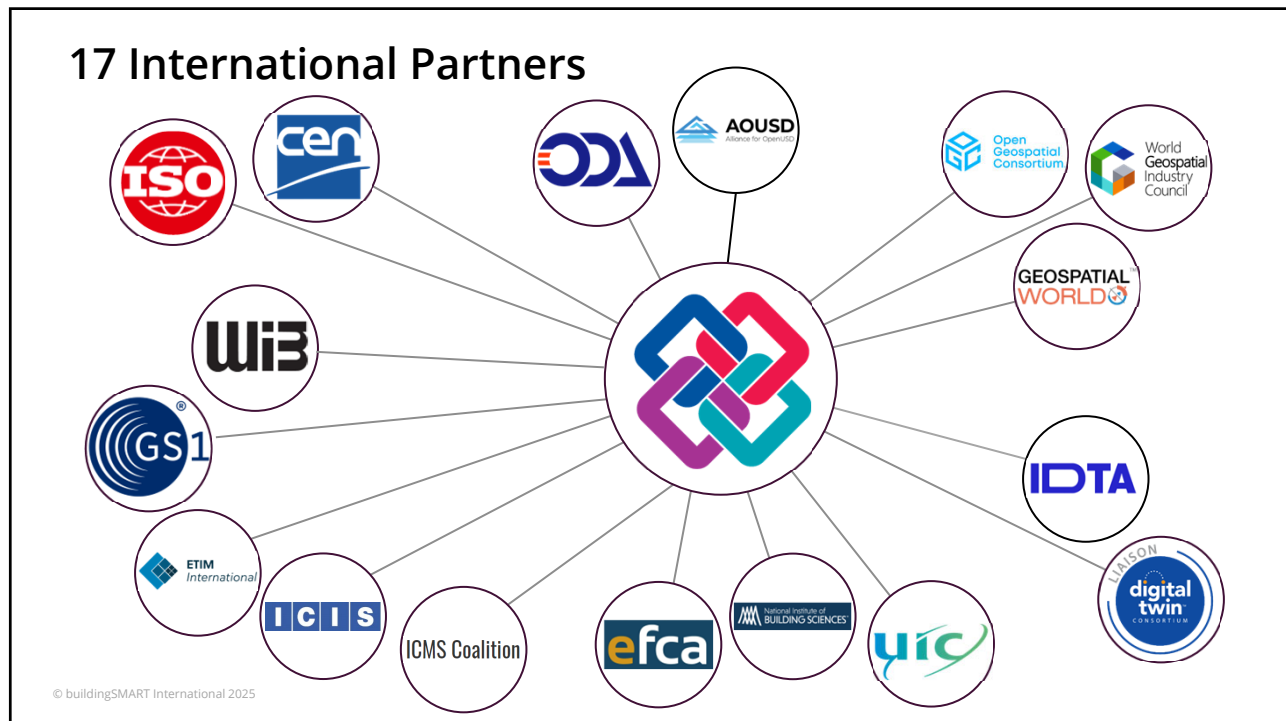


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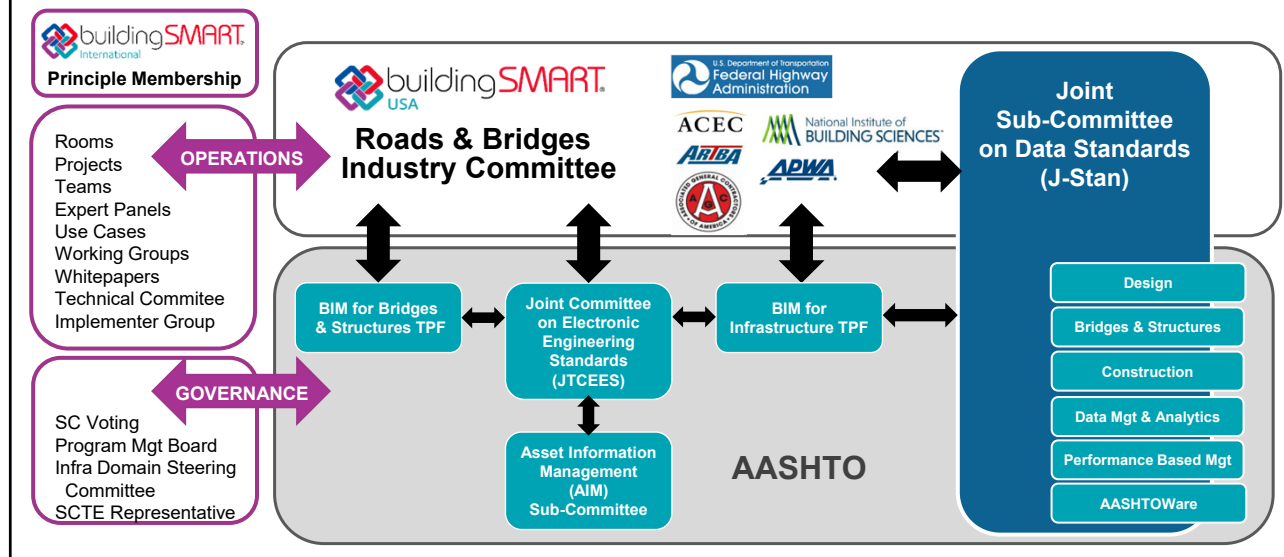


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buildingSMART and State DOT's / AASHTO



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02 buildingSMART USA

Roads and Bridges Industry Committee Update

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Roads & Bridges Industry Committee



Allen Melley, Co-Chair

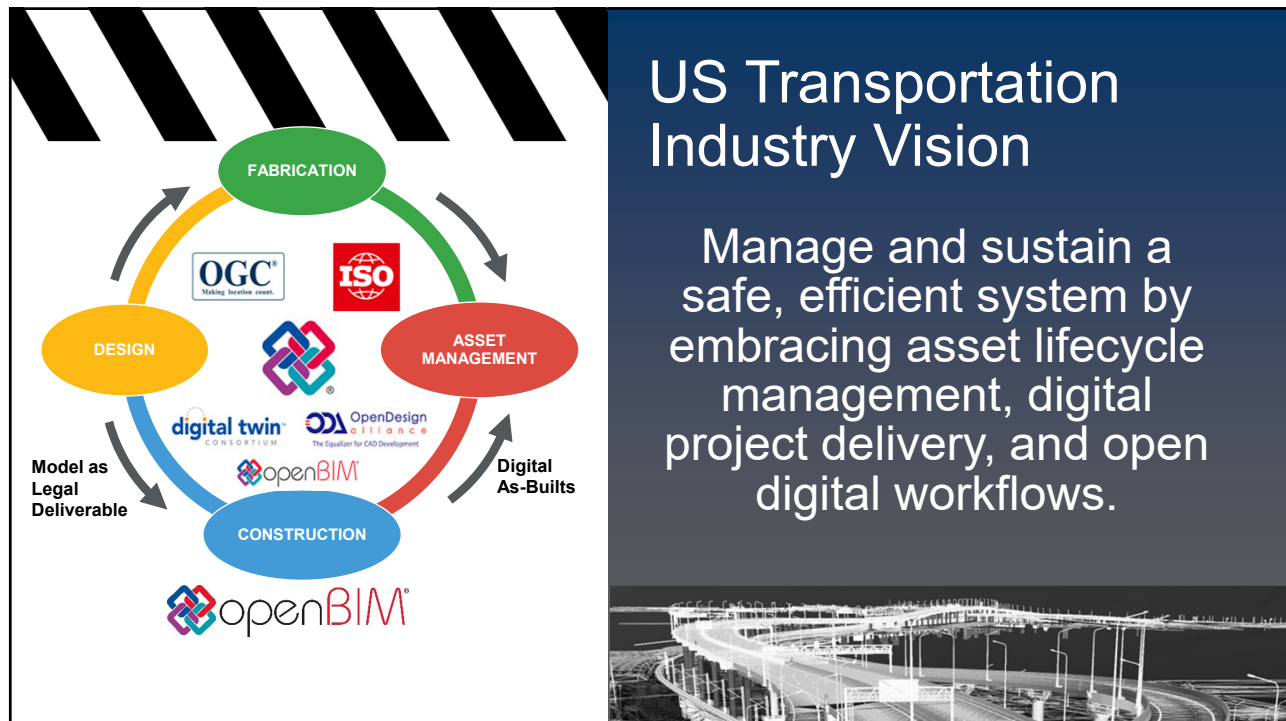
Chief Digital Delivery Section | Pennsylvania Department of Transportation



Will Sharp, Co-Chair

Senior Vice President and Global Director of Transportation | HDR
Participant | AASHTO Joint Technical Committee on Electronic Engineering Standards

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Chapter Overview

US Chapter Committees



EXECUTIVE



AIRPORT



BUILDING

EDUCATION &
CERTIFICATION

MARKETING



RAIL



ROADS & BRIDGES



TECHNICAL



Committee Meetings

Executive, Education, Rail
monthlyMarketing
bi-weekly

openBIM Training Courses

- ❖ bSI Foundation openBIM
- ❖ Leveraging openBIM® for Project Management
- ❖ openBIM® Applications

6,100+
subscribers3,600+
webinar sign-ups3,300+
followers

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Industry Engagement: Events · Collaboration

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

2026

2026 TPF, bSI & bS-USA Meetings
4th Annual BIM SMART SUMMIT
2026 openBIM Roads & Bridges Transportation Summit
Rail Day 2026

2025

Follow the Sun Virtual Event 2025
3rd Annual BIM SMART SUMMIT & Cruise
openBIM Workflows 2025
2025 openBIM Roads & Bridges Transportation Summit
Rail Day 2025



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18 buildingSMART International Members Supporting the US Chapter

AASHTO Bentley BEXEL Bricsys ACCA SOFTWARE MiTek

Catenda CLAYCO esri FM Global Trimble wsp

GRAPHISOFT HDR h+k LEAPTHOUGHT Strategic Building Innovation SIEMENS

13 Chapter Members

BOND Built Environment STRATEGIES BuildingPoint cap DALUX DSCAD ferrovial FULCRUM Kiewit LEAPTHOUGHT sitenotes TRIDENT buildingSMART USA

13 Chapter Sponsors

ARUP AUTODESK Bentley esri HNTB infotech LEAPTHOUGHT Michael Baker INTERNATIONAL SOLIBRI WOOLPERT VDCO DATA VDCO TECH

15 Chapter Partners

U.S. Department of Transportation Federal Highway Administration National Institute of BUILDING SCIENCES ACC AGC BIM SUPPORTERS digital twin ODA OpenDesign Open Geospatial Consortium USIBD U.S. Institute of Building Design Automated Buildings.com BIM FORUM DBIA GS1 cap government

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two-day event hosted by **buildingSMART USA** in collaboration with **AASHTO J-Stan** Joint Subcommittee on Data Standardization

BIM FOR BRIDGES AND STRUCTURES TPF-5(372) **BIM FOR INFRASTRUCTURE POOLED FUND** TPF-5(480) **EPA**

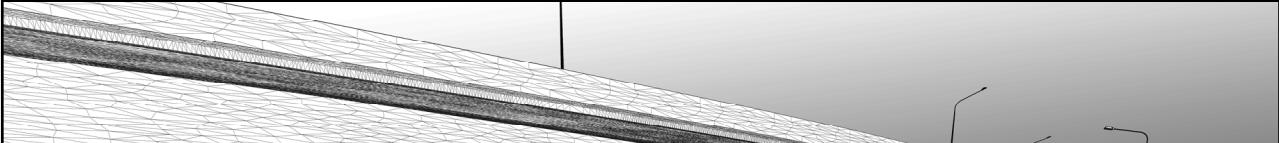
2026 openBIM ROADS & BRIDGES TRANSPORTATION SUMMIT

NOVEMBER 2-3, 2026
EMBASSY SUITES DOWNTOWN | PITTSBURGH, PA

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2026 openBIM	ROADS & BRIDGES TRANSPORTATION SUMMIT	NOVEMBER 2-3, 2026 EMBASSY SUITES DOWNTOWN PITTSBURGH, PA
Session 1: buildingSMART International Session 2: National Updates FHWA openBIM update BIM Transportation Pooled Fund Updates Session 3: Industry and Stakeholder Updates Contractor Panel Discussion Industry Updates Session 4: openBIM in Action Pilot Projects Technology Provider Challenge		

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 buildingSMART
International

**International Summit
Update**

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Transportation

Presentations in Porto

- **Keynote:** openBIM in U.S. Transportation - Building Long-Term Success
- **Panel Discussion:** Implementing IFC 4.3 in the Infra Domain
- **Panel Discussion:** Technical Priorities to Accelerate IFC 4.3 Implementation
- **Infra Domain Update:** IDSC Activities on Projects and Roadmap

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Implementing IFC 4.3 in the Infra Domain

Panelists - Tarmo (Finland), Deouard (France), Dashuang (China), Elena (Italy), Stefan (France) and Will Holmes (US),
Moderator – Alexa Mitchell

Key Challenges Identified:

- Inconsistent software implementation on GeoLocation
- Alignment and linear referencing gaps
- Assembly and grouping inconsistencies

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buildingSMART International and US Transportation

Leadership Meeting

- bSI Coordination with US Transportation Efforts
- US Transportation openBIM Challenges
- Next Steps

Attendees	
Alexa Mitchell – HDR	Aidan Mercer – bSI Marketing Director
Katherine Petros – Federal Highway Administration	Evandro Alfieri – bSI Quality and Delivery Director
Will Holmes – Kentucky Transportation Cabinet	Eduard Dischke - bSI Board Vice Chair
Will Sharp – HDR	Jugal Makwana – bSI Board Member and SAC
Roger Grant – NIBS	Bjorn Stangeland – bSI Board Member and SAC
Calvin Kam - SBI	Thomas Liebich – AEC3

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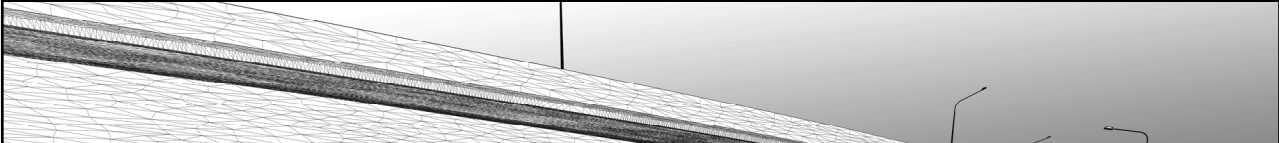


buildingSMART International Summit

Key Takeways

- Open standards and data stewardship are critical for the future success of asset owners (including DOTs)
 - buildingSMART openBIM processes are being used globally
 - More focus on connected systems over centralized systems
 - Shifting from BIM to lifecycle information management
-

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04  buildingSMART[®] International Implementors Update

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Implementer's Assembly Recap

February 2026 – Exton, PA
Hosted by Bentley Systems

Grant Schmitz, HDR
Scott Lecher, LACES Technical
Rick Brice, Washington State DOT

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TPF/bSI pre-assembly Meeting

- Infra and Bridge TPF teams met with bSI Executives
 - ½ day
- Updates on TPF efforts and accomplishments
- Discussed open issues and implementation “pain points”
 - Lack of software support for IFC4x3
 - Clarification of AbV
 - Technical direction of bSI/IFC
- Key Takeaway – bSI has listened to our concerns and is taking action

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bS-USA Technical Committee

- ½ day meeting
- TC is reforming
- Review of Charter
- Updates from SPG and bSDD subcommittees
- Brainstorming initiatives for 2026

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Implementer's Assembly

- Updates from bSI
- Progress with openBIM
 - New chapters (Mexico, Philippines)
 - IFC 4x3 approved as ISO standard
 - Professional Certification updated Foundation and Practitioner training
 - bSDD – 195 organizations with 295 dictionaries, 1,000 unique visits daily
 - ISO publication compatibility policy
 - IFC 4x4 is working towards ISO submission
 - IFC 5 out of alpha (concept) phase, core plan approved



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Implementer's Assembly

- Standards Update (IFC, IDS, BCF)
- Voice of the Customers
 - Rick Brice, WSDOT – IFC 4x3 implementation is needed
 - IFC challenges in ADCMS project for sign lifecycle
 - Developers are lacking authoritative guidance
 - Joe Brenner, MBI – PennDOT ADCMS Bridge Design IFC MALD
 - project overview
 - tools used and lessons learned
 - Grant Schmitz, HDR – Iowa ADCMS Bridge Project
 - project overview
 - tools used and lessons learned

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Implementer's Assembly

- IFC 4x3 Examples Resolution
 - Open discussion of unresolved IFC implementation questions
- IFC 5 workshop
- BCF and IDS updates
 - BCF v3.0 API update is being designed
 - IDS 1.0 update is underway, v1.1 is being proposed
- Validation Service and Software Certification
 - v 1.0 is live, collecting data for certification score cards

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Implementer's Assembly

- Recordings available at <https://www.buildingsmart.org/implementers-assembly/>
- Next assembly
 - Sept 9-10, ACCA Software HQ, Bagnolirpino, Italy

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Implementer's Forum

- Clarifying IFC4x3 specification, reviewing IFC4x4
- Two week sprints
 - Placement
 - Curves & Alignments
 - Georeferencing
 - Referents
 - Advanced Swept Geometry (surfaces and solids)
 - Spatial Breakdown
 - IfcTunnel
 - Voxels

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Questions

