Planon UK HE User Group 2013 Conference Report

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Distribution   All UL Planon users
                      Planon Project Board
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Planon UK HE User Group 2013 Conference Report

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Executive summary

Sam Williams, Jayne Bannister and Marc Elvidge attended the Planon UK HE User Group Conference at Queen's University Belfast on 6 & 7 June 2013. In total, 42 colleagues from 16 universities attended. This was an invaluable learning, networking and action planning opportunity and an exceptionally well-organised and friendly conference.

Lincoln is a relative newcomer to Planon and the User Group – the 2012 conference was our first. Many of the universities in attendance have been using Planon for 5–10 years and have developed their PPM and reactive maintenance workflows more or less extensively. Leaders in this area include Edinburgh Napier, Lancaster and QUB.

Lincoln has made rapid progress on space management and now has 100% of its space mapped to CAD drawings in Planon, enabling visualisation of space allocations across the whole estate. Lincoln also now also has 100% of its personnel mapped to buildings (with 72% mapped to individual spaces). This has been facilitated by Lincoln's 'space first' approach to Planon implementation and by the modernity of our estate. A number of other universities are working towards some or all of these goals.

100% CAD coverage enables maintenance, soft FM, projects, and property staff, contractors, consultants and occupants to locate spaces, personnel and assets visually on the floor plans. This is a valuable familiarisation tool for anyone new to the estate, as well as a useful resource for all estates personnel.

On Day 2, Sam Williams gave a presentation on Lincoln's use of the space management, CAD and personnel modules of Planon. This was well received by delegates and Planon representatives.

* * *

During and since the conference, we have identified several areas where action is necessary or desirable to advance both Lincoln's use of Planon and the value of Planon to the whole UK HE sector, and have produced an action plan (see back page of this report).

AGENDA

HE Planon User Group 2013 – Agenda
Riddel Hall

Queen's University Belfast

Day 1 Thursday 6 June 2013

09.00 – 09.45	Arrival and Registration with refreshments
09.45 – 10.00	Welcome from the Deputy Director of Estates – John Nugent
10.00 – 10.15	Introduction to Estates Management in Queen's University Belfast / Health and Safety Brief
10.15 – 10.30	Introductions from each University
10.30 – 11.00	Presentation — *Our Planon experience - Queen's University Belfast*
11.00 – 11.20	Refreshments
11.20 – 12.30	Breakout sessions — *System Administration*
	— *Asbestos Management*
12.30 – 13.30	Lunch
13.30 – 14.00	Presentation — *PPM Management - Edinburgh Napier University*
14.00 – 15.00	Breakout sessions — *PPM Management*
	— *Planon Self-Service*
15.00 – 15.20	Refreshments
15.20 – 16.00	Feedback. Discussion about the *HE Group and it's future* (Group members only)
18.00 – 18.45	Tour of The McClay Library (Optional)
	An award-winning model of sustainable design, construction and operation.
18.45 – 19.30	Drinks Reception in the Lanyon Building
19.30	Conference Dinner in the Lanyon Building

Day 2 Friday 7 June 2013

09.00 – 09.30	Arrival and Refreshments
09.30 – 10.15	*Mobile Solution* discussion
10.15 – 10.30	Presentation — *Features of Release 13 - Planon*
10.30 – 11.00	Presentation — *Space Management and CAD - University of Lincoln*
11.00 – 11.20	Refreshments
11.20 – 12.30	Breakout sessions — *Product and Stock Management*
	— *Space Management and CAD*
12.30 – 13.30	Lunch
13.30 – 14.30	Presentation — *Planon Development Road Map*
14.30 – 15.00	Group discussion with Planon

DELEGATE LIST

Edinburgh Napier University

Geraldine Rowe - Project manager/Systems Manager
Grant Ferguson - Assistant Director, Property and Facilities

Lancaster University

Nick Tonge - FM Systems Development Manager

London School of Economics and Political Science

Chris Anderson - Estates Systems Manager

Middlesex University

Lloyd Chitando - EFMS Systems Administration, Data Capture and Records
Lisette Metcalfe - EFMS Accommodation, Helpdesk, Reception and Switchboard Team Manager

Southampton Solent University

Peter Sumpter - Business Analyst
Bryan Carroll - Assistant Director of Facilities and Commercial Services

University of Brighton

Catherine Jones - Estate and Facilities Management Systems Manager

University of Bristol

Miles Pearson - Estates Systems Development Manager
Brian Jackson - Shift Manager- Maintenance Coordinator's Office
Matt Fulford - Space and Asset Management Office

University of Derby

Clare Currie - Estates System Administrator and Developer
Rob Low - Space Planning Manager
Tony Roberts – Surveyor

University of Exeter

David Nairn - Head of Property Services
Nancy Smith - Customer Services Manager
Amy Jackson - Works and Compliance Manager
Meriel Fry - Works and Compliance Assistant

University of Huddersfield

Diane Bilinski – Helpdesk Administrator
Richard Mallinson –System Administrator

University of Lincoln

Sam Williams - Space Planning and Strategy Manager
Jayne Bannister - Space Planning Officer
Marc Elvidge - Planon System Administrator

University of Liverpool

Ricky Johnson – IT Officer

University of Oxford

Tracey Iles – Planon System Administrator
Isobel Hughes - Oxford University Head of Building Conservation
Ralph Watson - Planon System Administrator
Kapila Lokugamhewa - Information Manager – Estates

University of Ulster

Barney Smith - Estates Manager
Trevor Glenn - Estates Manager
Mairead Martin – Administration Manager

University of York

Wayne Spaven - Estates Business Manager
Lyndon Taylor - Facilities Helpdesk Manager
Mark Barber - FM Systems Development Manager

Queen's University Belfast

John Nugent - Deputy Director of Estates
Richard McElnay - Head of Administration and Resources
Peter Erwin - Head of Estates Services
Roland Carson – Head of Estates Planning
Derrick Black - Estates IT Support Manager
Jonathan Dennison - Estates Manager (Maintenance)
Neil Weir - Assistant Estates Manager (PPM)
Steven Bailie – DLO (Direct Labour Organisation) Manager
Lisa Prunty - CAFM System Support Officer
Barry Jones – Estates Helpdesk Operator
David Bready - Student Plus Facilities Manager (Maintenance)

Planon

Ian Henderson - Senior Implementation Consultant at Planon
Robert Williams - Solutions Consultant at Planon
Roger Parslow - Business Development Manager at Planon
Erik Jaspers - CTO at Planon

SESSION NOTES

Day 1 – Session 1: introduction by Derrick Black, Estates IT Support Manager, QUB

Queen's University Belfast was founded in 1848, and now has 25,000 full- and part-time students and 3,500 full- and part-time staff. QUB introduced Planon in 2004.

We demand a lot of our systems, including Planon.

For us, Planon is a core business system which provides transparency and accountability and allows us to monitor performance at various levels.

Key questions:

1. How is BIM going to relate to Planon?
2. Can we crack the effective use of mobile devices with Planon?

What would attending institutions like to get out of the conference?

Lincoln: we have implemented space management and are implementing asset management, and are interested in broadening and deepening our use of the system.

York: we have a mobile workflow which runs over Wi-Fi using Planon Self-Service.

Lancaster: our mobile workflow also uses self-service, but on iPod touch devices rather than tablets. We also have a new student- and staff-facing mobile app (iLancaster) for fault reporting.

Derby: we are particularly interested in CAD integration to space management.

Oxford: interested in PSS2, property management and PPM management.

Solent: interested in the resources and skillsets needed to exploit Planon properly.

Exeter: helpdesk, space, stores and reactive went live 10 April 2013. Planned maintenance went live on 1 May 2013. Particularly interested in mobile.

LSE: we are on a very old version at the moment and are primarily interested in upgrading.

Bristol: we are looking to go live with Phase I at end of July (reactive, help desk, learning facilities management and space management).

Huddersfield: purchased Planon 12 months ago; launched 3 weeks ago with helpdesk, PPM, stores, stock control. Next few months: CAD and mobile.

Session 2: Estate Management at QUB

Derrick Black, Estates IT Support Manager, QUB

The McClay Library (opened 2009) - £50m, 18,125 sq m GIA. 10,000 visits a day on busy days.

320,000 sq m of space [SW: this is 2.5x Lincoln's space]. 27,000 spaces [SW: vs. 7,000 at Lincoln] including 2,250 bedrooms.

106 of our 250 buildings are listed; it's particularly important to manage information on those.

QUB uses a DLO and contractors for maintenance. QUB has two helpdesks (space is carved up between the two at building level):

1) The Estates Helpdesk covers teaching, research and staff accommodation

> Uses a combination of DLO and contractors

> Costs are based on time + materials and measured term contracts

2) The Student Plus Helpdesk covers student accommodation, sports and leisure

> A single contractor does everything. Contractor has Web 2 access to Planon. All takes automatically routed to contractor website.

> Costs for each task agreed in the tender process for the three-year contract

> There are cost multipliers for evening and weekend work. These are automatically applied in Planon based on the start time of the work.

> The contractor does all of the status transitions; allocates personnel; records completion information.

> The contractor can only invoice QUB for the jobs which have been completed in Planon. Jobs cannot be completed without an "authorization" status transition which can only be done by colleagues in Student Plus, not the contractor.

Cost are totally visible at every stage during every task. Total costs are available via the sidebar at every step.

QUB does not use standard orders; every order is unique. Staff and students just type in what the job is. [colleagues from other universities questioned this; a significant aspect of the value of using Planon for reactive work orders is in the automation of SLAs etc. based on the standard order types; on the other hand, QUB's approach is probably more user-friendly]

QUB has Building Liaison Officers in each building. Staff and students in teaching and research accommodation all go to the BLO (this is often *via* a telephone conversation, or an email, or a face-to-face conversation) whose responsibility it is to raise and track the request. That works very well for QUB. Each BLO has a deputy and if the BLO and DBLO are off, people can go direct to the Estates Department. There are 400 BLOs across QUB. The BLOs are authorised to request chargeable work. Schools select the BLOs themselves. 50-60 of the BLOs are designated representatives and come to focus groups with their change requests, gripes etc.

The BLO system:

  - minimises duplication
  - ensures faults are reported

In addition, 1,700 students can report directly faults in their accommodation. They see a cut-down version of the standard Planon Self-Service reporting form. A pop-up box gives students guidance on setting the priority level every time they log in (previously this guidance was text without a popup but students didn't tend to look at it).

Students expect very fast response times. When the self-service system was first implemented for student accommodation, QUB students would typically refresh the status page about 5 times in the first 3 minutes after submitting their request, to see whether it had updated. The "slow" response times significantly impacted on an internal Student Satisfaction Survey score – there were 50 responses from dissatisfied students who indicated that responses were not instant enough.

In response, QUB moved Planon access to the Student website and simplified the request process to two big buttons: Submit Request (green), Track Request (red). Also significantly improved the language and content of text on the request form:

"Thank you for visiting the site. We are really sorry you're experiencing a maintenance problem in your accommodation. Please complete the form below and we will fix the problem in line with our published priority standards."

Each student's location is stored in the system so it doesn't have to be completed by the students. This is done manually. QUB would like to link to their accommodation system (Kinetics) but the vendors are very protective of their database. The Kinetics system allocates IDs to students before the University allocates a student number, but those don't match with their student number. QUB is looking to solve that.

Lancaster already has the Kinetic-LUCY-Planon links set up, with bedspaces from Kinetic known to Planon.

QUB now provides immediate email confirmation on completion of tasks. "The fault you reported has now been repaired. Thank you for completing the form; we apologise again for any inconvenience caused. If you would like to talk to someone about this matter please call the help desk on _____."

Outcomes of these improvements have been:

  - a significant drop in web hits
  - enhanced student acceptance of the system
  - improved information provided by students which in turn improved the clear-up rate
  - expected improvement in student survey results
  - no issues from any of our students about the system in the last 6 months

Session 3a: System Administration breakout session

Rob Williams, Solutions Consultant, Planon and Erik Jasperts, CTO, Planon

Areas of interest nominated by universities:

- creating a single-click environment for reports
- enhanced reporting in Planon to provide single-click tabular reports with filters in place (in addition to dashboards)
- Maraid from Ulster: would like to share SQL code with other universities
- Lincoln: business intelligence - getting Planon data into the same BI platform as student numbers, applications etc
- setting up a Planon system admins' emailing list

There are two primary ways to report from Planon:

1) Tabular reports

- user-defined reports
- system reports (out of the box; cannot be changed)

2) Dashboards

- can drill through bar graphs to Publisher reports, for example click on the red bar to see jobs due within 4 hours

- Planon Web Manager allows configuration of dashboards and the SQL behind them - worth a look.

Planon now has a Data Aggregation Module which is the start of a mini-data warehouse.

The Planon team are working on a Start Page which will be a default set of dashboards per user group which can be configured. This will be a product within Planon.

Field Definer is the base module - a FD change is the base level and ripples out through the whole system. It's also where you configure workflow.

Nice new feature in 2011: can go into someone's Launch Centre, select one of the links and jump straight to the TSI Manager.

Planon recognises that reporting is a significant weakness of the current system. Considering two options in the roadmap for 2014:

1) Report Generator as a separate product linked to Planon (would bolt onto 2011, 13, 14)

2) Cloud-based analytics platform - take data out of Planon into cloud, enrich it and provide a less technical, simpler data structure, with a nightly upload from Planon

- analyse multi-year trends, various other analytics etc
- subscription option

Rob Low: furniture, AV and decor teams now working together for projects - all hit a room at the same time for max impact. Returning students should always see a noticeable impact so that they can see where their money has gone.

Session 3b: Asbestos Module (PSS2) breakout session

Ian Henderson, Senior Implementation Consultant, Planon

1. Overview

Asbestos survey information in spread sheet format is uploaded to Planon via a standard template. The information becomes a record within the PSS2 asbestos module which is linked to a space record. The linked field presents itself as 'Space Hazard' within the space record. The record holds all relevant alpha numerical information and photos and Planon calculates the survey record scoring. The record is shown within the following hierarchy:

Properties ➔ Classification ➔ Survey Data ➔ History

When the asbestos record is updated the current record becomes historic.

Hazards can be added to work orders (a requested view during upgrade to PSS2). All data can be merged onto a printed work order sheet.

2. PSS1 vs. PSS2

PSS1 stores asbestos information as asset register fields. The amount of information can be extensive and lead to a shortage of fields. PSS2 holds asbestos information in a separate module which does not use the asset register fields. Upgrading to version 2 necessitates reconfiguration and data migration.

3. CAD View

Asbestos information can be viewed within CAD integrator via user-defined mapping. Where a space has multiple areas of asbestos, the worst case category will be highlighted from the standard categories:

0   Asbestos Removed
1   None
2   Strongly presumed
3   As found
4   Unknown

Currently, the colour based key is automatically generated and cannot be tailored by the user. Where common sense would suggest: Green = None, Amber = Presumed, Red = Found; the colours generated are random and may cause confusion with possible dangerous consequences.

Following feedback from the User Group, Planon will be updating the program to include a drop down colour picker for the standard categories.

(continued)

4. Visibility

Project Management

Planned PM   **Interfacing**

Survey	➔	**Survey Upload**	➔	**Asbestos Record**	➔	**Re-survey**
- Data collection to spread sheet		- Data load		- Read only results		- Updated
- Scheduling period survey order		- Material and other risk score calculation		- Hazard level and material record		
		- Photos		- Reported on job ticket		

Session 4: Edinburgh Napier University on PPM

Geraldine Rowe, Project Manager / Systems Manager

ENU has 17,000 students, 1,800 staff, 3 main campuses, 77,500 sq m estate.

Before Planon, ENU had QFM. No data migrated from QFM – all data was redone from scratch.

All service plans were reviewed and activity frequencies were based on legislative requirements e.g. HVCA SFG20, ACOP L8.

All maintenance at ENU is time-based, not condition-based.

Majority of the contractor PPM is on a one-month SLA (must be completed within one month of request being issued).

Weekly PPMs are on five-day SLAs; monthly are on one-month SLA.

Session 5: Planon Self-Service breakout session

In PSS2, you can now add your own custom JavaScript to the PSS forms, so virtually anything can be added to the pages.

You can now dynamically display fields depending on value selected in previous fields. For example – if you select "Spillage", fields can pop up asking what has been spilled, and where.

Questionnaires can also be done halfway through the workflow / at the end of the workflow. For example, can audit jobs to see what's been done well (or not).

Customer satisfaction survey can be attached to a workflow and the link to the survey can be emailed to the customer when the job is marked as technically complete.

Lancaster use a Planon Talk interface to trigger emails on status transitions. That used to be necessary, but emails can now be triggered with the Alarms and Alerts module. [we are doing that at Lincoln]

PSS2 Mobile looks really nice... Responsive CSS. Buttons: Telephone Directory, Asset Report, Service Request, My Jobs.

PSS2 also supports IE, Firefox, Chrome.

CAD Publisher has not yet been built for PSS2. Planon is considering whether to drop Flash in order to support iOS devices.

No forms from PSS1 are brought into PSS2; need to create all forms from scratch. Worth it though: you can make the number of forms dramatically smaller with PSS2.

Day 2 – Session 1 – Mobile Solution Discussion

Erik Jaspers, CTO, Planon

This will be a discussion of the new Field Services app and other applications for mobile.

Most of your customers are young people. They bring their expectations with them; how are you going to relate to that? What type of services are they going to expect from us in the next few years?

In 1999, 90% of people said a mobile device was not necessary for them. If you took them all away now, the economy would crash in a few days.

In a few years, we won't talk about mobility at all because it will be totally ubiquitous.

Personal signage… When i go into the building, I want to know about how i can use it. Where is my friend / colleague / tutor, where can I meet people / book a space?

To report an issue in a room, just scan the QR code or touch the NFC chip. It will tell you if someone has already reported the issue.

Planon is targeting a 2-day implementation process to get mobile solution up and running.

First time you get a job sent to your mobile device, you get a text with a link to download the app; a user id and a secret code. You download and sign into the Movilizer app and see your assigned, in progress and paused orders.

Tap the assigned button to see your list of jobs. Search for Columbus Square to see all your jobs in that building. Captures your GPS location at that point (this could be useful for directing closest personnel to emergency response; "man down" protocols). Shows job details and hazards; Accept / Not Accept options. If Accept:

- Assess Job Details
    - Base Data (priority, space, requester, due etc)
    - Activities (for clustered planned activities)
    - Asset History (previous jobs on that asset); drill into last job
    - Documents from the Documents tab in Work Orders (asset picture; method statement; risk assessment)
- Review H&S Checks
- Start Travel
- Start Work
    - Defaults to current date and time
    - Starts stopwatch for number of man-hours
    - Job moves to In Progress and options change to
        - Take Photo
        - Assess Job Details
        - Asset Barcode Check (scan barcode; will confirm you're working on the right asset or not)
        - Pause
        - Put On Hold
        - End Work
        - Wait

- Exit

Pinch to zoom; landscape support.

Whenever the device syncs, it will sync work order status to Planon so that people can see progress.

Planon running a few implementation projects now with customers to assess its stability. Will be able to deliver to a broader audience for July.

Runs on R11 and R13.

Small initial implementation cost, then pay per user per month.

Planon Mobile Field Services:

Two days to get set up (plus any configuration / specialist workflows) then:

> 10-50 connects: £25 / month / device
>
> 51-100 Connects: £20 / month / device
>
> Minimum number of connects is 10 (10 x £25 x 12 = £3,000 a year)
>
> Includes AMC and cloud-service

Session 2 – Space Management & CAD presentation

Sam Williams, University of Lincoln

Sam's presentation slides are available at:

http://learninglandscapes.blogs.lincoln.ac.uk/research/space-management-with-planon/

Session 3 – Space Management breakout

Viewing multiple buildings on one drawing?

Cross-hatching! Big feature request from QUB and Lincoln.

At Napier there are some buildings which have multiple blocks; each block is a property. It's possible to link one floor plan to all of those. But can it hatch the entire building or just one block at a time?

CAD Connect can only hatch on one property at a time as well.

There are dedicated developers and product managers at Planon working just on the space management part of the system. Erik is driving the BIM side. Space management is a major focus for the roadmap.

Session 4 – Planon software development roadmap and strategy

Erik Jaspers, CTO, Planon

For the last 7 years, Planon has been investing heavily in transitioning SE to EE; rebuilding much of the same functionality in a new technology. This is now largely behind us. PSS2 is now largely complete, as is Enterprise Edition (95% complete).

Planon has a development staff of ~100 people. 40-50% at least has been going into the SE-EE transition. That capacity will now be reallocated to new things: innovation.

Planon's new investments should be directed to helping customers to be more AGILE - more responsive to new changes.

Planon R2014: likely to be called Planon Open Platform Edition. Will create a platform on top of EE which will allow for integration, GIS, and interoperate with all types of systems in a personalised way.

Key points:

- Fully Web-based client - Java Client will move to the background. Aim to replace all Java clients with one Web2 client. Java client will only be applicable for system configuration in R2014, and later will be replaced even for that.

- Unified access - Start Page. Start up your system, have relevant information that you want and all the functionality you use in the system. House-styled and personalised landing page.

- Interaction with other systems: SDK. Linking with other systems is going to be more important. It will interact with BIM models: rather than consuming (importing) them into Planon.

Cloud strategy:

- hybrid-cloud offering
- delivering new bolt-on cloud functionality outside of the release train where fundamental changes will be made.
- In the longer term, there is potential for completely cloud-based solution
- subscription models
- integrating cloud solutions: cloud brokering
- mobile; automated scheduling; business analytics

Planon sees four major trends in the workplace:

- BIM
- Smarter buildings
- Videoconference facilities
- GIS for risk assessment and other purposes

Planon has been investing in creating an SDK. This is how Planon will interact with BIM etc.

Domain-Specific Additions ('Modules') planned for next release:

- Assigned Seats: AutoCAD & Moves - better catering for people with assigned setting and changing locations over time, with move plans etc

- Capital Project Management - currently under development. Primarily focused on the problem of managing capital risks, financial overbudgets etc. Will create a full overview of all expenditure, commitments, available funds, resources being exhausted etc. Aim is to identify risk early enough that you still have enough time to correct it.

- CRE Portfolio: what I have, what I will need, when. Enable a proactive approach to portfolio management.

- PSSv2: moving from Reservations to meeting management. Bringing people and services into the meeting process.

Improving upgrading: reducing time and effort.

Configuration import / export

Regarding BIM:

"Providing the information required for the design, construction and operation of constructed facilities." -- BuildingSMART International Alliance for Interoperability.

Helps customers to understand the buildings they are buying.

Big changes from current practice and BIM:

- 2D --> 3D

- BIM will include the complete Bill of Materials of the facility (to the level of detail you are interested in)

EJ suggests you view BIM more as the model than the technology.

BIM is very successful at design and construction phases because there is a great business case for it at these phases:

- collaboration. You can parallelise some activities which were previously necessarily sequential.
- early feedback. Many errors are made during design. On average, each AutoCAD drawing is revised seven times before the project is finished. "Clash detection" in BIM enables early (= inexpensive) resolution of clashes and design problems.
- sequencing and scheduling (4D). Enables just-in-time delivery of components, plant etc.

But FM is not currently at the table when BIM models are being designed!

FMs need to get to the table, have the story ready re: the business case for lifecycle management of buildings:

- Lifecycle costs are 60% of the Total Cost of Ownership. (Teicholz: BIM for Facility Managers, IFMA, ISBN 978-1-118-38281-3)
- Lower the facility's annual maintenance cost. It's a great business case. You just have to look in the model while it's being constructed and designed by others; get to the table.
- Schipol airport fire led to a survey of all detention centres, which cost millions. Had to do intrusive surveys because of lack of knowledge of wall construction etc.

- In traditional design and construction, information is lost at the transition from business case to design, and design to construction, and massively from construction to handover and start of use. An inordinate amount of time and money is invested in this. We need to capture and hold the information representing true as-built information.
- Using BIM data requires its integration into FM processes and business systems.

Government Soft Landings: Deborah Rowland, FMA Tech Group, 6 Dec 2012

The BIM "must be kept up to date by FMs e.g. change in use".

This is first and foremost an information management issue. Find your colleagues in IT and team up with them. It's about integrating systems.

What should the bill of materials contain in order to make it really useful for FM?

Planon is embarking on a Staged Information Modelling project to define the information you need in order to operate buildings.

There are many technologies for BIM: TEKLA, Bentley, Revit, Solibri...

IFC is a standard model language which allows these different technologies to communicate.

There is also a data exchange standard: COBieLite. Planon has introduced this.

As an occupier, you need to own the model.

Bimstore.co.uk; Bimstorm

Also, consider: how are you going to provide the model at runtime?

Maintenance changes need to be brought back into the BIM model as they are made.

On business analytics:

Erik: Planon is a great system with a flaw and that's reporting.

New analytics layer will allow you to construct your own reports in a non-technical way

Big Data: sensor infrastructures; services data; signage; BMS

Microsoft last month published a paper on smart metering: 128 buildings for 40k people, 1.4bn data points a month. This has had a transformational effect on Microsoft's FM practice.

Post-conference action plan

Item	Action	By Whom	By When	Done (✓)
1	Produce a conference report and post-conference action plan and distribute to Planon project board and Planon users	SW, JB, ME	05.07.2013	✔
2	Organise meeting with Marc Elvidge, Ben Ball, someone from ICT and other key stakeholders re: getting students mapped to their residential spaces in Planon, like QUB and Lancaster... Either by a data link from the Accommodation system (preferable) or by giving Accommodation colleagues access to update those fields only	SW	05.07.2013	✔
3	Attend reporting training day to understand how best to exploit Planon's limited reporting capability; implement other reporting solutions where necessary e.g. Access or other tools	SW, ME, K. Forth, C. Collier, M. Cavill, M. Garbutt	26.07.2013	
4	Review the helpdesk reporting form(s) and wording for students - can we simplify it and make it more user-friendly and set expectations better, like QUB?	ME, SW	31.07.2013	
5	Attempt to optimise smart floor plans within PSS Web Manager (enlarge bounding box; change background; change font size)	SW	31.08.2013	
6	Investigate using the asbestos module instead of recording asbestos data in the asset module – there are clear advantages (see session 3b notes)	ME, K. Forth	31.08.2013	
7	Write proposal for a CAD Integrator enhancement request and circulate to the UK HE Planon User Group for comments before submitting to Planon. The CAD Integrator should allow up to three fields to be mapped at once, using outline colour, a hatching style and a shading colour. The CAD Integrator should also allow a larger variety of fields to be mapped onto plans (and should allow for custom colours for each field).	SW	31.08.2013	
8	Plan to synchronise AV and Estates refurbishment cycles for central pool rooms, like Derby	SW	30.09.2013	
9	Upgrade to R2013 version of Planon to take advantage of new features	M. Cavill	31.10.2013	
10	Consider adding site plans for outdoor spaces (e.g. East Drive) with assets, orientation and scale	SW, JB, ME	31.12.2013	