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- **10:00 Opening,** Henrik L. Bang, Director Danish Association of Construction Clients, Steen Sunesen and Jan Karlshøj
- 10:30 Sustainability by openBIM

Óskar Valdimarsson, CEO, Government Construction Contracting Agency

- 11:00 From politics to openBIM Requirements, Kjell Ivar Bakkmoen, South East Norway Regional, Health Authority, Norway
- 11:30 Lunch
- **12:30 Finnish requirements for energy simulation,** *Tuomas Laine, Director, Innovation and Development, Granlund Oy*
- **13:00 openBIM in Architectural Competitions,** *Marianne Thorbøll, Architect, Danish Building Property Agency*
- 13:30 Break
- 14:00 openBIM IS PROFITABLE!, Peter Hauch Arkidata
- **14:30 Sustainable Value Perspective for Architecture,** *Jakob Strømann-Andersen, Henning Larsen Architects, Denmark*
- 15:00 Break
- 15:15 openBIM based Communication in large projects

  Marcus Bengtsson, BIM-management team, White/Tengbom Architects
- 15:45 Discussion, Stig Brinck
- 16:45 Workshop closure
- 17:00 After-meeting networking



**COPENHAGEN - 31.01.2013** 

buildingSMART INTERNATIONAL
buildingSMART PROJECTS
buildingSMART NORWAY
buildingSMART NORDIC
NORDIC CLIENT SEMINAR OBJECTIVES
SUMMARY



COPENHAGEN - 31.01.2013 - STEEN SUNESEN

## buildingSMART INTERNATIONAL

A neutral, international and unique non for profit organization supporting open BIM through the life cycle.

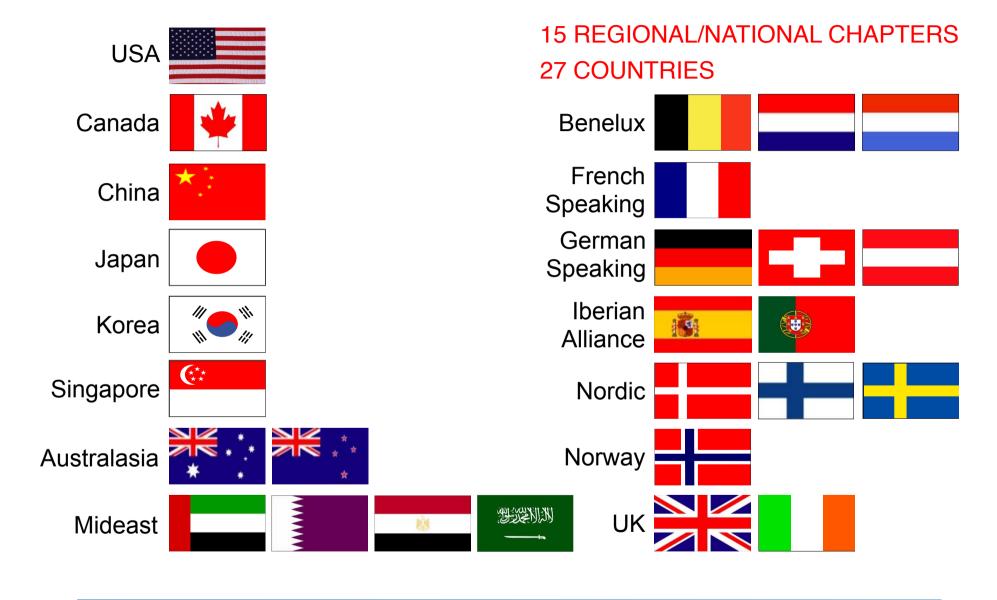
#### **Vision**

Sustainability by building SMARTER

#### **Mission**

Contribute to **sustainable built environment** through smarter **information sharing** and communication using **open international standards** in the building and construction sector, private and public.



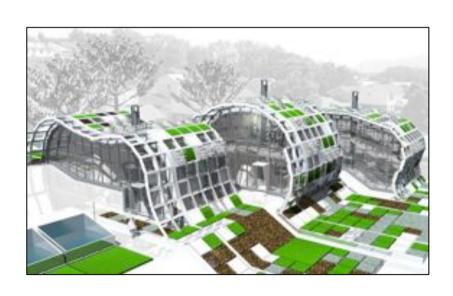


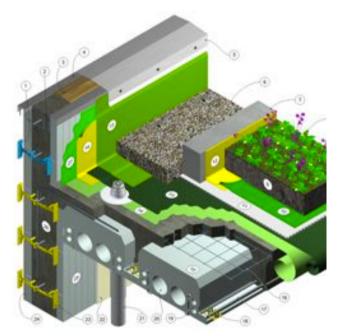


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## **INDUSTRY NEEDS openBIM**

Sustainable building and estate industry requires valid information about cost, quality and performance at right level of detail and at right time

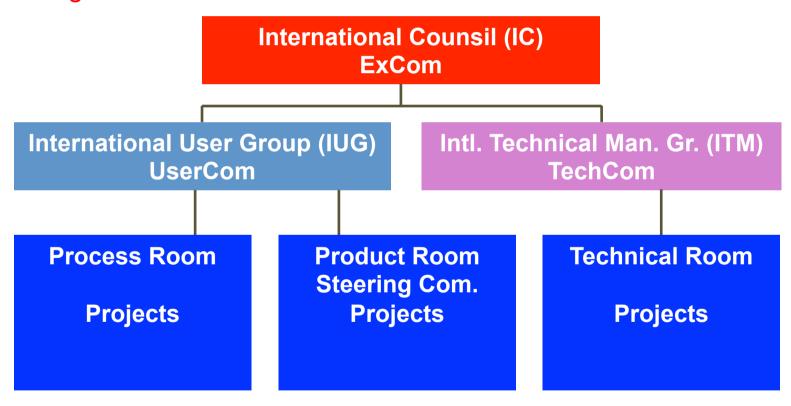






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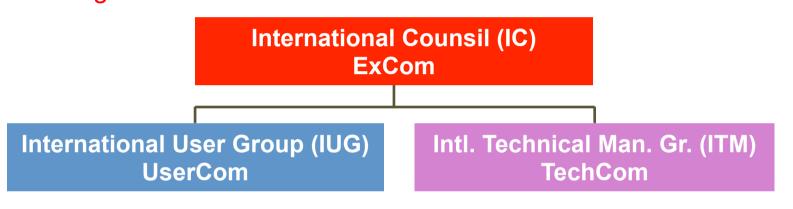
## buildingSMART INTERNATIONAL





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## buildingSMART INTERNATIONAL

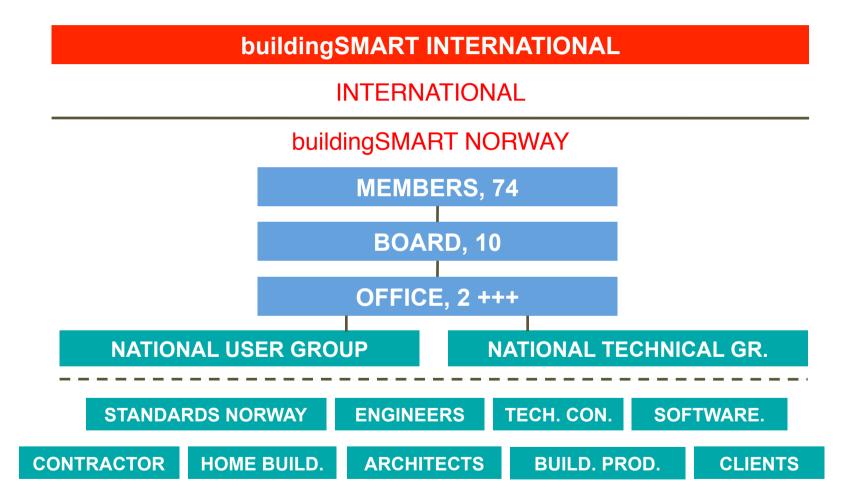


#### NATIONAL/REGIONAL CHAPTERS

MI	Fren	buildingSMART Nordic	buildingSMART Norway	UK	NA	an	
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#### **CLIENTS**

HELSE SØR-ØST STATSBYGG FORSVARSBYGG AVINOR ST. OLAVS HOSPITAL NORGES BYGG OG EIENDOMSFORENING UNDERVISNINGSBYGG OSLO KF HELSEBYGG MIDT-NORGE



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#### **CLIENTS**

#### JOINT STATEMENT - openBIM

#### Background

Our organizations have already implemented open international buildingSMART standards in our new building projects, as we consider this is the most future oriented solution for the building industry. Open standards, based on user-driven development of technology, gives the possibility to achieve seamless data exchange between all domains through the whole project/building life cycle. Based on this, our organization has chosen buildingSMARTs openBIM standards as the foundation for exchange (export, import), storage and process of the Building Information Model. We consider the adaptation of open international standards as crucial in order to achieve the goals we have set for our organizations.

#### Intent

We consider predictability as a major value in our business development plan, and we want to give the building industry a clear understanding of our intentions.

Within 1st of July 2016 we will demand that all software used in our projects in order to create, edit, store or process data from the Building Information Model, shall support complete interoperability, by communicating and sharing building information based on openBIM and be certified to export, link and import all information in the latest official version of open international format like IFC (ISO 16739) and BuildingSMART International official IDMs and Model View Definitions.

#### **Open Signatory Process**

Our intention and our wish are that new signatories will be added to this public statement. Signatories are intended to be other building owners in Norway. New signatories must approve this public statement and must be accepted by all the existing signatories.

#### Annual Review

As the implementation of openBIM is rapidly evolving, we expect the signatories to conduct an annual review of this Public Statement and revise it - based on consensus - according to new developments.

The following signatories agree with the intentions of this Public Statement.



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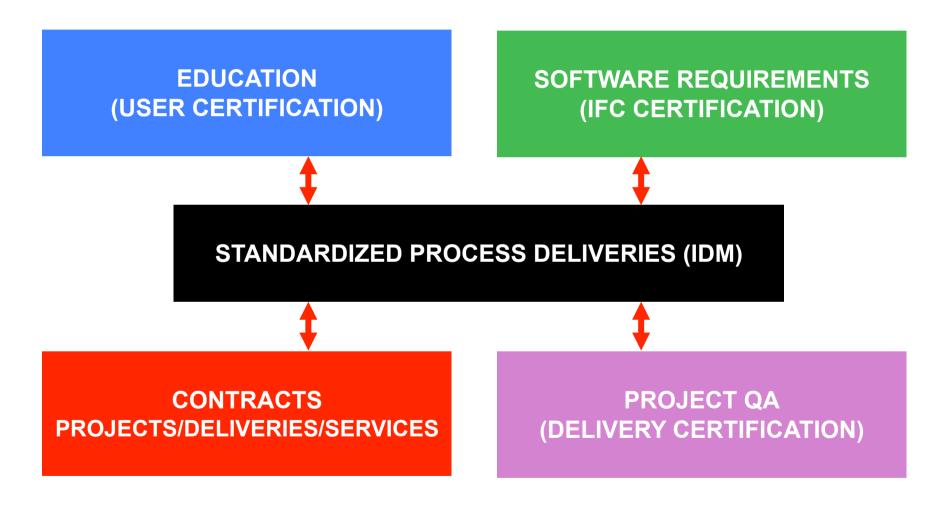
**CLIENTS** 

## EXCERPT FROM JOINT STATEMENT - openBIM

Within 1st of July 2016 we will demand that all software used in our projects in order to create, edit, store or process data from the Building Information Model, shall support complete interoperability, by communicating and sharing building information based on openBIM and be certified to export, link and import all information in the latest official version of open international format like IFC (ISO 16739) and BuildingSMART International official IDMs and Model View Definitions.



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# BUILDING PROGRAMMING information exchange

An attempt to **standardize** through buildingSMART the way we define **requirements** to a building project.

Organizations so far				
Statsbygg				
bS International				
AEC3				
Granlund				
VTT/Granlund/Salford University				
Statsbygg				
dRofus/Nosyko				
buildingSMART Norway				

SOFTWARE REQUIREMENTS (IFC CERTIFICATION)

Other chapters and organizations are welcome...



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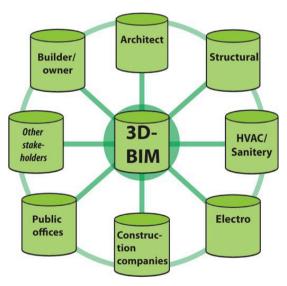
# FACILITY MANAGEMENT information exchange

Get all the relevant information into the openBIM in order to get a complete FM documentation in BIM.

Ensure that FM documentation is a natural part of the ongoing openBIM delivery to the project.

Enrich the openBIM standard with properties and propertysets necessary from a Facility Management perspective.

# SOFTWARE REQUIREMENTS (IFC CERTIFICATION)



Other chapters and organizations are welcome...



## buildingSMART NORDIC

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Nordic Web site: <a href="http://buildingsmartnordic.org/">http://buildingsmartnordic.org/</a>

**Organisation** 

- Chairman: Jan Karlshøj, jan.karlshoej@gravicon.dk
- Vice chair: Tiina Koppinen, tiina.koppinen@skanska.fi
- Treasurer/Business Manager: Christer Finne, christer.finne@rts.fi
- Secretary/Technical Coordinator: Väino Tarandi, vaino.tarandi@abe.kth.se
- Board members
  - Hans Lif: hans.lif@ramboll.se
  - Søren Spile: ss@bips.dk
  - Tomi Henttinen , tomi.henttinen@gravicon.fi
- Observers from buildingSMART Norway
  - Steen Sunesen, steen.sunesen@buildingsmart.no
  - Kaare Kleven, kaare.kleven@sweco.no

**Finland** 

Sweden

**Denmark** 



## buildingSMART NORDIC

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#### **Finland**

- Web <a href="http://www.buildingsmart.fi/">http://www.buildingsmart.fi/</a>
- Common BIM Requirements 2012
   <a href="http://www.en.buildingsmart.kotisivukone.com/3">http://www.en.buildingsmart.kotisivukone.com/3</a>
- Chairman: Tomi Henttinen, Gravicon

#### Sweden

- Web: <a href="http://www.buildingsmart.se/">http://www.buildingsmart.se/</a>
- Collaboration with openBIM
- Chairman Väino Tarandi, KTH

#### Denmark

- Web <a href="http://bips.dk/v%C3%A6rkt%C3%B8jsomr%C3%A5de/buildingsmart#0">http://bips.dk/v%C3%A6rkt%C3%B8jsomr%C3%A5de/buildingsmart#0</a>
- Part of bips
- Chairman of buildingSMART Denmark: Stig Brinck, Niras



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## NORDIC CLIENT SEMINAR OBJECTIVES

buildingSMART Nordic

DENMARK

FINLAND

SWEDEN

buildingSMART Norway **ESTONIA** 

**ICELAND** 

....

#### FIND COMMON NORDIC INTERESTS AND PROJECTS

openBIM Guidelines Joint Statement

Certified Software

Building Programming openBIM in Competitions

Energy Analysis Facility Management



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# **DISCUSSION AND SUMMARY**

Requirements for energy simulation

Sustainability by openBIM

openBIM IS PROFITABLE!

openBIM in Architectural Competitions

openBIM Communication

From politics to openBIM Requirements

Sustainable Value Perspective



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## WHY SPEND A WHOLE DAY TOGETHER?

- To listen and to learn
- To chat and network
- To find others to cooperate with...
- ... to define common requirements in vital areas.



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### BENEFITS OF WORKING ON NORDIC LEVEL

- 4x More attractive (in size) market for software developers
- 4x Ressources
- 4x Competence and experience
- If we agree with each other, probably other will too

### DOWNSIDE WORKING ON NORDIC LEVEL

We have to agree with each other



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### COMMON NORDIC INTERESTS AND PROJECTS

**GENERAL REQUIREMENTS** 

openBIM Guidelines FI/DK/NO Joint Statement NO

#### **GUIDELINES**

DISCUSS COMMON GUIDELINES? YES!
BUT ALSO LOOK INTO IMPLEMENTATION/EDUCATION OF INDUSTRY
LIFE CYCLE PERSPECTIVE – USAGE OF DATA OF END-USERS

**JOINT STATEMENT** 

**SOLUTIONS FOR openBIM FACILITY MANAGEMENT** 



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### COMMON NORDIC INTERESTS AND PROJECTS

#### SPECIFIC DELIVERY REQUIREMENTS

Building Programming (BPie) Facility
Management
(FMie)

#### **FMie**

DK WANTS TO PARTICIPATE – "WARMING UP" openBIM SWEDEN/FI2 SHOULD SHARE AND BENEFIT FROM FMie bS SWEDEN IS A GO

#### **BPie**

INTL. PROJECT



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#### COMMON NORDIC INTERESTS AND PROJECTS

#### SPECIFIC DELIVERY REQUIREMENTS

openBIM in Competitions DK/NO

Energy Analysis Fl

### openBIM IN COMPETITIONS

DK IDM WILL BE DISTRIBUTED TO SEMINAR PARTICIPANTS
CAN openBIM COMPETITION REQUIREMENTS ALSO ADD VALUE TO
ARCH.'S PROCESS.

#### **ENERGY ANALYSIS**

bS CAN BRING TOGETHER NORDIC ORG. WITH INTEREST IN E.A. LOOK AT SOLIBRI AREA RULE CHECKER.

OTHER ANALYSIS? LETS NOT RULE OTHER VALUE ADDING PROCESSES OUT. BUILDING PERMIT TOMI/FINLAND

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## buildingSMART NORDIC/NORWAY

- buildingSMARTs mission is to facilitate your networking
- Distribute todays presentations and relevant additional documentation (IDM for arch. competitions)
- Facilitate contact and coordination of network groups
- FEEDBACK: MORE TIME FOR NETWORKING AND DISCUSSIONS FOR NEXT MEETING

