

Building a stronger network

Workshop in Paris brings chapters together

BuildingSMART is made up of a network of chapters and a central strategic body. What precisely are their roles and responsibilities? And how should this dynamic be defined and maintained? The first-ever chapter workshop was held in Paris on 17 June, following the International Council meeting, to discuss these and other questions.

Ahead of the workshop, the chapters had responded to a survey circulated by Richard Kelly, operations director. 'We wanted to know the issues of concern to members to make sure we put them under the spotlight,' he adds. 'The response was about 90% overall.'

The survey contained 26 questions (see page 2). The introductory questions covered the age and membership of individual chapters and the activities they offer. Other questions asked respondents to clarify opportunities for open BIM standards in their region, their response to the bSI standards process and information sharing among chapters.

In the first break-out session in the Paris workshop, participants were divided into four groups to discuss chapter concerns and what most excited them about being in buildingSMART. Comments from each group were written on post-it slips and displayed in the four corners of the room.

Enthusiasm for buildingSMART emphasised its collaborative nature – the chance 'to share around experiments' because 'in buildingSMART we help each other'. Issues important to chapters varied quite widely – 'bSDD is important' and a need for equality, as 'chapters

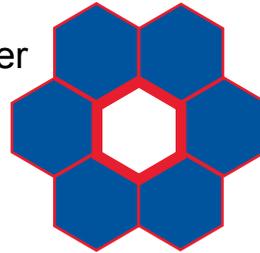
are regional alliances with equal standing' – and concerns were raised, some of which were followed up in the afternoon discussions.

To give participants an understanding of national programmes, there were presentations on the UK and French government BIM programmes and the BIM Forum in the US. Two presentations from software vendors highlighted the need to expand the scope of IFC and our model views.

The afternoon workshop session brought vigorous debate. Again, the groups discussed a set of questions on the most important features of a successful chapter, how impact can be maximised and ideas for achieving our big ambition for user engagement. There was a range of views – inquiring, critical and supportive – and chapter concerns were discussed in depth. Better communication, the need for action not talk and chapter funding were all named.

The positioning of buildingSMART was perceived as crucial. 'We must be seen as the only authority on open BIM,' insisted one group.

'Our reputation in the industry is already positive,' said Chris Groome, secretary and business manager, afterwards. 'But we must develop



Update

International Council meeting

The International Council met in Paris on 16 June. Elections for office took place on 17 June.

Proposal for a new, more strategic board was accepted.

Patrick MacLeamy was re-elected as chairman.

Jan Myhre, Jeremy Watson, Tiina Koppinen, Rasso Steinmann and Dirk Schaper were elected as board members.

Chris Groome was re-elected as secretary and business manager.

Volunteers were sought to help with the compliance programme, both for data and people certification.

Chapter agreement and charter are to be developed.

Board meeting

The newly elected board met virtually on 28 July.

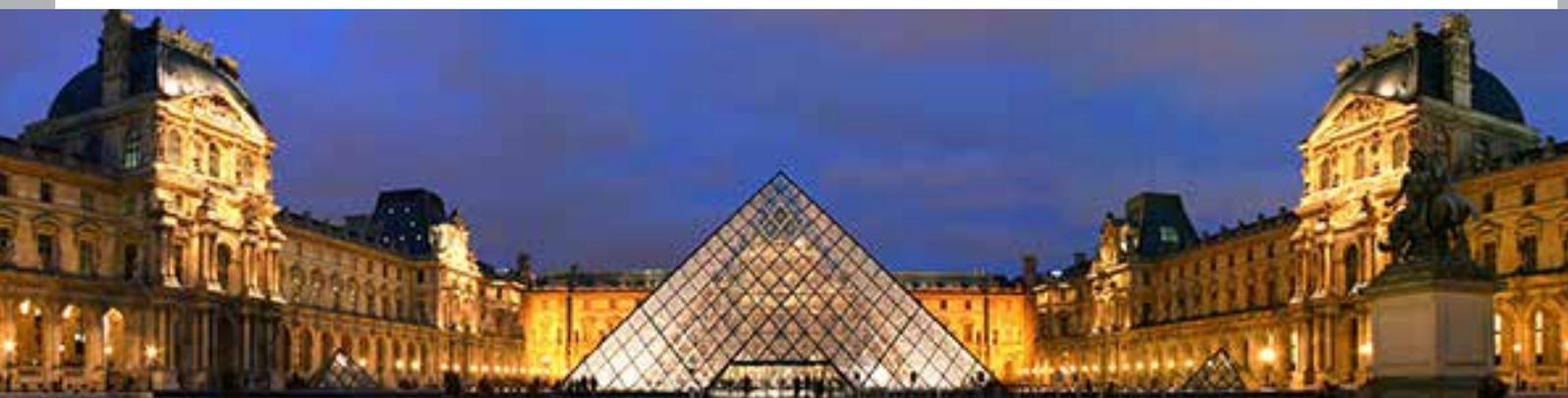
Priorities for action were identified, including increasing membership and strengthening International–chapter and inter-chapter relationships.

The board will meet face to face in London on 22 October.

a more powerful and credible relationship between bSI and the chapters.'

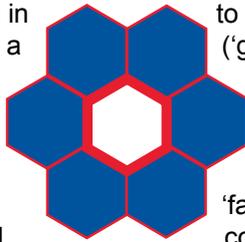
Building on the work at the International Council, CEO Richard Petrie is developing a chapter agreement and charter to cover the formal relationship. Work will continue to find answers to the tough and honest questions that were asked.

The Louvre pyramid in Paris
Source: Benh Lieu Song, 2014 cc by-sa 3.0



Chapter survey – the highlights

Before the chapter workshop in Paris in June, bSI conducted a survey among the chapters to capture their activities, attitudes, local operating conditions and how they appraised the International–chapter relationship. Devised by Richard Kelly, operations director, with help from Chris Groome, secretary and business manager, and Richard Petrie, CEO, the survey probed the practical and strategic concerns of chapters.



to public sector projects ('government procurement', 'public project', 'public owners') and to the life-cycle of the asset ('asset data delivery', 'facility management', 'post construction'). Quality was also emphasised, along with the need to have reliable software tested by certification ('IFC certifications from bSI'). And, of course, the potential for interoperability emerged ('exportable', 'interoperability with a wide range of software'). One respondent put 'product information in open formats' as the greatest future benefit, followed by 'web-based collaboration'.

The primary barriers to the uptake of open BIM were perceived to be technology limitations (cited by 51%), misunderstanding the benefits (48%) and corporate lethargy (44%). Hospitals, infrastructure and commercial business were considered the most important market sectors overall. Government policy was expected to be the main trigger for the spread of open BIM, followed by client expectation.

The buildingSMART network

Another open question on the help the chapters need on bSI standards drew meaty and practical comments, including a desire for technical examples and user guidance alongside the standards themselves. Chapters were also asked about their response to the bSI core programmes, the frequency of their activities and whether they engaged with other chapters.

What did it reveal?

Several questions inquired about the structure of the chapters, and the survey asked respondents about types of members. Consultants made up the largest group (26%), followed by software vendors (17%) and contractors (15%). Facility operators and manufacturers came low down, each at only 3%.

What activities were on offer? Over 96% offered conferences and 78% collaboration forums. Other activities included user guides, domain groups and leadership of technical projects. Certification was low among the activities offered, at only 21% – a clear indication of a gap that could be filled. When asked to name examples of activities, respondents cited industry days, conferences and forums, user guides, awards, technical trials, input into pilot projects and BIM documentation.

Benefits and barriers

In answer to an open question on the greatest benefits of open BIM, respondents identified the value

Selection of questions from survey

What range of activities does your chapter offer?

What would you say is the frequency of activity within your chapter?

Describe any policy statement related to the use of open BIM in your chapter's region.

Where do you think are the biggest benefits or opportunities to be realised for open standards in your region?

What do you think are the biggest areas of concern to the use of open BIM standards in your chapter's region?

Which market sectors are the most important to your chapter at the moment?

What are the triggers that will enable the development of open BIM in your chapter's region?

How often do you share information with other chapters?

What is most important to you about the future of buildingSMART chapters and bSI?

'The survey tells us that the chapters value communication within the buildingSMART network, with 21 of the 23 responses to this question rating it as "somewhat/very important",' says Richard Kelly.

'And the responses to the question on what the chapters want from bSI give us plenty of food for thought – and for action,' adds Chris. 'Certification, best practice examples and technical knowledge-sharing were all mentioned. The survey has given us new understanding of our chapter members.'

The bSI–chapter relationship

Richard Petrie takes questions.

How would you sum up the chapter workshop in Paris?

The adjectives I would use are frank, open and constructive. No one held back to be polite. Instead, all the main issues were put on the table. We heard about the difficulties of getting organisations to face up to the need for change in a conservative industry, and about the unwillingness to put money and people forward despite the proven returns from new ways of working. But we also heard about the successes in early implementations.

What actions are you taking in the wake of the workshop?

We are clarifying the benefits and obligations of belonging to the buildingSMART community in a chapter charter and a chapter agreement. We are also ramping up the communications side of bS with an intranet. We shall seek to create a better rhythm in



project meetings and contacts, and I have set up a small task group to support me in this work.

What is the proposed scope of the charter? How will it affect the chapters?

First and foremost it defines the character of the organisation (open, neutral and not-for-profit) and the relationship between International and the chapters (complementary, with International defining the international standards and the chapters promoting the standards in their catchment area and certifying compliance). The aim is to have much better co-ordination to make us a stronger organisation.

New standards from buildingSMART

Two new buildingSMART standards have been released to provide a successor to the IFC2x3 coordination view: the IFC4 Design Transfer View or DTV (S1001) and the IFC4 Reference View or RV (S1002). The Standards Committee has approved the standards.

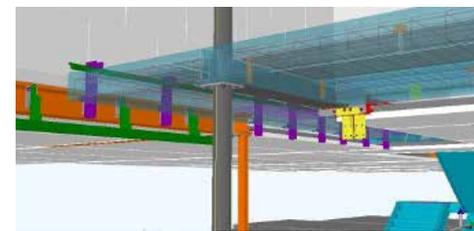
‘Our decision to split the model coordination view into two separate views – the DTV and the RV – has paid off with two standards that meet the needs of the user more specifically,’ says Thomas Liebich, who led the work. ‘Together the standards will enable the potential of IFC4 to be realised.’

The RV is a model view definition (MVD) and thereby a subset of the IFC4 schema. The RV enables designers to share referenced, or linked, models between different design disciplines, and provides the means for essential activities such as clash detection, quantity take-off, construction sequencing and visualisations for clients and the eventual users of the asset. With its precise and well-defined scope, the RV will work effectively and reliably in everyday situations.

The DTV will enable building information to be passed from one design discipline to another. An architect, for example, will be able to filter the initial load-bearing part of his work – walls, slabs, columns and so on – and send them to the structural engineer, who can take over these elements and modify them in the light of his own analysis. The DTV has been created to retain as much design intelligence as possible and it will require careful implementation by software developers.

‘The technical development was complex, and I would like to thank all those who have helped us reach this point through their contributions during the review and approval stages,’ says Thomas.

Going forward, the Norwegian Building Authority (NBA) is the strategic sponsor for a set of further IFC4 MVDs: quantity take-off, energy simulation, scheduling



IFC4 transfer view

Alignment and BCF

Also now accepted as final standards are IFC Alignment 1.0 (S1004) and BCF-API (S1006).

Visit the standards page on the website: <http://www.buildingsmart.org/standards/standards-library-tools-services/>

and annotation. Now bSI is seeking additional sponsors – financial and in kind – to help advance and expand this work. Potential sponsors are invited to contact Richard Kelly.

Digital toolkit – software and content development in the UK

As part of the UK government’s BIM initiative, a project was begun in 2014 to develop a digital toolkit for building information modelling. The project was led by buildingSMART member NBS, which is owned by the Royal Institute of British Architects.

The digital toolkit launched in a public beta version in April 2015. Anyone, both inside and outside the UK, can download it from the NBS website and use it. Feedback is welcomed.

Over 5,000 deliverable templates for objects across all construction industry sectors have been developed. These are classified by the new Uniclass 2015 classification system that is built on the ISO 12006:2 international framework. This content may be included in digital plans of work to clearly define who is doing what and when on a level 2 BIM project.

NBS is a long-time member of buildingSMART UKI and has contributed to the bSDD. The digital toolkit project is based on buildingSMART data formats IFC and COBie.

Visit <https://toolkit.thenbs.com>

Annual Report 2014 Now available on website

How have we performed recently? What type of work has been going on in the buildingSMART programmes and rooms?

The bSI Annual Report gives a concise, accessible account of our activities. Download the report from our website.

See <http://www.buildingsmart.org/about/about-buildingsmart/annual-report/>



‘Heroes of Interoperability’ 2015/16

Second year of buildingSMART awards

‘We are looking for projects that demonstrate how our open standards are making a difference in the real world. Do you know of a project that qualifies for recognition?’

Jan Karlshøj, awards coordinator, sets the scene for the 2015/16 buildingSMART awards programme, with a request for the buildingSMART community to be on the alert for suitable candidates. Following the impressive work done by the winners in the 2014 contest, the 2015/16 awards are seeking a wider range of entries, both geographically and by type.

‘We want the awards programme to be a unifying activity, with chapters

and their members helping to identify suitable projects – and with everyone celebrating and disseminating the achievements,’ adds Jan.

Four categories of entries have been set: design, construction, operation & maintenance and student work, which must use open technology and at least one of the buildingSMART solutions, such as IFC, COBie or BCF. The new student category is intended to encourage students to explore open technology.

The winners will be announced at the bSI spring summit in 2016.



Progress on standards impresses UK summit

BuildingSMART week confirms prospects

The completion of the Alignment project and two major elements of the IFC4 model coordination view were among the highlights of a busy week at the UK summit, which ran from 23 March 2014. Delegates from around the world shared their expertise at the buildingSMART plenaries and workshops, held at BRE Watford, and the subsequent BIM Prospects conference in London.

'The pace of our work is picking up,' said Patrick MacLeamy, bSI chair. As the new strategic processes within bSI are bedding in, the spirit of goodwill that underpins the work remains a powerful force. 'We are an international friendship club,' emphasised Patrick in his keynote address to the conference.

Infrastructure projects

All five of the buildingSMART rooms held workshops to develop their projects. In the Infrastructure Room, three projects are at different stages. The Alignment project has fast-tracked its progress towards a final standard and the Infra Room recommended that it should be approved by buildingSMART. The next step is to encourage pilots using the standard.

The working group for IFC Roads is developing a project proposal to continue its development of IFC. Importantly, local chapters and stakeholders will be encouraged to adapt the documentation from work done by KICT (Korea Institute of Construction Technology) to local needs, thereby syndicating the valuable work from Korea, one of the chapters doing pioneering IFC development on roads.

There is a strong case for extending IFC Roads to railways, or railroads. This is an area of infrastructure where project owners – in Beijing, Qatar, Sweden, the UK

(with its proposed new high-speed link, HS2) and elsewhere – are showing an interest in an IFC or BIM-based approach. The Infrastructure Room agreed to explore an IFC Rail project.

IFC Bridge, which is drawing on work done in France, is moving towards becoming a full international project.

Progress on tools and standards

Over in the Building Room, the BIM Guidelines project continued to command enthusiastic support. There are three strands to the project: the inventory of existing BIM guides, the harmonisation of terms and the BIM Guide Builder tool (helping users create their own guides).

A milestone was reached in the Technical Room, as the two parts of the model coordination view, the reference view and design transfer view, which are essential to the implementation of IFC4, were recommended for acceptance by bSI. The new version of the BIM Collaboration Format was also put forward as a final buildingSMART standard.

In the Product Room, there was fresh determination to stimulate support for the buildingSMART Data Dictionary. The bSDD has made good progress but was described by Håvard Bell of Catenda, which hosts the Dictionary on a Google platform, as a missing link that practitioners need if they are to operate in a connected world.

The youngest of the rooms, the Regulatory Room, started to prepare its charter, which includes the goal of developing standards for structured digital-friendly building codes.

BIM Prospects

The two-day conference that followed enabled the exchange of knowledge between local delegates and the international buildingSMART



community. The UK's plans for collaborative and integrated working, at level 2 and level 3, were explained and the overseas presenters reciprocated with an account of open BIM implementation in their own countries.

High on the conference agenda were the topics of Big Data – and how to deal with data that is too extensive for traditional tools – and the implications of the Internet of Things. Finally Anne Kemp, bSI UKI deputy chair, stressed the huge dependence of the UK government programme, Digital Built Britain, on open standards.

The BIM Prospects sessions are available on YouTube: visit <https://www.youtube.com/watch?v=1M-TwxhRvm4>

BuildingSMART International Board and Executive

Chair: Patrick MacLeamy

CEO: Richard Petrie

Board members: Tiina Koppinen, Jan Myhre, Dirk Schaper, Rasso Steinmann and Jeremy Watson

Secretary/business manager: Chris Groome
Operations director: Richard Kelly

Newsletter & communications

Editor: Betzy Dinesen

Designer: Jane Thompson

Contact points

richard.kelly@buildingsmart.org (operations)

steinmann@iabi.eu (Rasso Steinmann, implementation and certification)

tune@cobuilder.com (Nick Tune, certification of people and organisations)

tl@aec3.com (Thomas Liebich, IFC matters)

kjell.ivar.bakkmoen@helse-sorost.no (user lead and ISO liaison)

rogerjgrant@gmail.com (Roger Grant, Product Room and bS Data Dictionary)

jan@gravicon.dk (Jan Karlshøj, Building Room, IDM and awards)

h.schaap@gobar.nl (Henk Schaap, Infrastructure Room)

ihkim@khu.ac.kr (Inhan Kim, Regulatory Room)

oivind.rooth@dibk.no (Regulatory Room and CEN liaison)

chris.groome@buildingsmart.org (Chris Groome, bSI matters generally)

betzy.dinesen@btinternet.com (newsletter)



(Top right) Patrick MacLeamy, bSI chair, addressing the BIM Prospects conference; (above) BRE site at Watford, which hosted the bS summit Source: BRE