

Case Study: Bringing Construction Innovation to TfL

Summary

Transport for London (TfL) is a recognised leader in the field of sustainability and sustainable procurement. As a significant amount of its multi-billion pound annual expenditure is on construction and infrastructure projects, TfL is very keen to capture innovative ideas around sustainable construction from its suppliers. In 2009, a methodology for rating and selecting ideas, and a plan to hold seminars to present them to stakeholders was developed.

In March 2009, TfL piloted a Construction Innovation session to increase the awareness of construction innovation within TfL, and to test the appetite for more events on this topic. After very positive feedback from the first session, a second was held in May 2010.

Date

March 2009 - present

Process

Keen to capture innovative ideas around sustainable construction from its suppliers, TfL organised Construction Innovation seminars, and invited its suppliers to present to a group of stakeholders from across the organisation. TfL also developed a methodology for rating and selecting ideas.

Two one-day seminars were held in March 2009 and May 2010, with the following suppliers presenting:

- BAM Nuttall Limited with innovation on the use of Digital Pen technology
- Costain Limited with innovation on the Livis Safety Barrier System
- FM Conway with innovation on Independent Construction Waste Recycling Centres



Transport for London

Transport for London (TfL) manages the public transport services across London. These include London Underground, buses, Docklands Light Railway, Croydon Tramlink and Overground train services. TfL is also responsible for London River Services, Victoria Coach Station and the London Transport Museum.

On London's streets, TfL manages a 580km network of main roads and all of the Capital's 6,000 traffic lights as well as the congestion-charging scheme. It also regulates taxis and the private hire trade.

TfL is responsible for a large range of construction projects, including new stations, rail lines, tunnels and highways. The most notable current project is Crossrail, a new east-west rail link which will increase London's transport capacity by 10%. The £17bn project will open in 2017.



- Balfour Beatty with innovation on the King Sheet Pile (KSP) system for Retaining Walls
- Livis Ltd and London Underground on the Livis Safety Barrier System – Practical Applications and Benefits
- Ringway with innovation on “LED – the way forward in sustainable traffic and direction sign illumination”

After the seminars TfL’s procurement and technical teams met to determine whether they wished to move forward with each of the innovative solutions presented.

Results

Feedback from the seminars was very positive, indicating that attendees found them interesting and useful, with over 90% of attendees agreeing that they would like to attend future sessions focusing on construction innovation within TfL. Demand to confirm this as an annual offering is high.

Quotes from attendees:

- *"A very good idea - hope to see it in use in the near future."*
- *"Excellent Seminar."*
- *"If there was a 'very strongly agree' I'd have ticked that."*

Outcomes:

- The Livis Safety Barrier, a vacuum barrier system that protects a work force from moving trains, is subsequently being developed and used by London Underground.
- London Underground and the Streets Road Network are trialling BAM Nuttal Ltd’s Digital Pen Technology. This system brings together a digital pen, digitised business forms and a Bluetooth mobile phone, allowing engineers to write out field report forms, including barcode readings and before and after photographs, and transmit the data to a designated server using their mobile phone.
- Ringway’s innovation on LED lighting is being looked at further as part of the lighting workstream within TfL’s category management approach (see box below).

SCI-Network Context

Working Group 3: Procuring Innovation

The Procuring Innovation working group is initially investigating the ways in which two elements of the procurement process - Early Market Engagement and Supplier Relationship Management - can be used to drive the development and application of innovation and sustainability within the construction sector. The aim is to ascertain to what extent activity is taking place, and to identify and promulgate best practice case studies and guidance.



Environmental Impact

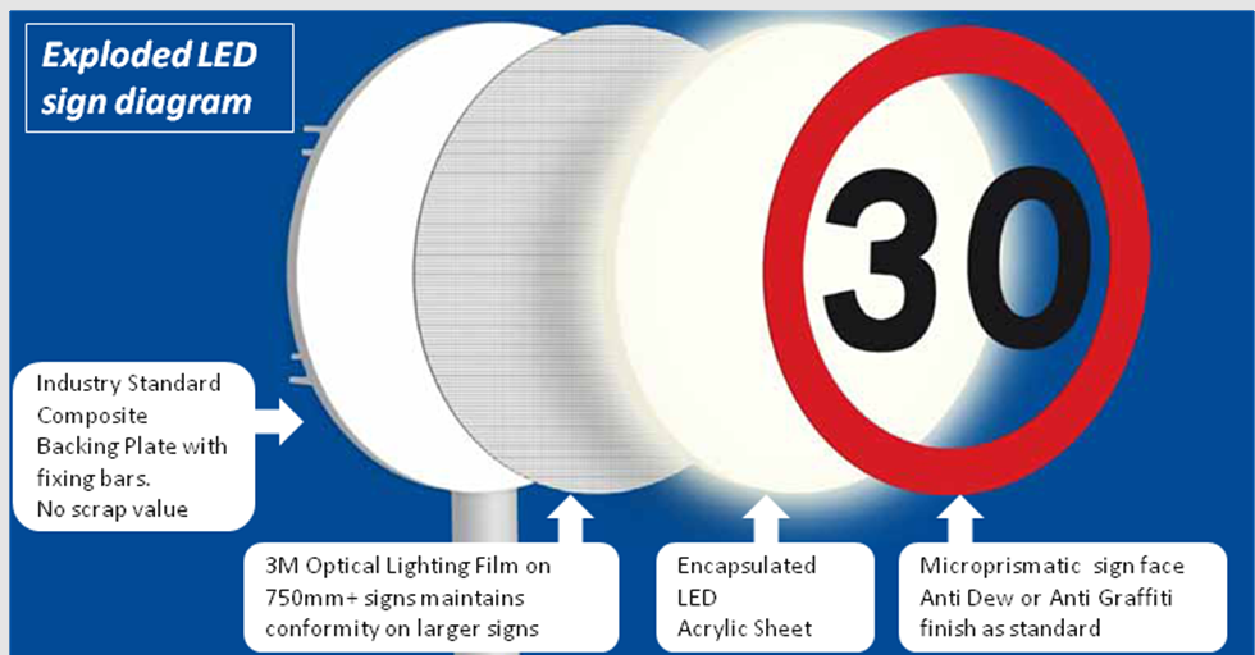
Example: Ringway - LED sustainable traffic and direction sign illumination

A low-energy LED road sign, powered by wind or solar energy.

Up to 60% lower power consumption compared to standard road sign lighting.
A 50,000+ hour (12 – 15 year) lifespan.

No mercury recycling due to lack of florescent tubes.

Composite back plate with no scrap value removes the need for replacements due to theft.



Budget and Finances

The costs for the process were limited to staff time and resources.

Suppliers were responsible for their own costs in attending the events.

Lessons Learned

The process proved to be a great success for both the public authority and the suppliers. Seminars of this type are a very effective way to present innovative ideas to a wide audience within an organisation, and ensure they are reviewed by the appropriate, decision-making stakeholders.

This process is highly replicable within the public sector across the EU.

Key Contacts

Tim Rudin
GLA Group
3rd Floor, Windsor House
42-50 Victoria Street
London
SW1H 0TL
Tel 0207 126 3438
timrudin@tfl.gov.uk
www.london.gov.uk/rp

Date Written:

March 2011



The SCI-Network is being co-financed by the European Commission's CIP programme under the Lead Market Initiative for a period of 36 months.

Disclaimer: The sole responsibility for the content of this document lies with the author. It does not necessarily reflect the opinion of the European Union. The European Commission is not responsible for any use that may be made of the information contained herein.