

Materials UK – Construction Working Group

**Notes from second meeting of Construction Working Group (CWG) of MatUK
12th January 2007
at Construction Products Association's offices**

Attendees

Philip Ramsey, Pilkington	Glass (Chair)
Derek Allan	Energy and Materials WG
Tim Broyd, Halcrow	Research
John Brumwell, DTI Construction Unit	Observer
Graham Couchman, BRE	Research
John Davenport, TWI	Composites
Cliff Fudge, H+H Celcon	Concrete
Mick Morgan, DTI, IGT sponsor	Observer
Denzil Spencer, Ibstock	Ceramics
Roy Wakeman	Timber
John Tebbit, Construction Products Association	Secretary

1. Welcome and introductions

PR welcomed everyone and noted apologies. There was a need to move the group forward and to help this Nick Morgan from the section of DTI that was sponsoring the IGT and Derek Allan, co-chair of the Energy and materials WG were present.

2. Background

NM gave an update on MatUK. Since October 2006 it had been a company with Wyn Jones as chairman, David Bott as 2-day per week CEO and Lord Haskell as honorary President. The board representatives were in place. The executive committee had met once. The members are the chairs of each working group (WG) and the Director of the materials knowledge transfer network (KTN).

There were five WGs:

- Energy (what materials will be needed)
- Education and Skills
- Policy and Regulation
- Science and Technology
- Construction

A WG looking at Sustainable Materials was under consideration. Brief discussion in the group tended towards not supporting this, rather to make sure all other WGs incorporated sustainability issues into their work.

MatUK had three pillars in addition to the Working Groups. These were:

- Materials KTN which was fully funded by DTI for the next 2-3 years. This was separate to MatUK but was also chaired by Wyn Jones. It relates closely to the Science and Technology WG.
- Assets Connect which sought to help make better use of under utilised R&D assets. Beta Technology was working on the possibility of brokering the use of physical and service assets. The results of this work would be tabled at the next MatUK board meeting. Some scepticism on whether industry would share such assets with other industry whereas EPSRC was confident that academic institutions would share with each other and possibly also with industry.
- Property Validation Centre. Reliable and consistent material property data is needed for a number of reasons including the increasing use of Life Cycle Analysis and similar techniques. It was unclear as to whether this needed to be a physical centre or a network. NPL were working on this.

The latter two items were meant to have been operating by December 2006 but were still being worked on.

London Thames Gateway Development Authority was looking to develop a sustainability centre in Essex, focussing on recycled and re-used materials.

There was a need for a youth focussed report to promote materials to a younger audience. This should have been on the website by end of 2006. An initial Youth Report is available, but more work is needed.

There was a Structural Materials report already on the MatUK website from the Science and Technology WG. The link is <http://www.matuk.co.uk/structuralreport1a.pdf> (note it is a 1.2Mb file). The 'Town Meeting' on 25th January would be an opportunity for all interested parties to meet and get updated on the latest position of MatUK. There was an earlier 'Town Meeting' on 14th December by the Science and Technology WG and papers are at <http://www.matuk.co.uk/science.htm>

Regarding financing, NM confirmed that DTI was financing the CEO and administrative support, with possibly a second phase for assets register and validation centre. All other proposals required the relevant WG to construct a case and bring to the MatUK board.

3. Presentation by Derek Allan of Energy Materials WG

DA gave a presentation (copy attached) that he had used to help the Energy WG develop its work plan. It was agreed that the approach used by the Energy WG and their Terms of Reference could be used by our Construction WG with some minor modifications.

He identified some key background influences:

- The DTI's Technology Strategy Board which will be an independent agency based in Swindon later this year
- The recently announced Energy Technology Institute
- The EC FP7 Construction Platform for which there will be calls for research proposals later this year

There was discussion about how the Energy Materials WG related to Government, recent White papers, ETI and other initiatives.

The WG has four Task Groups, of which the first two are in place:

- Fossil and Nuclear
- Renewables
- Transmission, distribution and storage – in progress
- Conservation – should this be in construction?

It was vital to embrace the RDAs, as much Government spending was channelled through them. There was a need to map the material facilities to see which RDAs were key to materials – one already identified was East Midlands.

The WG aims to have a Strategic Research Activity and Deployment plan by the end of Summer 2007. As part of this a workshop was held on 24th November, with presentations on the current state of the art and breakout groups. Further information and papers are available at <http://www.matuk.co.uk/energy.htm>

4. Way forward for WG

PR thanked DA for the presentation and led discussion on how the Construction WG should progress. Membership needed to be fully representative and the group felt that this should include, funders, product manufacturers, large contractors, designers, Government such as Defra, RDAs such as EMDA. The Carbon Trust was suggested as a funder and TB/PR/JD would consult outside the meeting on names.

Action: TB/PR/JD

There was considerable discussion on whether it was necessary to relate sustainability to products, rather than just materials. There was not a conclusion.

PR set out some ideas on creating Task Groups based on market segments such as housing, commercial buildings, infrastructure or alternatively sustainability, health, aesthetics, security. DA asked how energy conservation would be dealt with as the Energy WG had suggested this belonged with the construction WG rather than them. In discussions it was suggested that a matrix with market sectors on one axis and characteristics on the other would address all these points. It was suggested that being lowest cost producer might be one such characteristic.

PR will draft Terms of Reference together with the TG structure.

Action: PR

JB noted that the consultation on the DTI Sustainable Construction Strategy in April should cover much of the area of TG\$ from the energy WG (conservation).

5. Actions and timetable

1. DA to supply copy of presentation
2. JT to circulate attendance list of IGT Construction Town Meeting of 25th January

3. JT and members to continue look for data on end use of materials e.g. for buildings, infrastructure
4. Potential new members once identified to be e-mailed by JT or PR
5. PR/TB/JD to discuss contacts in Carbon Trust for possible funding
6. PR to draft Terms of Reference and TG structure

The next meeting was fixed for Monday 26th March at TWI, Cambridge, starting at 10.00 and finishing at 12.30 with a sandwich lunch.

John Tebbit
5th February 2007

Appendix

Members of the WG were asked by PR to list key research priorities in their areas.

Glass

- Coatings (e.g. energy saving for buildings and cars, self cleaning, switchable)

Timber

- Engineered timber components
- Process improvements to use less energy and materials
- Improving structural properties of UK timber

Concrete

- Low carbon cements and aggregates
- Phase change and thermal mass
- Low energy housing
- Eurocodes and jointing

Ceramics/Bricks

- Reducing energy and CO₂ in brick making
- Using recycled products in process
- Reducing process temperatures
- Meeting MMC requirements through tiles and slips
- Adhesives

Composites

- Hybrid solutions with other materials
- Skills and training
- Accreditation and standards

Plastics (from JT)

- Cost reduction
- Further improving insulation properties

CIRIA

- Process
- Project management
- Procurement

Research programmes

- Faraday Partnership such as INREB