

*buildingSMART International Organization,
IFD development and openINFRA project*

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buildingSMART International

- **buildingSMART International is:**
 - A neutral, international and unique non for profit organisation supporting open BIM through the life cycle.
 - We have regional chapters in Europe, North America, Australia, Asia and Middle East.
- **How we can help you:**
 - Build SMART to build GREEN
 - Improve your business processes
 - Develop new business models
 - Extend your value chain
- **What we do:**
 - Develop and maintain international standards for openBIM:
 - buildingSMART Processes
 - buildingSMART Data Dictionary
 - buildingSMART Data model

Triangle



OpenBIM

- **The BIM Evolution Continues with OPEN BIM**
- **What is BIM?**
 - BIM is an acronym which represents three separate but linked functions:
 - Building Information Modelling: Is a **BUSINESS PROCESS** for generating and leveraging building data to design, construct and operate the building during its lifecycle. BIM allows all stakeholders to have access to the same information at the same time through Interoperability between technology platforms.
 - Building Information Model: Is the **DIGITAL REPRESENTATION** of physical and functional characteristics of a facility. As such it serves as a shared knowledge resource for information about a facility, forming a reliable basis for decisions during its life--cycle from inception onwards.
 - Building Information Management: Is the **ORGANIZATION & CONTROL** of the business process by utilizing the information in the digital prototype to effect the sharing of information over the entire lifecycle of an asset. The benefits include centralised and visual communication, early exploration of options, sustainability, efficient design, integration of disciplines, site control, as built documentation, etc. – effectively developing an asset lifecycle process and model from conception to final retirement.

OpenBIM

- **What is OPEN BIM?**
 - OPEN BIM is a universal approach to the collaborative design, realization and operation of buildings based on **open standards and workflows**. OPEN BIM is an initiative of buildingSMART International (bSI) and several leading software vendors using the open buildingSMART Data Model.

OpenBIM

- **Why is it important?**

- OPEN BIM supports a **transparent**, open workflow, allowing project members to participate regardless of the software tools they use.
- OPEN BIM creates a **common language** for widely referenced processes, allowing industry and government to procure projects with transparent commercial engagement, comparable service evaluation and assured data quality.
- OPEN BIM provides enduring project data for use **throughout** the asset life-cycle, avoiding multiple input of the same data and consequential errors.
- **Small and large (platform) software vendors** can participate and compete on system independent, 'best of breed' solutions.
- OPEN BIM energizes the on-line product supply side with more exact user demand searches and delivers the **product data directly** into the BIM.

Strategy plan

<http://buildingsmart.com/about-us/buildingsmart-international/IC%2010015%20Strategic%20Plan%2020100506.pdf>

Chapters

- **Active**

- Australasia
- Benelux
- French Speaking
- German Speaking
- Japan
- Korea
- Middle East
- Nordic

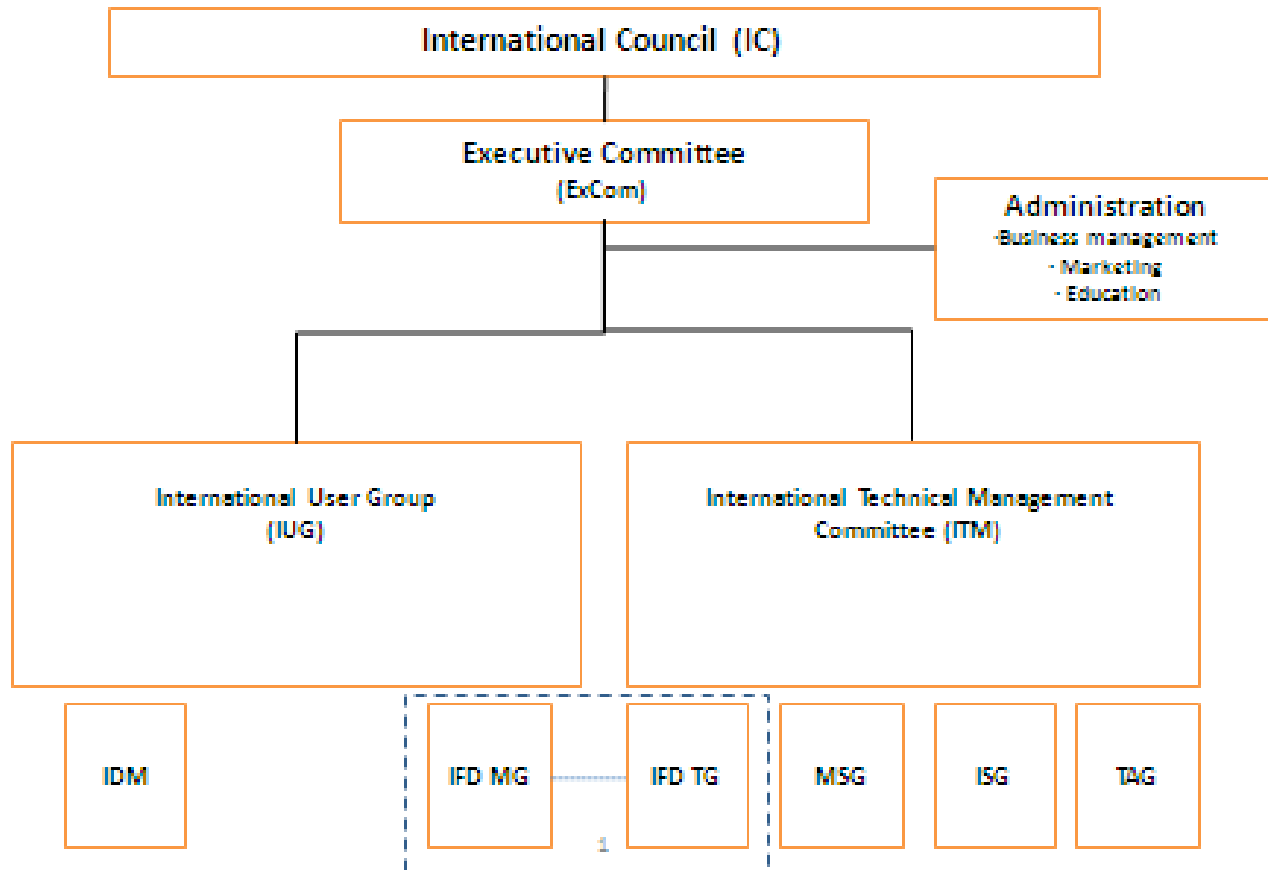
- Norway
- North America
- Singapore
- UK & Ireland

- **Inactive**

- China
- Iberian Alliance
- Italia

Organisation

Organisation chart



User's perspective

Product Room

- Virtual products
- Data Dictionaries

Process Room

- Processes
- Requirements

Technical Room

- Data model
- Implementation

Software implementations

3D PDF Converter (for Adobe Acrobat X)		Tetra 4D	modelviewer	IFC File Analyzer	National Institute of Standards and Technology (NIST)	modelviewer
4M FineELEC	4M SA	buildingservices		IFC Model Exchange for Microsoft Visio	Digital Alchemy	other
4M FineHVAC	4M SA	buildingservices		IFC Quick Browser	GEM Team Solutions GbR	modelviewer
4M FineSANI	4M SA	buildingservices		IFC SDK	Centre Scientifique et Technique du Batiment (CSTB)	developmenttools
4M IDEA Architecture	4M SA	architectural		IFC Takeoff for Microsoft Excell	Digital Alchemy	constructionmanagement
4M STRAD	4M SA	structural		IFC Toolbox	Eurostep Group AS	developmenttools
ACTIVE3D Build Server	GRUPE ARCHIMEN	dataserver		IFC-to-RDF Web Service	UGent SMARTLAB	architectural
ACTIVE3D Facility Server	GRUPE ARCHIMEN	facilitymanagement		IFC2SKP plugin	SECOM CO., LTD. / Secom IS Lab	modelviewer
AEC3 BimServices	AEC3	other		IFCsrv ActiveX Component	SECOM CO., LTD. / Secom IS Lab	developmenttools
ActiveFacility	ActiveFacility	dataserver		ISY Calcus	Norconsult Informasjonssystemer AS	constructionmanagement
Advance Concrete	GRAITEC SA	structural		lfcGears	Bauhaus Universität Weimar	developmenttools
Advance Design	GRAITEC SA	structural		lfcOpenShell	Krijnen, Thomas	developmenttools
Advance Steel	GRAITEC SA	structural		lfcWebServer	Ismail, Ali	dataserver
Allplan Architecture	Nemetschek Deutschland GmbH	architectural		InfoCAD	InfoGraph GmbH	structural
Allplan Engineering	Nemetschek Deutschland GmbH	structural		MORADA	SMB AG	facilitymanagement
ArcGIS Desktop	Esri	geographicinformationsystem		MagiCAD	Progman Oy	buildingservices
ArchCAD	GRAPHISOFT	architectural		NTItools Arkitekt (Revit plug-ins)	NTI Nestor AS	architectural
ArtrA Field BIM & Life Cycle Management	ARTRA BIMProducts Ltd	facilitymanagement		NTItools Konstruksjon (Revit plug-ins)	NTI Nestor AS	structural
AutoBid SheetMetal	QuickPen	constructionmanagement		Navisworks	Autodesk, Inc.	constructionmanagement
AutoCAD Architecture	Autodesk, Inc.	architectural		Onuma System	Onuma, Inc.	other
AutoCAD MEP	Autodesk, Inc.	buildingservices		Open IFC Tools	Bauhaus Universität Weimar / HOCHTIEF AG	modelviewer
AutoVue 3D Professional Advanced	Oracle	modelviewer		PipeDesigner 3D	QuickPen	buildingservices
AxisVM	InterCAD Kft.	structural		RFEM	Ing.-Software Dlubal GmbH	structuralRIUSKA
BIM Collaboration Hub	Eurostep Group AS	dataserver		ROOMEX	Granlund	other
BIMserver	BIMserver.org	dataserver		RSTAB	Ing.-Software Dlubal GmbH	structural
BIMsurfer WebGL viewer	BIMsurfer.org	other		Real Estate	Vizelia	facilitymanagement
BSPro	Granlund	developmenttools		Revit Architecture	Autodesk, Inc.	architectural
Benchmark	ITI International Training Institute	buildingservices		Revit MEP	Autodesk, Inc.	buildingservices
Bentley Architecture V8i	Bentley Systems, Inc.	architectural		Revit Structure	Autodesk, Inc.	structural
Bentley Building Electrical Systems V8i	Bentley Systems, Inc.	buildingservices		SAP2000	Computers and Structures, Inc. (CSI)	structural
Bentley Building Mechanical Systems V8i	Bentley Systems, Inc.	buildingservices		SDS/2	Design Data	structural
Bentley Structural Modeler v8i	Bentley Systems, Inc.	structural		SOFiSTiK Structural Desktop (SSD)	SOFiSTiK AG	structural
Bentley speedikon V8i (SELECTseries4)	Bentley Systems, Inc.	architectural		SPACE GASS	SPACE GASS	structural
CAD/QST	TQS Informatica Ltda.	structural		SPIRIT	STI / SOFTTECH	architectural
CADS Planner Electric	Kymdata Oy	buildingservices		ST-Developer	STEP Tools, Inc.	developmenttools
CADduct	MAP Software	buildingservices		SUPERPlan	Deliver Simulation Ltd	constructionmanagement
CADIE Sähköä	Cad-Quality Oy	buildingservices		ScaleCAD	Idea Ltd.	structural
CADmep+	MAP Software	buildingservices		Scia Engineer	Nemetschek Scia	structural
CSBridge	Computers and Structures, Inc. (CSI)	structural		Simergy	Lawrence Berkeley National Laboratory (LBNL)	buildingperformance
CYPECAD	CYPE Ingenieros, S.A.	structural		SmartKalk	Holte Byggsafe AS	constructionmanagement
Constructivity Model Editor	Constructivity.com, LLC	generalmodeling		Solibri Model Checker	Solibri, Inc.	modelviewer
Constructivity Model Server	Constructivity.com, LLC	dataserver		Solibri Model Optimizer	Solibri, Inc.	other
Constructivity Model Viewer	Constructivity.com, LLC	modelviewer		Solibri Model Viewer	Solibri, Inc.	modelviewer
CostOS BIM Estimating	Nomitech	constructionmanagement		SolidWorks Premium	Dassault Systèmes SolidWorks Corp	generalmodeling
CostX	Exactal Technologies Pty Ltd	constructionmanagement		Space Layout Editor for Microsoft Visio	Digital Alchemy	other
DDS-CAD Architect	Data Design System ASA	architectural		SteelVis	National Institute of Standards and Technology (NIST)	structural
DDS-CAD BIM-Enhancer	Data Design System ASA	modelviewer		StruCad	AceCad Software Ltd.	structural
DDS-CAD Construction	Data Design System ASA	constructionmanagement		StruWalker	AceCad Software Ltd.	modelviewer
DDS-CAD MEP	Data Design System ASA	buildingservices		Structural Modeler V8i	Bentley Systems, Inc.	structural
DDS-CAD Viewer	Data Design System ASA	modelviewer		Synchro Professional	Synchro Ltd.	facilitymanagement
DProfiler	The Beck Group / Beck Technology	constructionmanagement		TRIRIGA Facilities	TRIRIGA Inc.	facilitymanagement
Dalux BIM Checker	Dalux	modelviewer		Tekla BIMsight	Tekla Corporation	constructionmanagement
Dalux Building View	Dalux	modelviewer		Tekla Structures	Tekla Corporation	structural
DaluxFM	Dalux	facilitymanagement		Tilt-Werks	Tilt-Up Design Systems, LLC	structural
Design Master Electrical	Design Master Software, Inc.	buildingservices		Tricalcar	Arktec, S.A.	structural
Design Master HVAC	Design Master Software, Inc.	buildingservices		Trimble Design Link	QuickPen	buildingservices
Design Master Plumbing	Design Master Software, Inc.	buildingservices		Vectorworks Architect	Nemetschek Vectorworks, Inc.	architectural
Digital Project	Gehry Technologies	architectural		Vico Office Suite	Vico Software, Inc.	constructionmanagement
DuctDesigner 3D	QuickPen	buildingservices		VisualARQ	Asuni CAD, S.A.	architectural
ECCO Toolkit	PDTec GmbH	developmenttools		Ziggurat	Ziggurat Systems Ltd.	generalmodeling
EDMserver	Jotne EPm Technology AS	dataserver		bocad-3D	bocad Software GmbH	structural
ETABS	Computers and Structures, Inc. (CSI)	structural		cBIM Manager	Asite Solutions Ltd.	dataserver
EcoDomus FM	EcoDomus	facilitymanagement		cadwork wood cadwork		architectural
EcoDomus FM	EcoDomus	constructionmanagement		dRofus	Nosyko AS	other
EltisCAD AR	Roland Messerli AG Informatik	architectural		ifc-dotnet	Spraot, Ian	developmenttools
FEM-Design	Structural Design Software in Europe AB / StruSoft	structural		nova	Planal GmbH	buildingservices
FME	Safe Software Inc. geographicinformationsystem			simplebim	Datacubist Oy	modelviewer
FZK Viewer	Karlsruhe Institute of Technology	modelviewer		simplebim.Developer	Datacubist Oy	developmenttools
FaMe	Facilities Management Software GmbH	facilitymanagement		ssifc - Rhino 3D Smart Structural Interoper	Geometri Gym	structural
GALA Construction Software	GALA Construction software	constructionmanagement				
GTx	Gehry Technologies	architectural				
HOOPS Exchange	Tech Soft 3D	developmenttools				
Horizontal Glue	Horizontal Systems, Inc.	dataserver				
IDA ICE	Equa Simulation AB	buildingperformance				
IFC BIM Validation Service	Digital Alchemy	other				
IFC Engine DLL	TNO	developmenttools				
IFC Engine Viewer	TNO	modelviewer				



International meetings in Oslo in March

buildingSMART International

International User Group

International Technical Management Committee

buildingSMART Data Dictionary Library Group

OSLO

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More information at:

www.buildingsmart.org

Thank you!