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2014 Workshop update

Thinking differently about healthcare buildings: innovative infrastructure planning and design to improve the quality and safety of care

If you haven't seen the latest version of the 2014 EuHPN workshop, you can find it [here](#). The programme is nearly complete, with keynote speakers confirmed and a very wide range of research and case studies from a number of different countries. This year we will be welcoming presenters from as far afield as Finland and Serbia.

Early registration is highly recommended, especially if you would like to stay in the conference venue, the Crowne Plaza Roxburghe Hotel. The Roxburghe has a limited number of rooms available until mid-August, after which they will be released. The registration form, and information on booking accommodation, is [here](#). This year the workshop has been fortunate to receive generous sponsorship from a number of companies. These are:

Brookfield Multiplex VFA Laing O'Rourke

We are grateful to our corporate sponsors, and also to Health Facilities Scotland for assistance with the workshop logistics, the Royal Institution of Chartered Surveyors (RICS) for the offer of a drinks reception at their newly commissioned Edinburgh offices, and to the Scottish Government's Health and Social Care Directorate for assistance and support.

EuHPN regional events

The first half of this year has seen two more regional EuHPN events. Our March newsletter provided an overview of both of these: the **BIM seminar day** in Leiden, Netherlands, and the **SIAIS conference** *Planning and constructing sustainable healthcare without frontiers*, in Rieti, Italy, which showcased two EuHPN speakers and our colleague Barrie Dowdeswell from the European Centre for Healthcare Assets and Architecture (ECHAA).



Morschpoort, Leiden, photograph by Erik Zachte

The discussions and learning from the BIM seminar have been captured in a report which is nearing completion – members will be informed

when this is available. The SIAIS conference will feature in a forthcoming SIAIS newsletter. For now, however, you may be interested in a summary of the key points from both events:

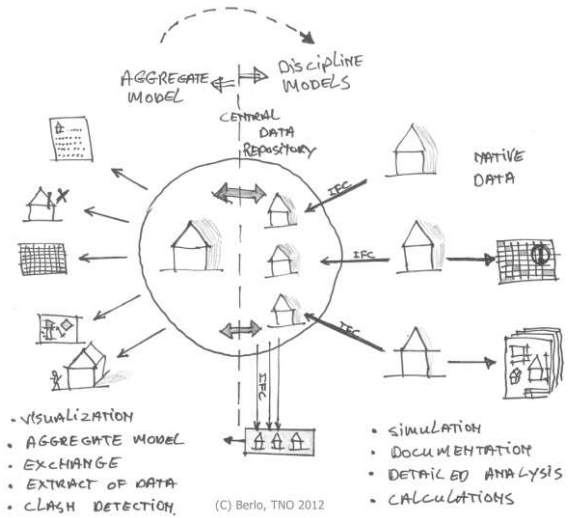
Building Information Modelling (BIM) Seminar, Leiden, Netherlands

TNO welcomed 17 speakers and participants to this event from Ireland, Norway, Sweden, UK and the Netherlands. The main aim of the day was to enrich understanding of the current state of this important methodology for capturing digital information about existing or planned infrastructure in the health and social care sector. The seminar was also an opportunity to explore some real life case studies (such as the STREAMER project) and to discuss scenarios for the future of BIM in healthcare projects.

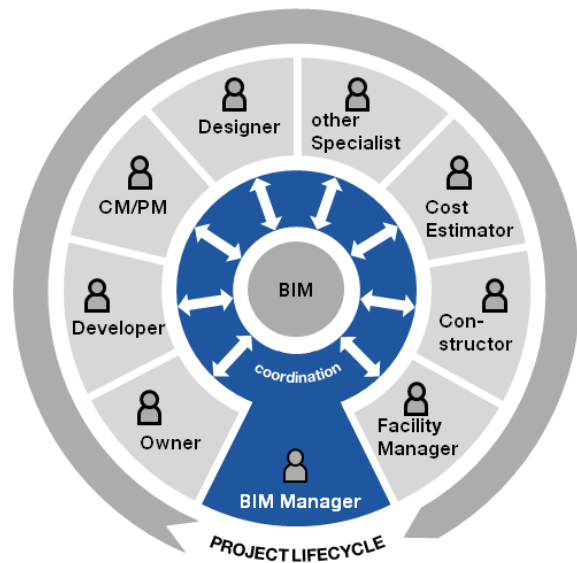
The day began with attempts to arrive at a common definition of BIM. There was consensus around using the following: *a digital description, relevant for a certain scope, in a certain context, of a physical structure that exists now or may exist in the future, but with some important caveats:*

- BIM is not a process, an R&D strategy, nor a data structure
- BIM is a combination of software, data and methodology that allows for real time information sharing between all the agencies in the infrastructure supply chain
- BIM is as much concerned with managing building operations and maintenance, as with planning and design
- BIM can operate at different scales (intra or inter-organisational; 'open' or 'closed').

Speakers emphasized the scope for improving decision-making by using BIM, but were careful to note that it is not a universal panacea – it links with other tools and methods, such as GIS and systems engineering, that also make use of structured data and emerging technologies. As with all such tools, its value depends on the quality of the information supplied.



One of the speakers commented on the healthcare-specific drivers towards use of BIM, noting that these derive both from the demand side and the supply side. Trends towards changing care models, such as centralization of specialised care and decentralization of chronic disease management, will quickly translate into challenges for existing health facilities and for new build projects. BIM will have to prove its worth in this environment, and be able to respond flexibly. The industry trend towards more industrial processes, supplying standardized spaces and fittings, also affects the way that BIM is used, and may support the move towards 'open BIM'.



The BIM project lifecycle

The seminar developed further with a session on BIM myth-busting:

- BIM isn't a 'black box' model, and doesn't necessarily entail a central data store.
- Collaboration between agencies and individuals doesn't automatically improve with BIM implementation
- There may be no need for a 'BIM manager' – in theory all stakeholders should manage the model through their contributions.

From a conceptual introduction, the seminar turned to practical matters: how BIM can transform planning, design, operation and maintenance; how to integrate evidence-based design into the BIM world. These questions were addressed through case study presentations from the South Eastern Norway Regional Health Authority, Locum AB and DuCHA TNO. In the discussion that followed, perhaps the most contentious issue was that of 'open' BIM. That is, should real world BIM data be freely and publicly available (to enable quick spread and adoption of high quality design solutions), or is there a case for designers, planners and architects retaining control over their solutions (to protect investment and intellectual property)? Although participants did not reach a conclusion about this question, they did agree that it was likely to remain live for some time to come, as use of BIM develops and matures.

The presentations from the seminar day are now available on the EuHPN website – www.euhpn.eu.

Planning and constructing sustainable healthcare without frontiers, Rieti, Italy

SIAIS – the Italian Society for Healthcare Architecture and Engineering – has an annual conference which is traditionally held every second year in Rieti, one of the northern-most cities in Lazio province. This year the organisers, led by SIAIS President Daniela Pedrini, Marcello Fiorenza, Director of the Rieti ASL (healthcare agency) and Simona Agger, EuHPN board member, invited EuHPN to suggest some speakers who could present on the use of EU infrastructure funds for use in healthcare projects, trends in healthcare infrastructure across the continent, and how to meet the challenges of the future.

Barrie Dowdeswell, research director of the ECHAA, took on the complex task of guiding the audience through EU Cohesion (Structural Fund, SF) policy, Horizon 2020 and the strategies that could help to secure funding for healthcare projects. As he pointed out, there is no strand within the EU structural fund programme priorities that is specifically and explicitly directed to health or healthcare: healthcare agencies necessarily have to be both innovative and inventive with their project applications and ensure they are aligned with the more general SF principles. The primary focus of structural fund policy for 2014/20 is economic regeneration. Therefore, if projects can show their contribution to economic growth or relevance in other related economic stimulus areas (ICT, for example, or development of SMEs) then they may succeed. Recent work with the government of Slovakia was one such case, where the project partners, in collaboration with ECHAA, were able to access a significant tranche of EU funding to support the reform of the health system including redevelopment of the infrastructure underpinning a new regional healthcare strategy.



Cathedral of Rieti, Italy, photograph by Alessandro Antonelli, Wikimedia Commons

Barrie Dowdeswell's points were echoed by a later speaker from Sicily, who had also achieved success with a project in the previous programme, in this case using an evidence-based analysis of health need to reform and considerably improve population access to diagnostic scanning and radiotherapy provision. The resultant large scale technology investment added value in both population health outcomes and stimulation of economic growth.

Jonathan Erskine, EuHPN Executive Director took the opportunity of the SIAIS conference to reflect on some of the themes that have been common in many EuHPN workshops over the past few years. He argued that the main challenge, which brings together issues of planning, design, construction and finance, is the need for healthcare infrastructure to respond flexibly to changing models of care.

This central challenge for healthcare facilities stems from some major shifts in our conception of what a healthcare system should be, and how it should meet service user needs. For example, many countries still rely on healthcare oriented towards treatment of acute episodes, rather than management of long-term conditions. They tend to see the patient as a passive agent in the system, rather than as an informed partner, and carry out care and cure from a doctor-centric, rather than multi-disciplinary perspective.



Hollywood Arches Community Health Centre, Northern Ireland

In conclusion, the speaker listed some of the challenges that remain urgent:

- Primary/community care is still not in the driving seat;
- Prevention of ill-health and promotion of well-being are still aspirations, not everyday realities;
- Telehealth and telecare technologies are not used system-wide;
- Electronic patient record development is a patchwork of different solutions and levels of implementation;
- When we build or renew health facilities, we often still worry about the wrong things – the capital cost, rather than the fit between investment and need, and the principle of investing for health;

- We see few examples of truly integrated care.

Although these challenges remain, and there is a lot of inertia in European health systems, the speaker noted some areas where EuHPN has followed some positive developments:

- Change from structural to functional planning
- The rise of evidence-based design for healthcare buildings
- Some innovation in procurement practices
- A general shift to fewer, larger centres for specialised care, along with more decentralized care for long-term conditions.

The presentation concluded with some case study overviews of innovative projects from Sweden, England, the Netherlands, Northern Ireland and Finland.

Mike Baxter, EuHPN Chair, gave the audience in Rieti an inspirational account of how – despite the challenges of financial austerity – it may still be possible to renew the health estate and move towards integration of health and social care.

He began with an account of the state of health facilities in Scotland, where a quarter of buildings are over 50 years old, just two thirds are judged to be functionally suitable, and backlog maintenance in 2013 was GBP 858 million. Against this background, the Scottish Government's spending review foresaw a reduction in gross capital budget over three years, from GBP 566 million in 12/13 to 366 million in 14/15.

Despite this stark picture, the speaker emphasized that high quality asset management and monitoring tools, coupled with targeted investments that focus rigorously on the national strategy for integrated, patient-centred care, would result in a much more effective and efficient estate – serving multiple stakeholders – over time. The key elements in this strategy were outlined as:

- Targeting investment to produce the greatest gains for patients
- Collaborative procurement across the public sector

The latter point was illustrated by an outline of the 'Hub Initiative', a joint venture model that is currently providing a wide range of community-based health facilities across Scotland. Bringing

together a range of stakeholders to deliver health and social care infrastructure avoids duplication of effort, drives up space utilization and efficiency, and allows some pooling of budgets – all examples of a determined effort to remove waste from processes.

The presentation concluded by emphasizing the need to include leadership and workforce skills development in long term strategic planning – without these element projects are less likely to achieve their aims.

Member focus: Center for Healthcare Architecture, Chalmers University of Technology

The EuHPN board is delighted to welcome the Center for Healthcare Architecture (CVA), an academic center at Chalmers University of Technology, Sweden, as a tier 3 member.

CVA is led by its director Peter Fröst, PhD, Adjunct professor. It is a national arena for the creation, translation, exchange and dissemination of knowledge about healthcare architecture. It conducts research, research training and contributes with basic and further training in the field. The research focus for CVA is buildings and physical environments as a support and a part of the interaction between healthcare, patients and architecture. CVA works with national and international research groups. In its outreach role CVA initiates and implements development projects together with the Swedish County Councils. CVA has also established itself as a national venue for the sharing of knowledge by regularly organizing seminars, theme days and workshops.

You can find much more information about CVA [here](#), including links to some presentations (in Swedish and English).

Design the smartest ED Cambridge, 7-9 July 2014

“See things not as they are, but as they might be”

Jonathan Erskine, EuHPN Executive Director, reflects on an innovative course about emergency department design:

When I signed up to the ‘Design the Smartest ED’ course earlier this year, I already knew that most of the delegates would be architects and designers, health service and infrastructure planners, senior clinicians and health estates managers. I don’t belong to any of these professional groups, so I half expected to struggle to understand many of the concepts and most of the acronyms. It was advertised, after all, as a ‘course’, not as a conference or workshop, and it was taking place in Downing College, Cambridge – the kind of environment that makes you worry that there might be a test at the end.



Downing college chapel, Source: Wikimedia Commons

Having finished the course, I can confirm that there was no test (although there were prizes for some), and therefore no chance of ‘failing’. I did, however, learn a huge amount about Emergency Department (ED) planning, design, construction and maintenance, from the nuts-and-bolts of the English NHS’s Health Building Note 15-01, to how to say ‘no’ to an architect.

Before I say more about this course, here’s a quick summary of the areas covered:

- Overview of ED metrics and goals in the UK
- The operational methodologies of contemporary EDs
- Theory of queuing
- Optimising space for people

- Understanding flow
- Lean design
- ED topologies
- Staffing for EDs
- Innovative products and technologies
- Case studies
- The role of Ergonomics / Human Factors
- How to say 'no' to architects

All of the above topics were set in the context of the opening quotation: *see things not as they are, but as they might be*. In other words, although participants were expected to appreciate the complexities of ED design, and to recognise the constraints imposed by policy decisions, capital and revenue budgets and existing infrastructure, they were also asked to think differently.

The course was led and taught by acknowledged experts in the field, from the US the UK, and research findings and case studies came from a wide range of different countries.

There is every chance that this intensive, highly informative and very enjoyable course will be repeated in the future. Since this was a closed, fee-paying event, presentations are currently not publicly available, but the Cambridge Postgraduate Medical Centre website - <http://www.cam-pgmc.ac.uk/> - is the place to visit to find out if you want to find out more information about future events.

EuHPN Fact File – new addition

The latest addition to the EuHPN fact file repository comes from the Netherlands. **Paswoningen Het Dorp** is a small-scale facility in Arnhem, innovatively designed to meet the needs of people with multiple, severe physical disabilities.

The facility mixes new thinking in architecture with the latest developments in automation and care, to provide an experimental design that promotes maximum independence for residents.



Paswoningen Het Dorp – interior. Photographer Mick Dorland

The housing for disabled clients comprises apartments with a central controller that operates most of the features of the internal environment – tv, e-reader, internet access, telephone, Skype, etc. This unit also contains monitoring systems, nurse call and a wireless alarm system. The apartments come with adjustable walls and units that can be positioned to best suit the physical abilities of each resident.



Paswoningen Het Dorp - exterior view. Photographer Ronald Tilleman

The Paswoningen Het Dorp project has received two notable awards. In 2013 it won 1st prize in the Smart Building Awards ('Slimbouwen'), and in 2014 it received an honorable mention in the Hedy d'Ancona prize for outstanding care architecture. Follow the link [here](#) for the full fact file information.

News in brief

- Interesting publications and outputs from the [European Union Cross Border Care Collaboration](#): particularly in relation to cross-border hospital collaborations.