

# Bulletin 25

September 2016

## Welcome

Welcome to the September issue of the bS UKI Bulletin, which takes you around our activities, both at home in our own chapter and globally within buildingSMART International. At home, we have been busy making internal changes that include a strategic shift towards a stronger user emphasis. Internationally, we have been active in annual chapter conference, held this year in Oslo.

BuildingSMART is about helping to improve performance, sharing experience and identifying the tools most urgently needed to enhance collaborative working. Please get involved by contributing to our groups and telling us what you are looking for in open standards. Meanwhile, read the latest news in this issue of the bulletin.

**Betzy Dinesen**

Editor, bS UKI Bulletin

## Fit to meet industry needs

### Changes at bS UKI

Change is underway at buildingSMART UKI – with reforms to its internal structure and its priority activities. BIM level 2 is now a reality for suppliers who want to work on government projects and open BIM is no longer an academic ‘techie’ subject. It is a live issue for people working on projects out in the industry.

### Changes at the top

First, Anne Kemp has accepted the interim role of buildingSMART UKI chair, taking over from Professor Jeremy Watson, who is taking up the role of president of the Institution of Engineering and Technology (IET). Nick Nisbet, bS UKI’s technical coordinator, has now also taken on the role of vice chair. Anne’s ongoing role will be confirmed once it is clear how the UK BIM Alliance is forming and whether her role as chair continues at the Alliance.

‘With BIM level 2 practices now kicking in around the UK, we recognise that the buildingSMART UK chapter needs to be a more integrated part of the wider movement,’ explains Anne. ‘We want to connect more closely with users, so that they know what we are doing and that they can get help from us.’

‘The UK BIM Alliance is being set up to lead an industry-wide drive for awareness, education and adoption. Over the next few months, it will become clearer how buildingSMART can support this important initiative. At that point, I believe it will be appropriate to review who best can take buildingSMART forward in this next stage of its journey as chair.’

‘In the meantime, I hope that the changes we have been making are seen as a tangible improvement on how the organisation engages with the user community, while continuing to play a robust role in developing open standards on the international stage.’

### Organisational change

The governance of bS UKI has changed accordingly. The old board has been replaced by a strategic advisory board, which includes industry leaders, and an operational board which will guide technical and user activities within the chapter. Complementing the two boards will be a broader advisory group, drawn from stakeholders and users within the industry.



*‘We want to connect more closely with users. As level 2 practices are implemented, we can help identify the real problems on the ground and find ways to tackle them.’ – Anne Kemp, interim bS UKI chair*



*‘With the creation of “rooms” within bS UKI, we are mirroring – and even anticipating – work going on within buildingSMART International. This will help us define our activities more strategically and improve collaboration.’ – Nick Nisbet, bS UKI vice chair*

Another innovation is to create groups – known as rooms – that mirror the structure of buildingSMART International (bSI) at the heart of buildingSMART family. The chapter made a start by setting up the Infra Room UK (see separate story). The Infra Room at bSI is one of the most active rooms at international level – it moved swiftly to achieve its first published standard, Alignment 1.0, in 2015, and has exciting work on the stocks. With the creation of the Infra Room UK, bS UKI will be well placed to interact with international buildingSMART activities on infrastructure.

Alongside the Infra Room UK, the Building Room UK is being rolled out, led by Martin Simpson from Arup. The first Building Room session in September will be taking a hard look at the jargon and practicalities of ‘level of detail’, development, information, accuracy – collectively nicknamed LoX. Numerous definitions are in use and have spawned a worldwide industry. Now buildingSMART is looking to see if they can be brought back into a coherent framework – to help everyone work together.

A new COBie Room is being led by Jeff Stephens. While COBie, is not strictly a buildingSMART international standard, it is co-defined by buildingSMART USA and UKI. At the first meeting in summer 2016, the tools available to check COBie were reviewed, and the COBie Room decided to appraise the key tools that are being used to generate COBie files.

A Regulatory Room UK will be launched after the bS International meeting in Korea in late September. There are huge opportunities here, with the BIM4 H&S group at the forefront. The new UK Regulatory Room of bS UKI will be able to contribute to its work.

## User engagement

Alongside the organisational changes is a strategic shift towards users. ‘We are reaching out to users in the wider community to encourage them to get onside with our goals and provide honest input into what we are doing,’ says Anne. ‘User groups expose people from all sizes of company to what others are doing and what the problems are. This type of networking throws a strong spotlight on interoperable working in action.’

At bSI, the User Group was reinvigorated during 2015. Are there opportunities for bS UKI users to work with their counterparts at International? ‘Definitely,’ says Anne. ‘The opportunities are promising and it’s essential to get the right user people here in the UK on board and ready to work with International.’

Kjell Ivar Bakkmoen, who leads the bSI User Group, is pragmatic about what the group can do to learn about real user needs, such as new use cases and any issues arising. ‘It has been a pleasure, if that’s not a contradiction,’ he says, ‘to see new players in the industry report gaps and flaws in the IFC schema. This helps us to know that the IFC standard is being implemented on a broad scale.’ Honesty of this type from users helps fuel improvements. Anne shares this pragmatism and is eager to hear from users where buildingSMART is getting it right and where it is not.

## UK BIM Alliance, UKBIMA and buildingSMART UKI

This October sees the formal launch of a new organisation, UKBIMA. It is being formed to take the baton from the former BIM Task Group, acting as an umbrella for the BIM4 groups and BIM Regions and many other UK organisations – in effect, taking the level 2 challenge forward.

Following on from the BIM4 groups and the BIM Regions, buildingSMART UKI is one of the founding members of UKBIMA. With its longstanding and deep connections with the standards process at UK (BSI), European (CEN) and international (ISO) levels, it is well placed to make a key contribution to UKBIMA’s projects. As Nick Nisbet explains, ‘We know that many of the member organisations of UKBIMA will bring real problems and challenges: buildingSMART needs to embrace them and offer the capability to structure and tackle them.’

## A call to members

Anne asks members to be proactive as the new strategic emphasis is implemented. ‘A lot of change has happened fast, and I would ask you to get involved with our work. And find out who else might be willing to help us – and themselves – by joining our chapter.’

Nick echoes her call to action. ‘Ask what *you* can do for buildingSMART,’ he concludes. ‘The problems of collaborative working are industry-wide, and we can only start to resolve them through our members.’

### Strategy Advisory Board

Anthony Burd, Director, BSI  
Amanda Clack, President of RICS  
John Eynon, Chair of BIM Regions  
Guy Hammersley, BRE  
Bill Healy, past CEO of CIRIA  
and Chair of the BIM Technology Alliance  
Richard Petrie, CEO, buildingSmart International  
David Philp, UK BIM Task Group  
Dale Sinclair, CIC BIM Champion  
Terry Stocks, Chair of the Government Departments’ BIM Working Group  
Malcolm Taylor, Data and Information Director, Crossrail

### Operational Board

Phil Jackson  
David Jellings  
Nick Nisbet  
Paul Oakley  
Kieran Parkinson  
Mervyn Richards  
Dan Rossiter  
Martin Simpson  
Jeff Stephens  
Paul Surin (taking over from Steve Thompson)

### Other roles

*Building Room UK*  
Martin Simpson  
*COBie Room UK*  
Jeff Stephens  
*Infra Room UK*  
Phil Jackson, supported by Harry Parnell  
*Regulatory Room UK*  
Nick Humes

# COBie versus COINS – what is the debate?

## UK Infra Room launches with lively workshop

What are the upsides and downsides of the UK/American COBie standard? How does it compare with the Dutch COINS exchange format? And if they are going global, are there prospective conflicts?

This was one of the topics debated at the first workshop of the newly launched UK Infra Room in Canary Wharf in London on 6 June. 'We set up the bS UKI Infra Room to mirror the bSI Infra Room,' explains Phil Jackson who chairs the UK Infra Room. 'We want to make a positive contribution to bSI's Infra Room and – in particular – to understand the requirements of this country and feed them through to bSI.'

The three-hour meeting brought together people from all parts of the industry – consultants, clients, contractors, IT vendors. Some already knew each other but this was far from a cosy group: there was healthy disagreement, a range of views and a common wish to tackle some of more intractable problems facing the industry. Benno Koehorst from Dutch infrastructure department Rijkwaterstaat had travelled over from the Netherlands to share his experience of the COINS format.

The international Infra Room is the most active of bSI's five rooms, with a strong record of fast-tracking its Alignment 1.0 standard, two PAS publications on road and rail expected this year and the launch of a new project on the asset management for infra, where Phil is leading the early-stage definition of requirements. There was significant progress on Infra Room activities at the buildingSMART Rotterdam Summit in April, and Phil debriefed participants on what had happened.

Every time we use a client's proprietary system for handover information, we are introducing costs – this was the blunt message from Nick Nisbet, bS UKI vice chair and also technical coordinator, in response to comments from participants on the difficulty of selling BIM and COBie to clients. 'The sell to industry is that by using standards, we are taking out costs,' he said. Clients' private regimes are not open for review and consequent quality improvement, he pointed out. In his presentation on COBie, Nick – who contributed to the development of the first two versions – praised the huge scope of IFC and observed that COBie has potential application to infrastructure as well as building.

Harry Parnell from Balfour Beatty, who hosted the meeting, talked about two projects for Highways England: upgrading part of the M5 near Worcester to a smart motorway and the A14 improvement scheme.

COINS is an alternative standard for information exchange which treats IFC and GML like other proprietary file formats, as supporting attachments. It is now in version 2.0, with an earlier version used by Rijkwaterstaat. Hugh Woods, who is on the bSI Infra Alignment Expert Panel, took forward the COINS/COBie comparison, declaring COINS to be a truly elegant – but disruptive – solution and considering the costs and efficiencies of the two. Far from dividing the workshop into opposing camps, the debate opened up questions and analysis of what COBie and COINS can do, their overlap and links with object libraries.

'In restructuring our groups at bS UKI, we wanted to avoid a strict user/technical divide,' said Anne Kemp, interim chair, afterwards. 'This first meeting of the bS UKI Infra Room has drawn on the technical expertise of participants while raising the wider user issues of what users want and how to sell best practice to the clients.'

'The meeting opened up the discussion on several infra topics of immediate importance,' concluded Phil. 'And Benno's contribution offered us the chance to learn from the Dutch experience – and perhaps allow them to lean from us.'

*The next meeting of the UK Infra Room is planned for October.*



*Delegates at the COBie versus COINS workshop*

## Rotterdam summit

Every six months, buildingSMART members from chapters around the world come together for a standards summit. A different host city is chosen each time and help is provided by the local chapter. In April the summit was again in Europe, and Rotterdam was picked as the venue.

Rotterdam is a young entrepreneurial city and a hub of global innovation. It provided a fitting host to the buildingSMART summit during 11–13 April. The city's motto is 'Sterker door strijd' – 'Stronger through effort'. That too was appropriate, with buildingSMART week, as usual, a time of collaborative effort and sheer hard work. The choice of venue was popular, with 175 delegates attending – an all-time high for a buildingSMART summit. These events are open to all buildingSMART members.

### Infrastructure Room

The Infra Room is the busiest of bSI's five rooms. One significant development is bSI's decision to publish work in the form of a Publicly Available Specification (PAS). First to benefit will be work in the area of road and rail: applications for IFC Road PAS and IFC Rail PAS have been received from Korea (KICT) and from China Railway. The buildingSMART PAS programme will allow specifications to be shared swiftly.

Also in infrastructure, Alignment 1.1, formally begun in March, is being run as a fast-track project, like its predecessor, 1.0. New areas are being added to the earlier standard, including linear referencing and rail-specific spirals. Complementing the standards development, an alignment deployment project has started. It will take the form of a series of pilots, involving clients and software companies who will put the alignment standard into practice.

### More 'views' planned

Specific use cases are being explored to meet the needs of users. It is here that the technical expertise of buildingSMART meets the real-world needs of users. The Building Room is planning a number of model view definitions – MVDs – covering the areas of energy, quantity take-off, 5D, annotation, curtain walling and model set-up. This last is the most advanced and ready to enter the formal standards process.

### Automated code checking

The youngest of the rooms is the Regulatory Room, which covers the area of building regulations and planning permission. The room draws on expertise from countries such as Norway and Korea that have developed sophisticated systems for planning permission and the checking of building codes or regulations. The room has set itself two priorities: automated code checking (there is a strong economic case for this) and eSubmission guidelines, to help planning authorities set up an electronic system for planning applications.

### Technical and Product Rooms

There are two further rooms: the Technical Room and the Product Room. The Technical Room contributes to the projects of other rooms as well as developing its own projects. Activities at Rotterdam included the decision to set up a working group for a standard on multimodel-based workflows. The Product Room is responsible for the buildingSMART Data Dictionary (bSDD) – a standard-cum-service, which is used by software companies and different countries in their national libraries. While good work has been done, much remains to be done to exploit the full potential of bSDD. Meanwhile, a new working group on classification is being formed and the working group on product data templates is being reinvigorated with the end goal of developing a standard.

### Conclusion

The buildingSMART summit weeks have an opening and closing plenary, alongside parallel sessions of the five rooms, ad-hoc projects and certification activities. BuildingSMART members from any chapter are invited to get involved in groups that correspond to their own interests, or simply to sit in as observers during the summit weeks. The next summit, alas, is far from home and will take place in Korea, but the bS UKI Bulletin and the bSI newsletter will report on it.



Top above: Rotterdam at night

Second from top: Delegates at Rotterdam summit

Bottom images: Networking at Rotterdam summit

# Clouds for Coordination

## What the project achieved

Within the UK industry there is a steady development of national maturity as collaborative working with BIM takes root. Following the plethora of publications and a government mandate put into effect, the UK is getting ever closer to an aggregate maturity to achieve BIM level 2. The industry's standards, software and legal framework are currently suitable for level 2, but there is a need to form a clear pathway to ensure that they remain suitable once we, as an industry, progress beyond level 2.

To investigate this, the Clouds for Coordination (C4C) project was established, funded by the UK's innovation agency, the Technology Strategy Board, now renamed Innovate UK. C4C was a collaborative cross-industry research project involving AEC3, BRE, Cardiff University, Costain, Lee Wakemans and IBM, drawing on the experiences of some of the leading industry experts and the problems encountered in the implementation of server-based working. The project developed a method of exchanging information using a synchronised user-hosted extranet solution, as opposed to a single extranet, which alleviated issues around ownership and trust.

Through the C4C project, the use of project team-specific extranets allows the ownership of information to be clearly defined by the location of that information. Rather than 'uploading' information, each party stores (and is responsible for) their own information which is then synchronised and federated on a continual basis. In order to manage this continual synchronisation, access was restricted by role, status, scope and object suitability.

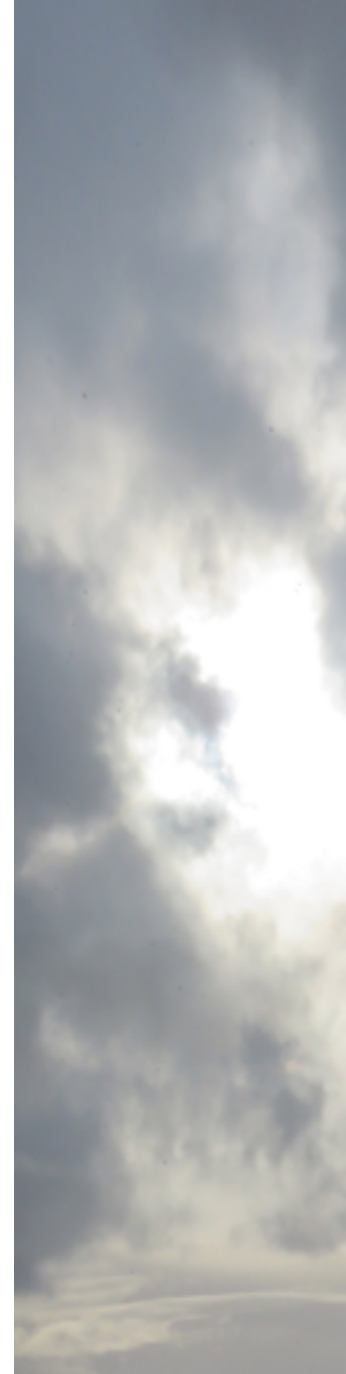
To achieve BIM level 2, there is a need to apply a suitability code (identifying the scope of liability the authoring organisation will accept for this information) to all project deliverables: graphical models, non-graphical data and documentation. Looking beyond level 2, C4C utilised suitability codes that are assigned to individual objects within each deliverable as opposed to just each overall deliverable. This level of suitability allows for the gradual release of information by object; it is also a factor in the access of information, enhancing the degree of trust that can be placed in the object.

C4C successfully demonstrated that this method of multiple extranet synchronisation and object-based suitability can be successfully implemented but not without limitations. In particular, there were some limitations around the initial implementation of IFC (2x3). Closer control may require the expansion of the current schedule of suitability codes for objects, as seen in PAS 1192, Part 2, addendum A2.

'The project has already influenced how people think about level 3 and in particular about how the better security that level 3 enables can be managed,' says Nick Nisbet. 'This is an example of how the industry is being driven towards level 3, without level 3 being fully defined,' he adds.

Hopefully, this work can influence future BIM development by highlighting a plausible method for development and areas requiring further consideration.

*Thanks to Dan Rossiter for contributing this story.*



## Autumn summit in Korea

The next buildingSMART International summit takes place on Jeju Island in Korea. As always, it is an opportunity to meet experts in your own field and share knowledge of the development and delivery of open sharable data. There are plans to launch two new rooms: a Construction Room and an Airport Room.

Find out more at <http://buildingsmart.org/event/standards-summit-jeju-korea/>



## BuildingSMART chapter conference in Oslo

What are primary activities of other chapters? How are they connecting with the industry? What priorities are they setting?

Once a year, buildingSMART chapters from around the world get together to discuss common problems and tap into the experience of others. The chapter conference coincides with the annual meeting of the International Council and this year was held in Oslo. Anne Kemp, as vice chair of bS UKI at the time, represented the UKI chapter.

'Meeting representatives of other chapters allows us to see what is being achieved in other parts of buildingSMART,' says Anne. 'It also highlights the sheer amount of work ahead for all chapters, including ours, in securing engagement from far more companies and individuals in their home countries.'

### User perspective from Japan...

There is a strong appetite for open BIM, and the conference heard about the experience of Japanese contractor and SAC member Kajima, who gave insights into what it is like at the user end for an enthusiastic adopter. Since 2008, Kajima has used BIM in 740 projects worldwide, 300 in its homeland, Japan. It has seen a significant cost reduction in construction drawings once they are integrated by BIM – with 60% reductions since the base year of 2012. As a user, Kajima is benefiting from BIM, but it wants more and is urging the expansion of open BIM to construction sites.

### ... and from the UK

Anne Kemp also gave a presentation on how BIM level 2 is progressing in the UK, and how negotiations were under way to form an alliance of the BIM4Groups, BIM Regions and others to take over the baton from the UK government Task Group as it moved its focus to BIM level 3.

Anne argued that this was a moment of humility and of opportunity for the UKI chapter. The way forward needs to be one of collaboration, and not of turf wars, she said. If the UKI chapter can establish how it can help and support the emerging Alliance, it will find a far better position to connect and support users than it has in the past – and real user engagement needs to be a priority area for the UKI chapter.

She also argued that UK requirements for BIM level 2 working mean that many more companies are becoming BIM users and need help from an organisation such as buildingSMART as they strengthen their expertise, use the tools available and become aware of new needs – this should be where chapters like ours can help.

### Other topics

In a busy agenda, chapter delegates heard how other chapters are structured – there is great flexibility in how buildingSMART develops chapters in different types of host organisation. Also of immediate practical interest was the progress on creating certification, both of software and individuals. Software certification to IFC4 and certification of individuals, using a 'Basic' module that has been developed by buildingSMART, are expected to start later in the year.

But it was the need for user engagement that really struck a chord at the conference. 'Understanding user needs – and acting on them – is a concern for chapters around the world,' said Chris Groome, bSI secretary and business manager who is responsible for chapter services and development. He offers practical tips for engaging users through affiliations, workshops and case studies.

#### Tips for user engagement

1. Try to get professional institutions and trade associations to affiliate to your chapter – they are full of users
2. Hold a topic-based workshop on user problems and promote likely data-based solutions
3. Tell your members about projects going on in the bSI rooms and offer to put them in touch
4. Promote events that bring experienced users and novices together
5. Highlight case studies that show real world activity
6. Use conferences to identify user problems, especially in breakout sessions, and follow up with resolutions for joint action



Top above: The chapter conference was held in Oslo at Fornebu, the site of the old airport, now being redeveloped. The Statoil building used advanced BIM modelling, with construction taking only 20 months on site. Read more on the BIM Hub

Middle: Anne Kemp and other delegates

Above: Delegates in session

## New chapters join the buildingSMART family

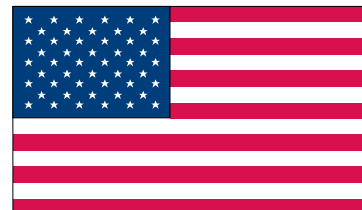
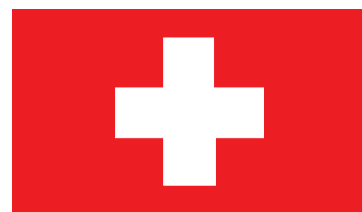
BuildingSMART is made up of a central organisation (bSI), responsible for the international programmes, and individual chapters at country level. There are 18 chapters in all, among them two launched during 2016.

The first to launch in 2016 was the Swiss chapter in January. It has attracted membership of over 100 companies and more than 35 organisations along the whole value chain of the construction industry, making this a chapter with wide reach and influence.

The second is US chapter, which has been re-formed within BIMForum, the new host organisation. BIMForum is a practitioner-led organisation which has been running conferences in the area of BIM since 2008. The US market is an important one for buildingSMART, because of its size, significance and market leadership from US-located international companies, including major software developers. BIM maturity varies widely, depending on companies, project types and geography.

'The two chapters have much to bring to buildingSMART,' says Chris Groome, who leads chapter services and development. 'The new format for the US chapter based on an industry groundswell will hopefully enable us to build support in the marketplace from the bottom upwards, while the Swiss chapter has shown that it is hugely enthusiastic about our goals.'

See also the bSI newsletters on the bSI website under News



## Highlights of 2015

BuildingSMART International has five rooms, or centres of activity, each of which has working groups dedicated to technical and user projects. More rooms are planned. If that sounds confusing, a new document, *Highlights of 2015*, published in May, explains what the different rooms did in bSI's last reporting year and what is going on in 2016.

'An important step in 2015 was the publication in April of Alignment 1.0', 'we completed 11 certifications', 'the first learning framework for basic training has already been developed', 'the publication of five standards during 2015 reflects the hard work...' – these are some of the reflections found in the report.

Room leaders, coordinators and buildingSMART officers sum up the year's achievements in a short illustrated document. With bullet points, extended quotations and summaries, *Highlights* is a lively, easy read, covering a lot of ground.

Available on the bSI website under News



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