

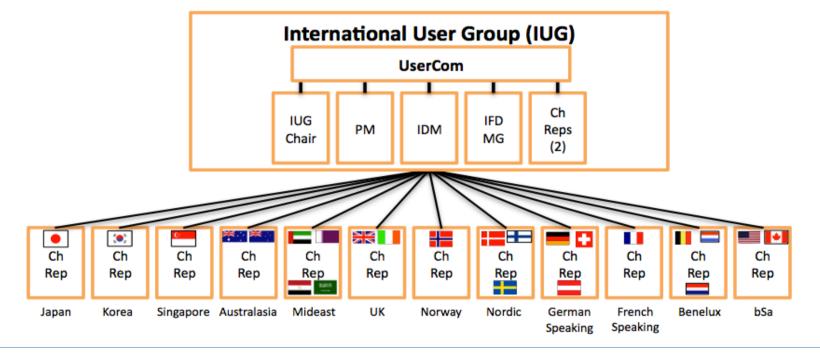
MOVING THE BUILDING INDUSTRY FORWARD

22 MARCH 2012 OSLO

AN INDUSTRY ON THE MOVE ES VALUE - SUS - OP buildingSMART-OSLO + 22. MARCHATIONAL - NON-FOR-PROFIT -UE - SUSTAINABILITY - OPEN FORMATS - INTERNATIONA

buildingSMART CONFERENCE

BRINGING NATIONAL AND INTERNATIONAL STAKEHOLDERS TOGETHER FOCUS ON TOPICS THAT MOVES THE INDUSTRY



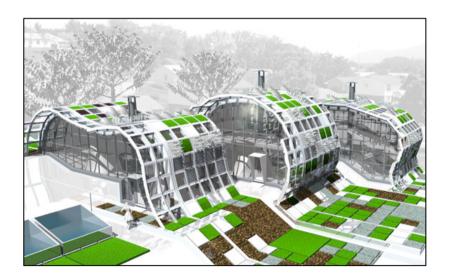


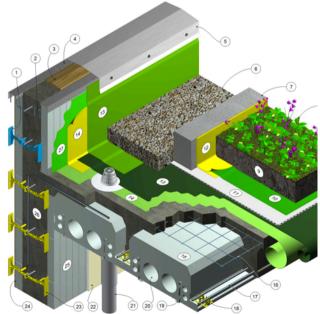
AN INDUSTRY ON THE MOVE AS VALUE - SUS - OP buildingSMART - OSLO + 22, MARCHATIONAL - NON-FOR-PROFIT -UE - SUSTAINABILITY - OPEN FORMATS - INTERNATIONA

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POLITICAL AND STRATEGIC INDUSTRY SIGNALS CALLS FOR openBIM

Sustainable building and property industry needs control over cost, quality and performance.

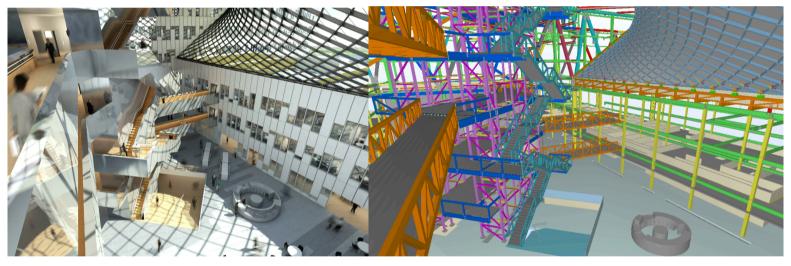






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BUSINESS DEMONSTRATES openBIM WORKS AND PAYS OFF



Many projects demonstrates that IFC works.

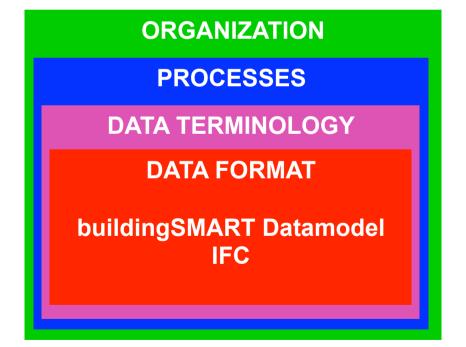
Business are more focused on managerial issues than technical. How to optimize quality and profit



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BUSINESS REASONS FOR buildingSMART

buildingSMART PROVIDES INTERNATIONAL DEVELOPED AND STANDARDIZED FRAMEWORK FOR:





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BUSINESS REASONS FOR buildingSMART

USER DRIVEN DEVELOPMENT

- Solutions that moves the Industry
- Compatibility between formats

LOCAL / REGIONAL IMPLEMENTATION

Multi-Disciplinary adaptation of buildingSMART in local markets



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PROGRAM

openBIM STRATEGIES AND REQUIREMENTS

- 08:30 Registration, coffee and danish pastry
- 09:30 AN INDUSTRY ON THE MOVE buildingSMART Norway
- 09:45 **POLITICS AND THE FUTURE OF THE BUILDING INDUSTRY** Leader of the Conservative Party of Norway, Erna Solberg
- 10:15 **KEYNOTE THE PROMISE OF buildingSMART** Patrick MacLeamy, Chairman buildingSMART International and CEO HOK, Architect office, USA
- 10:45 Break
- 11:15 MOVING THE INDUSTRY FORWARD WITH openBIM STRATEGY

Birger Stamsø, SENRHA/Helse Sør-Øst, Norway

openBIM WORKS

11:45 VIRTUAL DESIGN AND CONSTRUCTION AT WORK

Øyvind Børstad, Manager of VDC department, NCC Construction AS



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PROGRAM, openBIM WORKS Continues

- *12:10 buildingSMART Norway Reward 2012*
- 12:15 Lunch
- 13:15 SKANSKA'S NEW HEADQUARTER IN HELSINKI, FINLAND Skanska Finland, Tiina Koppinen
- 14:00 USING openBIM TO REDUCE COST IN FACILITY MANAGEMENT

Thomas Gay, FM Global, Facility Insurance Company, USA

- 14:30 Break
- 15:00 **openBIM IS PROFITABLE!** Peter Hauch - Arkidata, DTU - Technical University of Denmark, CBS -Copenhagen Business School and DTI - Danish Technological Institute
- 15:45 **SUSTAINABLE BUILDING PROJECTS** Nils Ivar Nilsen and Knud Mohn, NDEA/Forsvarsbygg, Norway
- 16:15 **THE NEW LONDON OLYMPIC STADIUM BENEFITS FROM openBIM** Ben Haldin, CEO Fulcro, Engineering, Management and Technology Company, UK
- 16:45 Wrap-up and closure 17:00





buildingSMART NORWAY REWARD 2012

THIS YEARS PRIZE IS A PRINT FROM NORWEGIAN ARTIST

BERIT MYHRVOLD

THE REWARD THIS YEAR GOES TO A PERSON WHO HAS BEEN INVOLVED WITH DEVELOPMENT AND USE OF buildingSMART FOR MANY YEARS.

SHE BASES HER ENTIRE COMMERCIAL BUSINESS ON buildingSMART.

SHE ENGAGES IMPORTANT STAKEHOLDERS IN THE BUSINESS INDUSTRY AND DEVELOPS openBIM SOLUTIONS FOR THEM.

HER BUSINESS DEMONSTRATES THAT openBIM WORKS.





buildingSMART NORWAY REWARD 2012 WINNER OF THE BUILDINGSMART NORWAY REWARD 2012

JANNE AAS-JAKOBSEN



buildingSMART NORWAY CONFERENCE 2012 – WRAP UP

Erna Solberg

Norway will have 1 mill. more inhabitants in 2028. We need to house those. We need openBIM for design/construction/operation but also for planning on the community level. The future is here today.

Birger Stamsø

Client demand for sustainable, better, cheaper buildings. Provided by strict requirements for openBIM.

Tiina Koppinen/Øyvind Børstad

Contractors run BIM and openBIM. They didn't a few years ago. There are huge benefits to gain from a variety of processes. It is the new way of working, today.



buildingSMART NORWAY CONFERENCE 2012 – WRAP UP

Thomas Gay

Building owners profit from openBIM. It helps increase building quality and lower operation costs.

Peter Hauch

openBIM gives Return of Investment. And openBIM is not an obstacle for succeeding. Those who invest the most tends to gain the most.

Knud Mohn and Nils Ivar Nilsen.

openBIM improves performance which also can cause increased sustainability. Infrastructure is just as important than the buildings. NDEA wants to get BREEAM certification tool using BIM to reduce cost of certification.



buildingSMART NORWAY CONFERENCE 2012 – WRAP UP

Ben Haldin

- openBIM reduce risk and errors and increase quality. It's a strong managerial tool.
- Need for educating people. Need for industry standard.



buildingSMART NORWAY – PRODUCTS AND SERVICES STANDARDS NORWAY STANDARD FOR PRODUCT LIBRARIES First version before 2013

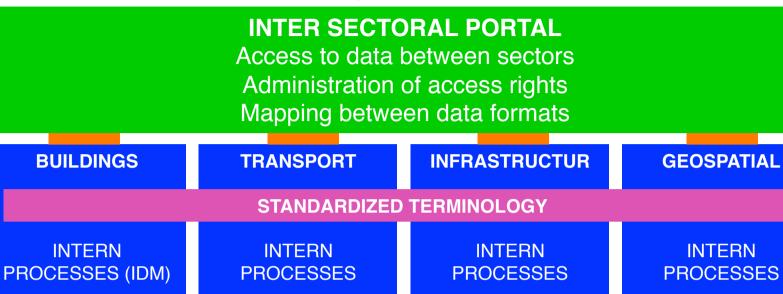
Use of IFC objects supported by implementers aggreement

MEMBER MEETINGS IN 2012

Contract Models, follow-up Industrialization Building Life-cycle Cost (LCC) and Assessment (LCA) openINFRA



CONCEPTUAL MODEL FOR openINFRA IN NORWAY



FORMATFORMATFORMATFORMATFORMATLandXML, GML
(SOSI), ...LandXML, GML
(SOSI), ...GML (SOSI), ...

DATA

DATA

INERNAL PROCESSES IN ALL SECTORS. THE PROJECT SHOULD STANDARDIZE METHOD FOR DOCUMENTATION OF PROCESS DELIVERIES

SECTORS HAVE DEVELOPED AND IMPLEMENTED THEIR OWN DATA FORMATS

THE PROJECT SHOULD HARMONIZE SYSTEMS FOR DATA TERMINOLOGY

DATA

INTER SECTORIAL PORTAL FOR ACCESS TO DATA BETWEEN PROJECTS

MAPPING BETWEEN DATA FORMATS

DATA

buildingSMART NORWAY – PRODUCTS AND SERVICES openINFRA ON INTERNATIONAL AND NATIONAL LEVEL

NATIONAL

Cooperation between buildingSMART Norway, Ministry of Environment, BA-Nettverket, Norwegian Mapping Authority and The Norwegian Public Roads Administration.

INTERNATIONAL

Organizing stakeholders and initiatives i.e. Inspire

Terminology for infrastructure

Mapping between formats





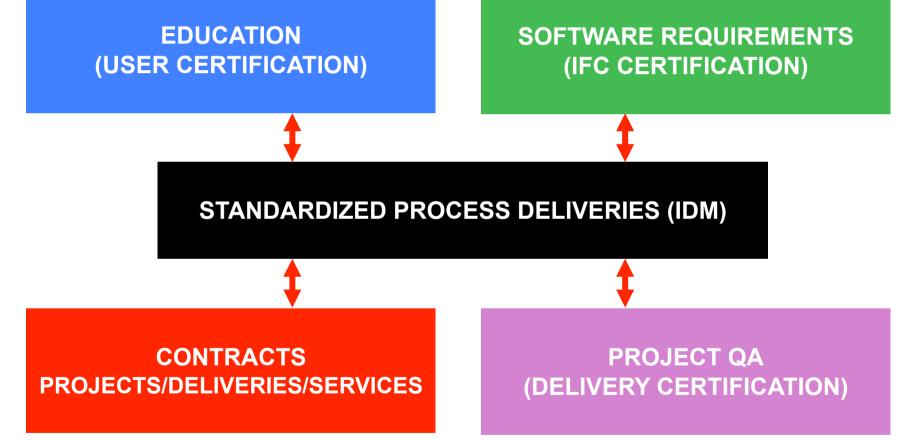
buildingSMART NORWAY – PRODUCTS AND SERVICES INTERNATIONAL STANDARD FOR BUILDING PROGRAMMING Standardize project deliveries through all stages

NORWEGIAN (INTL.) STANDARD FOR FACILITY MANAGEMENT Standardize delivery specification for hand-over to building owner











buildingSMART NORWAY – PRODUCTS AND SERVICES EDUCATIONAL PROGRAM

- CLIENTS, ENGINEERS/ARCHITECTS AND CONTRACTORS
- BASED ON STANDARDIZED PROJECT DELIVERIES FOR:

Building Programming, Visualization, 4D Construction Simulation, Clash Detection, Cost Estimate and Architect/Engineer hand-over to Contractor.







THANK YOU! SEE YOU SOON

