

DTI 'Strategy for Sustainable Construction'- consultation events

PROCUREMENT & WHOLE LIFE COST

1. SUMMARY

There is a growing recognition from the industry that sustainability is becoming a key factor in the success of a project and that performance through the supply chain is key to this achievement. Ultimately, the sustainable development agenda in construction is client led. Early (irreversible) decisions at the concept stage are critical – they can result in high sustainability standards, or can seriously limit the potential sustainability of the scheme.

Whilst there are some examples of good practice and statements of policy, in general, understanding of the issue is limited, both in client and supplier organisations in the private and public sector. Procurement professionals do not tend to understand sustainability issues well and the converse is true for sustainability professionals. Capital-cost-driven decisions often frustrate implementation. Whilst the UK Sustainable Development Commission and the Environmental Audit Committee have a role to play, there is very little high level assurance to challenge the decisions made at early stages of the project

In his foreword to *Procuring the Future* (June 2006), a national action plan for sustainable procurement, Sir Neville Simms refers to “using procurement to support wider social, economic and environmental objectives, in ways that offer real long term value”. The report concludes that “practice falls short of the promise” and calls for action to redress the situation. The report recognises construction as the supply chain with the highest impact on sustainability. <http://www.sustainable-development.gov.uk/publications/procurement-action-plan/index.htm>

The principles of Procuring the Future can be applied in both the public and the private sector. The document sets out a clear definition of sustainable procurement and establishes a Flexible Framework for organisations to follow in order to develop their own sustainable procurement practice. The Task Force was business led and the Flexible Framework is based on best practice in the private sector. This paper reflects on the principles embodied in the recommendations of Procuring the Future and how they may be implemented by the public and private sectors in construction.

Whole life costs

Financial considerations have a considerable bearing on the way a project is delivered... There are many drivers to adopting a WLC approach.

- Growing appreciation of whole-life costs and capital / operational ratios (Design: Construction: Building operation; Building user salaries can be as high as 1:10:50:2000 – although depends on type of building).
- Demonstrations where increased capital investment has led to greater operational savings
- Range of Tools that support design decisions based on whole-life
- Companies recognition that their operation not just measured on financial metrics, but in a wider sustainability context
- Carbon-focus and energy prices causing infrastructure owners to seek alternative to standard solutions
- Evidence that innovative approaches to WLC in PFI projects are resulting in environmental/social AND financial benefits

However, practice is not widespread:

- Most construction projects are judged on capital costs alone OR using relatively short payback periods
- Increasing risk averse and cost-controlled environment
- Introducing non-monetary sustainability measures is problematic unless a multi-criteria analysis approach is used (e.g. Achieving Whole Life Value in Infrastructure and Buildings – BRE Report 476).
- Sustainability features first to be abandoned if construction cost escalates
- Lack of data to support whole life costing – less if sustainability introduced
- Operational benefits do not accrue to the same party that incurs the cost. E.g. designers v constructors v owners v operators v tenants. and/or come into separate budgets, with associated separations in responsibility for decision-making at appropriate stages

- Facilities operators may prefer robustness rather than cost-effectiveness if this is perceived to introduce skills / risks etc. this may constrain potential for sustainability performance benefits

2. TARGETS AND METRICS

2.1 PROPOSED TARGETS

Three target areas are proposed in this paper :

1. **Awareness raising and capacity building in sustainable procurement – for all construction**
2. **Improved uptake and enabling of sustainable construction approaches through procurement**
3. **Greater use of whole life cost and value approaches in procurement**

These will be considered further in the workshop.

Proposed Target 1	Source of Vision	Associated Metric
Awareness raising and capacity building Organisations involved in construction procurement – whether as clients or supply-chain leaders take positive measures to encourage sustainable procurement through: <ul style="list-style-type: none"> ▪ Developing policies ▪ Understanding sustainability issues ▪ Assessing their performance and benchmarking ▪ Training their staff 	Based on Recommendations 1 – 4 of Procuring the Future See below However, recommendations can relate to both private and public sector.	% organisations that can demonstrate such practices No. people trained etc.

Proposed Target 2	Source of Vision	Associated Metric
Improved uptake of sustainable suppliers and products including: Existing “quick wins” Incentives and grants Acknowledged good practice Engagement of SME/BAME businesses in the supply chain	Based on Recommendations 6 of Procuring the Future See below	

Proposed Target 3	Source of Vision	Associated Metric
WLC Change to whole-life costing: <ul style="list-style-type: none"> • Public sector / PPP • Private sector Adoption of standard mechanisms / data structures for WLC	DTI Sustainable Construction Review Procuring the future – Recommendation 5 – Remove barriers	% deployment (new build selected on basis of WLC);

2.2 ASSOCIATED METRICS

Unlike other areas in the DTI strategy e.g. waste, where good practice is well defined, the area of sustainable procurement is less understood. The targets above therefore include an element of awareness raising and capacity building. Table 2 below provides a (subjective) assessment of the position in terms of a number of criteria.

Table 2 – Assessment of current awareness and attainment

Rating 0 – 5 (see Appendix 1 for guidance on ratings)	Awareness and capacity building	Uptake of existing “quick wins”	Whole life costing of assets – public sector / PPP	Whole life costing of assets – private sector
1 Established principles / sound science	3-5	3	2	1-2
2 Widely understood across industry	2-3	2	2	2
3 (Technically) attainable with no risk and no skills shortage	2-3	2	2	2
4 Cost-effective	3-5	2	4	4
5 Compelling business case	3-4	4	3	3
6 Strong Market pull	4	3	3	2
7 Established metrics and performance data	4	3	2	2
8 Degree of regulation	1	2	2	2
9 Current (estimated) performance	5-10%	20%	15%	5%
10. Target date for achieving 100%	2010	2012	2010	2015
11 Target date for achieving 50%	2009	2010	2009	2010

****For further background see Appendix 1**

3 MECHANISMS

Having introduced targets in Section 2, this Section considers the current policy, regulatory and other drivers that will influence change and considers additional mechanisms that will help achieve / accelerate the targets suggested. These include activities that the industry can undertake AND ways in which Government can enable / facilitate / incentivise this

3.1 Industry and market drivers

There are a number of key elements to the business case for sustainable procurement:

- **Value for money** – taken on a whole life cost basis regardless of the source of the budget for expenditure in the long term. Often constrained by accounting practices. Recent increases in energy costs, landfill tax escalation, etc. have pushed these issues higher up the agenda.
- **Reputation/Brand** – this resonates both in public and private sectors. Consumers and voters are becoming more aware of sustainability and are starting to make more sustainable choices. According to MORI, the percentage of the UK population taking corporate responsibility into consideration when making buying choices has risen from 27% in 1997 to 44% in 2002.
- **Market differentiation** – originally the preserve of niche players (e.g. Body Shop), mainstream retailers (e.g. Marks & Spencer) are starting to differentiate their product offerings around sustainability. Some construction sector players are starting to do this but development is at an early stage.
- **Employees** – social responsibility is becoming an increasing issue for attracting and retaining high quality staff. According to Business Respect Newsletter in 2004, 97% of MBA graduates from 11 leading business schools would be prepared to forgo an average of 14% of their income to work for a company with a good reputation for Corporate Responsibility,
- **Investment** – in a survey in 2003 of top European fund managers showed that 79% considered that management of environmental and social risks had a positive impact on the market value of the business in the long term,

- **Legislation and financial instruments** – a wide range of new legislation and financial instruments such as new Part L building regulations, EU Performance of Buildings Directive, etc. are requiring organisations to develop more sustainable supply chains.
- **BS ISO 15686 Part 3 – Building and Constructed Assets – Service Life Planning Part 3 – Performance Audit & Review and Part 5 (Draft) on Life Cycle Costing.**
This standard sets out audit procedures for assessing durability. Its principles can also be applied to operating costs, energy and sustainability. The draft Part 5 covers costs over the service life and UK guidance to support Life Cycle Cost assessments are being developed by BSI / RICS.

3.2 Regulatory and Policy drivers

OGC

- OGC executive agency OGC Buying.Solutions, work with public sector organisations to gain the best possible value for money from procurement.
- Supports Government's target of £21.5 billion efficiency gains a year by 2007/08, which includes the achievement of £8 billion savings through efficient public procurement.
- Support initiatives that encourage better supplier relations, sustainable procurement, the benefits of utilising smaller suppliers and the potential of eProcurement. They represent the UK at the European Union (EU), helping the public sector apply EU procurement rules here in Britain.
- Critically, they also support major programme and project management, which involves complex procurement. And provide guidance on all aspects of programme and project management.
- OGC Buying Solutions provides easy access to more than 500,000 products and services, through a range of frameworks as well as a number of managed services, including telecommunications, e-mail and web services, energy and eCommerce.

A number of different organisations have influence over aspects of the delivery of sustainable procurement in the public sector. These are listed below, and further information provided in **Appendix 4**.

3.3. Mechanisms to achieve targets

Table 3 lists the targets set out above, identifies the industry sectors that can drive this progress, and the action it can take. It also suggests mechanisms or practices that Government can put in place to facilitate and incentivise these actions. This table will be considered further in the workshop and delegates will be asked to consider alternative mechanisms and actions.

Table 3 Mechanisms to achieve targets

TARGET Note target may have more than one outcome	Which industry sector or client body would need to drive / own this	What MECHANISMS can the industry / sector apply voluntarily without intervention / support from Government. What are the incentives and barriers?	MECHANISMS How can Government enable / facilitate / accelerate this change
<p>1. Awareness and capacity building</p> <p>Associated actions</p> <p>1. Lead by Example 2. Set Clear Priorities 3. Raise the Bar 4. Build Capacity</p>	Clients Tier 1 and other suppliers	<p>Set policy and publish it</p> <p>Analyse and prioritise sustainability issues through their supply chains.</p> <p>- Evaluate practice using the Flexible Framework tool</p> <p>- Train key professionals in sustainable procurement practice</p>	<p>Incentives to companies to development of policy and priorities through: Grants, support service etc.</p> <p>Build sel or /independent assessment against the framework into procurement tenders</p> <p>- Lead by example and provide training to key procurement professionals Challenge to provide data on appropriate professional training in this area</p>
2. Capture Opportunities	Clients and Tier 1 suppliers	Capture data on key sustainability targets through the supply chain and set improvement targets. Including new technology.	Provide guidance on scope and measurement of key sustainability impacts through the supply chain , possibly supported by a web based tool. Possible mandatory targets for key impacts. Fund practical help for companies to measure their performance.
3a WLC approach	.Public sector clients	Develop and implement WLC approach to procurement on all schemes (or above £ x m)	Include metric of % of projects procured on basis of WLC / capital cost in department reporting Encourage central logging of WLC estimates and actual operating costs to a standard format
3b WLC approach	Private sector clients	Develop and implement WLC approach to procurement on all schemes (or above £ x m)	Encourage central logging of WLC estimates and actual operating costs to a standard format

Appendix 1 - Guidelines for interpreting Table 1

Appendix 2 – Policy / Guidance and selected key organisations

APPENDICES

APPENDIX 1 – Guidelines for interpreting Table 2

1	2	3	4	5	6	7	8
Principles established and practice within reach of most companies	Widespread understanding of principles across most parts of the industry	Technically attainable with little or no risk	Cost effective to implement within present fiscal / regulatory regime	Compelling and well promoted business case	Strong market pull from both public sector and private sector	Published metrics on current performance / benchmarking	Highly regulated, clear signals of future policy / regs
SCORE 5	5						
SCORE 0	0}						
Gaps in scientific / social / economic principles	Knowledge and understanding across most parts of the industry non-existent	Technical risks / serious skills shortages	Not presently cost effective in competitive market or using conventional business case justification	Little in the form of case studies and evidence of business case	Little market pull beyond regulatory minima	Little in the form of any current openly available data	Largely unregulated and reliant on voluntary action

APPENDIX 2 – POLICY / GUIDANCE

Olympic Delivery Authority

Procurement Policy (draft for consultation) www.london2012.org

ODA Sustainable Development Strategy (due 23 Jan) www.london2012.org

Client's Guide to WLC suggests that the following were necessary to increase adoption of WLC:

- Clients' request included in the brief (including willingness to pay fees)
- Spend time agreeing inputs and understanding the outputs
- Log decisions and use them to guide feedback during occupancy
- Use WLC as a decision-making tool

For these to be achieved standard forms are necessary and now in development with RICS / BSI

OGC Sustainability Policy

http://www.ogc.gov.uk/ogc_sustainability_policy.asp

This document sets out clear policy statements with respect to their sustainable procurement activities and is a good example to follow.

OGC Construction (Achieving Excellence)

<http://www.ogc.gov.uk/documents/cp0063.pdf>

This document sets out very clearly the way in which the procurement process is integrated with the construction project process. It makes generic reference to risk and performance but not specifically to sustainability..

OGC Sustainability Guide AE11

<http://www.ogc.gov.uk/documents/InformationNote012005.pdf>

This document is a recent addition to the OGC Construction guidelines and seeks to implement sustainable procurement principles into the process.

Framework for Sustainable Development of the Government Estate

<http://www.sustainable-development.gov.uk/government/estates/targets.htm>

This document sets out a range of outcome focused objectives, in particular for government estates to be "Carbon Neutral" by 2012, defining this as zero carbon emissions, requiring departments to offset any emissions that cannot be dealt with at source

Achieving Sustainability in Construction Procurement (2000)

<http://www.ogc.gov.uk/documents/AchievingSustainabilityConstructionProcurement.pdf>

Green Public Private Partnerships

http://www.hm-treasury.gov.uk/media/851/A5/PPP_GreenPublicPrivatePart.pdf

This document was published in 2002. It advocates many of the same principles as other guidelines but it only covers environmental issues, not social and economic issues

Organisations

Olympic Delivery Authority

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Sustainable Development Commission

The UK Sustainable Development Commission was given a wider Watchdog role at the time of publication of Securing the Future in 2005. The role of the Commission is summarised on their website

<http://www.sd-commission.org.uk/pages/watchdog.html>

“The nature of our UK Government watchdog role – formalised from April 2006 – will continue to develop”. Whilst the role provides some level of assurance it operates at a very high level and tends to deal with broad policy

Commission for a Sustainable London 2012

The Commission for a Sustainable London 2012 has been set up to monitor London’s Olympic pledge to host the ‘most sustainable Games ever’. Reporting direct to the Olympic Board, the Commission will monitor sustainable development across the delivery, staging and legacy aspects of the Olympic Programme. This is a ground breaking initiative to hold the delivery bodies to account for their sustainability performance and for creating a sustainable legacy. Consideration could be given to a similar approach for other major infrastructure projects but this Commission is new and more needs to be understood about its performance before value judgements can be made.