

## IGLC 2004

The International Group for Lean Construction (IGLC) met last month in Helsingør, Denmark to hear reports of practice and research from 120 delegates from 17 countries on 5 continents. Alan Mossman of Rubicon Associates was one of 10 UK delegates. This is his report:

In the last 11 years the annual IGLC meeting has grown and matured into a seven day programme devoted to Lean Construction (LC) worldwide. DAY 1 was an opportunity for the Danish industry to showcase its continuing Lean transformation. DAY 2-4 reports on practice and research. DAY 5 Visit to the Danish Broadcasting site. DAY 6-7 Summer School for Doctoral Students.

As Eric Johansen from Northumbria noted "Many of the problems of UK construction are similar to those in other countries and this forum allows an opportunity to hear about and discuss ideas for improvement. The work is essentially practical & this is reflected in the people who attend. They're all interested in how lean is applied."

Below I have picked out a number of highlights [for the full set of papers go to <http://www.iglc2004.dk/13386>. Look at the presentation too as that often brings the paper to life]

- **Double Value, half price** – this is the mantra that guides the lean initiative in Denmark. Begun almost single handed by Sven Bertelsen back in 1999 it now involves designers, constructors, clients, universities and practitioner study groups. One company, MT Hojgaard, has already achieved half price, at least in terms of accidents – on sites using just one lean tool, *Last Planner*, accident rates are 50% of those on MTH's non *Last Planner* sites. [SORRY, NOTHING ON THE WEB]
- **Making Do** – for many, lean is synonymous with eliminating waste. Toyota identified 7 wastes (inventory, moving materials, over processing, over producing, producing defects, waiting, motion) and there is an ongoing debate about the identity of the eighth waste. Prof Lauri Koskela from SCRI at Salford proposed that it should be *Making Do* [<http://www.iglc2004.dk/13722>]. This refers to the tendency on construction sites worldwide to put into production work that cannot be done because labour, materials, equipment and/or some other pre-requisite are not available. Fortunately, there is a way to eliminate *Making Do*.
- **Project Management** – there were a number of implicit critiques of current project management theory and approaches. The most relevant and useful was a paper suggesting a shift from Fayol to Flores; from a theory of project management that pushes work through the site (and engenders a lot of making do in the process) to one based on "making and keeping commitments" [<http://www.iglc2004.dk/13722>]. There were also papers on Line of Balance and micromanagement [<http://www.iglc2004.dk/13725>] and lean supply systems - the last at T5 [<http://www.iglc2004.dk/13731>]
- **Collaborative Design** – Professor Stephen Emmitt, an architect and recent recruit to the Technical University of Denmark talked about lean applications in Design. Working with two Danish Construction Companies – a constructor and a designer – he has shown the benefit of sorting out what the client/end user values at the outset of a project [<http://www.iglc2004.dk/13727>].
- **Workplace Planning** – Ari Pennanen from Finland talked about improving the brief by helping the client think through how they wanted their organisation to be in the new building – a sort of conceptual lean transformation prior to design so that the design supported the physical transformation of processes in the new building using a school project as an example. [<http://www.iglc2004.dk/13727>]. Of course in factories this could mean that the project evaporates as a lean transformation often frees up an enormous amount of space.
- **Implementing Lean Construction** – a number of good papers in this area three in particular stood out, two by Rolf Simonsen and others describing Danish experience and the third by Eric Johansen about a UK implementation in the NE [<http://www.iglc2004.dk/13733>]. It is interesting that in Denmark Lean Construction and Last Planner are often used interchangeably.

- **Shed manufacturing and erection** — A study of production in a US *shed* manufacturer already engaged in a lean transformation revealed important lessons for how to improve the process [<http://www.iglc2004.dk/13729>]. It reminded me of Hathaway Roofing in UK.
- And there was much more — Off-site construction [<http://www.iglc2004.dk/13730>], Peruvian profits, Real dogs of projects [<http://www.iglc2004.dk/13733>] and how to avoid them, safety [<http://www.iglc2004.dk/13732>], procurement (one comment stood out - need to think systemically. Purchasing directors often do it but their staff don't often see the whole system and the easiest metric for them to use is lowest price), cost management, work structuring, performance measurement, quality and more.
- **Sharing ideas informally** — there were lots of opportunities to share ideas informally in breaks, over meals and in the bar. This is the time when new ideas begin to form and new alliances are made.

Talking to members of the British contingent on Day 4 about their reasons for coming, the mix of both theory and practice was most frequently mentioned. A number of people underlined the similarity of problems around the world, the leading edge thinking, practical applications and the sense of community within IGLC.

As Peter Court of LaingO'Rourke put it "Lean has such basic *common sense* and tools that are easily applied. I am implementing these ideas in my job". There was a general surprise that more UK companies and organisations promoting the rethinking of construction were not represented. Christine Pasquire from Loughborough came "because not only is it a major international event, it is the *only* international forum for Lean Construction. All the thought leaders in the field are here and happy to talk to you."

Professor Stephen Emmitt, an architect and recent recruit to the Technical University of Denmark said "the conference is particularly relevant to practitioners, especially the Industry Day and the reports of organisations applying lean thinking and using lean tools. In addition to the hard tools of lean construction, it's encouraging that some of the contributions addressed the softer issues that concern peoples' ability to interact effectively. The case studies showed evidence that *lean* is starting to embed itself in day to day work, and this can only be good for the future well-being of construction."

Bob Hill, of BIAT (British Institute of Architectural Technologists) said afterwards, "This was a fascinating conference. The UK construction industry can ill-afford to ignore these developments in lean construction elsewhere in the world".

IGLC 2005 will be in Sydney in mid-July. For details email [IGLC2005@leanconstruction.org.uk](mailto:IGLC2005@leanconstruction.org.uk) For more on Lean Construction and Last Planner go to <http://www.leanconstruction.org/learning.htm> IGLC 2008 will be in UK.

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1100 words

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