BS 8534:2011



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### Peter Caplehorn

Technical Director, Scott Brownrigg Chairman, BSI B/- Construction Committee



## Our agenda



Introductions by Chairman
Introduction by BSI
Background, aims and values
Purpose, content and scope
Detailed content of BS8534

Peter Caplehorn, Scott Brownrigg

Jonathan Griffin, BSI

Don Ward, Constructing Excellence

Richard Ward, Eversheds

David Hutchison, Parsons Brinckerhoff

6pm Close

Q&A/discussion

Drinks and networking



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# Why has BSI published a British Standard on procurement?

Jonathan Griffin, Head of Market Development

Jonathan.griffin@bsigroup.com, 020 8996 7661



- 1. Incorporated by Royal Charter
- 2. National Standards Body (NSB)
- 3. Independent of government
- 4. Non-profit-distributing organisation
- 5. Oldest NSB in the world, with a worldwide reputation for producing innovative standards
  (ISO 9001, 14001)

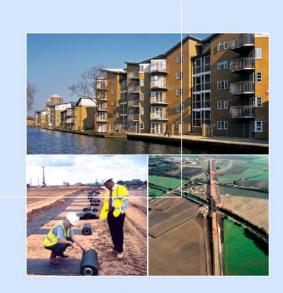


## What does the Royal Charter mean?

- 1. "Facilitate, promote, sell and distribute standards"
- 2. Represent UK interests in European and International standards fora (80% standards European)

### Why a British Standard on procurement?

- BSI only "facilitate" standards development. We rely on industry to steer our work.
- Principal recommendation of the Rethinking standards in Construction project was to "develop a new standard on construction procurement"



### Rethinking Standards in Construction

Developing the next generation of Construction Standards

Report of the six industry workshops to create the new approach to UK standardisation

September 2008





### How has the standard been developed?

- Constructing Excellence has lead the development
- Development has followed BS 0, the standard on standards making
  - Work undertaken by a representative stakeholder group
  - Subject to public consultation
  - A consensus-based standard

BS 0-1:200

#### BRITISH STANDARD

# A standard for standards –

Part 1: Development of standards – Specification

105 01 180



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 ISO has also been developing procurement standards, so we had to ensure BS8534 is complementary . . .



- BS ISO 10845 Construction procurement Part 1, Processes, methods & procedures
- 2. BS ISO 10845 Constructing procurement Part 2, Formatting & compilation of procurement documentation

© The British Standards Institution 201



### PQQ standard, PAS 91, review now underway

 BIS-sponsored standard on prequalification questionnaires now going through 12 month review

 To comment go to http://drafts.bsigroup.com/ Construction related procurement Prequalification questionnaires





PAS 91:2010



































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### **Don Ward**

Chief Executive, Constructing Excellence Secretary, BSI CB/500 Committee

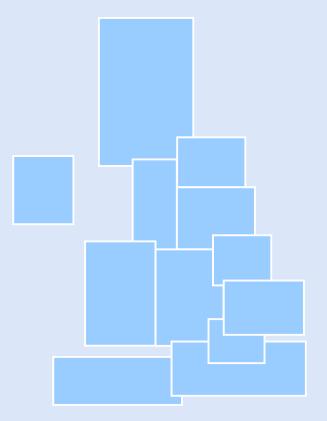


## "Constructing Excellence"

A national, regional and local enabler for industry improvement to deliver better built environments through collaborative working



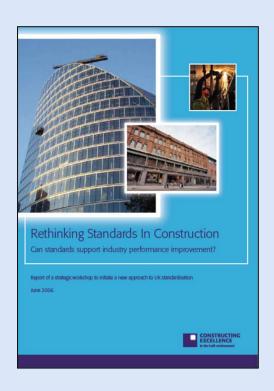
The KPIs and demonstrations plus a nationwide network of 10 regional centres, over 40 best practice Clubs and 100 national members give us our evidence

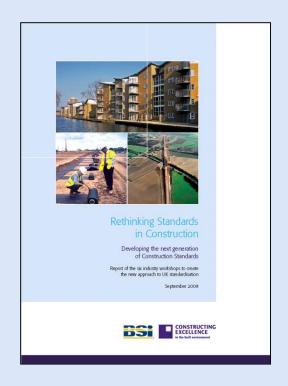






### "Rethinking standards in construction"







### What are Standards?







Mandatory and voluntary

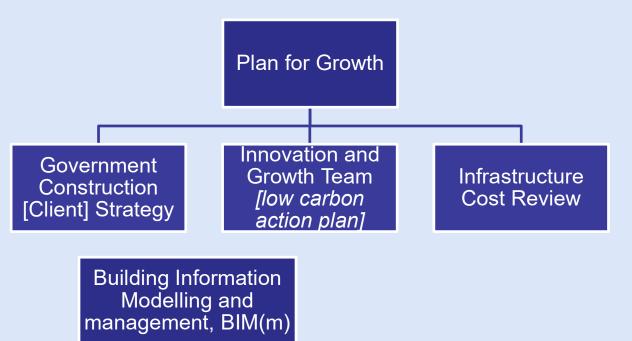


	Residential (houses, flats)	Comme roial (shops, offices etc)	Infrastructure (roads, rail, utilities, telecoms)	Educational & he alth (schools, hospitals)	Industrial (factories, refineries, power plants)
Procurement & performance management	New headline series of specialised KPV CSF standards required				
Structures & design	Some specialisation required for each market				
Construction products	Relatively little specialisation but bundling of standards required				
Building processes	Relatively little specialisation but lots of new standards needed				
Water	Relatively little specialisation but issues of scale				
Facilities management	Quite a lot of specialisation required				



## Government policies

- Plan for Growth
- Government Construction [Client] Strategy
- Innovation and Growth Team [low carbon]





# Government Construction [Client] Strategy *May 2011*

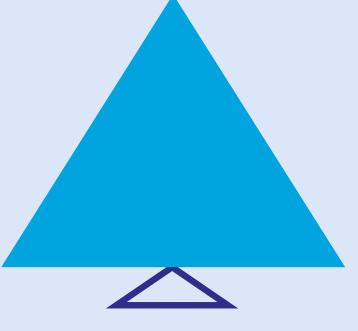
- Co-ordinated approach across Govt
  - better value for taxpayers
  - procurement of construction is far more complex
- Eliminate wasteful processes in design, procurement and construction
- Transparency of the forward pipeline
- Trial procurement routes for integration
- Challenge to innovate
- Phased introduction of BIM
- Work with industry which is asked to respond in an equally co-ordinated and coherent way





# Three overriding principles of collaborative working

Common vision and leadership



Collaborative working:
the principles

Culture and behaviours

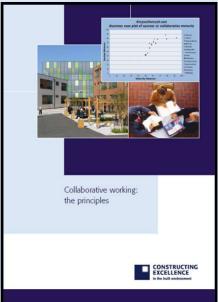
Processes and tools



There are 6 critical success factors for collaborative working

- Early involvement
- Selection by value
- Modern commercial arrangements
- Common processes and tools
- Measurement of performance } continuous
- Long-term relationships } improvement







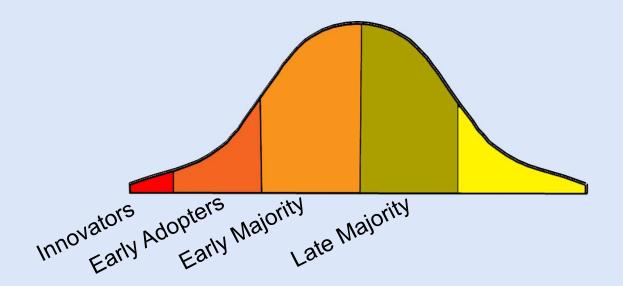
# Risks and controls of lowest price tendering

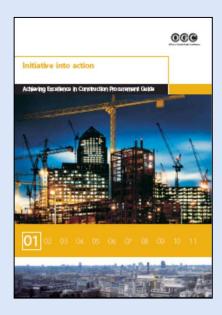
- Cost over-run
- Time over-run
- In-house management costs
- Legal costs
- Legal challenge
- Poor lifecycle performance
- Cartels
- Risk of insolvency
- Low morale
- Damage to our reputation
- No repeat business





### Role of a Standard?







## Thank you!

**BSI** 

Members of the CB/500 Procurement committee

Volunteers for the BS8534 drafting subgroup

The Chairman



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Construction procurement policies, strategies and procedures – Code of practice BS 8534:2011

Purpose, content and scope

Richard Ward, Eversheds LLP 26 September 2011



### Scope

"This British Standard gives recommendations and guidance on the development within a public or private sector organisation of policies, strategies and procedures for the procurement of construction in the built environment using the structure shown in Figure 1."

### Procurement cycle



### Procurement policy

"policy which details the overarching strategic principles and objectives for procurement of construction projects; spanning the whole project life cycle from identification of needs through to the end of the useful life of an asset"

### Construction procurement strategy

"plan of action for funding, organisation, management, selection and payment of supply chains for the design, fabrication and which may include the operation of constructed facilities to achieve a desired objective"

### Contents

- 0 Introduction
- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Policy
- 5 Initiation
- 6 Procurement strategy
- 7 Procurement tactics
- 8 Managing performance and delivery

### Contents

### **Annexes**

Annex A (informative) Recommended reading

Annex B (informative)

Construction Procurement Regulations

Bibliography

### Policy

The procurer should develop and document a procurement policy which includes, as a minimum consideration, appropriate provisions for:

- those items listed in BS ISO 10845-1:2010, 4.3;
  - which procurement procedures apply
  - framework agreements and their duration and number of participants
  - the manner in which procurements, including disposals, shall be managed and controlled to include departures and unsolicited proposals
  - the employer's secondary procurement policy, if any
  - requirements of recording, reporting and communication

### Policy

- the functioning and composition of the employer's oversight structures and evaluation panels
- managing risks associated with the breach of procurement system requirements
- grounds for the employer to decline to enter into a contract
- procedures for placing contractors and persons under procurement restrictions
- advertising arrangements for the calling for tender submissions and expressions of interest
- which standard forms of contract shall be incorporated by reference in procurement documents and how procurement documents shall be formatted and compiled
- which standard conditions of tender and standard conditions for the calling for expressions of interest shall be adopted

# Policy

- levels of retention and bonds in the various categories of procurement, if any
- insurance arrangements, if any
- quality standards
- health and safety policy
- the cost of procurement documents
- fluctuations
- use of contracts awarded by other employers for economies of scale and improved purchasing power

# Policy within the Code of Practice

- issues of bribery and anti-competitive practice;
- conflict of interest;
- dispute resolution;
- methods of identification and management of risk;
- issues of payment and financial management;
- issues of stakeholders in particular funds and their impact on procurement and third party rights;

# Policy

- cost management to include best value, key performance indicators (KPIs) and incentivization;
- corporate social responsibility;
- health and safety;
- environmental sustainability; and
- intellectual property

# Policy

 The procurer should consider the best practice available on these topics in arriving at its policies. This should be recorded and publicised on the procurer's website or otherwise made available to all tenderers.

# Policy generic considerations

- 1) public procurement rules;
- 2) sector based constraints;
- Housing Grants, Construction and Regeneration Act;
- 4) tax and VAT position;
- 5) planning; and
- 6) Building Regulations

### BS ISO10845-1 and 2

 "The objective of ISO10845 series is to provide a generic and standard set of processes, procedures and methods for a procurement system that is fair, equitable, transparent, competitive and cost effective and which may be used to promote objectives additional to those associated with the immediate objective of the procurement itself

### BS ISO10845-1 and 2

 BS ISO10845-1 2010 reflects this objective and establishes core processes with a wide range of discretionary elements. It can be used by public or private sector client organisations in the development of their procurement systems and its principles are intended to apply down the supply chain. It's main objective is the creation of the framework that facilitates fair competition, reduces the possibilities of abuse, improves predictability of outcome and allows the demonstration of best value"

# Relationship with BS 8534-2011

"BS ISO10845-1 2010 provides an operational road map for clients to formulate their procurement policy, processes, methods and procedures, and then format and compile their procurement documentation. It only applies once the client has established what is to be procured and describes step by step processes, methods and procedures to formulate a procurement system that will select the suppliers, in order to meet the needs of the business

# Relationship with BS 8534-2011

 This is complemented by BS 8534-2011 which gives recommendations and guidance on the development within a public or private sector organisation of strategies and procedures for the procurement of construction (excluding offshore construction works) at a higher strategic level"

### National Annex

- National Annex at end of BS ISO10845-1 explains the inter relationship between the standards
- Since very few of the processes contained in ISO10845-1 2010 are normative its use does not conflict with the provisions of the EU Procurement Directives

Construction procurement policies, strategies and procedures – Code of practice BS 8534:2011

Purpose, content and scope





# www.eversheds.com

BS 8534:2011



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### Launch of BS8534

Construction procurement policies, strategies and procedures - Code of practice
26 September 2011

David Hutchison
Parsons Brinkerhoff
Principal Consultant
Head of Civil & Structural Engineering



# BS8534

# **CLAUSES**

CLAUSE	TITLE
0	Introduction
1	Scope
2	Normative References
3	Terms and definitions
4	Policy
5	Initiation
6	Procurement strategy
7	Procurement tactics
8	Managing performance and delivery



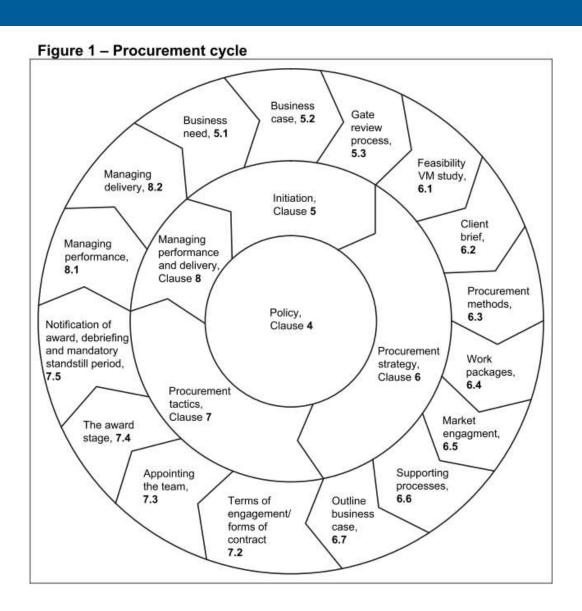
# BS8534

### **The ICE Client Best Practice Guide**





### **BS8534**





### **BS8534 Clause 5: Initiation**

#### 5.1 Business need

When determining the business need for procurement:

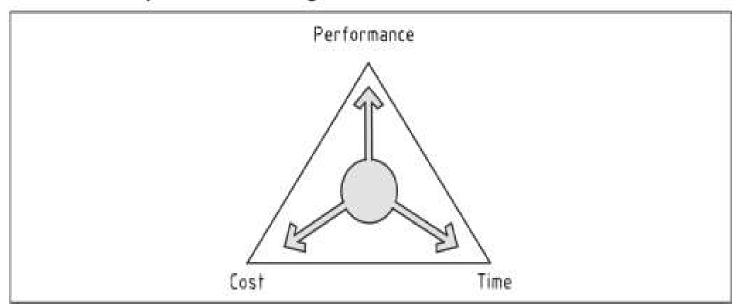
- roles, responsibilities and accountabilities within the organization should be defined (see 5.1.2);
- objectives and outcomes should be clearly set out (see 5.1.3);
- the need for expert advice should be ascertained (see 5.1.4);
- the scope and purpose of the project, and its contribution to the organization's strategic objectives should be documented (see 5.1.5);
- all stakeholders should be identified (see 5.1.6);
- a value management (VM) study should be carried out to establish business and stakeholder needs and high level options to support these, in both the short- and long-term, and to set objectives (see 5.1.7).



### **BS 8534 Clause 5: Initiation**

#### 5.1 Business need (cont'd)

Figure 2 Time, cost and performance triangle





### **BS 8534 Clause 5: Initiation**

#### 5.1 Business need (cont'd)

Other items to be considered:-

- Health & Safety
- Sustainability
- Design Quality
- CSR



### **BS8534 Clause 5: Initiation**

#### 5.2 Business case

- justify the procurement activity and expenditure
- continually revisited at key points in the procurement life cycle
- A high-level programme.
- A risk assessment
- Project budget, allowing for all costs in connection with the project:
  - > in-house costs,
  - > consultancy costs,
  - > land costs,
  - ➤ legal costs,
  - > operation and maintenance costs,
  - design and construction costs,
  - > concession payments where applicable, and
  - decommissioning costs.



### **BS8534 Clause 5: Initiation**

#### **5.3 Gate review process**

Figure 3 Planned working stages

	F	PLANNIN	G	DEVELOPMENT			IMPLEM	ENTATION	OPERA	TION		
RIBA	Stage A Appraisal	Stage B Strategic brief	Stage C Outline proposals	Stage D  Detailed proposals		Production	Tender	Stage H Tender action	Stage J Mobilization	Stage K Construction to practical completion	Stage After practical o	77
ogc	Busi	Gate 1 ness justific	ation	Gate 2 Delivery strategy		Invo	Gate 3 Investment decision			ate 4 ss for service	Gate Operational of benefits re	review and
Network Rail		Grip 2 Prefeasibility	Grip 3 Option selection	District Cold	rip 4 don selecti	on c	Grip 5 Detailed de	Street -	Const	irip 6 ruction test ommission	Grip 7 Scheme hand back	Grip 8 Project close out



#### 6.1 Feasibility/VM study

- investigate and evaluate options in more detail
- choose an option to take forward
- start to formulate procurement strategy
  - state clearly the objectives;
  - undertake market engagement;
  - know how the industry works and collect market intelligence;
  - know the main and the specialist suppliers.



#### 6.1 Feasibility/VM study (cont'd)

The procurement strategy at this stage should include the following:

- the basis for seeking tenders, e.g. full design and then construct, design and build;
- work packaging: the number of contracts and work breakdown between contracts;
- publicity to attract the right level of interest from the market;
- the attitude to risk allocation and contingencies; and
- the roles and responsibilities, e.g. health and safety.



#### 6.1 Feasibility/VM study (cont'd)

The following factors should be assessed as they can influence the procurement strategy:

- the project objectives;
- any constraints identified such as budget, funding, performance and the programme for delivery;
- risks;
- the client's experience and qualifications to manage the project;
- the length of operational service required from the facility.



#### 6.2 Client brief

- a) project definition containing:
  - 1) project objectives;
  - 2) project scope;
  - 3) outline project deliverables and/or desired outcomes;
  - 4) any exclusions;
  - 5) constraints, including budget and timescale;
  - 6) interfaces with other projects;
  - 7) a description of how this project supports strategic objectives; and
  - 8) the reason for selection of the chosen option;
- c) client's quality expectations (including health and safety, sustainability and design quality);
- d) acceptance criteria;
- e) any known risks;
- f) key milestones; and
- g) key stakeholders and other stakeholders.



#### **6.3 Procurement methods**

Table 1 Variables in procurement

Category	Examples
Source of funding	Owner-financed, public sector-financed, developer-financed, Private Finance Initiatives (PFI), Public-Private Partnerships (PPP)
Selection method	Negotiation, partnering, frameworks, selective competition, open competition
Price basis	Work and materials as defined by bills of quantity, cost reimbursement, whole building, a fully-maintained facility, performance
Responsibility for design	Architect, engineer, contractor, in-house design teams, supplier
Responsibility for management	Client, lead designer, principal contractor, joint venture, construction manager
Supply chain integration	Single source, integrated, fragmented, competitive, collaborative

NOTE Table 1 is based on a table taken from Murdoch and Hughes, "Construction Contracts: Law and Management" [11].



#### 6.4 Work packages

In most cases, complete, all-inclusive packages should be awarded.

To optimize work package delivery, the procurement strategy should:

- minimize the number of interfaces
- ensure there are no gaps;
- allow early work packages to be tendered and awarded
- enable use of different contract conditions to suit the different elements of work;
- allow suppliers to be selected to match the skills and capabilities required for different works;



#### 6.4 Work packages (cont'd)

- enable risks to be allocated to those most able to manage them
- split or subdivide work so that more suppliers have the ability to price for it
- understand and define who is responsible for any slack in the programme between the project packages and
- arrange packages of work so they can be commissioned and handed over early.



#### **6.5 Market engagement**

Communicate with potential suppliers (including key subcontractors) well before the procurement part of the implementation stage.

Market engagement may take many forms, including

- regular supplier conferences;
- newsletters:
- bidder days; and
- the use of prior information notices in the Official Journal of the European

Union (OJEU) for public sector projects.



#### **6.6 Supporting processes**

- Programme Development
- Change Control
- Cost Management
- Information Co-ordination
- Statutory Approvals
- Risk Management
- Outline Business Case



The procurement strategy should be further developed to include the following:

- terms of engagement/forms of contract (see 7.2);
- appointing the team including prequalification and short-listing (see 7.3);
- the award stage including full business case (see 7.4);
- notification of award, debriefing and mandatory standstill period (see 7.5);
- managing performance (see 8.1); and
- construction, completion and post project evaluation (see 8.2).



#### 7.2 Terms of engagement/forms of contract

- sets out what the client, consultant or contractor is required to do under the contract
- use standard forms of contract wherever possible
- issue of caps on liability should be addressed
- complexity may influence the choice of contract form or form of procurement
- provision for relevant intellectual property rights should be considered and documented.



#### 7.3 Appointing the team including prequalification and short-listing

- procurement should be on the basis of VFM and not lowest price alone
- allow sufficient time in programme for procurement activities
- Selection process should consist of the following steps
  - establish:
    - selection criteria (see 7.3.4.2.2);
    - weightings for selection criteria (see 7.3.4.2.3);
    - quality threshold (see 7.3.4.2.4);
  - invite expressions of interest (see 7.3.4.3); and
  - reduce longlist to shortlist (see 7.3.4.3.1)
- •The selection criteria should be capable of being scored and audited



#### 7.4 The award stage including full business case

A typical award process may be to:

- confirm list of candidates (see 7.4.2);
- establish:
  - award criteria (see 7.4.3);
  - weightings for award criteria (see 7.4.4);
  - quality/price ratio (see 7.4.5);
  - award mechanism (see 7.4.6);
  - quality scoring (see 7.4.7); and
  - price scoring (see 7.4.8);
- prepare instructions to tenderers and invite tenders;
  - evaluate "quality" element of tenders;
  - evaluate "price" element of tenders; and
  - balance quality and price; and to
- notify award, debriefing and mandatory standstill period (see 7.5).



#### 7.4 The award stage including full business case (cont'd)

Table 4 Indicative ranges of quality/price ratios for various types of project

Type of project	Indicative quality/price ratio				
	For consultants	For contractors			
Feasibility studies	80/20 to 90/10	Not applicable			
Innovative projects	70/30 to 85/15	20/80 to 40/60			
Complex projects	60/40 to 80/20	15/85 to 35/65			
Straightforward projects	30/70 to 60/40	10/90 to 25/75			
Repeat projects	10/90 to 30/70	5/95 to 10/90			

#### **Full Business Case**

The full business case should be completed based on the tender assessment and comparison of proposed contract value with approved budget and pre-tender estimate.



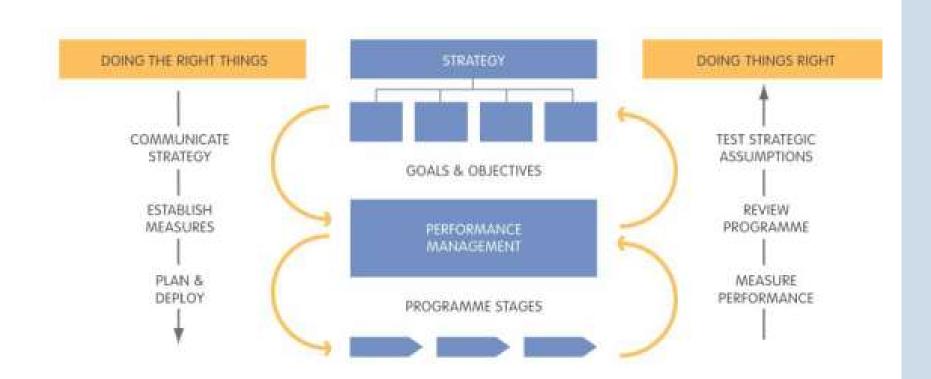
#### **BS8534 Clause 7:Procurement tactics**

#### 7.5 Notification of award, debriefing and mandatory standstill period

- •The tenderer offering the best overall VFM, taking account of the optimum combination of whole-life costs and quality, should be judged as the competition winner.
- •The successful tenderer should be informed and the start date agreed
- Unsuccessful tenderers should be notified in writing.
- A contract award notice, where appropriate, should be sent to OJEU
- Unsuccessful tenderers should be given the option of a debriefing
- Records should be kept of the selection and award process for audit purposes
- For public sector and utilities contracts covered by the EU
   Procurement Directives, a mandatory standstill period is required



#### 8.1 Managing performance





#### 8.1 Managing performance (cont'd)

KPIs that are normalized are particularly powerful in providing a quick overview for both the client and supply teams. Examples include:

- CPI (cost performance indicator) = budgeted cost of work performed/actual cost of work performed
- •SPI (schedule performance indicator) = budgeted cost of work performed/budgeted cost of work scheduled.

In each case a value greater than one is good news and a value less than one means that some attention is necessary.

Measurement becomes counter-productive if used to assign blame or simply to accumulate data and adhere with reporting requirements.



#### 8.2 Managing delivery

- Construction contract management
- Completion
- Aftercare
- Post project evaluation and post occupancy evaluation
- Exit strategies



#### 8.2 Managing delivery (cont'd)

#### **Construction contract management**

This should include:

 management of the project during the contract period to control costs and avoid disputes;

NOTE This necessitates the clear defining of responsibilities and encouragement of a teamworking approach.

- regular monitoring and reporting to analyse all aspects of the project as construction progresses;
- taking corrective action if required following the gateway reviews, carried out at key stages of the project; and
- fair payment practices.



#### 8.2 Managing delivery (cont'd)

#### Completion

#### This should include:

- oversight of testing and commissioning procedures;
- coordination of the reporting and remedying of defects;
- receipt of the health and safety file from the CDM coordinator;
- operation and maintenance manual;
- as-built records; and
- the agreement of final accounts in line with contractual requirements.



#### 8.2 Managing delivery (cont'd)

#### **Aftercare**

Clients should consider:

- continuity between a project's life cycle stages of implementation, operation and eventual decommissioning;
- specifications for safe operation and maintenance;
- allocation between capital expenditure and operational expenditure in the context of design life and allocation of responsibilities;
- future proofing such as designing for in-service upgrades or future expansion;
- objectives for legacy value, design life and sustainability; and
- planning for decommissioning.



#### 8.2 Managing delivery (cont'd)

#### Post project evaluation and post occupancy evaluation

- completion of a formal post project evaluation in order to review the project performance, its delivery of objectives and VFM, and its identification of lessons to be learned from the procurement process.
- completion of a post occupancy evaluation which focuses on whether the facility is meeting user needs and identifying lessons to be learned



#### 8.2 Managing delivery (cont'd)

#### **Exit strategies**

- 1. Does what is being delivered achieve the aims set out in the contract?
- 2. Have all contractual obligations been discharged and all payments certified, made and received?
- 3. Have bonds been returned?
- 4. Have insurance policies for the construction stage been terminated?
- 5. Have all parties to the project been involved in evaluating the extent to which objectives have been achieved and the extent to which they would do things differently in the future?
- 6. Are there further projects that follow on from this one for which detailed information and records should be prepared? (cont'd)



#### 8.2 Managing delivery (cont'd)

#### Exit strategies (cont'd)

- 7. Has the transition of the project to the final owners been managed successfully, such as transfer of insurance obligations and any necessary training?
- 8. Has documentation, such as the health and safety file, operation and maintenance manuals, been handed over?
- 9. Are there formal handover stages so that everyone is clear about the effective dates of the transition of responsibilities?
- 10. If this project involved framework or partnering arrangements, have suitable arrangements been put in place to take advantage of opportunities for continuous improvement?



#### **BS8534**

# BS8534 Construction procurement policies, strategies and procedures - Code of practice

We hope that users might find it useful to cite BS 8534 in any BS EN ISO 9001 documentation and in their contracts. In this way, adoption of BS 8534 can be promoted.



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## Q&A and discussion



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## Networking and refreshments



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### Which does the customer REALLY want?

- 1. Lowest lump sum tender price
- 2. Lowest actual/outturn cost
- 3. Best value for the (capex) budget available
- Lowest whole life cost (capex/opex)
- 5. Best whole life value



Redlands Primary School Demonstration Project

