Government Construction Strategy

Final Report to Government by the Procurement/Lean Client Task Group

July 2012

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Report of the Procurement/Lean Client Task Group

Purpose of the Report

This document is the final report of the Procurement/Lean Client Process Task Group, confirming the work that it has carried out, and making recommendations for future activities in this area.

It is therefore to be used to:

- Provide recommendations to the Government Construction Board and National Improvement and Efficiency Partnership (NIEP).
- Raise awareness of 3 new models of main contract procurement, along with proposals to explore the collaborative aggregation of procurement between government departments, and a means of enabling direct client intervention in "tier 2" supply chain selection.
- Communicate the benefits likely to be achieved through adoption of the new procurement models.
- Define the characteristics of an "intelligent client" in the context of the procurement models, and provide a maturity model for the measurement of those characteristics to help industry and government clients progress relationships in a manner that secures significant efficiency.

The Task Group's work has taken place in the context of a wider programme of activity in other Cabinet Office Construction Task Groups and Infrastructure UK (IUK). To ensure that these groups, and any successor bodies, have access to detailed information about the work of the Task Group, the format of this report includes extensive appendices providing copies of working papers and presentation materials. The Task Group hopes this will allow other groups to critique and draw upon the work performed to date, encouraging rapid improvement across both the industry and the various government departments that procure construction works.

Executive summary

- 1. The Procurement/Lean Client Task Group was established to support delivery of objectives identified in the *Government Construction Strategy*, intended to deliver 15-20 per cent cost saving for public sector construction by 2015. The Task Group first met on 1 September 2011, with representatives from central government and local authority construction clients, senior executives from major suppliers, and representatives from industry trade bodies.
- 2. The Group has focussed on four key areas: new procurement models, the 'Intelligent Client', the effectiveness of frameworks and cross-government collaboration in procurement.
- 3. The Task Group has developed, analysed and refined three potential new procurement models, and has worked with clients and government to identify and support suitable projects to trial these new techniques.
- 4. All new procurement models embrace Early Contractor Involvement, integration and transparency. These are critical factors that will drive innovation and remove waste, securing knowledge transfer and corresponding growth opportunities.
- 5. For the most part, the new procurement models represent evolution rather than revolution, ensuring that there is already significant data from existing models to indicate their likely effectiveness. The Task Group has reviewed some important evidence in this regard.
- 6. The best fit of standard contract forms has been recommended for each of the three primary procurement models after consideration by an expert working party. This allocation will be reviewed after the experience of the trails. The Task Group is against mandating a single form of contract applied for all projects, whilst conscious of wanting as much commonality of approach and minimum amendment of clauses as possible.
- 7. Faster selection of partners through these models helps bring projects to market quicker, and releases their benefits faster into society and the economy.
- 8. No process alone will change performance. The Task Group considers it essential that the primary relationships between industry and government clients are improved. This will require clearer definitions of output requirements, greater emphasis on behaviour, relationship quality, maturity, and capabilities. It is also essential that incentives are put in place that align and secure steady and conscious improvement. This advice is consistent with previous industry studies and existing best practice.
- 9. The characteristics of an intelligent client have been identified, with the expectation that they will form the basis of guidance to those public and private sector clients testing the new procurement models. A maturity model and recommendations for its use by project teams and their clients has also been developed.
- 10. Research has been carried out to investigate existing public sector frameworks and identify best practice which can be rolled out across the public sector as a whole, while also seeking to mitigate existing concerns about the potential impact of frameworks on some suppliers.
- 11. The Task Group supports further testing and development of the principles of supply chain intervention, through the work of the Government Procurement

Service, based on the innovative approach applied by Hackney Homes' Supply Chain Management Group.

12. The benefits of reducing the cost of implementation of the UK's economic infrastructure have been made by Infrastructure UK. Their March 2011 report "Infrastructure Cost Review" stated:

"1.2 Reducing the costs of infrastructure delivery will allow the UK to renew and build more for less and provide more resilient infrastructure as a key plank for wider economic growth.

It will also support growth by giving confidence to international investors in UK infrastructure, and improve the competitiveness of the UK construction industry by addressing concerns about higher costs, lower productivity and skills and wasteful processes."

- 13. Reducing the capital cost helps potentially beneficial but marginal schemes to become more affordable allowing them to proceed rather than funding go elsewhere, in turn securing the incremental benefits and employment that would otherwise have been lost without an affordable solution becoming available.
- 14. The Task Group is confident that the Government will secure dramatic benefits and value for money for the taxpayer if it can consistently apply these models across central government and, if possible, the wider public sector. The Task Group does not underestimate the challenges such widespread implementation would create. However the current economic circumstances demand that all public bodies act to reduce their costs, creating a window of opportunity for reform that must be grasped.
- 15. Reducing construction risk and variability of outcomes will help infrastructure compete for scarce private capital at a time of economic constraint and risk aversion.
- 16. The Task Group commends this report and its recommended approaches to central government departments, local authorities and the wider public sector alike, encouraging its application and further development.
- 17. Should the expected up to 20 per cent efficiency gains be secured through speedy implementation of the report's recommendations, these savings could be released for additional work. This creates new employment and activity for industry, on building projects that previously may not have been affordable, fundable..
- 18. Swift implementation of these recommendations is important to secure the industrial, economic, social and political benefits which flow from creation of much needed public infrastructure.
- 19. If implementation of the *Government Construction* Strategy achieves the proposed benefits, it is not unreasonable to expect that this would trigger similar reform across the private sector, whether in utilities, power generation, commercial or retail development. This can only help to boost investor confidence in the country's infrastructure in its turn creating further industry demand and generating wealth.

Recommendations

N.B. Some actions may already have been delivered in full or in part.

- 1. Three or more trials of each of the three models should be made available from the public sector.
- 2. Trials should apply collaborative forms of contract. Cost-led procurement trials should use NEC 3 option C, Integrated Project Insurance should use PPC 2000, and Two Stage Open Book should use JCT Constructing Excellence.
- 3. In each case contracts should have absolute minimum of amendments, with no changes to risk allocation or payment terms except where they are improved.
- 4. Effort should be taken to avoid the use of liquidated damages, retentions, parent company guarantees and performance bonds on the trail projects.
- 5. Client and supplier teams involved in trial projects should be provided with professional development, experiential learning and hands-on training to ensure that they adopt the intelligent client attributes and operate in a collaborative culture as identified in Appendices E, F and G.
- 6. The principles established in the effectiveness of frameworks group's final report should be adopted and implemented by the Government Construction Board.
- 7. The findings from the effectiveness of frameworks investigation should be made available to framework owners/managers to highlight the potential risks to effective framework agreements through poor practice.
- 8. The Government Construction Board should agree that future framework agreements should address the core principles and key features of an Effective Framework.
- 9. That the Government Construction Board should put in place governance to act as a 'clearing house' for proposed framework agreements to assess their compliance with the agreed features of an Effective Framework. An Accreditation Mark should be awarded to compliant frameworks.
- 10. The life of the Effectiveness of Frameworks Working Group should be extended to develop an implementation plan and support the delivery of future work in this area.
- 11. A quick win for this plan should be the production of a short how-to guide for construction frameworks.
- 12. That the Aggregation of Products work stream will now be taken forward by the Government Procurement Service.
- 13. That a collaborative commodity procurement trial project should be established that would be independent of the trail projects for the three new procurement models.

- 14. That this trial should be benchmarked against a private sector collaborative procurement comparator project.
- 15. That the trial projects will be overseen, monitored and benefits measured by a Trial Projects Delivery Group.
- 16. That the Trial Projects Delivery Group should be made up equally of clients and suppliers involved in "live" trial projects, and should include a few "non execs" to ensure sufficient objective challenge
- 17. That the Trial Projects Delivery Group should provide focus for driving through change on client and supplier side for individual trial projects (including the behaviour of each tier in the supply chain as client for lower tier suppliers).
- 18. That lessons should be learned from trial projects allowing amendments to be made where necessary to improve their practicability when more widely rolled out.
- 19. That approaches are articulated to facilitate adoption by others, progress is made visible.
- 20. That the industry provides support where required to Trial Projects Delivery Group.
- 21. That frameworks should be the preferred procurement route for delivering the new procurement models.
- 22. If the trials are successful, the Government and wider public sector should roll out this report's recommendations for use on future projects.

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Introduction

Representing some 7 per cent of GDP, the UK construction industry makes a significant contribution to the country's economy. Around 40 per cent of this activity - more than £40 billion worth of work - is delivered for the public sector, with the government acting as the industry's largest customer.

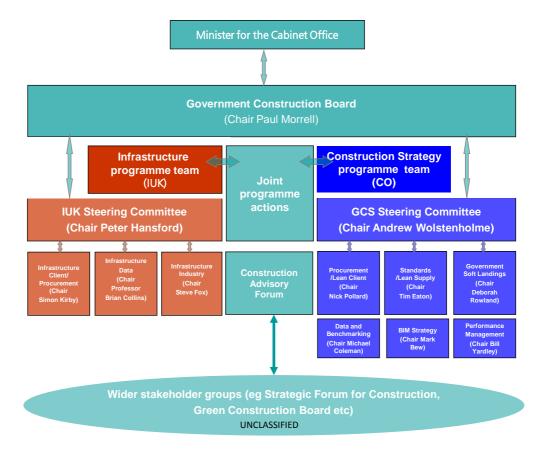
But for many years it has been recognized that the benefits of this contribution have been limited by the way that the public sector engages with the construction industry.

May 2011 saw publication of the *Government Construction Strategy (GCS)*. This document sets out a clear set of actions to reform this relationship, identifying barriers to effective construction along with potential solutions to overcome them.

Delivering this action plan is intended to secure savings of up to 20 per cent in the capital costs of public sector construction by the end of the current parliament in 2015. While many of the proposals in the action plan are not new to the construction industry, previous favourable market conditions - where delivery of a significant volume of work was the key challenge - have made it difficult to implement them. The UK's current economic circumstances create the opportunity and platform to deliver these reforms. A failure to do so would make many planned projects unaffordable given current restricted public sector budgets.

Conversely, successful implementation potentially creates more work availability within a faster timescale, in turn bringing benefits to the commissioning government departments, value-for-money to the taxpayer, help to the construction industry, generating more work opportunities and jobs, boosting associated manufacturing industry and through this improving the UK economy in some measure.

This process is being overseen by the Government Construction Board, chaired by Chief Construction Advisor Paul Morrell. This high-level group is supported by the GCS Steering Committee, chaired by the Crossrail Chief Executive Officer, Andrew Wolstenholme. Reporting to this committee are a series of Task Groups each established to support delivery of specific actions identified in the Government Construction Strategy.



Government Construction Programme – Governance Structure

The Procurement and Lean Client group was one of the six Task Groups. Chaired by Nicholas Pollard, Chief Operating Officer of Navigant's Global Construction Practice, the Task Group's 20 members (see Appendix A for full member list, and details of working groups) were drawn from leading public sector clients, major suppliers, academia and industry representative bodies.

It must be recognised that the work of this Task Group took place in the context of concurrent work being delivered both by the other Government Construction Strategy groups, but also by Infrastructure UK within HM Treasury. Infrastructure UK's Cost Study Implementation Plan seeks to address many similar issues to those considered by the Procurement and Lean Client Task Group. Care has been taken to ensure continued dialogue and knowledge sharing between the two groups.

Key Objectives

The Procurement/ Lean Client Task Group's key objectives can be summarized as:

1. New procurement models

Set up and report on trial projects for three potential new procurement models that will enable cost savings of up to 20% to be secured when consistently applied in practice - Cost Led Procurement, Integrated Project Insurance and the Two-Stage Open Book

2. Intelligent Client

Identify the skills needed by clients to deliver 15-20 per cent construction cost savings, then ensure that these skills are developed during trials of the new procurement models.

3. Effectiveness of frameworks

Assess the public sector's current use of framework contracts and seek opportunities to improve upon the current approach.

4. Cross government collaboration in procurement

Consider how centralised procurement of common components can contribute to greater efficiency in public sector construction.

A more detailed explanation of the objectives can be found in Appendix B. Having delivered, or set plans for the delivery of, these objectives, the Task Group was disbanded in April 2012.

Measures of Success

The Cabinet Office has proposed means of evaluating of the performance of trial projects.

This would involve quarterly/half-yearly evaluation including:

- Internal programme change management by the relevant Department's construction team
- Internal peer review / challenge from department teams and/or supply chain
- Periodic knowledge sharing / review / challenge facilitated by Cabinet Office
- External specialist input

The Task Group has recommended that the results of these evaluations are published for easy comparison against established benchmarks, using clear and irrefutable key performance indicators.

The Task Group also felt that there should be some independent, external verification of results / outcomes to give the programme credibility, and that steps were taken to track other influences, for example, policy changes (the control curve), and to record effects down the supply chain.

Workshops to consider evaluation criteria for the trial projects took place on 22 March and 10 May 2012. Details of the discussion at these meetings are attached as Appendix H.

Key assumptions / pre-conditions in moving forward

- 1. Sufficient suitable schemes are available from central government programmes for trialling of new models, and trials continue to have support throughout their delivery.
- 2. Clients of the trials projects are committed to adhering to the principles of the trials
- 3. Recommendations of this Task Group, once proven through the trail schemes will be overtly supported and adopted across central and local government. Standards and processes developed from this work will be embedded into procurement and client activities through the leadership of the Government Construction Board.
- 4. A reasonable pipeline of demand-led work for the industry is available from government departments, local authorities and the wider public sector.
- 5. The Government will overtly support and enable investment in the necessary training and coaching of its civil servants and clearly define its output requirements from each project.
- 6. Industry leaders will overtly support and enable investment in the necessary training and development of its leaders and project team to enable cooperative, productive and willingly helpful relationships with Government clients.
- 7. In providing benchmarks, the Joint Data and Benchmarking Task Group will address the requirements of the Government Construction Strategy in relation to whole life value.
- 8. The necessary clarity of departmental leadership and oversight is applied between the Cabinet Office, HM Treasury and the Department for Business, Innovation and Skills to ensure the trials are useful.

Objective 1 - New Procurement Models

While much of the reform that is identified in the *Government Construction Strategy* relates to the improvement and update of existing models and behaviours, there is recognition that to achieve optimum efficiencies the public sector should consider new approaches to construction procurement.

The Government Construction Strategy Action Plan calls for:

- Investigation of alternative forms of procurement and contractual arrangement that offer better value and affordability
- Demonstration of the effectiveness of these alternatives through trial projects

Lifecycle considerations

The Task Group acknowledges that in declaring the required outputs a client may seek to optimise whole life cycle costs rather than capital costs alone. This is an important consideration. This work has focused on the capital efficiency rather than whole life cycle efficiency, whilst the work of the "soft landings" Task Group focuses on the life cycle attributes. This is not to say that the procurement group ignores the need to procure sensibly affordable solutions for the long term. However, in contemplating the longer term there is significant risk that the whole life benefits may not be realised, either due to performance issues, or because of changes to an asset's use during the 'return period' for a whole life investment.

In contemplating these tasks, this Task Group has focused on securing maximum appropriate and effective capital cost reductions, whilst not damaging the lifecycle cost of operation.

The proposed trials feature transparent forms of engagement, independent verification, intelligent/lean client and Early Contractor Involvement, all of which mitigate risk of an inappropriate or inoperable solution being driven by reduction of costs.

The Procurement Models

The Government Construction Strategy identified two proposals for potential new models that should be trialled as trial projects. These proposals were Cost-Led Procurement and Integrated Project Insurance.

The Procurement and Lean Client Group has considered both of these new procurement models. Group members also put forward other considerations, forging an additional proposal known as the Two-Stage Open Book model.

It should be recognised that while each of these models has distinctive elements that should contribute to greater efficiency, they all have their roots in existing leading procurement practices. They therefore do not typically represent either a radical or risky departure from the way the industry currently functions but instead the combination and consistent implementation of leading practices, such as those found in the regulated water industry.

In order that a thorough analysis of each model could be carried out, a series of workshops were arranged through the Cabinet Office, with attendees drawn from

government departments who might potentially use the new models, as well as experienced representatives from industry.

Individual members of the Task Group were then asked to draw together feedback from these workshops along with views from the Task Group itself to prepare developed proposals for each model, using a comparison template to ensure consistency across the three models.

A detailed table highlighting the key characteristics of each model is available at Appendix C. However the following section provides a short summary of each model.

Common procurement features across all models

Under each model the client provides a clear definition of the functional outcome that it wants to achieve from one or a series of similar forthcoming projects, including any specific requirements to be achieved as part of delivery of this outcome.

It then identifies current typical cost to deliver such outcomes based on available cost data, benchmarking and cost planning work, setting a considered yet challenging cost ceiling at a point somewhere below this, with an expectation that this cost ceiling will be achieved and then further reduced through continuous improvement over the series of projects.

Completion of the capital phase occurs when specified output performance criteria are demonstrated on conclusion of construction work.

Engagement with the supply chain embraces Early Contractor Involvement and high levels of supply chain integration, while the involvement of third party expert validation/assurance is mandatory for two models (Integrated Project Insurance and Two-Stage Open Book) and could form a beneficial adjunct for Cost-led Procurement.

The presumption for all models is that high levels of supply chain integration, coupled with innovation, all within an envelope of appropriate relationships and behaviours between client and industry, provide the route to the generation of a significant downwards step change in the cost and risks of the construction process.

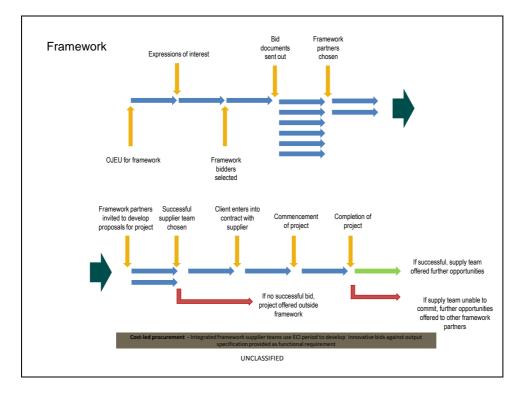
All three of the procurement and scheme development models promoted in this report are designed to considerably reduce the traditional commercial risk of construction procurement, execution and commissioning. Should these prove as successful as expected in reducing risks and cost by up to 20% of capital sum, schemes become more readily funded as well as more affordable.

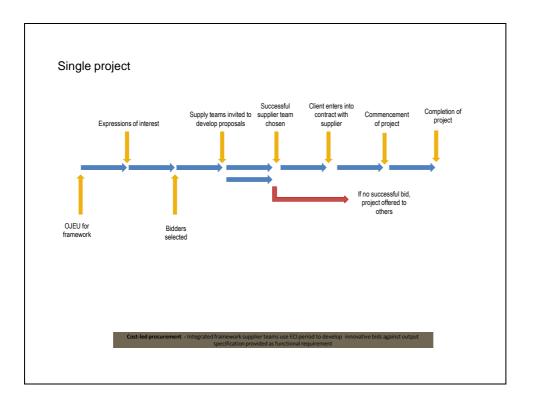
Model 1: Cost-Led Procurement

The client selects one or more integrated supply chain teams from an existing framework. Teams are selected on their ability to work in a collaborative fashion to deliver below the cost ceiling on the first project, and achieve cost reductions on subsequent projects while maintaining the required quality outcomes.

In competition 2 or 3 integrated framework supply teams are then given the opportunity early in the life of projects to develop their bids with the client team, allowing them to bring their experience to bear to innovate and drive cost reductions. Provided at least one of the supply teams can beat the cost ceiling, it is then selected on the relative scored attractiveness of its commercial and physical proposition and of its team members before being awarded the contract to deliver the project.

Should none of the teams be able to deliver the work, the project is offered to suppliers outside the framework.





If the scheme price cannot be matched or bettered it should not proceed. Under these circumstances that client may have to reconsider its budget or specification. There is a burden on the client to select a realistically challenging price, and work to enable its achievement by the industry supply chain.

Benefits

The key benefits of the Cost-led procurement model are driven by its focus on achieving challenging cost targets, while producing further savings through continuous improvement over time

The following aspects are expected to contribute to overall cost savings of circa 20 per cent

Focus on cost benchmark	5 per cent
Early contractor involvement	2 per cent
Continuous improvement	2 per cent
Specified whole life performance	2 per cent
Supply chain integration	4 per cent
Continuous learning	2 per cent

Model 2: Integrated Project Insurance

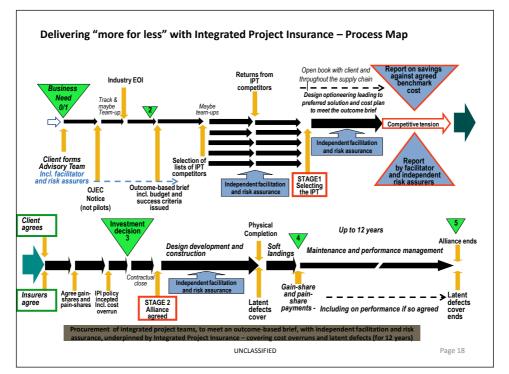
The client holds a competition to appoint the members of an integrated project team who will be responsible for delivery of the project. Scoring may include elements assessing competence, capability, proven track record, maturity of behaviours, and fee declaration.

The chosen team then works up a preferred solution that will deliver the outcome defined by the client, with savings against existing cost benchmarks.

The significant difference between this and any existing procurement model arises with the adoption of a single (third party assured) insurance policy to cover risks associated with delivery of the project. This policy would package up all insurances currently held by the client and supply chain members, and would also take the top slice of commercial risks, covering any cost overruns on the project above and beyond a 'pain-share' threshold, split transparently between client, the contracted party and its supply chain.

The model introduces third party independent verification of the scheme, through a series of gateways, using this mechanism to tension the model for good value for money, and also to ensure a wholesome, balanced commercial position has been struck which an insurer can take on board.

With excessive cost overruns covered by this policy for all supply chain members, the potential for a blame culture to try to pass on liability within the team is removed. Payment of claims would be based on the demonstration of loss not the assignment of blame. Yet in order to secure the insurance in the first place, the team will have to prepare a credible proposal, robustly validated by the independent expert assurer to ensure that the commercial tension is maintained, and which in turn the insurer is comfortable can be delivered.



Research from the proponents of this approach asserts that by combining the insurance policies of the suppliers and client a saving of circa 2.5% of capital sum will be available, in turn utilised to offset the cost of insuring the top slice of

commercial risks, which they also expect to be c. 2.5% keeping the cost broadly neutral in respect of incremental insurance costs.

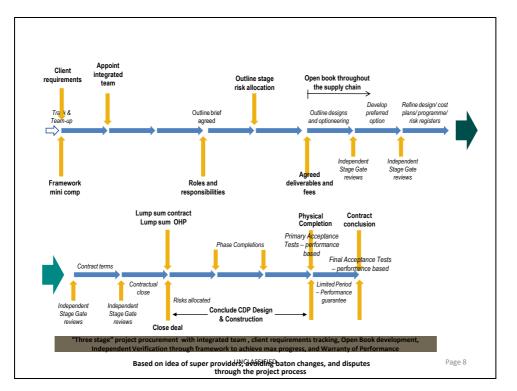
Benefits

The following aspects are expected to contribute to overall cost savings of 25-40 per cent for the Integrated Project Insurance model

Removal of adversarial culture15-20 per centIntegration/early supply chain involvement10-20 per cent

Model 3: The Two-Stage Open Book

The Two-Stage Open Book model sees the client invite suppliers on a framework to bid for a project on the basis of an outline brief and cost benchmark. A number of contractor-consultant teams compete for the contract in a first stage with bidders being chosen based on their capacity, capability, stability, experience and strength of their supply chain, and fee (profit plus company overhead). The winning team then works up a proposal on the basis of an open book cost that meets the client's stated outcomes and cost benchmark as a second stage.



The Two-Stage Open Book differs from Cost Led Procurement in reducing industry bidding costs, enabling faster mobilisation and in providing the opportunity for clients to transfer more risk to the supply chain on award at the end of the second stage.

Independent, robust expert stage-gate reviews with independent scheme verification is applied throughout this model to ensure appropriate scheme definition, create commercial tension, monitor scheme development and highlight any unnecessary scope, risks and potential missed opportunities. This verification will also provide clear recommendations to the client and contractor for improvement of the proposition.

Any such verification must deliver greater benefits in terms of savings than its cost of implementation. It is also essential that steps are taken to ensure that those appointed to carry out this verification have the skills to do so effectively. Additional capacity may need to be generated in terms of these skills should the model be rolled out more widely, in order to meet expected increased demand for competent verifiers.

Benefits				
The following aspects are expected to contribute to overall cost savings of circa 25 per cent for the Two-Stage Open Book model				
Standard framework approach	5 per cent			
Standard specifications	5 per cent			
Programme level savings	5 per cent			
Aggregated procurement at supply chain level	5 per cent			
Risk management	5 per cent			

Engagement of supply chain

To achieve an integrated team and the early involvement of the Tier 2 contractors the Task Group considered the possible approaches for their engagement in each of the three procurement models.

In the Cost-Led Procurement model, the Tier 2 contractors would be selected as part of the integrated team, assembled at the instigation of the Tier 1 constructor when bidding the scheme.

Under the IPI model, the client, with the help of his advisory team, selects the Tier 1 contractor (or project leader) and the other members of the core integrated team, including the specialists, and FM - at the outset, all on the basis of "selecting the team" (produced by the Construction Industry Council and endorsed by the Strategic Forum). The integrated team then works up design solutions, expanding the team with supply chain members as appropriate, cooperating with independent risk assurers but also collectively striving to beat the benchmark by 15% - 20%.

In the Two-Stage Open Book model the preferred approach to engaging suppliers is that the client will select the preferred Tier 1 contractor on the basis of their appropriate skills, approach and track record under a formally documented selection process. This selection process for the Tier 1 is likely to include their fee as part of the tender adjudication criteria.

Once the Tier 1 contractor is engaged, they will work up the project proposition in conjunction with the client on an open-book basis, going to the market for Tier 2 and 3 suppliers, and selecting them on criteria fully transparent to the client. This process should enable the benefit of early engagement of suitable tier 2 contractors with the right intended behaviours. Because the manner of the Tier 2 selection is fully transparent in every aspect (including due diligence, people, competence, quality, safety and price) the client should be able to have great confidence in the proposed team. Over the course of a programme of work the client will gain great insight and understanding of the implications and value of client intervention, choice and decisions.

The transparency of the Two Stage Open Book process should help government clients become "intelligent clients" more quickly than a traditional closed supply chain.

The process will also encourage the Tier 1 contractors to share knowledge through the supply chain, focusing on driving out unnecessary cost and risk, rather than on any commercial "gaming" over price and the scope of works included. These adverse features unfortunately have been common industry competitive practice, prevalent in "drag race" competitions where the scope for innovation is extremely constrained by a client design and cheapest price has won, encouraging strong reliance on "extras" during construction to recover the price shortfall.

Under both the Integrated Project Insurance and Two-Stage Open Book models, independent verification assists by providing the intelligent challenge necessary to achieve outturns that are on the one hand balanced, and on the other hand assertively pushing to beat the Government target/benchmark prices.

After developing a sensible verified proposition, that meets the Client's needs at an affordable price below the target, the Client will issue a formal instruction to construct under the selected contract terms - thus locking in the Tier 1 contractor and their selected supply chain. Construction risk transfers to the supply chain at this point.

Private Finance

The use of private finance was not part of the remit of this procurement lean client group. The Government has carried out a review of the Private Finance Initiative, the results of which will be published in due course.

Industry currently understands that around 75% of the UK's estimated £200bn infrastructure pipeline will be procured with funding from the private sector. It is not yet clear whether private funding will be sought for social infrastructure, excepting recent announcements that within education Government has committed to £2bn of privately funded expenditure.

In adverse economic conditions, one of the largest hurdles to securing private finance from the debt market is aversion to risk. Of the risks inherent in PFI schemes, the market has rightly considered the construction risk to be one of the most significant.

The use of the procurement approaches in this report is designed to reduce construction risk and therefore may be useful in enabling the successful commercial wrap of the risk in private finance schemes. It should be noted that cost overrun cover under the Integrated Project Insurance could provide cost effective form of financial security to any funder.

Taking forward the Procurement Models

Taking the three Procurement Models from propositions to reality requires suitable Trial Projects on which they can be tested.

There is an expectation most will come from Government Departments through the *Funded Construction Pipeline*. Some have been offered and are being progressed but each Procurement Model requires at least three of suitable type and value to achieve the necessary level of assessment and verification.

Successful trial projects are essential if the Task Groups work is to be seen through to a worthwhile conclusion and deliver expected and required savings. We believe that this will require a positive response from government departments, potentially necessitating high level ministerial support and clear leadership to ensure that sufficient trials are available

Contract form

A small working group of experts drawn from industry, the Royal Institution of Chartered Surveyors and the legal sector was appointed to consider under which standard forms of contract the three procurement processes should best be procured. The intention is to secure the most consistently positive outcomes (reliable value for money) from any portfolio of work - considering the appropriateness of contract form to the procurement process and sequence of stages, transparency, lower risk, appropriate incentives, intelligible, practical, proven etc. The members of this group are listed at in Appendix A. Their recommendations are contained in Appendix D.

The Task Group noted that government procurement has tended to converge on NEC3 with the exception of Ministry of Justice and Ministry of Defence procurement. It was felt there was a unique opportunity to trial other forms of contract and to run trial projects to examine how they were applied and the real experiences of the teams. The results of these trials would then colour the final recommendations for implementation.

The group concluded that the three most appropriate forms of contract for the models proposed by the Task Group are:

- NEC 3 Option C
- JCT Constructing Excellence
- PPC 2000

In principle these should be consistently applied with absolute minimum of amendments.

Where a framework agreement precedes the contract award, this may be most readily facilitated under the PPC or NEC forms of contract, but JCT could also be applied.

Whilst all three forms could be made to work for any of the three models, the Task Group wanted select the most appropriate for each, given that the models are not the normal tried and tested route to market.

The preferred alignment for the purpose of trials is:

- Cost led procurement NEC 3 Option C
- Integrated project insurance- PPC 2000
- Two-Stage Open Book- JCT Constructing Excellence.

This allocation will be reviewed after the experience of the trial. In essence the Task Group is against mandating a single form of contract applied for all projects, whilst seeking to maintain commonality of approach and use of contract forms appropriate to the project requirement with minimum revision of clauses as possible.

Following the trials these allocations will be reviewed.

Other basic principles identified by the working group included recommendations that in general there should be:

- No amendments to the contract processes and procedures, nor to the risk allocation within the basic form.
- No changes to payment periods unless improving/shortening cashflows in line with the Fair Payment Initiatives.
- The approach to liquidated damages, retentions, liabilities and performance guarantees should be consistent across all trials, with preference for no liquidated damages or retentions throughout the supply chain and no general liability caps or Parent Company Guarantees /performance bonds. These were simply considered poor value for money especially in a collaboratively procured and developed programme environment with strong due diligence and independent verification to mitigate risks.

Appendix D provides more detail and advice.

Whilst the Task Group recognises the difficulty of mandating commercial terms across contracts, the recommendation is that subject to successful application of these principles through the trails, they be adopted widely across central government to provide consistency between and within the relevant government departments who procure construction work.

Recommendations

- 1. 3 or more trials of each of the three models should be made available from the public sector.
- 2. Trials should apply collaborative forms of contract. Cost-led procurement trials should use NEC 3 option C, Integrated Project Insurance should use PPC 2000, and Two Stage Open Book should use JCT Constructing Excellence.
- 3. In each case contracts should have absolute minimum of amendments, with no changes to risk allocation or payment terms except where they are improved.
- 4. Effort should be taken to avoid the use of liquidated damages, retentions, parent company guarantees and performance bonds on the trail projects.

Objective 2 - The Intelligent Client

In the context of the Government Construction Strategy, which focuses on the construction spend of central government, the application of new behavioural models will be established as far as practicable in tandem with the implementation of new models of construction procurement.

The Government Construction Strategy recognises that the level of client capability required by differing delivery mechanisms must be showcased and replicated across central government in order to achieve target efficiencies. In the view of the Task Group this applies no less and no more to the wider public sector procurers of construction, where again there are some exemplar clients from which others could usefully learn.

The Strategy's action plan identifies the objective that is intended to deliver these raised standards as:

• To equip commissioning teams with the necessary client skills appropriate to specific projects and programmes.

A sub-group (membership given in Appendix A) has developed a joint approach building on the work of Denise Bower at the University of Leeds furthering the detailed systemic characteristics of the Intelligent Client ^{i, ii}, together with the approaches that should be adopted concerning relationship management and development advocated by John Carlisle of Sheffield Business School and Nicola Temporal of Temporal Consulting. This paper identifies the competencies and resulting ways of working that must be instilled within public sector clients in order to achieve the ambition of 15-20 per cent savings in construction cost on pilot projects (see Objective 1).

The underpinning principles of the recommended approach are:

- The development of a collaborative culture between client and supply chain
- Ensuring suppliers are engaged based on their ability to collaborate
- Consistency in the procurement models used by the client
- Strong client leadership
- Focus on early involvement of supply chain
- Establishment of mutual objectives
- Commitment to continuous improvement
- Transparent issue resolution
- Opportunity to innovate throughout project development and implementation
- Assessment of the level of client maturity.

For appropriate relationships and behaviours to flourish, clients and suppliers need to actively manage, monitor and change the current inconsistent relationships that exist across a whole range of Government contracts.

Therefore, the approach advocated requires: (Further details are provided in Appendix F)

Invitation

The invitation to participate should include an evaluation of organisational collaborative maturity (including a rapid appraisal of the nature of the collaborative work).

24 24

> The model of procurement through which the relationship management will be applied will be consistent and aligned with the capability of the involved parties.

Leadership and Environment

The ability to actively management and enhance the relationships¹ between the client and the supply chain will require overt leadership and accessibility from the contracting parties starting from pre formal contract and through the selection process.

Features of those enhanced relationships are likely to include:

- Reward for successful scheme delivery under budget and ahead of time
- Performance measurement and independent verification of the relationship maturity
- Creation of a work environment in which collaboration flourishes

The intelligent client pays regard to the behavioural performance within the whole system by sampling meeting behaviour at regular intervals using behaviour analysis methods and by encouraging meeting skills development. Regular review sessions should include these, in addition to the two-way reviews on expectations.

Collaborative culture based on early involvement

Joint relationship management / collaboration plan including²:

- The overall joint vision or project charter (based on true alignment of intentions and not tick box - so that cultural expectations are realistically and sincerely identified in advance, not when something starts to go wrong) with demonstrable understanding of exactly what collaboration means i.e. not being nice, not agreeing on everything; but being open about what is acceptable/doable to every party and what is not
- The selection criteria that require demonstration not only of professional competency but collaborative competency and emotional intelligence
- A collaborative relationship roadmap to delivery (or relationship journey) incorporating:
 - workshops / training / team building to deliver collaboratively
 - plans for engaging lower tier suppliers

¹ The term *relationship management* is one offered by Nicola Temporal of Temporal Consulting, who has developed a corresponding approach and tools. The Temporal Consulting 5 Elemental Model has also been referenced in Appendix E.

² This section is also partly informed by the approach developed around the 5 Elemental Model.

- collaborative planning sessions
- plan for jointly building, maintaining and managing the culture
- means by which culture monitored as part of the risk profile
- ownership of behavioural issues and consequent impact

Use of existing partnering guidance

Recognition of the established 4 tenets of partnering / alliancing:

- mutual objectives (alignment in the form of a charter and incentive mechanism)
- continuous improvement
- issue resolution

25 25

- innovation at both concept and implementation (risk management levels)

Capability Maturity and Relationship Map

The table below³ illustrates the typical characteristics and behaviours that clients show at different levels of maturity on their journey to becoming an Intelligent Client, and is congruent with the work of the IUK Client Working Group.

Intelligent Client Systemic Capability	Level
Start/stop construction investment	Level 1
•Lack of clarity and direction causing incomplete or unclear	Initial
requirements	System
•Blurred governance structures	
•Multi-layering of programme/project contingencies that do not reflect actual risk position	
 Application of unnecessary standards 	
 Unnecessary bespoke solutions 	
•Competition process does not result in desired outcome	
•Highly risk averse in behaviour regardless of supply chain	
capability	
•Does not adapt or change behaviour to the circumstances	
•Does not incentivise investment within the supply chain	
•No investment in development of client organisation	
capability	
•Knows what they need and can prioritise	Level 2
•Able to translate service requirements into clear	Processes
functional/technical requirements	and
•Establishes correct measurements, metrics and targets for	Procedures
success	
•Benchmarks performance and understands value of industry	
comparators	

³ See Initiative Network Position Paper: Competencies and Capability Enhancement for Resilience Bower, DA; Madter, NE. June 2011

•Cost intelligence - understands the cost of its assets and	
seeks industry comparators	
•Implements processes and understands their benefits	
 Investment in information management 	
 Incentivises supply chain - risk and reward are balanced 	
appropriately	
•Establishes project purpose, principles, roles and tasks	Level 3
before the detail	Governance
•Consistent in its attitudes towards others	
•Able to constructively challenge changes from above	
•Flexible and adaptable to change	
•Advocates on behalf of the team - no blame culture	
•Makes timely decisions	
•Balances risk and reward appropriately with the supply chain	
•Understands and applies whole life cost and carbon reduction	Level 4
principles	Managed
•Able to future-proof asset	System
•Able to challenge 'specialist' requirements	
•Able to bridge interfaces between organisations	
•Ensure project/programme supersedes individual	
stakeholders	
•Improved governance via clear accountability to sponsoring	Level 5
organisation	Optimised
•Objectively challenges the specification	
•Objectively challenges requirements and cost estimates	
•Makes informed use of competition process and regulations	
 Adopts lean process principles and concepts 	
•Agenda is one of efficiency not short term commercial gain	
•Continuous capability and capacity enhancement	

Creating collaboration

The Task Group also considered how best to engender a collaborative environment through behavioural change within client and supply chain teams, as advocated by John Carlisle of Sheffield Business School.

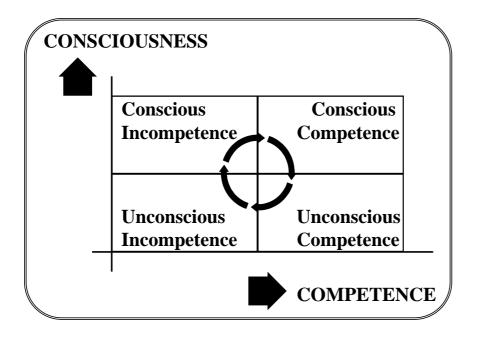
Step 1: Use crisis to help teams give up protections by providing new competencies

Step 2: Get internal policies and rewards right to reflect required behavioural changes.⁴

Step 3: Refer to consciousness competence matrix below, which shows where energies are best deployed in implementing behavioural change.⁵

⁴ Carlisle, J. (1998) Appreciation for a System - From Fragmentation to Integration. The 3rd World Congress for Total Quality Management, Sheffield, UK.

⁵ Carlisle, J. (1990) *Cooperation Works, but it's Hard Work*. Deming Conference, Plymouth, UK



Recommendations

The key features of the approach described should be adopted and those participating in the trial projects should be provided with support to ensure they are at the appropriate level of maturity to successfully deliver them. If the approach is demonstrated to deliver the targets set it should be implemented on all projects.

Objective 3 - Effectiveness of frameworks

Framework agreements allow clients to select a number of companies, entering into an agreement with them to deliver a series of projects over a set period of time.

The Government Construction Strategy recognizes that such arrangements can be highly effective, yet also highlights the fact that experience of some public sector framework agreements is less positive. In particular there are concerns that such agreements can act as a barrier to the market for SME and local suppliers, while some public clients do not benefit from effective performance management of suppliers within their frameworks.

The Strategy Action Plan calls for the government to:

• Work with representatives from local government (through the National Improvement and Efficiency Partnership for the Built Environment) to investigate the effective use of frameworks.

Cabinet Office has engaged with representatives of leading clients in central government and the wider public sector to develop an understanding of their current experience of framework agreements.

This work has been drawn together, identifying the characteristics and success criteria of effective frameworks. Included within this is a detailed evidence base to illustrate the quantitative benefits of frameworks that have been demonstrated on existing public sector framework agreements. These benefits include improved value for money and better construction performance, alongside localism and sustainability gains.

A subgroup of the Procurement/Lean Client Group met to consider the results of this research. Attendees agreed to develop the evidence base, leading to the production of a final report, which is attached as Appendix G.

This final report identified a series of benefits that can accrue from the use of frameworks. They include:

- 1. Delivering sustainable efficiency savings
- 2. Reduction in consultancy and construction costs
- 3. Delivery of projects closer to target cost and time
- 4. Reduction of disputes, claims and litigation
- 5. High client satisfaction rates
- 6. High proportion of value of work undertaken by Small and Medium-sized Enterprises (SMEs)
- 7. High proportion of local labour and sub-contractors
- 8. High take-up of government initiatives e.g. Fair Payment, Apprenticeships,
- 9. Localism etc
- 10. High proportion of construction, demolition and excavation waste diverted from landfill
- 11. Good Health and Safety performance against national average
- 12. Acting as a key enabler to integration of the supply team

The Working Group found that effective framework agreements do exist in the public sector and these have already delivered substantial benefits - both cashable and non-cashable - to public sector clients.

The Working Group's investigation has identified that many public organisations believe that they could not deliver their programmes of construction procurement without the use of framework agreements.

Recommendations

- 6. The principles established in the effectiveness of frameworks working group's final report should be adopted and implemented by the Government Construction Board;
- 7. The findings from the effectiveness of frameworks investigation should be made available to framework owners/managers to highlight the potential risks to effective framework agreements through poor practice;
- 8. The Government Construction Board should agree that future framework agreements should address the core principles and key features of an Effective Framework
- 9. That the Government Construction Board should put in place governance to act as a 'clearing house' for proposed framework agreements to assess their compliance with the agreed features of an Effective Framework. An Accreditation Mark should be awarded to compliant frameworks;
- 10. The life of the Effectiveness of Frameworks Working Group should be extended to develop an implementation plan and support the delivery of future work in this area.
- 11. A quick win for this plan should be the production of a short how-to guide for construction frameworks.

Objective 4 - Cross government collaboration on procurement

Aggregation of products:

While the Government Construction Strategy proposes the trial of new models of procurement for individual projects, the strategy and the Task Group also identified the opportunity to derive savings through aggregated procurement of common items across portfolios and programmes of work to deliver economies of scale - even aggregating between government departments, or central and local government.

In discussion the Task Group felt there were pockets of good practice in relation to such collaboration within the public sector, but that there is significant opportunity to expand the scope of such activity in the public sector.

The Task Group also recognised there is considerable work going on through elements of central government and the wider public sector. It is seeking to coordinate with these groups to bring together common activities and learning; and to avoid duplication of effort.

In commending a way forward the Task Group recommends that this work stream will now be funded and managed forwards by the Government Procurement Service (GPS), and no longer encompassed within or funded from this Cabinet Office programme.

In passing the baton onwards, this Task Group simply recommends that the Government Procurement Service, in conjunction with industry, identifies the likely common building products contained within their pipeline of projects, and moves to negotiate call off contracts where cost reductions are likely to be significant, prioritising focus onto the highest volumes first.

The contracts should be progressively and quickly available to industry for use in all public works contracts (social and economic infrastructure and built environment) during 2012 - all major contracts being in place before the end of that year. This will start to drive cost down most quickly.

In procuring these contracts, due recognition must be given to opportunities for creating UK employment through design and manufacturing, meeting the UK's carbon reduction targets (including the modes of transport of materials and goods) and the recommendations of the Government Green Construction Board.

Aggregation of services: supply chain intervention

The Task Group considered possible innovation in the manner of procuring specialist or "Tier 2" suppliers. The approach of the Supply Chain Management Group (SCMG) of Hackney Homes, Homes for Haringey and Newham Homes' Arm's Length Management Organisations (ALMOs) is one approach worthy of further consideration through a trial project.

Under the SCMG the expenditure for common bulk items (kitchens, bathrooms, roofs, windows, scaffolding and heating) were assessed and aggregated between the three programmes. The SCMG worked with the suppliers to improve upon the original tendered costs and deliverable benefits, whilst leaving the contractual relationships intact with the original clients who were the actual procurers. This effective coaching of the partnered contracts released a saving of between 6% and 26% on a sample construction project of a block of residential flats.

The SCMG approach delivered these savings by identifying from discussion with a range of contractors working on behalf of a client or clients, where key products, services or items may be procured from lower tier suppliers in significant quantities.

Analysis of the range of costs that were paid for these items by these contractors established a 'fair' price towards the lower end of this range. A panel of lower tier suppliers who, based on the potential for bulk orders, could deliver for this price was then put in place.

Through this aggregation of demand these lower tier suppliers were provided with the opportunity to develop and improve the product, while the client benefits from transparency and continuity of costs for commonly used items.

The SCMG approach potentially delivers higher levels of integration and can be implemented under existing contractual arrangements, provided there is a collaborative performance management regime.

SCMG provides a means of making the post-tender procurement process more transparent, and of significant benefit to everyone involved, without requiring the client bodies to accept exactly the same goods or services (although this of itself can bring further economic benefits where practicable).

In summary the process is contrary to conventional contracting where a bidder forms their own supply chain, based upon criteria which are relatively opaque to the Client.

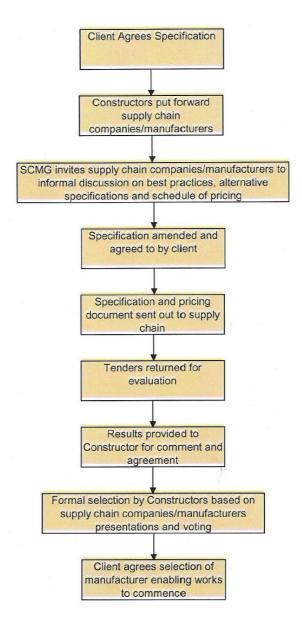
Utilising the Tier 2 supply chain intervention process, the bidder will still select their preferred supply chain. However the Client takes advantage of the intent for continuous improvement, by re-engineering the supply chain candidates promoted by the various bidders.

In a situation where the Client intends to appoint more than one Constructor to carry out a programme of works under a Tier 1 framework, the Client will forge a commonality of Tier 2 supply chain which operates at common costs and under common conditions, which responds to the appointed Tier 1 constructors, in a manner that offers significant additional benefits to the client.

The Tier 2 supply chain candidates are effectively selected by the Constructors through their own nominations (not those of the Client). An open process of selecting supply chain candidates and inviting them to tender and present their proposals to the appointed Tier 1 Contractors is then administered by SCMG. This leads to an approved elemental supply chain (for goods or services) which is available for engagement by the Tier 1 Constructors under a Supply Chain Framework Agreement shaped by the Client to optimise benefits for the end user/owner.

If Supply Chain resources usually employed by the Constructor have been appointed under the SCMG process, the Constructor can select them as originally intended bringing benefits to their Client through the new (frequently lower or at least as tendered) cost and securing through this process additional benefits that have been negotiated by the Client's SMCG by their negotiated intervention.

This process has been tried in practice in the London residential sector since 2004 and appears to have delivered its intended outcomes. It has won an award for "Excellence in Procurement" from the Society of Procurement Officers, secured Demonstration Status by Constructing Excellence, and had its outcomes externally audited and validated, receiving favourable comments from the Audit Commission. The process may be applied (pre or post-contract) whichever form of contract the Tier 1 procurement is under - so long as the intention within the contract form specifically allows for continuous improvement and direct supply chain intervention by the Client.



Summary of Cross Government collaboration on procurement:

The two routes for creating savings through aggregation of products and of services both hold significant commercial potential.

The issue of risk and opportunity between a main supplier who assembles their supply chain to create their own intellectual property (IP) through innovation to give a competitive edge and unique selling proposition (USP), versus a client potentially limiting that ability through pre-selection of suppliers under a separate framework and agreement will need careful resolution to avoid generating unnecessary commercial conflict and unclear accountabilities.

The work to develop and apply these twin approaches for products and services will now be driven forwards by the Government Procurement Service, who will begin with trial marketing of the Highway's Agency generated commodity deals.

The Task Group recommends the establishment of a collaborative commodity procurement trial project that would be independent of the trail projects for the three new procurement models outlined under Objective 1.

Public-Private Comparator

Whilst exploring the evidence of best practice in aggregating procurement, a private sector retailer has offered to set up a trial of this approach on one of its projects, adopting a similar ECI approach to those promoted above, and through that project provide a public-private efficiency comparator utilising one of their own development schemes.

Whilst needing more work to define a meaningful comparison, the opportunity appears highly attractive and, run properly, could furnish an interesting and useful comparison from which the construction industry and Government clients can all draw lessons.

Insights from existing practice:

Strong evidence exists that the key characteristics of the procurement approaches identified, when applied robustly and consistently, lead to tangible and verifiable benefits. This is illustrated in the summary table below:

Programme	Principal Saving Mechanism	Order of Cost Saving
London 2012 Games (Learning Legacy - Published October 2011)	Early Contractor Involvement/Supply Chain Collaboration	Up to 30%
Response to Education Capital Review (IESE - 2011)	Collaborative Procurement/Early Contractor Involvement/Frameworks	Up to 25%
Major public utility (February 2010)	Frameworks/ Briefing (Intelligent Client)	Up to 16%

In addition, other benefits noted in connection with these approaches were greater predictability (IESE states that the average project was completed within 2.1% of the contract sum and within 1.7% of the completion date), and increased innovation in resolving design problems (Olympic learning legacy: 'early contractor involvement gives access to the specialist insight of Tier 2 and 3 sub-contractors at the contractor: designer interface').

Recommendations

- 12. That the Aggregation of Products work stream will now be taken forward by the Government Procurement Service.
- 13. That a collaborative commodity procurement trial project should be established that would be independent of the trail projects for the three new procurement models outlined under Objective 1.
- 14. That support be given to the development of a private sector comparator project.

Integration of ERG Programme of Work

The Cabinet Office has other task groups running concerning:

- Effective Application of BIM (Building information modelling)
- Soft landings (Facilities Management and its interface with capital works)
- Standards and Specifications
- Data and benchmarking
- Performance Management

The work of this Task Group has been connected to and, where necessary, modified to leverage incremental benefits from the work of these other groups. This connection must be retained by government leadership through the trials, and ultimately any implementation.

Co-ordination Meetings between the Task Groups and involving IUK started in late November 2011 under the chairmanship of Andrew Wolstenholme to provide integration of the workload offering the chance for greater synergy between the task groups.

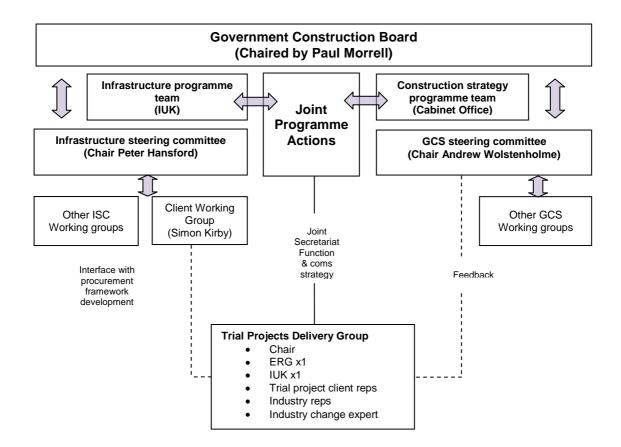
In contemplating next steps, it is also evident to this Task Group that there appears to be some overlap between the work of this Group and work of a similar group working under Infrastructure UK on procuring efficient infrastructure - both public and private (such as utilities).

Whilst the funding and nature of the product may be different in purpose and balance of engineering disciplines and architecture, nonetheless the principal requirements for intelligent/lean clients, robust transparent procurement processes and motivated innovations from a deeply engaged common civil engineering supply chain (in its broadest sense) point towards preference for consistency and common solutions.

This Task Group has recommended in the interest of efficiency that these two groups actively consider engaging under a single lead, to share learning, release change and more quickly secure efficiencies to the benefit of the Government, industry and nation.

The Task Group is pleased to note the new arrangements to create a joint group to oversee the implementation of all trial projects including the new procurement models. This group will be convened from May 2012, following the final meeting of the Procurement and Lean Client Task Group on 26 April.

The following diagram provides an overview of the structure and membership of this new Joint Trial Project Delivery Group.



Recommendations

- 15. That the trial projects will be overseen, monitored and benefits measured by a Trial Projects Delivery Group.
- 16. That the Trial Projects Delivery Group should be made up equally of clients and suppliers involved in "live" trial projects, and should include a few "non execs" to ensure sufficient objective challenge
- 17. That the Trial Projects Delivery Group should provide focus for driving through change on client and supplier side for individual trial projects (including the behaviour of each tier in the supply chain as client for lower tier suppliers).
- 18. That lessons are learned from trial projects allowing amendments to be made where necessary to improve their practicability when more widely rolled out
- 19. That approaches are articulated to facilitate adoption by others, progress is made visible.
- 20. That the industry provides support where required to Trial Projects Delivery Group.

Lean Sourcing

The work of the Task Group also coincided with development by the Cabinet Office of a "standard solution" suite of tools to enable the execution of the lean sourcing process for the three main EU procedures: Restricted, Open and Competitive Dialogue.

These are underpinned by a set of lean sourcing key principles. This new sourcing approach applies to all new procurements undertaken since 18 January 2012, but it has been recognised that these processes may differ for "complex" procurements.

As an example, the ISOS (Invitation to Submit Outline Schemes/Solutions) stage is not necessarily the most appropriate way to shortlist bidders where building design is part of the bidding process. This is because it would involve a large number of bidders carrying out elements of design work which would have to be evaluated and not all of the designs being taken forward.

Design costs money to produce as does its evaluation. Evaluation of outline designs can be very subjective when to reduce bid costs limited detail is required, thus not necessarily resulting in the best bidders being chosen to be taken forward into the procurement.

It is also more likely to lead to challenge as the outcome of the selection could be on the basis of a belief (or not) that the ISOS design was capable of being delivered in the absence of any real detailed demonstration.

In most complex procurements which involve design and construction, the PQQ route assists in shortlisting bidders, in the first instance, on the basis of their track record and financial standing. Additional questions are asked appropriate to the nature of the procurement. This might include asking for examples of projects where standardised design has offered value for money savings. This would further inform the ranking of bidders' responses to the PQQ so taking forward only a limited number of bidders to the more costly stages of the bid process.

This is particularly the case when procuring projects involving design and construction using the competitive dialogue process, say for a private finance approach, where it is common practice for bidders to design the facilities up to the stage of being capable of submitting planning at the point of being appointed selected bidder. It is far too costly, time consuming and disruptive and confusing for planning authorities to expect every bidder during the competitive dialogue phase to submit planning in respect of their individual designs. The planning application and development of detailed design is an activity for the selected bidder phase so the planning costs are only incurred in respect of the winning design.

Of course, this can mean that there are elements of risk and price which potentially have to be finely tuned post appointment of the selected bidder due to required planning conditions, which can be required for all different sorts of reasons. In a private finance model financial close cannot be reached until planning permission has been granted for various reasons, such as commercial lenders not being comfortable to lend funds where planning risk is outstanding. Equally contractors would not be comfortable, unless the procuring body provides some form of underwriting, to start on site and incur costs at risk until planning had been approved and the same would apply to a procuring public body. Furthermore, there is the risk of Judicial Review challenge in the 3 months following a planning decision. If the procuring body is not prepared to take the risk of the planning decision being Judicially Reviewed, a further 3 months must expire until the project can reach financial close.

It is for these reasons that the Selected Bidder phase is longer than recommended in the Lean Procurement process map.

A workshop took place on 2 February 2012 to map the Cabinet Office lean procurement processes to identify where differences lie for construction projects, and how the trial procurement processes can be applied.

The workshop determined that:

- Provided EU procurement processes are followed, then the new models of procurement can meet any of the 4 recognised processes of Open, Restricted, Competitive Dialogue and Negotiated procedures, although Negotiated should only be used by exception.
- Frameworks should be the preferred procurement route for delivering the new procurement models;
- Provided a clear and concise specification and method of evaluation can be developed through early supplier engagement, and before OJEU Advert, then there is a likelihood that the 120 day target can be met. However, where the requirement/outcome cannot be specified through supplier engagement, and the project is significantly complex then a significant procurement process timeline may be incurred;
- A specific framework needs to be tendered that allows for CLP, IPI and 2 stage Open Book providers to be set up;
- The type of framework needs to be considered as either a set of Lots with specialist providers from which a Prime supplier selects to form the integrated Project team, or a set of Lots with Prime Suppliers that already have their own Integrated team in place;

Recommendations

- 21. That frameworks should be the preferred procurement route for delivering the new procurement models
- 22. If the trials are successful, the Government and wider public sector should roll out this reports recommendations for use on future projects.

The Task Group is confident that if the recommendations of this report are implemented, they will secure the delivery of the outcomes that were anticipated when the Group was established.

The Group has supported the development of trial projects, identified the skills associated with an intelligent client, assessed the effectiveness of frameworks, and considered the potential for collaborative procurement of components and services.

The Task Group now looks forward to the completion of the trials, and trusts that the lessons learned from them will contribute to long term improvements to the way that UK construction projects are delivered.

APPENDICES

Appendix A - Members of Procurement and Lean Client Task Group

Nicholas Pollard (Chair)	Navigant Consulting
Andrew Butt	Cabinet Office
Paul Meigh	Cabinet Office
Peter Groves	Cabinet Office
Mark Morris	Infrastructure UK
Stephen Rice	Ministry of Defence
Terry Stocks	Ministry of Justice
Keith Heard	National Improvement & Efficiency Partnership / Hampshire County Council
Russell Symes	Partnerships for Schools
Alan Turner	SCMG / Social Housing
David Tonkin	Atkins
Mike Peasland	Balfour Beatty
Paul Sheffield	Kier
Mark Castle	MACE
Mike Putnam	Skanska
Alasdair Reisner	Civil Engineering Contractors Association
Alan Muse	RICS
Trevor Hursthouse	Specialist Engineering Contractors Association
John Carlisle	CWL/Sheffield Business School
Denise Bower	Leeds University

Members of the Intelligent Client Working Party

Nick Pollard	Navigant Consulting
Paul Meigh	Cabinet Office
Andrew Butt	Cabinet Office
Tom Goodyer	Infrastructure UK
Terry Stocks	Ministry of Justice
Mike Coleman	Partnership for Schools
John Carlisle	CWL/SBS
Prof Denise Bower	University of Leeds
Nicola Temporal	Temporal Consulting

Members of the Contract Form Working Group

Nicholas Pollard	Navigant Consulting
Robert Gerrard	NEC
Chris Paul	Trowers & Hamlins LLP
David Moore	Herbert Smith LLP
Ian Heaphy	Navigant Consulting
Alan Muse	President RICS
John Ioannou	Cabinet Office
Paul Meigh	Cabinet Office

Members of the Effective Frameworks Working Group

John Ioannou	Cabinet Office
Professor Peter McDermott, Michael Dickinson	University of Salford/Centre for Construction Innovation
Keith Heard, Sarah Silva, Chris Carey	National Improvement & Efficiency Partnership
Alasdair Reisner	Civil Engineering Contractors Association
Trevor Hursthouse	Specialist Engineering Contractors Group
Paul Sheffield	Kier
Russell Symes	Partnerships for Schools
Mark Morris	Infrastructure UK
Peter Sellars	Department of Health
Bill Yardley, Steve Rice	Ministry of Defence
Miles Jordan, Ian Wright	Environment Agency
Tim Eaton	Highways Agency

Members of the Evaluation Criteria Working Group

Nick Pollard	Navigant Consulting
Alasdair Reisner	Civil Engineering Contractors Association
Martin Davis	Specialist Engineering Alliance
Alan Muse	RICS
Trevor Hursthouse	Specialist Engineering Contractors Group
Mike Peasland	Balfour Beatty
Alan Turner	SCMG
Mark Morris	Infrastructure UK
Steve Rice	Ministry of Defence
Andrew Butt, Peter Groves, Paul Meigh	Cabinet Office
Terry Stocks	Ministry of Justice
Jonathan de Souza, Deborah Hynes	Constructing Excellence

Members of the lean procurement mapping working group

Peter Groves	Cabinet Office
Kevin Thomas	Visionality
Mark Morris	Infrastructure UK
Claire McGinn	Cabinet Office
Pippa Bass	Cabinet Office
Mike Peasland	Balfour Beatty
David Gollancz	Keating Chambers
Martin Davis	Specialist Engineering Alliance

Appendix B - Procurement / Lean Client Process Task Group: Objectives

The overall objective of the Government Construction Board's (GCB's) overarching strategy is to improve the value for money obtained from the procurement and delivery of public sector projects and programmes in the UK, including the procurement and delivery of all UK economic infrastructure.

The key objective of the Procurement / Lean Client Process Task Group is therefore to contribute to the consistent delivery of the range of measures Government will take to reduce construction costs by up to 20% by the end of this parliament, with a particular focus to:

- [with Data & Benchmarking Group] establish and implement methodologies for measuring progress in delivering the target to reduce construction costs¹ by up to 20% by the end of this parliament, which also encompass measurement of the corresponding change in client and industry behaviours;
- equip commissioning² teams with the necessary client skills with particular reference to the 20% target, commercial challenge and behavioural competencies;
- agree and roll out principles of functional requirement setting (based on measures of value for money, and centred on performance / output) across Government (see Appendix E);
- determine and streamline performance of existing procurement practices and consider alternatives;
- identify, establish and report on trail projects for the introduction of new models of procurement including Integrated Project Insurance, Cost Led Procurement, Two-Stage Open Book incorporating the extended use of cost benchmarking in setting cost targets;
- assess the effectiveness of frameworks, identify the best use of routes to market and deliver a platform ensuring visibility of good quality procurement channels to market; and
- develop and deliver opportunities for the aggregation of demand for common components.

Taken together, these measures will add up to the delivery of consistent intelligent client capability, practice and behaviours across Government which will deliver the best whole life value for money, while informing individual clients of where they sit within the marketplace in terms of prices paid and relative volume. The outcomes and deliverables from this Task Group therefore rely partly on the success of the Standards / Lean Supply Chain Task Group (TG2) which will roll out and embed many of the approaches developed.

To achieve the required outcomes and deliverables it is envisaged that the Task Group is likely to need to do some, if not all, of the following:

- define what good looks like for Government in relation to procurement, lean client process and the intelligent client;
- in relation to the above, understand the relative maturity of individual Government organisations and their delivery partners in terms of their capability and behaviour, and the route-map and resource requirements to bring clients and industry up to a consistent standard;

- address resource requirements from within the Task Group member organisations and via partnerships with private clients and industry, while taking advantage of opportunities to work together with Infrastructure UK's Client and Industry Groups;
- escalate resource issues where the GCB may be able to influence particular Departments and public sector bodies to provide more support for cost benchmarking;
- define in more detail the objectives, specific actions, deliverables and the scope covered by this Task Group, as compared to others identifying any key interdependencies;
- spend most of its time addressing common approaches that can be successfully rolled and embedded across Government;
- take ownership of the work that has already been undertaken on behalf of the GCB, which includes intermediate outcomes associated with the GCB papers, workshop reports and scheduled workshops listed in Appendix 3 of the Task Group Terms of Reference;
- in measuring cost reductions reported under this programme, recognise the need to also baseline and monitor any corresponding impact on the level of service provision.

¹ Construction Costs are defined as total project capital costs including related front end project initiation / development costs - such as consultancy and supply chain fees - but excluding land purchase and in use operational expenditure (which is not to disregard whole life cycle costs that are addressed by specific actions within the GCS but to acknowledge the challenges involved in validating the realisation of whole life cycle based efficiency savings before the end of the current parliament). This definition represents a working definition and is subject to possible further refinement by the Joint Data and Benchmarking Task Group as part of the ongoing development of the programme benefits tracking methodology.

 2 Commissioning in this context is meant to relate to the initiation and subsequent procurement of construction projects and not to the post construction phase prior to handover of the completed asset to the client.

Appendix C - Comparison of three new procurement models Key Characteristics

Headings / Prompts	Cost Led Procurement	Integrated Project Insurance	Two Stage Open Book
Specification	Cost-led procurement. Integrated framework supplier teams use ECI period to develop innovative bids against output specification provided as functional requirement.	Outcome-based (functional) – no prescription of solutions	Client statement of need. Team to develop system of user requirements for QA
Definition of quality	Client provides clear definition of design and quality requirements, including 'policy through procurement' ambitions (carbon, apprentices, etc). Supplier teams develop proposals to meet requirement within cost envelope.		Standardised approach through reduced supply chain for defined programmes of work
Articulation of costs	Affordable quality benchmark set with efficiency top-slice. Downward 'glidepath' over time agreed.	As per NEC3 definitions, with transparency of overheads (e.g. to avoid duplication of insurance allowances)	Fully benchmarked
Req. team characteristics	Integrated supply teams led by intelligent Tier 1, with transparency of costs and objectives for all.	Integrated project team as "Integration Toolkit" – i.e. consultants, construction manager, specialists, key suppliers, QS and facilities manager	Fully integrated consultant / contractor resource
Team selection criteria	Team members selected for ability to deliver; and collaborate/innovate to drive savings over time.	Success criteria (e.g. quality, speed, WLC) drive the selection criteria: process per "Selecting the Team"	Best mix of consultants and contractors demonstrating ability across a range of roles to deliver a programme of work
No. of bidders	Two with a maximum of three.	Initial list for each role in IPT depends on success criteria and number of capable competitors	Framework partners, although could be used for a single project
No. of procurement stages	Pre-qualification, framework procurement, project procurement, award of contract.	Two: (1) IPT selection and (2) agreement of design solution and cost plan under "competitive tension"	Two stage collaborative with breaks
Design development	Through ECI process during bid, focussed on cost reduction over time. Also development of standard components between projects to reduce costs. Stage reviews at outline, scheme and detailed design work stages.	After IPI and Alliance agreed, this is within the IPT responsibility – provided client doesn't change the outcome-based brief or interfere with progress	Gateway review quality controlled

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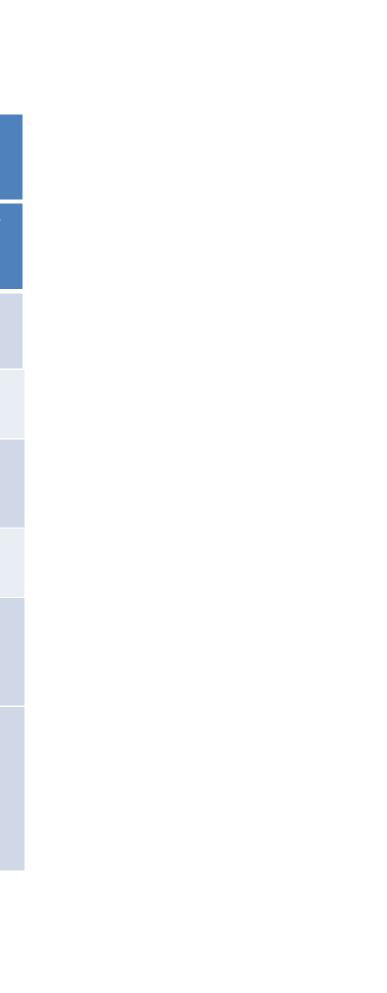
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Headings / Prompts	Cost Led Procurement	Integrated Project Insurance	Two Stage Open Book
Team remuneration	Supply team funds work through ECI process. Winning bidder will recover cost through contract/framework.	At cost plus modest profit; up to Gateway 3 recovery may be apportioned and incentivised (Proposition Appendix 1)	Fixed price against deliverables for stages of work
Contract award criteria	Ability to deliver functional specification within the cost ceiling, while meeting all of the design and quality targets.	Public Contracts Regulations 2006 Article 30(1)(a) & 30(2): criteria – most economically advantageous	Best value – most economically advantageous
Form of contract	Standard form NEC option C with pain gain	Pending finalisation of an Alliance Agreement (for use with IPI), NEC3 Option C suitably amended to incorporate IPI	Collaborative
Transfer of risk	Key risks identified during ECI stage and allocated/mitigated. Joint risk pot established for each contract.	Client and the IPT (together with any funder) are covered by IPI (throughout); risk doesn't get passed down line	Risk held by party best placed to mitigate and manage it
Incentivising efficiency / sanctions	Pain/gain share at project and programme level to align objectives of all in delivery partnership	Performance and efficiency (and hence collaboration) are incentivised by gain-share and pain-share formulae. Client can confidently sanction the investment if IPI is in place	Lump sum OHP
Enabling innovation	ECI and aggressive benchmarking target encourage innovation.	The IPT commits to meeting the outcome- based brief, with gain/pain dependant on degree of achievement.	Mix of disciplines with competency based appointments for key roles
Innovative aspects	Outcome driven, focus on continuous cost reduction and effective use of supply chain.	Lack of prescriptive specifications and contractually imposed standards will free the IPT to win by innovation	Single integrated team led by "best person" making best use of all resources
Validation / challenge	Challenge is set at outset with clear cope and cost target. Verification via independent audit team.	The risk assurers give independent technical and financial validation; the challenge comes from the SEA Proposition to beat objective best practice benchmarks by 15% - 20%	Gateway/peer review

Headings / Prompts	Cost Led Procurement	Integrated Project Insurance	Two Stage Open Book
Req. behavioural changes	Focus for all players on collaborative, transparent working. Greater attention given to cost reduction over time	Collaboration is key: it will be promoted by the facilitator, is the area of greatest concern to insurers, and all the IPT will know its direct impact on their gain/pain shares	Best person for the job not by job description
Client / industry maturity	Requires strong client capability to define requirement and understand costs (intelligent client). May not be feasible for some clients given current maturity levels. Suitable or contractors with reasonable level of maturity and ability to respond to intelligent client	Old ways die hard, and integration in the industry is still skin-deep. But exemplar projects with innovative arrangements have shown how adaptable most can be	Less interfaces
Key pre-conditions	Supply chain transparency Defined downward 'glide path' Genuine integration Client capability	Genuine integration, collaboration, open book, "no blame/no claim", independent risk assurance, and single IPI cover embracing the client, any funder and the IPT as one	Formation of integrated teams with the belief in collaborative working
Rewarding performance	As well as gain share, performance rewarded through further work for successful teams. Concentration on immediate rewards as well as long-term.	The success criteria must be (a) measurable (b) prioritised, so that there is alignment between the client's needs and the IPT's financial interests. But enjoyment from teamwork and award of the next job are equally powerful rewards	Framework is the carrot, although a pain/gain mechanism could be incorporated for a single project
Other characteristics	If framework suppliers cannot deliver, project to be offered outside. Best suited to programmes with consistent/repetitive product, but not exclusively.	Impact on the client: The drag on clients' time has been a function of the flaws of fragmented lowest cost procurement. An integrated industry taking responsibility for delivering underwritten outcomes will allow the client, after having selected and mobilised the IPT, to stand back and save the man-marking	Framework / lump sum OHP is net of any discounts. All supply chain discounts to be passed back to clients

Key Aspects generating 15-20% cost reductions

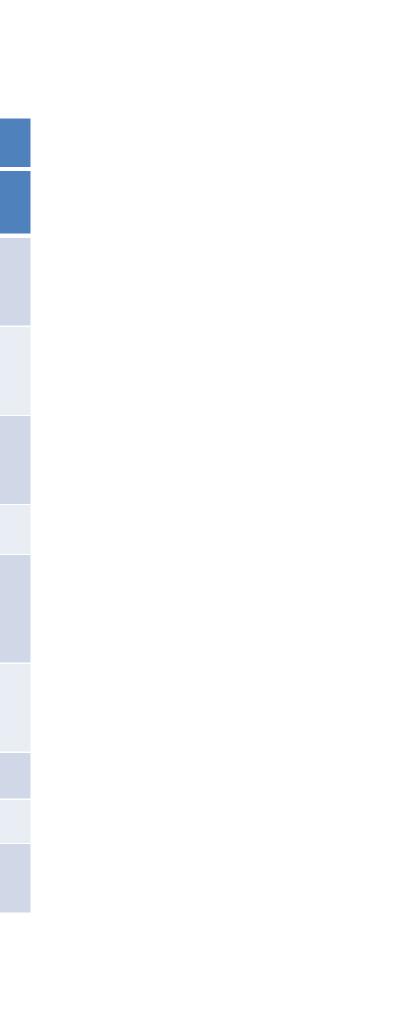
Cost Led Procurement Key Aspect Est cost red. contrib. %		Integrated Project Insurance Key Aspect Est cost red. contrib. %		Two Stage Open Book Key Aspect Est cost red. contrib. %	
Focus on achieving project cost benchmark	5%	Improving tender processes, between client and Tier 1 - and down the supply chain		Standard framework approach – Procurement, 'buildability', Right first time	5%
Early contractor involvement	2%	Removal of systems of prices, variations and claims – caused by fragmentation, lowest price and confrontation	15% - 20%	Standardised specifications – e.g. Windows and Doors, Ironmongery, Balustrade and Roofing.	5%
Opportunity for continuous improvement	2%	Removing blame/liability culture of traditional contracts and associated insurances		Space saved through programme wide feasibility reducing overall floor area	5%
Ability to specify whole life performance	2%	Integrated design and rationalisation across building/services elements, and removal of contractual bondage to traditional standards, and legal disincentives to innovation		Aggregated procurement at supply chain level	10%
Supply chain integration	5%	Time and cost savings due to efficient team coordination	t		
Driving out waste through continuous learning	2%	Sustained interaction between academic bodies and industry practitioners plan			



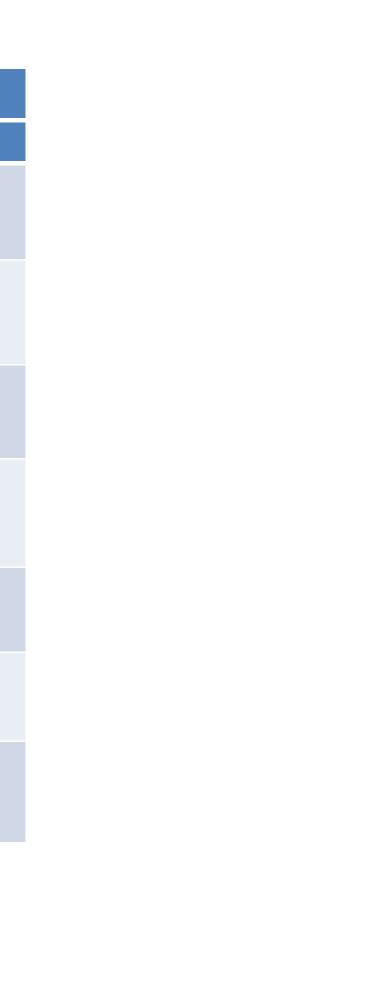
Process Chart: Key Stages

	Cost Led Procurem	ent	Integrated Project Insurance		Two Stage Open Book	
Stage	Key Activities / Decisions	Responsibilities	Key Activities / Decisions	Responsibilities	Key Activities / Decisions	Responsibilities
Initiation / Bus Case	ldentify outcomes required by taxpayer	Client to engage with stakeholders to understand and develop requirement	Address Business Need and priorities	Client with Advisory Team	Appoint integrated provider from framework(s) against user requirements	
Concept/ Feasibility	Define the quality requirement and cost ceiling	Client to use benchmark data to identify what is affordable	Outcome-based brief Review inherent risks	Client/Advisory Team Risk assurers	Integrated team against defined deliverables for fixed fee framework rates	
Scheme Development / IPI: Selection of Team	Two contractors work up scheme through ECI period	Client to assess against predetermined deliverables se	Use selection criteria to select on capability EU: Article 53(1) (a)	Client with Advisory Team	As above	
Tender Design / IPI: Initial Design			Optioneering to find best design/cost plan	IPT with independent risk assurance	As above	
Selection / Awarc IPI: Alliance Agreement	Supplier teams complete solutions in ECI process, leading to award of contract	Client to assess bids based on ability to meet functional specification within cost ceiling	Benchmarking/risk assurance of design solution and cost plan	Client, cost adviser, risk assurers, IPT and insurers	Lump sum contract fixed price OHP	
Construction Design IPI: Design develop	Standard gateways (i.e. scheme design/detailed design)	Contractor led review by independent body	Design to meet brief	IPT, with risk assurers	As above,	
Construction	Stage reviews	Contractor led	Construct to brief	IPT, with risk assurers		
Commissioning	Signoff against preset criteria	Contractor led, independently verified	Go for "soft landings"	IPT, with risk assurers		
Operation	Contractor takes two year defects provision	Interface agreement contractor/FM provider	Operate to the brief	IPT, with risk assurers	Performance measurement	Client
	_					

Key Pros and Cons



Cost Led Procurement		Integrated Project Insurance		Two Stage Open Book		
Pros	Cons	Pros	Cons	Pros	Cons	
Strong focus on outcome for taxpayer, including targeted reduction in costs	to prepare the desired	Process waste is cut, making low carbon construction affordable	There will be resistance from vested interests – until those threatened adapt and retrain	Mature frameworks, cost and time predictability good, builds on these	Potential for inflated budgets / cost plans	
Encourages innovation	Cost ceiling may lead to compromise on quality	The project cost is settled by objective processes, not the vagaries of the market	Some clients will be reluctant to recognize, up- front, the realistic cost of their projects	Reduces interfaces, baton passing and client acting as "referee in disputes, Enables BIM	Early commitment to construction partner	
Secures continuous improvement and savings over time (glidepath)	Requires input from supply chain in ECI without cost recovery	The client knows that the cost plan is insured before he allows the investment to proceed		Best people for the roles rather than traditional appointments	Requires volume, pipeline, workload	
aligned objectives for all	, , , , ,	The IPT can commit to meet an outcome-based brief, and is profit-motivated to do so	Some clients will find it hard not to dictate solutions or interfere with delivery	Early engagement of supply chain / local suppliers		
· · · · · · · · · · · · · · · · · · ·	Although unlikely, excess gainshare could be seen as 'windfall'	The IPT is liberated to innovate, with the security of independent risk assurance		Efficiency through aggregation		
Client provided with greater certainty over cost	Cost ceiling may be undeliverable	Insurers have a new opportunity to manage their risk – which will strengthen relationships		Simple approach to incentivisation		
Flexibility for suppliers about how output is achieved	Potential for design intent to be lost in the process.	The industry will have the opportunity to earn high margins for high performance/efficiency		Based on benchmarking and performance measurement		



Appendix D

Contract Form Working Party Output and Recommendations

Following the Contract Form Working Party on 27 October 2011, the Working Party (Working Party) prepared this paper for consideration by the wider Procurement/lean Client Task Group (Task Group) in outlining the basis of the discussions and key recommendations for the standard forms of contract.

Executive Summary

A Options for Contracts

The Working Party considered each of the procurement models (ie Cost-Led Procurement, Integrated Project Insurance and Two-Stage Open Book) against the leading standard form contracts currently in use (ie PPC2000, NEC3 Option C and JCT Constructing Excellence). The Working Party discounted bespoke contracts, and heavily amended standard forms

B Framework Mechanisms

In some cases the proposed procurement models rely on framework or tender mechanisms outside the contract. While detailed consideration of framework approaches was beyond the remit of the Working Party, it was acknowledged that the general lack of standard-form framework arrangements makes it difficult for clients to procure frameworks on a consistent basis.

The Working Party identified a number of key issues of relevance to frameworks (ie clear duration, rules, numbers of framework partners, strategic pricing, KPIs, supply chain links, intellectual property rights, form of call-off and key personnel etc).

C Requirements for Trial Projects

There is a good opportunity to trial the forms of contract on live trail projects to look at how they were applied and the real experiences of the teams. The Working Party noted the importance for the trials to be applied on the same basis, and proposed a set of 'rules' that should apply to each of the trials (ie no amendments to processes/risk allocation, standard payment periods, no LDs or retention, no general liability caps, no performance bonds or PCGs, consistent supply chain contracts, use of Project Bank Accounts and use of integrated programmes). The Working Party also proposed an independent verification role, so that the Task Group could review the trails at key gateway stages.

The Working Party felt that all three of the contract forms (ie PPC2000, NEC3 Option C and JCT/CE) could be used, but recommended that the trials use the following contract forms:

- Cost-Led Procurement: NEC3 Option C Integrated Project Insurance: PPC2000;
- Two-Stage Open Book: JCT Constructing Excellence;

1 **Options for Contracts**

The Contract Form Working Party (the Working Party) was presented with three separate procurement models, namely (i) Cost-Led Procurement, (ii) Integrated Project Insurance and (iii) Two-Stage Open Book.

The Working Party began the workshop by examining each of the procurement models in turn, reviewing the defined characteristics and seeking to agree the best fit with available standard form construction contracts (focusing on JCT Contracting Excellence, NEC3 Option C and PPC2000). For the purposes of this review, the Working Party discounted bespoke contracts and heavily amended standard forms.

1.1 **Cost-Led Procurement**

The key characteristics of the Cost-Led Procurement model are set out in the separate comparison template. These include reference to "integrated framework supplier teams", who "develop innovative bids against output specification" and "develop proposals to meet requirements within cost envelope"

The Working Party noted that a number of the key characteristics of the Cost-Led Procurement model relied on pre-contract framework or tender mechanisms. These included, for example:

- An obligation on bidders to develop and submit bids at their cost;
- Competitive discussions with two bidders with a maximum of three;
- Processes for the selection of preferred partner(s) prior to price bids;
- Selection of bidder on preliminary bid on basis that it can achieve the initial offer (ie significant design development and price development pre-contract).

The Working Party separately considered the merits of framework approaches, and identified key provisions that should be addressed in framework documents (see Section 2 below).

The comparison template notes that the suggested form of contract was a standard form NEC Option C with pain/gain share provisions. In fact, early contractor involvement under this procurement model is undertaken prior to contract award by two (or possibly more) bidders working at risk. It is clear that these activities are intended to be covered by framework or tender processes, rather than by early award of a conditional Project Contract. Under the Cost-Led Procurement model, contract finalisation is the first award of the contract to a framework partner, which takes place prior to commencement of the project on site.

1.2 Integrated Project Insurance

The key characteristics of the Integrated Project Insurance (IPI) procurement model are set out in the comparison template. These include an "integrated project team", "independent technical and financial validation", "genuine integration, collaboration, open-book" and "single IPI cover".

The Working Party acknowledged the likely challenges in setting up acceptable integrated project insurance. This insurance is intended to go beyond the traditional approach to insurance cover, to include:

- insurance covering all members of the integrated project team (including the Client) on a "first party" basis and covering third party actions;
- insurance covering "cost overruns" over the agreed cost plan;
- no blame, with legal costs shared and rights of subrogation waived.

The intention is for the insurer to take the top-slice of risk in a project. In order to achieve this, there is a strong reliance on technical and financial validation - to review the project at key stages, and to assist insurers to consider the risks and take an appropriate position.

Aside from the pure insurance issues (which are clearly a significant innovation under the IPI procure route), the characteristics of the IPI model demonstrate a number of contractual mechanisms that reflect best-practice procurement.

1.3 **Two-Stage Open Book**

The key characteristics of the Two Stage Open Book procurement model are "*two-stage design and build*", "*ECI*", "*open-book*", "*output specification*" and "*team working ethos*". The approach is described as drawing on the best experiences from two-stage design and build, and Early Contractor Involvement (ECI).

The Working Party discussed the process for the selection of the preferred supplier via a 'beauty parade', with the client and the supply chain working together to develop designs and cost plans prior to the award of the second stage contract. It was noted that this would be a similar approach to contracts let for Front-End Engineering and Design (FEED) in the energy and process sector. However, the challenge is to achieve this through a standard contract form rather than a bespoke arrangement.

The basis of pricing depends on the contractor's offer being based on declared overheads and profits - with prices being built up during the first stage by reference to a pre-agreed price benchmark/cost budget. The model also refers to a series of independent gateway reviews during the first stage - which are intended to validate and challenge the proposed solution (ie is the project viable, affordable and are risks addressed).

Following independent validation, the deal is closed by entering into the second stage - at which point risk is transferred to the contractor (subject to any agreed risk register) and the contract proceeds at a fixed price - with a pain/gain mechanism to incentivise performance.

2 Framework mechanisms

The Working Party considered the potential for Framework Agreements, particularly in view of the reliance on pre-contract framework/tender mechanisms in some of the identified procurement routes (particularly Cost-Led Procurement).

It was considered that a detailed examination of framework mechanisms and options for Framework Agreements was beyond the remit of the Working Party, but it was acknowledged that the general lack of standard-form framework arrangements makes it difficult for clients to procure frameworks on a consistent basis.

The Working Party considered the value of clearer guidance on framework approaches, and noted the following key principles:

- Clear duration (recognising a 4 year maximum where the Consolidated Directive applies);
- Manageable number of suppliers 3 to 6;
- Clear rules of competition within the framework;
- Overheads/Profit and financial data for selection process;
- Clear KPIs and performance management;
- Supply chain management/expectation (limitations, call-off contract usage etc);
- Intellectual Property protection/transparency;
- Clear form of call-off contract;
- Key CV's for client and contractor team (re key personnel locked-in and committed to the programme);
- Common information system requirements (i.e. data, BIM, planning forms etc);
- Actively managed frameworks are preferred by the supply chain, so framework purposes and outputs should be clearly identified at the outset.

To be successful, framework need to have clear pre-conditions to award. The Working Party identified common framework concerns - including the view that contractors and suppliers alike do not like 'lazy' frameworks - ie where it is felt that there is little chance of winning work, or where frameworks are used as a quick route to market.

The Working Party flagged up the need to further work on framework approaches and encouraging consistency in the forms and mechanisms used. Rob Gerrard (NEC) identified the NEC Framework Contract as a contractual option, and noted that it is possible to use it with other contract forms. Chris Paul (T&H) also noted the work on development of standard Framework Agreements/Alliance Agreements which have already been adopted by Central and Local Government on the Job Centre Plus programme, National Change Agent programme, NOMS alliance and the MOJ successor.

3 **Requirements for trail projects**

3.1 **Proposed rules**

The Working Party noted that Government procurement has tended to converge on NEC3, with the exception of MOJ and MOD procurement. It was felt that there was an opportunity to trial other forms of contract and to run trial projects to look at how they were applied and the real experiences of the teams.

As outlined in the recommendations of the Working Party (see section 4 below), it was felt that all three key contracts (i.e. PPC2000, NEC3 and JCT/CE) could fit any of the procurement routes. However, it was acknowledged that many standard forms are subject to significant amendment when applied to projects and this can make it difficult to link published standard forms to more bespoke risk profiles and project processes.

For that reason, the Working Party agreed the following rules for the trial projects to ensure the standard forms were compared on a realistic basis:

- No amendments to the contract processes and procedures;
- No amendments to risk allocation (except for contractual risk registers and mutually agreeable charges);
- Minor amendments only acceptable where reflecting the procurement process (eg reference to framework agreements);
- No changes to payment periods unless improving/shortening cashflows in line with the Fair Payment Initiatives;
- The approach to liquidated damages, retentions, liabilities and performance guarantees should be consistent across all trails;

- No liquidated damages but if liquidated damages are required and agreed by the team, they should be limited to a maximum of 10% of the contract value, with a 4 week holiday between the end date and the application of liquidated damages;
- No retentions throughout the supply chain;
- No general liability caps but if caps are required and agreed by the team, they should follow Treasury guidelines and relate to the risk assessment or level of supplier's insurance;
- Performance Bonds and Parent Company Guarantees will not be required, and clients will rely on due diligence process applied in advance of preferred contractor selection;
- Supply chain contracts will not conflict with the main contract;
- Use of Project Bank Accounts;
- Development of integrated programmes.

3.2 Independent verification

The Working Party noted the importance of the trials being applied on a consistent basis, in accordance with the above rules, and with the contractual approaches cascading down the supply chain. Without this assurance, the Working Party felt that the experiences of the trials would be difficult to analyse or apply to other projects.

It was felt that the Working Party members were best placed to provide a quasi-gatekeeper role, reviewing contracts and providing a general peer review role. The scope of this gatekeeper role, and the gateway steps and impact of peer review/comments was not considered by the Working Party.

3.3 Selection of appropriate trail projects

3.3.1 Cost-Led Procurement

As outlined in the recommendations of the Working Party (see section 4 below), it was felt that any of the three major forms (ie PPC2000, NEC3 Option C or JCT/CE) could be used as a basis for Cost-Led Procurement.

Of these, the Working Party felt that NEC3 and JCT/CE were most well suited, recognising that both include pain/gain shares to incentivise construction phase efficiencies and have appropriate provisions dealing with collaborative transparent working. The Working Party recognised that there was less experience with the JCT/CE contract, and it was felt that the JCT form was generally less well known and less tested in the marketplace.

For that reason, the Working Party considered that JCT/CE would be the most appropriate standard form to apply to a trail project for Cost-Led Procurement.

3.3.2 Integrated Project Insurance

As outlined in the recommendations of the Working Party (see section 4 below), it was felt that any of the three major forms (ie PPC2000, NEC3 Option C or JCT/CE) could be used as a basis for the Integrated Project Insurance route.

Of these, the Working Party considered that PPC2000 would provide the most relevant trail project. In particular, it was felt that the integration of the project team through a single multiparty contract would make it easier for insurers to have a complete picture of the project and the means of delivery. The fact that PPC2000 already had contractual options for Integrated Project Insurance (described as "Whole Project Insurance" in PPC2000) was also helpful to minimise the need for significant amendments.

For that reason, the Working Party considered that PPC2000 would be the most appropriate standard form to apply to a trail project for Integrated Project Insurance. The Working Party felt that this was a particularly interesting opportunity for a trail project, as there is generally little concept of IPI in the market. It was also noted that Integrated Project Insurance could be developed as an option under other forms of contract, and so the information gleaned from interface with insurers on the trail would be of wider interest.

3.3.3 Two-Stage Open Book

As outlined in the recommendations of the Working Party (see section 4 below), it was felt that any of the three major forms (ie PPC2000, NEC3 Option C or JCT/CE) could be used as a basis for the Two-Stage Open Book .

Of these, the Working Party considered that NEC3 Option C would provide a useful trail. This was not necessarily driven by an exact fit between the characteristics of the Two-Stage Open Book model (particularly the absence of a single contract covering the preconstruction and construction phases), but to some degree by the need to give each of the main contract options the opportunity to run a trail.

4 Recommendations

4.1 Considerations of the Working Party

The Working Party received recommendations ahead of the workshop.

- 4.1.1 Alan Muse (RICS) considered that any of the three major forms (ie PPC2000, NEC3 Option C or JCT Constructing Excellence) could be used as a basis for each of the defined procurement models. This was felt to be consistent with the findings of the Arup report prepared for OGC, which was circulated prior to the workshop.
- 4.1.2 David Mosey and Chris Paul (Trowers & Hamlins LLP) provided first and second preferences identifying the following contracts as suitable for the procurement models:
 - (a) **Cost-Led Procurement:** (First preference NEC3 Option C/ Second preference JCT Constructing Excellence);
 - (b) Integrated Project Insurance: (First preference PPC2000/ Second preference NEC3 Option C);
 - (c) **Two-Stage Open Book:** (First preference PPC2000/ Second preference NEC3 Option C).

4.2 **Recommendations of the Working Party**

Following discussions, and in advance of the results of any trails, it was difficult to select a single contract for any of the defined procurement models. This was due, in particular, to the ability of PPC2000 and NEC3 Option C to be applied to any of the procurement models. The lack of familiarity with the JCT Constructing Excellence form made it difficult to recommend as a solution, although it was noted that the results of the trail may assist.

4 November 2011

Appendix E - Functional Requirement Setting

Attendees:

Paul Meigh (Cabinet Office) Keith Waller (IUK) Steve Goring (EA) Jeremy Bloom (HA) Terry Stocks (MoJ) Richard Molloy (Atkins) Elphick (Skanska) Trevor Hursthouse (SEC) Andrew Butt (Cabinet Office) Mark Bew (BIS/BIM) Russell Symes (EFA) Phil Keeble (MoD) Bob Wallbridge (NIEP) Stephen Underwood (Kier) Alasdair Reisner (CECA)

Terry

Workshop Purpose

To determine principles of functional requirement setting (based on measures of value for money, and centred on performance / output) which would apply to Government clients.

Address the questions of:

- 1) What Government clients are already doing in relation to functional requirement setting?
- 2) Sector by sector application of functional requirement setting?
- 3) What represents best practice (drawing on industry perspective / existing guidance)?
- 4) What represents the right balance in terms of functional requirement before clients go to market?
- 5) How this varies depending on the procurement route?

Workshop Agenda

Part 1: Review existing departmental and industry practice / guidance

Part 2: With reference to the new models of procurement, explore the depth of specification required before clients go to market

Part 3: Confirm key principles representing best practice including right balance re: depth of specification required before going to market

1. Introduction / Workshop Outcomes

The workshop was successful in generating the following outcomes:

- 1) Principles of functional requirement setting that address the earliest appointment of the integrated team (as defined by the new models of procurement) and which are applicable across government.
- 2) Corresponding assumptions.
- 3) Other considerations.

It was therefore considered that time was best spent during the workshop addressing principles of functional requirement setting as they related to the new models of procurement, rather than covering in general the principles of requirement setting as they would apply to different client capabilities, project complexities and/or procurement routes.

Next steps: Attendees to comment on notes and final version of the principles of functional requirement setting that will be prepared for publication 2 July 2012.

2. Principles of Functional Requirement Setting

In facilitating the earliest appointment of the integrated team and encouraging innovation, the client's outcome / output requirement should address the following minimum content within 10-15 pages + minimal annexes:

- Operational objectives (for example, the number of people, assets or volume of traffic to be accommodated);
- Unit capital and operational costs to be achieved (as challenging target costs, as far as possible derived from relevant benchmarks);
- Asset lifespan;
- Sustainability (the minimum number possible of key social, economic and environmental measures);
- Health & safety measures;
- Timetable (including latest delivery date and key decision milestones with corresponding "go"/"no go" criteria);
- Scope of services required of integrated team (testing appropriateness of allocation of duties between client and across the supply chain);
- Specific corporate policies and objectives;
- Behavioural and collaborative integrated working requirements;
- Local / operational / regulatory context and constraints;

- Key performance requirements (minimum possible and including for example renewals policy, durability, flexibility / adaptability)

These principles of functional requirement setting will be incorporated within the trials of the new procurement models and the outcome / output requirements generated will be published, so as to provide illustrations for future reference.

It is considered that the functional requirement at each successive stage of the project should retain the same content list with increasing levels of detail.

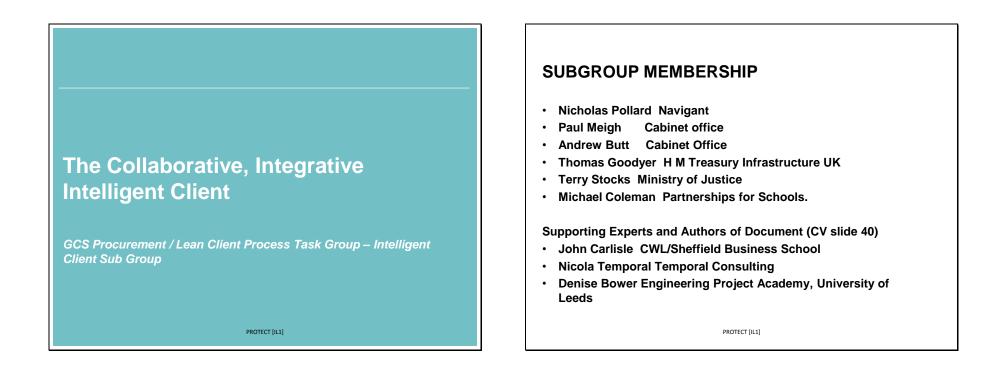
3. Corresponding Assumptions re: Principles of Functional Requirement Setting

- To be applied earliest between Strategic Outline Case and Outline Business Case.
- To ensure value for money, Business Case will include challenging whole life cost targets based on existing cost benchmarks and/or other market tested affordability criteria.
- Integrated team is appointed on the basis of the client's outcome / output requirement and then works with the client to develop the functional specification drawing on existing specifications and POE (Post Occupancy Evaluation) feedback within the challenging cost envelope.
- Provided the integrated team can achieve the client's outcome / output requirements within the challenging cost envelope, then the integrated team automatically proceeds to deliver the project.
- Otherwise the client goes out to market again or reviews affordability by revisiting the original business case.

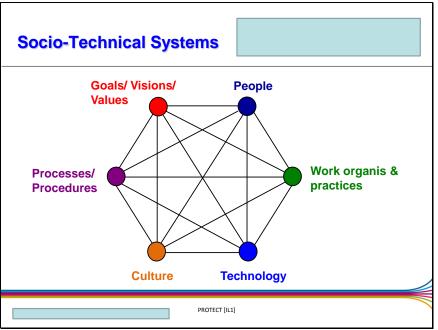
4. Other Considerations

- The outcomes of this workshop have the potential to inform the current BIM prompted review of the RIBA Plan of Work and PAS 1192.
- There is a relationship between the outcomes of this workshop and the Infrastructure Cost Review study addressing standards.
- Innovation and continuous improvement tend to be best stimulated by repetition and increasing standardisation, particularly of requirement (e.g. efficiencies achieved in supermarket construction), whereas in contrast single project innovation can increase risk.

Appendix F - Presentation to the Lean Client process task group







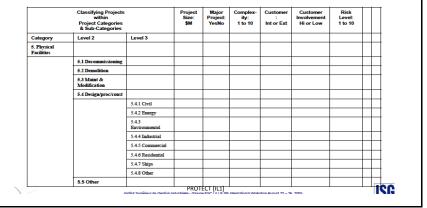
Project complexity

Project Management Complexity F	actor	Descriptor and Points			
1. Stability of the overall project context	Very high	High	Moderate	Low/Very	
	(1)	(2)	(3)	low (4)	
 Number of distinct disciplines, methods, or		Moderate	High	Very high	
proaches involved in performing the projection		(2)	(3)	(4)	
Magnitude of legal, social, or environmeni	tal im- Low	Moderate	High	Very high	
plications from performing the project	(1)	(2)	(3)	(4)	
 Overall expected financial impact (positive	e or Low	Moderate	High	Very high	
negative) on the project's stakeholders	(1)	(2)	(3)	(4)	
Strategic importance of the project to the	or- Very low	Low	Moderate	High/Very	
ganization or organizations involved	(1)	(2)	(3)	high (4)	
Stakeholder cohesion regarding the chara	cteris- High	Moderate	Low	Very low	
tics of the product of the project	(1)	(2)	(3)	(4)	
Number and variety of interfaces between	the Very low	Low	Moderate	High/Very	
project and other organizational entities	(1)	(2)	(3)	high (4)	

Crawford-Ishikura Factor Table for Evaluating Roles (CIFTER)

Project categorisation

Simple Example: Category/Class Matrix





New models of procurement

New Procurement Models	Model Specific Characteristics	Characteristics common across Models
Cost Led Procurement example: HA Managed Motorways, utility Illiance model)	 Key driver for integration: client requirement for integrated proposition with challenging target cost Assumes awarded within framework to facilitate continuous improvement Target price with pain / gain mechanism (e.g. NEC 3 Option C) Mini competition within framework and taken outside framework if required £X/m2 not achieved 	Early contractor involvement Client specifies output for £X/m2 (set against downward cost curve) Client works with integrated supply chain to create design and construct solution Open book Independent verification Achievement of full integration
Integrated Project Insurance	 Key driver for integration: insurer's requirement and third party assurer Beauty parade evaluated on fee levels and ability to deliver client's challenging reqs thro' integration and innovation Insurance backed cost plan and single all risks policy 	, , , , , , , , , , , , , , , , , , ,
3 rd Way – 2 Stage D&B (example EPC Type 2: Project "Andrew")	Key driver for integration: challenging cost target and third party verification Beauty parade evaluated on fee levels and ability to deliver client's challenging reqs thro' integration and innovation Option for fixed price and risk transfer to integrated supplier at 2 rd Stage	

PROTECT [IL1]

Understand the cultural role of the Lean client

GCS Procurement / Lean Client Process Task Group – Intelligent Client Sub Group

PROTECT [IL1]

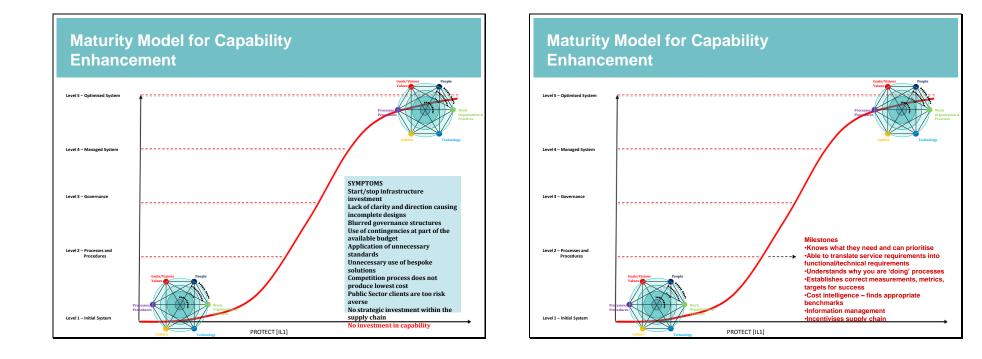
The lean client

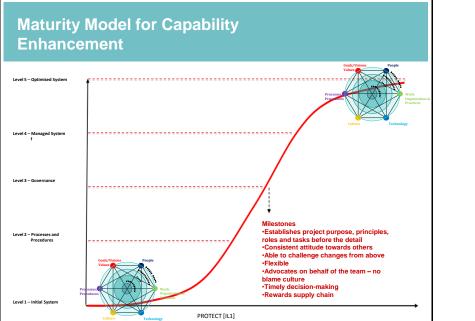
1.The lean client needs to create the optimum environment where sustained shifts in behavioural, and system approaches will be invited/encouraged throughout the life of the contract

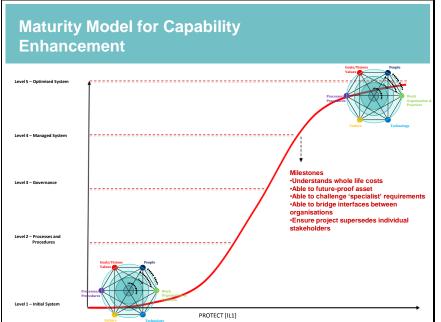
2. They need to understand that they are navigating a cultural JOURNEY towards an emotionally mature and efficient organisation

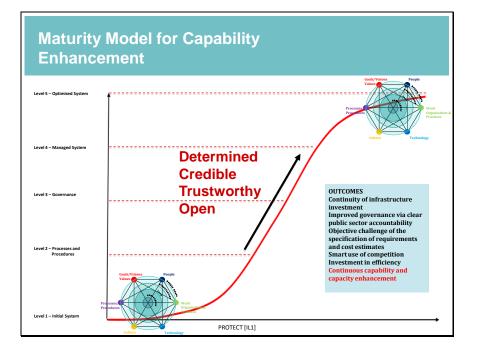
3. They must therefore understand and own the challenge!

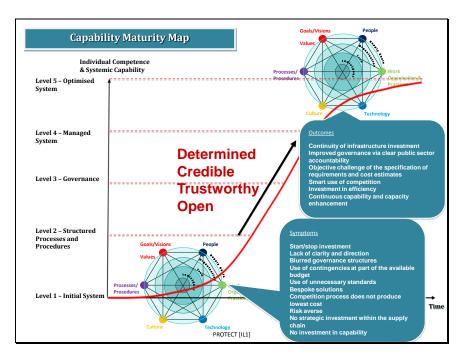
PROTECT [IL1]

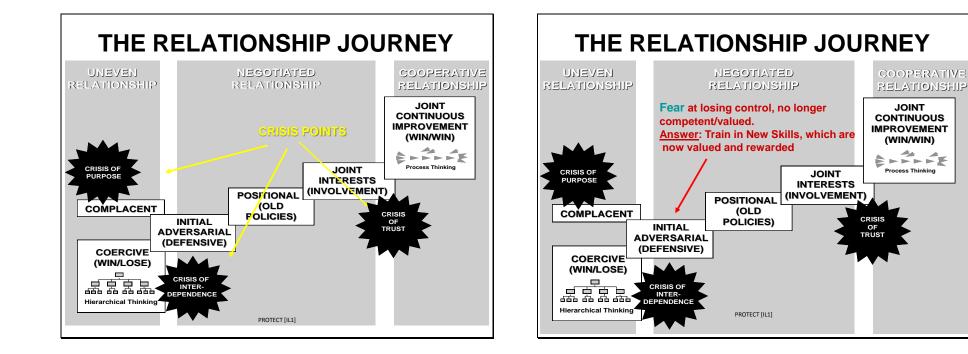


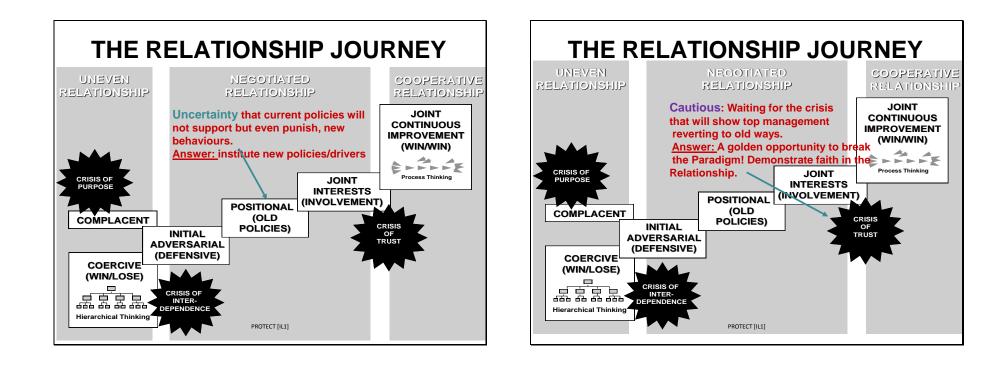












Issues

Lean client is required to understand and own contextual issues

•The construction industry is a high risk / low margin industry this has a big impact on behaviours.

•The purpose of the intelligent client approach is not to provide "a new car to drive" but "to change how the car is driven"

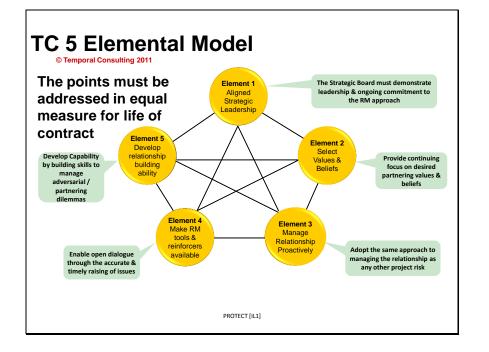
•The behaviours cannot be mandated but rather they have to be invited through: Contract format, strategic alignment, integrated leadership, recruitment strategy "right person for the job"

PROTECT [IL1]

Follow a recognised approach for the collaborative element in order to effectively manage the "Negotiated" part relationship journey

GCS Procurement / Lean Client Process Task Group – Intelligent Client Sub Group

PROTECT [IL1]



Approaches to Procurement

Joint relationship management / collaboration plan addressing:

•overall joint vision or project charter (based on true alignment of intentions and not tick box – so that cultural expectations are realistically and sincerely identified in advance, not when something starts to go wrong)

•selection criteria that require demonstration not only of professional competency but collaborative competency and emotional intelligence

Approaches to procurement

Collaborative relationship roadmap to delivery (or relationship journey) incorporating:

workshops / training / team building to deliver collaboratively

•plans for engaging lower tier suppliers

•collaborative planning sessions

•plan for jointly building, maintaining and managing the culture

•means by which culture monitored as part of the risk profile

•Ownership of behavioural issues and consequent impact

PROTECT [IL1]

Approaches supporting culture

- Early Contractor Involvement (ECI) need to "model" open and productive meetings, usually with the help of a facilitator
- Charters: Some found them useful / initially powerful before they become tick box exercises; while others were concerned they often proved meaningless at the local project level, since only senior management involved in their creation; can also be undermined by middle managers' incentives.
- Complementing the task orientation of construction: There is a tendency for left-brained task orientated individuals – which are predominant in the construction industry – to require assistance in developing confidence in the language of behaviours through the use of tangible tools and processes. Here are some examples below:
- Contractors need to learn how to say "no" to clients and suppliers
 in a timely and competent fashion
 PROTECT [[11]]

Approaches supporting culture

- Middle managers: collaboration needs to embrace not just the senior team and the project team but also the supply chain's middle managers back at the home organisation, and give them the new competencies to succeed in the new environment..
- Creating integrated mindset: Look to find shared experiences at senior level; emotional intelligence and the deep appreciation that the quality of relationship matters to the quality of output; realism to accept that relationship workshops are only the tip of the cultural iceberg; appetite to manage future difficulties differently than in the past.
- Can invite shift in behaviours by modelling what needs to happen but cannot mandate. Nevertheless what the executive does and does not recognise and reward will make a huge difference. Leadership shadow is critically important.

PROTECT [IL1]

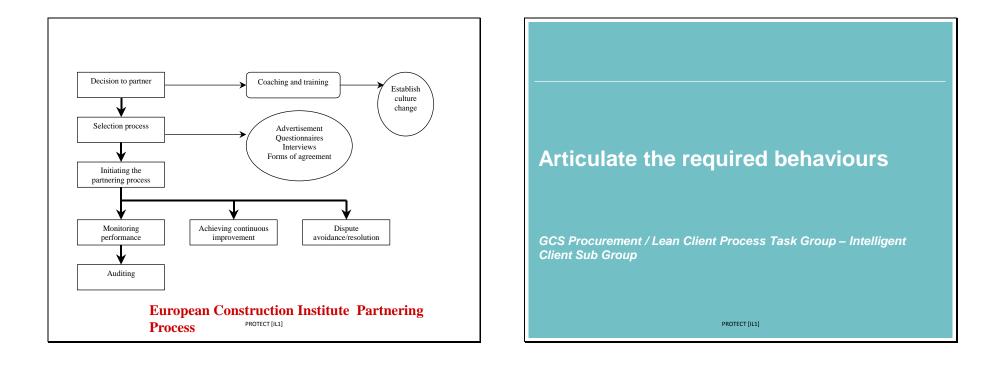
Existing partnering guidance

Recognition of the 3 tenets of partnering / alliancing

-mutual objectives: alignment in the form of a charter and incentive mechanism or instead of a charter, use the Hexagon as the basis for alignment

-continuous improvement: heavily focused on cost saving; and addressing Hexagon

-issue resolution: which should be helped by the new approach to insurance



How the behaviours might be articulated ...

<u>Collaborative Working</u> The ability to work with and support others in the pursuit of separate or competing objectives.

Note - Having competency does not mean that individuals have the willpower to consistently apply these competencies.

In practice do you:

•Actively seek to understand the motives, values and attitudes of others? •Demonstrate strong interpersonal skills and engage with others effectively? •Actively listens to and frequently seek the opinions and contributions of others? •Involve others and share appropriate information, knowledge and outcomes in a timely fashion?

•Encourage others to share appropriate information, knowledge and outcomes in a timely fashion?

•Ask for assistance when needed?

•Respond positively to the requests of others for help and support?

 Indentify areas for resource sharing and opportunities to collaborate or partner with others both internally and externally?

•Develop and maintain networks of working relationships?

•Comfortably work with and as a part of different groups (internal, external, permanent, temporary, cross-functional and cross discipline)? PROTECT [IL1]

Behaviours

The 'Perfect' Public Sector Client

•Has a high awareness and ability to manage and lead on both the cultural and business issues. Not just one dimension.

•Understands that in the current climate of change and huge business challenges they have a significant role as catalysts for cultural change between the public and private sector

•Has a high level of emotional intelligence as well credible practical experience

•Resolute/Has Conviction/Determination/Backbone

•Credible – Technically respected/admits what they don't know •Lead from a psychological stance of joint interest working e.gTrustworthy ,Open and Honest

Behaviours

The 'Perfect' Intelligent Public Sector Client

•Understands whole life cost (cradle to grave)

•Knows what they need and can prioritise - time/cost/quality/CO2

•Able to translate service requirements into functional/technical •requirements

•Able to future-proof asset - adaptable to other uses

•Able to challenge 'specialist' requirements

•Understands why you are 'doing' processes – not just for the sake of it/ we've always done it

•Cost intelligence – not just derived from advisors/finds appropriate benchmarks

•Able to challenge changes from above

Behaviours

The 'Perfect' Public Sector Client

•Flexible

•Establishes project purpose, principles, roles and tasks before the detail

•Consistent attitude towards others

•Advocates on behalf of the team/Establishes a no blame culture

•Establishes correct measurement/metrics/targets for success

•Timely decision-making

Information management

•Able to bridge interfaces between organisations

•Ensure project supersedes individual stakeholders

•Rewards/Incentivises supply chain



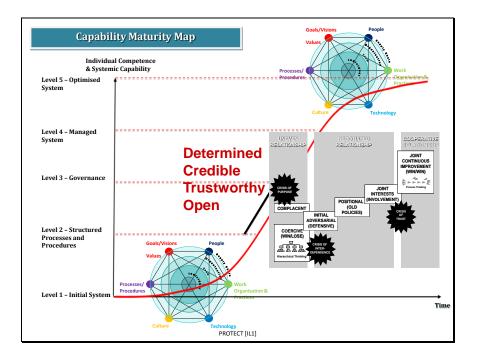
Summary

- Rapid appraisal (categorisation to ensure that the right strategy is adopted)
- Agree where you are on the maturity / relationship map and where you want to get to (maturity assessment)
- Choose appropriate procurement strategy and model of collaboration (contract route, partnering process and 5 element model)
- Work hard to achieve the desired behaviours these must be clearly stated for the collaborative, integrative Intelligent Client

Leading the change programme

SoS and Ministers need to:

- Visibly lead from the very top
- · Validate and verify the approach outlined
- Form a steering group to oversee the change programme
- Hold master classes with key clients and tier 1 contractors
- Exemplar projects where the model outlined above is implemented and trialled.
- Learn lessons from project development and procurement phases
- Full roll out with incentives and full governance structures
- Measure journey against agreed KPIs



Background to Sub Group Experts

Prof. Denise Bower - Professor of Engineering Project Management and Director of the Engineering Project Academy at the University of Leeds. She has recently completed a study for the European Construction Institute examining approaches to organizational capability and capacity building in the area of project management. Her recent work includes the evaluation of procurement strategies, assessment of corporate strategy, the development of organisational partnering guidelines, the evaluation of the success criteria for a number of partnering arrangements and recommendations of contract strategies for overseas projects. Denise is Chair of the Capacity Building Panel of the Institution of Civil Engineers (ICE). Denise is the author and joint author of many books and publications, including, *The Management of Procurement, Engineering Project Management, Dispute Resolution for Infra-Structure Projects and Managing Risk in Construction Projects.*

Dr John Carlisle - Organisational psychologist and Visiting Professor at Sheffield Business School. Started in this field with Shell in 1993, following ground-breaking work in cooperative supply chains across the world. Successful projects include creation of a culture of openness and cooperation for the TKE project of the Hong Kong Mass Transit Railway Corporation, which came in early and \$1.5 billion below budget.

Nicola Temporal- Consultant in relationship management, who is informed by her psychotherapy training and has 18 years experience supporting project teams in the construction industry. Her work has supported the development of collaborative cultures across the HA sector including M25, Areas 3, 1, ATM Pilot, Birmingham Box and managed motorway projects M62, A556. Other public sector clients have included Essex, Hertfordshire and Oxfordshire county councils, supporting the delivery of client and supplier teams as a means of achieving targeted efficiencies.

Her work is highly specialised developing integrated client supplier cultures informed by the 5 elemental model and various tools and techniques designed over two decades, some of which have been shared in this presentation.

Appendix G - Effectiveness of Frameworks Report

Government Construction Strategy

Effectiveness of Frameworks

A report by the Working Group on the Effectiveness of Frameworks of the Procurement and Lean Client Task Group

Final version – 7th March 2012

1. Executive Summary

1.1 The Effectiveness of Frameworks Working Group of the Procurement and Lean Client Task Group was established to deliver Objective 10.1 of the Government Construction Strategy:

"To assess the effectiveness of frameworks, in collaboration with departments and the National Improvement and Efficiency Partnership (NIEP) for Construction".

1.2 This Report is presented to the Government Construction Board (GCB) on the findings and recommendations of the Effectiveness of Frameworks Working Group (The Working Group).

1.3 The Working Group has collected evidence from key central government departments and the wider public sector via the NIEP. This evidence indicates that benefits can accrue from the use of effective frameworks in procuring construction and they include:-

1.3.1 Delivering sustainable efficiency savings;

- **1.3.2** Reduction in consultancy and construction costs;
- 1.3.3 Delivery of projects closer to target cost and time;
- **1.3.4** Reduction of disputes, claims and litigation;
- 1.3.5 High client satisfaction rates;
- 1.3.6 High proportion of value of work undertaken by Small and Medium-sized Enterprises (SMEs);
- **1.3.7** High proportion of local labour and sub-contractors;
- 1.3.8 High take-up of government initiatives e.g. Fair Payment, Apprenticeships, Localism etc;
- **1.3.9** High proportion of construction, demolition and excavation waste diverted from landfill;
- 1.3.10 Good Health and Safety performance against national average;
- 1.3.11 Acting as a key enabler to integration of the supply team.

1.4 The Working Group found that effective framework agreements do exist in the public sector and these have already delivered substantial benefits - both cashable and non-cashable to public sector clients.

1.5 The Working Group's investigation has identified that many public organisations believe that they could not deliver their programmes of construction procurement without the use of framework agreements.

1.6 The Working Group Recommends that:-

- 1.6.1 The principles established in this report should be adopted and implemented by the Government Construction Board;
- 1.6.2 The findings from this investigation should be made available to framework owners/managers to highlight the potential risks to effective framework agreements through poor practice;

1. Executive Summary (Cont)

- 1.6.3 Rather than look back to existing frameworks, in order to categorise these as *Effective, Ineffective or Indifferent*, the Government Construction Board should agree that future framework agreements should address the core principles and key features of an Effective Framework as detailed in section 5.3 of this report;
- 1.6.4 That the Government Construction Board should put in place governance to act as a 'clearing house' for proposed framework agreements to assess their compliance with the agreed features of an Effective Framework. An Accreditation Mark should be awarded to compliant frameworks;
- 1.6.5 The life of the Effectiveness of Frameworks Working Group should be extended to develop an implementation plan and support the delivery of future work in this area. A quick win for this plan could be the production of a short how-to guide for construction frameworks.

2. Introduction

2.1 The Government Construction Strategy (Cabinet Office, May 2011) calls for a radical change in public sector construction procurement, by changing the relationship between public sector construction procuring authorities and the construction industry. This is so as to ensure that Government consistently gets a good deal; the country gets the social and economic infrastructure it needs for the long-term, while maintaining a healthy and profitable industry.

2.2 Objective 10(i) of the Government Construction Strategy requires the Cabinet Office to assess *"the effectiveness of frameworks, in collaboration with Departments and the National Improvement and Efficiency Partnership (NIEP) for Construction"*. The Strategy notes at section 2.38 that there is a plethora of construction frameworks in the public sector with varying degrees of quality: *"Evidence and commentary from a spectrum of clients and contractors point to the highly effective use of some frameworks, but also to other frameworks which are less effective"*.

2.3 The work to assess the Effectiveness of Frameworks, in discharging that Strategy objective, was directed by a Working Group drawn from Task Group 1 – Procurement and Lean Client, with representatives from the Cabinet Office, Hampshire County Council, the National Efficiency and Improvement Partnership for the Built Environment (NIEP), the Civil Engineering Contractors Association (CECA), the Specialist Engineering Contractors Group (SEC Group), Kier, Partnerships for Schools, HM Treasury, University of Salford, the Department of Health, the Ministry of Defence, Environment Agency and the Ministry of Justice. The work was led by the Cabinet Office and with support from the NIEP and the Centre for Construction Innovation from the University of Salford.

2.4 This report represents the findings of that investigation for consideration by the Government Construction Board.

3. Context

3.1 For the purpose of this investigation the Working Group defined Framework Agreements in line with the Public Contracts Regulations (2006):

"[An] agreement or other arrangement between one or more contracting authorities and one or more economic operators which establishes the terms (in particular the terms as to price and, where appropriate, quantity) under which the economic operator will enter into one or more contracts with a contracting authority in the period during which the framework agreement applies".

3.2 There are a wide range of frameworks available to public sector construction clients. Frameworks are not standard in approach because they have been designed to deliver the different business needs and outcomes that particular clients are required to achieve. For example, frameworks vary from the very large and complex to small specific arrangements for a particular service. Frameworks also vary quite widely in terms of the number of service providers appointed and overall predicted value. In some instances a complete service is provided by a single contractor with total exclusivity, in others large numbers of suppliers are appointed, with some who may never secure work. The following framework types currently exist within the sector:-

- 3.2.1 National and regional frameworks for central government departments and executive agencies;
- 3.2.2 National, regional and sub-regional frameworks within the NIEP community;
- 3.2.3 Collaborative frameworks by a group of local authorities or other organisations within a discrete geographic area;
- 3.2.4 Unilateral arrangements available to a broad cross-sector of authorities;
- 3.2.5 Single organisation frameworks;
- 3.2.6 Government Procurement Service frameworks available to the wider public sector;
- 3.2.7 Other specialist frameworks, for example, Partnerships for Schools' Contractors Framework for Academies.

4. Approach to the Investigation

- 4.1 For the purposes of this investigation the public sector is defined as:-
 - 4.1.1 Central government departments;
 - 4.1.2 Executive agencies and Non-Departmental Public Bodies;
 - 4.1.3 Local authorities;
 - 4.1.4 Fire and police authorities;
 - 4.1.5 Further and higher education institutions;
 - 4.1.6 Schools (independent, VA and Free) and Academies.
- 4.2 Frameworks have been used extensively in construction for a wide range of works and services, including:-
 - 4.2.1 Construction works;
 - 4.2.2 Professional services;
 - 4.2.3 Specialist works;
 - 4.2.4 Supply chains and bulk purchasing arrangements;
 - 4.2.5 Maintenance and FM.

4.3 The evidence gathered for this report was drawn from frameworks for construction works, some of which also included design and professional services elements. For the purpose of this investigation no new primary research process has been undertaken. Data has been collected from Government departments and agencies from material that has already been produced for other purposes. Existing frameworks are being managed and measured for a range of reasons including gateway reviews, on-going performance reviews and renewal decisions. While this is a rich source of quantitative and qualitative evidence, care is needed in interpreting it as the information has been collected using different methods.

4.4 The Working Group has collected evidence from key central government departments (DfE, DoH, EA, MoD, MoJ) and the wider public sector via the NIEP. At the time of establishing their respective framework each public body will have sought to identify the business needs. As these business needs can differ, they are likely to have designed and developed different approaches to frameworks. These differences may go some way towards explaining to the market place the distinctive elements of frameworks that sometimes lead to confusion.

4.5 The narrative for each framework is presented in Appendix 1 – Framework Descriptions. This served to allow the investigation to progress with a common understanding amongst the investigators and the participants. Discussion on the difference between approaches in the government departments and the NIEP emphasised that:-

- 4.5.1 The broad principles of framework procurement and operation are the same even if processes are different;
- 4.5.2 The frameworks all seek leverage to maximise benefits to clients in the long-term;
- 4.5.3 The frameworks all seek to ensure early supply chain engagement and integration, and;
- 4.5.4 Each of the frameworks seeks to ensure consistency of approach within their own operation.

4. Approach to the Investigation (Cont)

4.6 The approach and structure of the investigation is summarised in Figure 4. The investigation began with a review of material produced by the National Audit Office, Office of Government Commerce, Cabinet Office Efficiency and Reform Group and the NIEP. In parallel, the NIEP consulted with its network of construction and consultancy frameworks and collated live data from each region to form a national data set.

4.7 The NIEP work provided a methodology that included a template for presenting benefits achieved by frameworks and a classification to map the key features of frameworks to the procurement life-cycle of planning, procurement and operation. This approach has been adopted in this investigation. This has been tested through three multi-stakeholder workshops and input received from critical commentators including the Procurement and Lean Client Task Group and specialist industry representative bodies such as Specialist Engineering Contractors Group, National Specialist Contractors Council, and Civil Engineering Contactors Association.

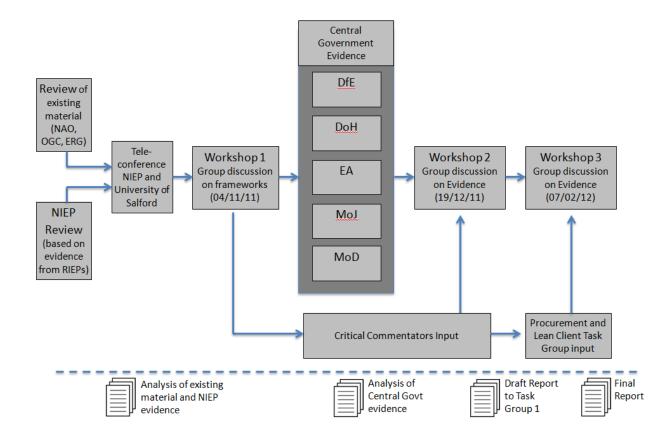


Figure 4: The Approach to the Investigation

5. Findings

- 5.1 The Working Group's conclusions and recommendations are built from the following:-
- 5.1.1 The Headline Evidence on Frameworks Performance reviewed in this investigation (Section 5.2; detailed evidence sheets are presented in Appendix 2);
- 5.1.2 Key features of an effective framework structured around the three phases of planning, procurement and operation (Section 5.3);
- 5.1.3 A summary of an effective framework that has emerged from the investigation from the data, and from the workshops conducted (Section 5.4);
- 5.1.4 The key risks to framework effectiveness identified by the working group during the course of the investigation (Section 5.5).

5.2 Headline Evidence on Framework Performance

- 5.2.1 Based on evidence of framework performance that was collected during this investigation the Working Group identified that the following benefits accrued from the use of effective frameworks in procuring construction⁶:-
- 5.2.1.1 Delivering sustainable efficiency savings;
- 5.2.1.2 Reduction in construction and consultancy costs;
- 5.2.1.3 Delivery of projects closer to target cost and time;
- 5.2.1.4 Reduction of disputes, claims and litigation;
- 5.2.1.5 High client satisfaction rates;
- 5.2.1.6 High proportion of value of work undertaken by SMEs;
- 5.2.1.7 High proportion of local labour and sub-contractors;
- 5.2.1.8 High take-up of government initiatives such as Fair Payment, apprenticeships, localism etc;
- 5.2.1.9 High proportion of construction, demolition and excavation waste diverted from landfill;
- 5.2.1.10 Good Health and Safety performance against national average;
- 5.2.1.11 Acting as a key enabler to integration of the supply team.
- 5.2.2 The benefits identified above demonstrate that effective framework agreements do exist in the public sector. The Working Group was informed that many organisations could not deliver their programmes effectively without the use of framework agreements.

5. Findings (Cont)

5.3 Features of an Effective Framework

5.3.1 The key features of effective framework agreements that are detailed in the Table below are not necessarily exclusive to framework arrangements; the attributes can also be prerequisites in other effective construction procurement mechanisms or routes to market.

1	FRAMEWORK PLANNING (9 months)
1.1	Business Need
1.1.1	Identify the core business needs of the client and determine how they will be reflected in framework planning, procurement and operation.
1.1.2	Properly planned and developed business cases ensuring framework strategy is supported and that business need, income, cost, benefits and the risks are properly outlined.
1.1.3	Engage with all stakeholders and co-design the framework strategy, consider strategic objectives of localism, sustainability, efficiency.
1.1.4	Collaborate with partner organisations in the locality, regionally and nationally, ensuring an overall fit with existing landscape.
1.2	Market Capacity
1.2.1	Understand capacity, know your market and define an achievable throughput to ensure that the supply chain achieves predictable turnover. Through the achievable throughput the framework generates adequate 'income' to pay for management arrangements.
1.2.2	Through consultation avoid conflict with duplication of established procurement arrangements.
1.3	Appropriate Governance
1.3.1	Establish framework ownership arrangements, agree governance and commercial terms; and ensure the framework is effectively governed.
1.3.2	Consider appropriate risk sharing arrangement to help inform the form of contract for the underlying contracts, competency of contractors, risk transfer and pain / gain share arrangements.
1.3.3	Identify a suite of complimentary arrangements e.g. consultancy, minor and major works, repairs and maintenance.
1.4	Design Outcomes

1.4.1	Agree Building Information Modelling (BIM) strategy.
1.4.2	Agree sustainability strategy:
	Waste to landfill (WRAP), carbon reduction, whole life cost (BIM), Key Performance Indicators (KPI) performance measurement and management.
1.4.3	Agree economic regeneration strategy:
	Recycling the local £, encouraging social enterprise, monitoring engagement.
1.5	Supply Chain Engagement
1.5.1	Agree SME and supply chain engagement strategy –
	- Ensure engagement in national, regional and local frameworks
	- Emphasise the involvement and integration of tier 2/3 suppliers within the framework and design team
	- Ensure transparent approach and client engagement with supply chain
	- Local sourcing, fair payment provision down the supply chain, measure and monitor engagement
	Agree employment and skills strategy:
	Proactive intervention for jobs, apprenticeships/ local employment outcomes linked to framework processes, monitor engagement

2.0	FRAMEWORK PROCUREMENT (12 months)
2.1	Business Case
2.1.1	Agree framework management arrangements to ensure they operate as "a business" on a self sustaining basis with a desire to deliver excellent outcomes.
2.2	Stakeholders
2.2.1	Lead or collaborate with other like minded client organisations.
2.2.2	Properly planned and resourced procurement with engagement of key stakeholders.
2.2.3	Ensure competent procurement professionals are engaged to understand OJEU regulations and procurement procedure to ensure quality tenders and few queries and/or challenges from the supply chain.
2.3	Supply Chain Engagement
2.3.1	Simplify procurement processes to encourage greater SME involvement
	Ensure obligations in the framework agreement which bring certainty to delivery of SME engagement strategy (fair payment, collaborative values flow down the supply chain, pipeline visibility, performance management)
	Provide mechanisms for greater client influence over negotiations with its supply chain
2.4	Design Outcomes
2.4.1	Structure lots and value bands to ensure adequate workload and appropriate risk sharing arrangement to match the right supplier for the type of work being tendered.
	Continuous Improvement
2.4.2	Set measurable targets for continuous improvement (localism, efficiency, sustainability) with stakeholders.

3.0	FRAMEWORK OPERATION (48+ months)
3.1	Management of Framework
3.1.1	Invest in development and management of framework - dedicated framework management team proactively managing and capturing benefits, supporting clients.
3.2	Appropriate Governance
3.2.1	Establish relationship and regular forums between framework management, contractors, supply chain, consultants and clients.
3.3	Business Case Review
3.3.1	Demonstrate value for money and competitive tension are achieved through cost benchmarking and targeting.
3.3.2	Demonstrate early engagement of contractors and supply chain in the design process where their contribution reduces cost and increases whole life value.
3.4	Creating Programmes / Clusters
3.4.1	Sustainable workload in well organised programmes of work in line with predicted throughput.
3.4.2	Common delivery and standardisation of work through programmes.
3.4.3	Create clusters and programmes of work of sufficient scale and duration to incentivise the supply chain and maximise local economic and social impact, demonstrate continuity of workload for supply chains.
3.5	Supply Chain Engagement
3.5.1	Implement mechanisms that bring certainty to intended level of SME engagement and client visibility of supply chain
	Enable clients to have some influence over negotiations and management of supply chain decisions
	Early engagement of supply chain to influence specification and buildability decisions
	Provide pipeline visibility
	Ensure clear processes are established to ensure collaborative values and Tier 1 terms and conditions are cascaded down the supply chain
	Demonstrate fair payment practices are adopted through supply chain to encourage cash flow down to Tier 3
3.6	Framework Outcomes
3.6.1	Ensure that the Framework achieves its target spend.
3.6.2	Implement BIM and whole life cost assessment in the design process enabling carbon impact and longevity decisions to be made about building components.

3.6.3	Demonstrate a reduction in carbon footprint and waste to landfill through products utilised and impact of the supply chain.
	Continuous Improvement
3.6.4	Encourage innovation and standardisation through supplier groups and champions, strategic forums, capturing lessons learnt, championing new areas of development.
3.6.5	Demonstrate continuous improvement in time, cost, social, economic and environmental targets and relationship between parties on the framework.
3.6.6	Demonstrate decrease in worklessness by providing training and employment opportunities for apprentices and local people through the framework.
3.6.7	Actively supports clients through management arrangements ensuring that clients are left with a legacy of improvement.
3.6.8	Put in place a structured/managed continuous improvement process to carry across key lessons learnt to any further frameworks being established.

5. Findings (Cont)

5.4 Definition of an Effective Framework

5.4.1 For the purposes of this work the Working Group agreed that an *Effective Framework* is one that:-

- 5.4.1.1 Has a demonstrable business need;
- 5.4.1.2 Has effective governance processes, active stakeholder engagement and client leadership;
- 5.4.1.3 Actively supports its clients throughout the project lifecycle, ensuring that clients and the supply chain receive a legacy of improvement;
- 5.4.1.4 Is driven by aggregated demand to create volume and generate efficiencies, and provides sufficient work opportunities to cover supplier investment;
- 5.4.1.5 Maintains 'competitive tension' in terms of value, quality and performance during its life;
- 5.4.1.6 Is designed and managed to deliver the required outcomes and continuously improve upon them;
- 5.4.1.7 Can demonstrate greater value for money for the taxpayer;
- 5.4.1.8 Pays fairly for the work done and the risks taken;
- 5.4.1.9 Contributes to the development of an effective and efficient construction market;
- 5.4.1.10 Harnesses the power of public sector procurement to provide jobs and skills, local employment and enables SMEs to prosper;
- 5.4.1.11 Ensures supply chains are engaged from the earliest stages of a project;
- 5.4.1.12 Ensures transparency and collaborative values flow down the supply chain to produce supply chains that clients can have confidence in.

5.5 Risks to Framework Effectiveness

5.5.1 The following major risks to undermining framework effectiveness were identified by the Working Group and critical commentators, during the investigation:-

- 5.5.1.1 Framework agreements that are not driven by demonstrable business need;
- 5.5.1.2 Framework agreements that are not designed to effectively deliver the business needs of potential clients;
- 5.5.1.3 'Non –managed' Framework agreements that are merely used as short cuts to market rather than a means of sustainable effective delivery;
- 5.5.1.4 Public sector clients engaging advisors/consultants who are not familiar with or committed to collaborative partnering processes and who promote lowest cost tendering. This potentially leads to tension between these consultants /advisors and framework contractors;
- 5.5.1.6 Frameworks perceived as an opportunity to generate income, sovereignty and job protective behaviours;
- 5.5.1.7 Frameworks perceived as a quick route to market (OJEU avoidance);
- 5.5.1.8 Less expert clients believing that lowest cost tendering will deliver best value;
- 5.5.1.9 Less expert clients not understanding that more complex schemes may benefit from retaining some risk by the client.

6. Conclusions

6.1 Discussion

6.1.1 Framework agreements remain a sensitive topic to framework owners, potential clients and to suppliers. The approach to construction procurement, including through frameworks, has varied between sectors and contracting authorities. The regulatory environment of the particular construction sector and the business needs of the clients have been key drivers. The reasons for variances have not always been apparent to potential users or suppliers. Where the procurement processes are transparent potential users can derive more benefit. Where the required outcomes of the procurement process are transparent, the potential suppliers are more tolerant. Some framework owners have moved towards stronger control mechanisms on the behaviour of client users.

6.1.2 Against this background, the Working Group found that effective framework arrangements do exist in the public sector and these have already delivered substantial benefits. The Working Group's investigation has identified that many public organisations believe that they could not deliver their programmes of construction procurement without the use of framework agreements. Client capacity and the costs of traditional procurement arrangements themselves are prohibitive.

6.2 Recommendations

6.2.1 The Working Group Recommends that:-

- 6.2.1.1 The principles established in this report should be adopted and implemented by the Government Construction Board;
- 6.2.1.2 The findings from this investigation should be made available to framework owners/managers to highlight the potential risks to effective framework agreements through poor practice;
- 6.2.1.3 Rather than look back to existing Frameworks, in order to categorise these as Effective, Ineffective or Indifferent, the Government Construction Board should look forward and agree that future framework agreements should address the core principles and features of an Effective Framework as detailed in section 5.3 of this report;
- 6.2.1.4 That the Government Construction Board should put in place governance to act as a 'clearing house' for proposed framework agreements to assess their compliance with the agreed features of an Effective Framework. An Accreditation Mark should be awarded to compliant frameworks;
- 6.2.1.5 The life of the Effectiveness of Frameworks Working Group should be extended to develop an implementation plan and support the delivery of future work in this area. A quick win for this plan could be the production of a short how-to guide for construction frameworks.

6. Conclusions (Cont)

6.3 Future Work

6.3.1 It is also proposed that the Effectiveness of Frameworks Working Group should be charged with finding a way to investigate in more detail:-

- 6.3.1.1 Maintaining competitive tension the impact of frameworks on contestability and competitiveness of construction markets;
- 6.3.1.2 The impacts of frameworks on the business models of suppliers especially investigate how behavioural change can be driven beyond Tier One;
- 6.3.1.3 How a standard approach to the design, management and evaluation of frameworks can be developed.

Department for Education, Partnerships for School: Contractors Framework

The Partnerships for Schools (PfS) Contractors Framework was set up to allow designated educational bodies such as local authorities and academy sponsors, in England to procure Primary, Secondary and Special Schools based on a known construction cost, that is derived from a fixed funding formula. The framework splits England into North and South sectors with 12 design and build contractors in each sector.

The OJEU compliant framework allows for the inclusion of local selection criteria in line with the principles of the framework. The project call-off process is in two stages; firstly, the Preliminary Invitation to Tender (PITT) comprising initial engagement and short listing, and secondly, the full Invitation to Tender (ITT) and evaluation. The ITT stage is a mini-competition between two design and build contractors based on the most appropriate and best quality design for the given cost. As the funding for projects is fixed, bidders could offer 'added value' items to make its bid more attractive by demonstrating it would achieve better value for money. These items have recently been reviewed by PfS, resulting in the funding calculation being revised downwards and more contractor-led standard designs encouraged as per the James Review to provide 'cashable' savings which the framework contractors have supported.

The framework is managed by PfS with regular contractor forums in which issues are raised and discussed. The designated educational body (usually, but not always, a local authority) is the contracting party and responsible for the selection and delivery of its scheme supported by PfS. The design and build contracts are standard and must be used by the framework supplier. The designated educational body is responsible for the involvement of any local stakeholders. Users of the framework have access to the 'Users Guide' published by PfS, plus designated PfS personnel to provide support to sponsors, project managers, and delivery teams to ensure they have the resources, knowledge and skills to successfully deliver projects.

The PfS Contractors Framework not only has to deliver all projects within the agreed cost, quality and programmed requirements, but also meet core performance KPIs at framework level such as time predictability, client satisfaction and sustainability measures (such as SME engagement, apprenticeships , waste and carbon measures). A National Audit Office report looking at Building Schools for the Future (BSF), included investigation of various procurement approaches including the Contractors Framework (commonly called the Academies framework, stated a 9.5% reduction in outturn costs under the framework when compared with single procurements previously undertaken.

Department of Health: ProCure21+

The ProCure21+ framework is for the development of capital schemes in the English NHS (and associated partners). it can be used for major and small works, refurbishments, business and estates planning, capital planning and clinical planning. There is no lower or upper value threshold. Six Principal Supply Chain Partners (PSCPs) have been appointed to the framework, each offering a single point of contact for the NHS client. There are over 200 Primary Supply Chain Members and a significant number of other suppliers registered in their supply-chains. Clients have the ability to influence the supply-chain to incorporate local suppliers.

The Department of Health facilitates the implementation of the framework and procurement process by provision of implementation advice and guidance, and free training. Clients must agree to the ProCure21+ Client Charter as a condition of using the framework. The charter outlines good project management practice and the key responsibilities of managing a ProCure21+ scheme. There is a standard PSCP selection process that enables NHS Clients to comply with procurement regulations and negate them having to complete an OJEU process themselves. Selections are based upon local criteria in line with the principles of the framework and are based on quality not cost. A selection process can be completed within as little as 3 weeks, but on normally takes 4-6 weeks. This saves approximately 6-9 months in procurement time and associated costs, whilst enabling the provision of health care services sooner and revenue earlier. Early engagement of the supply-chain is encouraged to increase quality of design, engage key stakeholders, ensure cost robustness, minimise risk and increase certainty of delivery on time and budget. This engagement provides added value to the scheme and enhances the quality of the overall product.

Clients and the PSCPs agree a contract (NEC Option C with activity schedule) for the development and delivery of the works. They follow standard principles, processes and contract templates to develop and deliver the scheme, all mandatory conditions of using the framework. This consistency of approach ensures high quality delivery across the framework. Clients and PSCPs agree a guaranteed maximum price which is linked to a gain-share mechanism. PSCPs bear the cost burden of unauthorised changes and costs.

The framework has a solid governance structure that involves suppliers and clients in development of the framework. The Department of Health engages a Programme Board with representation from NHS clients, PSCPs, the Cabinet Office and the Department for Business Innovation and Skills, alongside representatives from the Department of Health itself. The Department also hold a monthly Partnership Group meeting with all PSCP Framework Leads in attendance. There are various working groups there-on that engage supply-chain members. There is a named board level contact for each of the PSCPs who is ultimately responsible for all activities of that PSCP under the framework. Each PSCP has a named Framework Lead for day-to-day management of PSCP activities. Individual NHS clients are responsible for the development and delivery of their schemes under the framework. They are the key signatories to the NEC3 scheme contract, as set out in template form by the Department of Health.

Department of Health: ProCure21+

Key performance information and cost analysis data is collected for all schemes and is made available to all schemes and the Cabinet Office. Core performance measures data include cost and time predictability and client satisfaction KPIs. Sustainability measures include waste, carbon and BREEAM. Cost benchmarking reports and 180 live cost analysis examples have been produced and are made available to schemes for planning and benchmarking purposes. The Department of Health is working with the PSCPs to set benchmarks across a range of NHS construction categories, from which challenging cost improvement targets will be set. This is in response to the *Government Construction Strategy* and the requirement to reduce the costs of public construction.

Environment Agency: National Contractors Framework

The Environment Agency's National Capital Programme Management Service (ncpms) Commercial Team have responsibility for the Agency's construction procurement and suppliers. There are four main construction related frameworks that have been procured for the Environment Agency (EA) to use:

- National Engineering and Environmental Consultancy Agreement 2 (NEECA2)
- National Contractors Framework 2 (NCF2)
- National Cost Management Framework (NCMF)
- National Site Investigation Framework 3 (NSIF3)

These frameworks were established primarily for use by the EA, although flexibility for use by other operating authorities does exist on some of them.

The NCF2 framework was established to deliver the EA's capital programme, especially in meeting Government targets on the number of properties protected and BAP habitats. The principle framework objectives include achieving value for money in the construction process as a whole, continuously improving quality and providing consistent performance to the highest national standards across all EA projects. The framework seeks to maximise savings through: benefits gained from value engineering on a project or delivering a project below budget; benefits gained from a changed course of action that prevents the EA from spending money that would have achieved the same outcome, and; efficiency savings.

The EA manages the framework and contracts directly with the suppliers as projects are called off. Individual project appointments are largely made via mini-competitions. There is a standard three-stage selection process that enables the EA to comply with all relevant procurement legislation and enables early contractor involvement in projects. Selections are based on project specific criteria and are made on quality and cost criteria. The EA and contractors have adopted a partnering approach in the application of the provisions of the NCF2 agreement and work collaboratively in the delivery of all contracts called off under this agreement. Unless agreed otherwise by the EA and the contractor all works contracts called off this agreement will be based on options of the NEC Engineering and Construction Contract (ECC).

The NCF2 management and governance structure has three tiers: National Framework Board; National Framework Management Group; and; Integrated project management teams. Contractors work together with the EA to develop common management systems and processes for the operation of the frameworks. This offers an approach that can deliver consistency, assist in continuous improvement, and deliver aligned objectives. The agreement is managed nationally on behalf of the EA by the Commercial Manager in the ncpms. Respective contractors appoint a national framework manager to manage the agreement on behalf of the contractor and to liaise with the EA on a national basis. Board and management meetings may be jointly held with members of the EA's NEECA2 Framework and to collectively review progress and performance under the agreements.

Environment Agency: National Contractors Framework

The EA and contractors work together so that data can be produced in an agreed and consistent format to monitor and assess framework performance. The KPIs collected include cost predictability, time predictability, reuse of materials, and waste to landfill, Accident Frequency Rate, pollution incidents, houses protected BAP habitat creation, and efficiency savings.

Ministry of Defence, Defence Infrastructure Organisation: Project SLAM

The MoD's Project SLAM (Single Living Accommodation Modernisation) is a tridefence service project which aims to upgrade progressively the worst Single Living Accommodation (SLA) to Grade 1 physical condition. The MoD places a high value on its servicemen and women, and by delivering the SLAM living environment evidence is provided of this commitment.

The SLAM contract was awarded to Debut in December 2002 and construction work began in April 2003. The Functional Prime Contractor is Debut Services Ltd (Bovis Lend Lease Ltd & Babcock Support Services), a consortium acting as Prime Contractor responsible for the design, construction and initial 7 year maintenance of the new or refurbished facilities. There are over 250 Project SLAM supply chain members that are SMEs.

The SLAM Project Living Accommodation upgrade comprises modernisation, including refurbishment and new build, of 19,000 bed spaces throughout the United Kingdom from dormitory-style communal barracks to single room en-suite accommodation. An Integrated Project Team (IPT) was established at the start of the project to ensure that the delivery meets the requirements of the project. The contractor's project team have been co-located with Defence Infrastructure Organisation at the SLAM offices since the beginning of the project and this has been vital to the success of the project as it has fostered a one team approach. The IPT produced the strategies, plans, procedures, and programmes needed to deliver the construction programme to the agreed time, cost and quality requirements. The initial five-year programme was completed on 17th December 2007, 9,000 bed spaces having been delivered, starting with the "worst first". In January 2008 delivery of Phase II of Project SLAM commenced.

To ensure that quality is measurable and is consistent across the SLAM programme, the IPT has developed a Design Excellence Evaluation Process (DEEP). The DEEP was developed in conjunction with the Commission for Architecture in the Built Environment (CABE) and Government's Better Public Building initiative. The MoD has also created DREAM (Defence Related Environmental Assessment Methodology) as a bespoke environmental assessment tool for new build and refurbishment projects.

It is the objective of SLAM to deliver all projects within agreed cost, quality and programmed requirements. Continuous improvement efficiencies have progressively increased year-on-year over the 9 year period of SLAM and the aggregate final price payable on projects is 2.4% below target price. Whole life maintenance cost savings are also being generated as a result of the quality of the buildings produced. The KPIs that have been developed to ensure maintenance of quality and quantity of output, whilst achieving cost savings, include bed space delivery, outturn costs, programme achievement, customer feedback, health & safety, post project evaluation, and construction defects.

Ministry of Justice: New Build Alliance

The Ministry of Justice (MoJ) uses three Alliance Frameworks for the delivery of newbuild and refurbishment projects (above £150k) on the MoJ estate in England and Wales. There is no upper value threshold. The Alliances are as follows:

- 'New build' construction awarded in September 2004 (maximum term of ten years).
- 'Refurbishment' awarded in February 2005 (maximum term of seven years).
- 'Consultancy' awarded in November 2003 (maximum term of ten years).

There are eight suppliers appointed to the new-build Alliance, eight suppliers appointed to the refurbishment Alliance (four of these are also on the new-build Alliance) and fourteen principal suppliers appointed to the consultancy Alliance. There are more than 200 suppliers registered in the supply-chains of the Alliance suppliers. The MoJ has the ability to influence the supply-chain to incorporate local suppliers and SMEs.

The MoJ manages the Alliance and contracts directly with the suppliers as projects are called off. Individual project appointments are made via mini-competitions or by direct appointment. There is a standard two-stage selection process that enables the MoJ to comply with all relevant procurement legislation and enables early contractor involvement in projects. Selections are based on project specific criteria in line with the principles of the Alliance and are based on quality and cost criteria. A first stage selection process (to identify the preferred supplier) can be completed within as little as 3 weeks, but normally takes 6 to 8 weeks (saving at least 6 to 9 months in comparison with tendering each project via an OJEU process). Early engagement of the supplychain is encouraged by the two stage approach and the design-build basis of the contractual arrangements. This serves to gain contractor and supply chain input into design, ensure cost robustness and appropriate risk management strategies for all projects. This increases the certainty of delivery on time and budget and the quality of the overall product. The framework enables the department to react quickly to emerging procurement requirements. It is estimated that risk has been mitigated by over £2m over the frameworks operation.

The MoJ uses the PPC2000 standard form of Partnering Contract that has minimal amendments. A standardised suite of processes and contract templates are used to ensure consistency and ease of use by the project team. An Agreed Maximum Price for each project is agreed between the Alliance Supplier and the MoJ. Key performance information and cost analysis data is collected for all schemes and is made available to all schemes and the Cabinet Office.

Ministry of Justice: New Build Alliance

The Alliance has a solid governance structure through a 'Strategic Core Group' comprising representatives from the MoJ and the Alliance suppliers. Information on the delivery pipeline and updates on the MoJ ways of working, challenges, initiatives etc are discussed as part of 'Strategic Core Group' meetings. Strategic supplier management is undertaken by the Property Procurement Unit in consultation with the Project Delivery Unit (PDU), while day-to-day supplier management at a project level is generally undertaken by project sponsors from PDU who are allocated projects to manage on behalf of the MoJ. Each Alliance supplier has a named Lead for day-to-day management of activities. A 'Core Group' comprising representatives from the MoJ and the Alliance suppliers deal with any issues that may arise on projects as part of a defined structured hierarchy for project governance applicable to each project.

The major benefits of operating the Alliance Framework include reduced procurement costs estimated at £10m, reduced burden on industry tendering of around £30m and procurement risk mitigation (as stated above) of about £2m. This suggests a total framework operation cost saving in the order of £42m to industry and the department.

NIEP Frameworks

The NIEP is a unique organisation bringing together leading public sector practitioners and the private sector through workstreams and strategic procurement arrangements with the aim to further raise the performance of local authorities' management of property, assets and procurement of building and highway projects. Each of the nine regions is represented at the NIEP Board, together with colleagues from Department for Communities and Local Government, the Cabinet Office Efficiency Reform Group and the private sector.

The NIEP has developed a national network of performance managed collaborative frameworks that promote local control whilst offering the benefits market leverage, transparent competition, lower procurement costs, integrated working, early supply chain engagement, programme development, capacity provision and shared learning for public sector clients leaving a lasting legacy for future generations. The NIEP frameworks provide a powerful vehicle to drive local economic and community benefit, including jobs and apprenticeships, local employment, SME engagement, improved fair payment conditions, carbon and waste reduction. Collaborative frameworks ensure that supply chains (beyond Tier 1) are engaged at the earliest point in a transparent way and believe that this balanced approach best delivers "localism through leverage".

The NIEP and its community of frameworks believe that quality collaborative frameworks require significant effort in the planning phase to ensure they are designed to meet strategic objectives of localism, efficiency and sustainability and have an inbuilt flexibility so they can be adapted to changing market conditions, needs and strategic objectives. Quality collaborative frameworks must be supported by a defined business case which sets out clearly stakeholder engagement, identifies a suite of complimentary arrangements, capacity provision, throughput, governance and visibility for SMEs. The network of NIEP Frameworks is illustrated in the map below:

NIEP Frameworks



Appendix 2: Collated Framework Performance Evidence

Delivering sustainable efficiency savings:

- £300m savings to date across the NIEP frameworks;
- £130m savings since 2008 across the MoJ frameworks;
- On the EA frameworks efficiency savings as a percentage of the capital programme averaged 7.9% per year between 2005 and 2010 with cashable efficiency savings totalling £89.4m for that period;
- £38m savings on PfS framework contracts let to date;
- The MOD Project SLAM's continuous improvement efficiencies have progressively increased to 18% over a 9 year period. Combined savings through continuous improvement and incentivisation totalled £59.4m between 2004 and 2011.

Reduction in consultancy and construction costs:

- NIEP consultancy fees cost 9-13% less than industry comparators, NIEP construction costs save 7% at contract sum compared to traditional contracting;
- On the MoJ frameworks £6.3m has been saved on Consultant fee proposals since April 2011;
- An average outturn 10.5% below the original business case value was achieved on EA framework projects in 2010-2011;
- On aggregate the final price payable on MoD Project SLAM is 2.4% below target price.

Delivery of projects closer to target cost and time:

- 100% of MoJ projects have a final account sum which is within budget and 86% of projects have an agreed maximum price which is below the outline business case;
- 100% of Procure21+ schemes are delivered to the Guaranteed Maximum Price.
- On average 97% of schemes were delivered to budget or below over the life of the P21 framework. 91% of schemes were delivered on time or early on the P21 framework;
- 100% of PfS framework projects are being completed within the contract cost. 100% of projects are delivered within 5% of original contract programme time;
- 96% of EA framework projects were completed on or ahead of time in 2010-2011;
- 95% of NIEP projects are delivered within 5% of target programme.

Reduction of claims:

- There has been zero litigation on Procure21 and Procure21+ schemes to date saving approximately £65m;
- In 8 years of working through frameworks not a single claim has been made on NIEP frameworks (this saves 5% on traditional construction costs);
- There have been zero claims made over the first two years of the current PfS contractor framework;
- In 9 years of working under the MOD project SLAM framework not a single claim has been made.

Appendix 2: Collated Framework Performance Evidence (Cont)

High Client Satisfaction rates:

- NIEP client satisfaction for product and service averages 87%;
- Client satisfaction averaged 81% on EA framework projects in 2010-2011;
- Procure21 delivered 86% average client product satisfaction and 81% service satisfaction.

High proportion of spend and value of work undertaken by SME sub-contractors:

- On average 85% of NIEP framework sub-contractors are SMEs;
- On average 73% of NIEP construction contract work is spent with SMEs;
- 397 SMEs are listed in the supply chains of MoJ contractors;
- The MoJ frameworks have spent £1.3bn with SMEs in the supply chains of their contractors;
- There are over 200 first tier SMEs registered on the P21+ framework;
- The MOD Project SLAM employs 286 SMEs.

High take up of government initiatives such as Fair Payment, apprenticeships, localism, *Government Construction Strategy* actions etc:

- All the frameworks reviewed have adopted the Fair Payment initiative;
- 107 apprenticeships are currently supported by MoJ framework supply chains;
- The NIEP frameworks have to date created a total of 1330 new entrants and trainees;
- On average 67% of NIEP projects sub-contractors are local to the site area;
- On average 50-60% of capital is spent within 60 miles of PfS projects;
- 100% of Procure21+ projects use a standard template contract and administration pro forma;
- Procure21+ operates a royalty free licence for NHS clients to share project design, standardised products and cost information;
- 194 apprentices have benefited from the MOD SLAM framework.

High proportion of construction, demolition and excavation waste diverted from landfill:

- 87% of all NIEP construction, demolition and excavation waste is diverted from landfill;
- In 2010-2011 74% of EA construction waste was diverted from landfill;
- On MOD project SLAM projects waste recovery has improved from 20.9% in 2008 to 90.8% in 2011.

Good health and safety performance against national average:

- 86% of Procure21 schemes achieved a zero accident incident rate;
- 146 AIR reportable accidents on NIEP compared to the national average of 503;
- MOD reportable accidents 2010-2011 is 0.05;
- There has been only 1 AIR reportable accident on MoJ framework projects since April 2011.

Appendix 3: Framework Evidence Base - Department for Education, Partnerships for Schools, Contractors Framework

			Value for money		
	Cost led framework so Funding is contract sum.	According to the NAO report, overspend avoidance between contract sum and final account saves 9.5% on framework projects	£48m savings on contracts let to date	Funding Adjustment post James Review not taken into account	Contractor's Consultancy fees allowance 7-10% on new Schools plus additional multi-school discounts
Evidence Source		NAO report on BSF (benefits are calculated for the period April 2009 to March 2010)	PfS collected data up to November 2011, signed contracts £500M	PfS amended funding calculation yet to be used in this comparison.	Figure taken from Contractors framework rates
			Framework Performance		
	In 2 years of working under this Contractor framework, not a single claim has been made.	Avoidance of claims saves typically a further 5%	Client Satisfaction (Product & Service)	100% of framework projects are being completed within the contract price	100% of projects are delivered within 5% of orginal contract programme time
			Localism & Sustainability		
	To date a total of 128 apprenticeships created (This is a minimum, we are currently collecting additional data)	On average, 50- 60% of capital will be spent within 60 miles of the site	Average number of sub-contractors engaged within 60 miles	of construction contract work is spent with SMEs	100% Fair Payment Statement included in LA Contracts
Evidence Source	PfS collected data up to November 2011	PfS collected data up to November 2011	Data currently being compiled	Data is not collected on this basis	
	of all construction, demolition and excavation waste is diverted from landfill	Carbon - measures tonnes of CO2 emissions per £100k construction value	Health and Safety AIR reportable accidents (against national average is 503)	Number of apprenticeship weeks per £100k construction value	21 authorities in England have engaged contractors using the PfS framework
Evidence Source	Data currently being compiled	Data is not collected on this basis	Data currently being compiled	Data is not collected on this basis	PfS collected data up to November 2011

Appendix 3: Framework Evidence Base - Department of Health, Procure21 and Procure21+

	• • • • • • • • • • • • • • • • • • •	ed upon the ProCure21 and ProCur 4 schemes with a value of £4bn registered, worth over £1bn	e21+ frameworks over the past 9	years. ProCure21+ commenced	in October 2010.			
Evidence	ProCure21+ will save a minimum of £200m over the life of the framework on behalf of the NHS	Profits have been reduced by 20% compared to the last framework.	100% of ProCure21+ schemes are delivered for the Guaranteed Maximum Price. Pisk of un-authorised changes and associated costs are taken by the supply-chain	£7m in VAT consultancy fees have been SaVed by the NHS through ProCure21	100% of post GMP savings will be returned by the PSCP to the NHS Client on the ProCure21+ framework	On average 97% of schemes were delivered to budget or below over the life of the P21 framework	On average 91% of schemes were delivered on time or early on the P21 framework	NHS Clients must agree to the ProCure21+ Client Charter that sets out good project management practice and minimum requirements of managing a ProCure21+ scheme
				(Using the centralised VAT service as provided by Department of Health)				
Evidence	There has been Zero litigation on P21 schemes to date (this includes 544 completed schemes) saving approximately Ω85m.	ProCure21+ operates a royalty free licence for NHS Clients to share scheme information including, designs, cost information and standardised products	ProCure21 has delivered 86% average product satisfaction over the life of the framework	ProCure21 has delivered 81% customer service satisfaction over the life of the framework	86% of ProCure21 schemes achieved a zero accident/incident rate over the life of the framework.	All PSCPs operate a standard joint risk management process to improve quality and consistency of risk management on all schemes	100% of ProCure21+ schemes use a standard template contract and administration proformas for consistency of scheme management (Based upon NEC3 Option C with Activity Schedule)	The Department of Health consulted over 300 public and private sector organisations in the development of the ProCure21+ framework
	£2.84bn completed schemes x 0.03							
Evidence	Over 200 NHS Organisations have registered schemes with ProCure21 and ProCure21+. They are the only approved frameworks for NHS public capital projects	ProCure21 and ProCure21+ comply with Cabinet Office Common Minimum Standards.	ProCure21 and ProCure21+ frameworks are not mandatory but the NHS has chosen to register £5bn worth of schemes	ProCure21 and ProCure21+ provide opportunities for clients to develop knowledge and skills to manage their schemes effectively.	Over 1500 NHS Client and Supply Chain Professionals have been trained free of charge through the ProCure21 and ProCure21+ frameworks	100% of ProCure21 and ProCure21+ schemes comply with OGC Fair Payment guidance.	All ProCure21 and ProCure21+ schemes are transparent, and operate open book accounting principles	The Department of Health operates a central audit function that ensures compliance with framework procedures and provides assurance for NHS Clients
Evidence	There are over 200 first tier SMEs registered on the framework, there are many more SMEs working lower down the supply chain.	NHS Clients have the flexibility to request that local suppliers be included in their supply-chains. Arrangements for which are determined locally.	Schemes below £2m can use local SME suppliers of M+E services that will provide better VFM for the NHS Client	All ProCure21 and ProCure21+ schemes are monitored centrally to ensure contract and framework compliance.	PSCPs are required to provide innovative, sustainable, (including social and economic) schemes for their NHS Clients	ProCure21+ provides a dedicated on-line resource for guidance, sharing scheme information and performance management	150 scheme elemental Cost Analysis are shared on the ProCure21 Club Website	The Department of Health actively manages the framework and engages with the suppliers to improve delivery

	Appendix 3: Framework Evidence Base -	Environment Agency, N	National Contractors Framework
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		Value fo	r money	
	Up to 2010 over £1.1bn	Efficiency Savings as a percentage of the capital programme average 7.9%	Cashable efficiency savings between 2005 and 2010 totaled £89.4m	New ways of working with framework partners and the supply chain are delivering refurbishment projects 30% below initial cost
	of projects have been procured through the frameworks	per year between 2005 and 2010		estimates and with dramatically reduced lead times
Evidence Source	EA Framework Performance and Outcomes Report 2005 -2010	EA Framework Performance and Outcomes Report 2005 -2010	Report 2005 -2010	EA Building the Future ncpms annual report 2010-11
		Framework	Performance	
	In 2010-11 96% of projects were completed on or ahead of time	In 2010-11 an average outturn 10.5% below the original business case value was achieved	In 2010-2011 Client Satisfaction has averaged 81%	In 2010-11 there were 0.36 reportable accidents per 100,000 hours worked
Evidence Source	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11
	· · ·	Framework	Performance	
	In 2010-2011 framework projects had delivered flood protection to 45,245 houses	In 2010-2011 185.20 hectare of BAP habitat was created	From projects won 2 Gold awards in the 2011 Considerate Contractors Awards	There were O category 1 and 2 environmental incidents in 2010-11
Evidence Source	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11
			nability	
	In 2010-2011	in 2010-2011 only	In 2010-11	A
	82%	26%	100%	12% carbon saving was
	of aggregates used on our projects were from a recycled source	of total construction waste was sent to landfill	of timber was from legal and sustainable sources	generated in 2010-11
Evidence Source	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11	EA Building the Future ncpms annual report 2010-11

Appendix 3: Framework Evidence Base - Ministry of Defence, Defence Infrastructure Organisation, Project SLAM

The following evidence is based upon DIO's Project SLAM (10-year) Functional Prime Contract for the provision and (7-year) maintenance of Single Living Accommodation (SLA) as at December 2011.

	Value for		
Up to 2011 over £1.2bn Of projects have been procured through the framework	Continuous Improvement efficiencies progressively increased to 18% over 9 year period (Savings on Target Costs)	Combined savings through Continuous Improvement & Incentivisation £59.4m Between 2004 and 2011	WLC Maintenance savings of circa £6.5m Generated as a result of the qualit of buildings provided (e.g. relaxing decorations frequency)
Evidence Source: See above			
	Framework P	erformance	
>17,400 Beds across 108 projects so far delivered during the life of contract	On aggregate, Final Price Payable (& forecast Final Account) is -2.40% Below Target Price	In 9 years of working under this Contractor framework, not a single claim has been made.	Up to 6 months saved by not having to use OJEU process
Evidence Source: See above			
	Framework P	Performance	·
Since May 2009 100% of New Build projects have or will achieve DREAM Excellent	17 Awards on Considerate Contractor Scheme to date 2 Gold, 1 Silver, 14 Bronze	100% Of our projects contribute to the Project KPIs for reporting project management and cost information	Health & Safety 2010/11 0.05 Reportable Accidents HSE (Industry) 0.16
Evidence Source: See above			
	Sustain	ability	
FSC Timber has increased from 51.9% in 2008 to	Project employs 286 SMEs	Waste recovery from projects improved from 20.9% in 2008 to 90.8% in 2011	194 apprentices have benefitted from the SLAM framework (through SMEs)
87.5% in 2011			numework (unough Sm23)

Appendix 3: Framework Evidence Base - Ministry of Justice, New Build Alliance

			Value for money		
	100% of our projects have a Final Account sum which is within budget	£2.6bn worth of construction projects have been deliverered using the Strategic Alliancing Agreement	£130m savings since 2008	10% increase in product achieved for Refurbishment projects >£2m in 10/11	£6.3m has been saved on Consultant Fee Proposals submitted since April 2011
Evidence Source	Average values for 60 projects totalling £474m with a final account agreed between April 2009 and now	The SAA is a partnering framework set up by the MOJ in 2003/2004. 12 Constructors and 21 professional consultants are on this	MOJ analysis November 2011	The product value is the way MOJ measure the improvements in value.	MOJ analysis of fee proposals submitted when compared to original tendered fee scales
			Framework Performance		
	475 projects so far delivered during the life of the SAA	Claims represent less than 1% of our project budget	86% of our projects have an agreed maximum price which is below the outline business case	100% of our projects use our Project Performance Indicators for reporting "in flight" project management and cost information.	Up to 6 months saved by not having to use the OJEU process
Evidence Source	Strategic Alliancing Agreement partnering framewrk set up in 2003/2004	Based on projects completed in the last 2 years.	Based on information collected since 2008 - November 2011	MOJ manage their programmes using a suite of PPI tools. This provides programme information on aweekly basis, cachflow monthly and project costs on a milestone basis (Business Case, Pretender, Tender and Final Account)	MOJ data November 2011
			Localism & Sustainability		
	100% of our projects are providing weekly programme information which enables us to accurately predict when each of our projects will complete.	SAA has provided contracts worth approximately £1.3bn to SMEs on the supply chains of our constructors	11 Constructors on the current SAA working in 6 regions	SAA has 21 consultants providing 11 different professional services in 6 regions	Current SAA contains Fair Payment provision
Evidence Source	MOJ buffer shares shows weekly buffer consumption which togeteher with an accurate project plan enables completion date to be accurately predicted on a weekly basis	MOJ data November 2011	Strategic Alliancing Agreement partnering framewrk set up in 2003/2004	Strategic Alliancing Agreement partnering framewrk set up in 2003/2004	NIEP to collect KPI results from IEPs - November 2011
	WRAP data	397 SMEs are listed on the supply chains of our framework Constructors	Health and Safety 1 AIR reportable accident Since April 2011	107 apprenticeships are currently supported by our supply chain members	95% of our New Build Projects have received a BREEAM Excellent rating
Evidence Source	MOJ information (currently being compiled)	MOJ data November 2011	MOJ information - November 2011	MOJ information - November 2011	MOJ logged to date November 2011

Appendix 3: Framework Evidence Base - National Improvement and Efficiency Partnership Frameworks

Value for money Value for money Collaborative framework projects save According to the ERG, overspend avoidance between contract sum and final account saves a further According to the ERG, overspend avoidance between contract sum and final account saves a further NEP cost benchmarking results for New Build Primary Schools Consultancy fe 9-133 compared to traditional contractism, compared to traditional contractism from the EP subsentianal to complet this comparison Contract Office Colleging Eccelence in Consultancy fee According to the EPS across the NEP built environment NEP cost benchmarking results for New Build Primary Schools Davis Landon has utilised across the NEP consultancy fee across the NEP built environment Evidence from the EP subsentianity to complet framework partnerships, not a single claim has been made. Consultancy fee across the NEP subsentianity or completing outclaim as been made. NEP cost benchmarking results for NeP has utilised data obtained from the EP subsentianity to complet across the NEP subsentianity or complet framework partnerships, not a single claim has been made. NEP cost benchmarking results for NeP has utilised data obtained from the EP subsentianity construction output Davis Landon has utilised for the EP studies nationally to complet from the EP studies nationaly to complet from the EP studies nathone to the this c	% omparators
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	ТВА
87% Carbon - measures tonnes of CO2 Health and Safety of all construction, demolition and Carbon - measures tonnes of CO2 146 excavation waste value - TBA 146 (national average is 503) Number of apprenticeship weeks per £100k construction value - TBA 183	
Evidence NIEP collected data from the IEPs, April NIEP to collect KPI results from IEPs - November 2011 NIEP to collect updated KPI results from IEPs - November 2011 NIEP to collect KPI results from IEPs - November 2011	

Acknowledgements

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- Ministry of Defence Steve Rice
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- Highways Agency Tim Eaton
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- Specialist Engineering Contractors Group Trevor Hursthouse
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- Cabinet Office John Ioannou

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Appendix H - Lean Trial Projects Evaluation Criteria workshop notes

Notes from Workshop #1

Attendees: Nick Pollard (Navigant) Peter Groves (Cabinet Office) Alan Muse (RICS) Martin Davis (SEA/IPI) Andrew Butt (Cabinet Office) Terry Stocks (MoJ) Alasdair Reisner (CECA)

Apologies: Mark Morris (IUK)

Workshop Purpose

Addressing Action 6.2 from the Procurement Task Group meeting 9 February 2012: Arrange workshop to establish key evaluation criteria for trial projects and contract award selection criteria. Workshop outputs should be distilled into guidance notes for wider dissemination. To which the attendees clarified that Workshop #1 should focus on evaluation criteria specific to the new models of procurement which would augment existing project KPIs rather than reinvent them.

Workshop Agenda

- Measurement / success criteria for new models of procurement: Addressed
 Establish high level outcomes
 - Establish next level outcomes / KPIs
 - Test feasibility of criteria
- 2) Criteria to be used in selecting suppliers under new models of procurement: To be addressed at follow up workshop using the outcomes from this meeting as a starting point.
- 3) Criteria for accepting projects into service under new models of procurement: To be addressed at follow up workshop, possibly as part of workshop that also addresses current and best practice in functional requirement setting.

1. Introduction / Workshop Outcomes

Workshop agenda item 1) was addressed (refer to List 1 and Tables 1 to 2 below). The success criteria / KPIs established during the workshop are in the form of high level themes that would need to be developed subsequently by the Trial Projects Delivery Group into SMART measures.

Consideration was given to workshop agenda items 2) and 3) at the start of the workshop. The purpose of item 3) was clarified as follows:

- Criteria relating to the construction completion certificate that confirms:
- $\circ\;$ client was given what was required (or more) against the original output requirement;
- $\circ\;$ realisation of benefits will be monitored, captured and disseminated over the longer term.

Next step: Arrange follow up workshop to address items 2) and 3). Trial Projects Delivery Group to be tasked with developing themes in Table 1 below into SMART measures.

2. Measurement / success criteria for new models of procurement: High level outcomes

The following high level outcomes / success criteria for the trial projects were established (List 1):

- A) Demonstrates delivery of 20% cost reduction;
- B) Demonstrates application of intelligent / lean client characteristics;
- C) Complies with the new models of procurement as originally set out (while accepting valid evolution);
- D) Lends sufficient confidence to the new models of procurement to provide basis for rolling them out across Government;

3. Measurement / success criteria for new models of procurement: Next level KPIs

The following next level outcomes / KPIs were established, grouped, prioritised and mapped against the high level outcomes listed above.

Table 1: Measurement / success criteria for new models of procurement: Next level outcomes / KPIs					
		Demon	strates		
Theme	Next level outcomes / KPIs		B Intelligent / Lean Client	C Complies with new models	D Lends confidence
Top themes / KPIs - Grouped and sequenced Themes 1 to 4 measured during project. Theme 5 measured following period after completion					
1) Drief estiin r	Consistency of brief with fitness for purpose (as set out in the brief)		*	*	
Brief setting	Existence of clear and prioritised brief		✓	✓	
2)	Degree of collaboration	✓	✓	✓	✓
Establishment collaborative	Degree of integration	✓	✓	✓	✓
integrated	Client / supplier		✓	✓	

Table 1: Measurement / success criteria for new models of procurement: Next level outcomes / KPIs						
			Demonstrates			
Theme	Next level outcomes / KPIs	A 20% cost reduction	B Intelligent / Lean Client	C Complies with new models	D Lends confidence	
team	relationship improvement					
3) Team ability to	Innovative proposals generated from down through the supply chain	✓		*		
innovate, create acceptable	Waste removed from supply chain	✓		✓		
solution, remove waste	Health of entire supply chain e.g. margins / fair payment			✓		
4)	20% cost reduction / extent to which the outturn costs were below original ceiling price	*				
Outcomes	Reduced procurement duration	✓		✓		
	Reduced construction duration	✓		✓		
5) Whether	Whether completed project performs to original / agreed brief		*	*		
brief was delivered?	Volume of change vs original brief		✓			
	Volume of dispute / litigation		✓	✓		
Other highlighted themes						

Table 1: Measurement / success criteria for new models of procurement: Next level outcomes / KPIs						
Theme Next level extremes / KDIs		Demon	Demonstrates			
		A 20% cost reduction	B Intelligent / Lean Client	C Complies with new models	D Lends confidence	
	-					
	% product delivered	✓				
	Effectiveness of independent review			✓		
Other themes identified but not highlighted						
	Level of amendment to standard contracts i.e. avoiding further waste	*	*	*		
	Level of SME / lower tier engagement	✓	*	*	✓	
	Cost of client's procurement process to supply chain	*	✓	✓		
	Degree to which clients allow own standards to be modified	✓	✓	✓		
	Reduced risk provisions (link to BIM)	✓		✓		

Corresponding co	ontrol factors		
	Site abnormal		
	Impact on whole life value		
	Supply chain perceptions		
	Projects performed no worse than others re: H&S, Quality / Defects etc		

Notes from Workshop #2

Attendees: Paul Meigh (Cabinet Office)	Andrew Butt (Cabinet Office)
Steve Rice (MoD)	Mark Morris (IUK)
Mike Peasland (Balfour Beatty)	Alan Turner (SCMG)
Trevor Hursthouse (SEC)	Alan Muse (RICS)
Deborah Hynes (CE)	Jonathan de Souza (CE)

Apologies: Alasdair Reisner (IUK)

Workshop Purpose

Addressing Action 6.2 from the Procurement Task Group meeting 9 February 2012: Arrange workshop to establish key evaluation criteria for trial projects and contract award selection criteria. Workshop outputs should be distilled into guidance notes for wider dissemination. To which the attendees clarified that Workshop #1 should focus on evaluation criteria specific to the new models of procurement which would augment existing project KPIs rather than reinvent them.

Workshop Agenda

- 1) Complete and test for feasibility the KPIs started in Table 2 of the notes from Workshop #1
- 2) Establish criteria to be used in selecting suppliers under the new models of procurement, aligned with trial project evaluation criteria
- 3) Establish criteria for accepting projects into service under new models of procurement addressing confirmation that:
 - a) Client was given what was required (or more) against the original output requirement;
 - b) Realisation of benefits will be monitored, captured and disseminated over the longer term.
- 4. Complete and test feasibility of measurement criteria

Table 2 below was originally developed at Workshop #1 and reported in the corresponding meeting notes. The version below is that developed and augmented by discussion at Workshop #2.

The themes in Table 2 are those identified in Table 1 and in developing these the workshop attendees highlighted the following key points:

- a) Column D in Table 1 ("Lends confidence") would be better expressed as Department Specific Criteria the failure of which to achieve would count as a disbenefit against the new procurement models. For example, an individual department's objectives to deliver BREEAM buildings more easily or the ability of the new procurement models to attract third party funding. It might therefore be expected that there could be more than one specific criterion per department and similarly individual projects might also have their own specific and varying criteria.
- b) The trial project specific criteria should be prefaced with a statement referring to best practice in relation to the adoption of general project KPIs
 such as those relating to budget adherence, schedule adherence, achievement of quality and sustainability requirements etc that should be used on all projects.
- c) That said, the workshop attendees agreed that there should be no reason why the KPIs generated within Table 2 could not also be used on all projects or incorporated within the Gateway review process.

Theme / Stage	Stage Specific Measures	Cross Stage Measures	Who undertakes evaluation?
1) Brief setting	A bundle of measures would be deployed to formulate a rounded	At all stages the outcomes achieved under the new models of procurement	
BIM Drop: Outline Business Case	would be the principles of functional	also assess predictability (i.e. the performance achieved at each stage	independent verifier, augmented by suppliers'

⁹ Ministry of Defence *Design Excellence Evaluation Process User Guide*

⁷ Other points of reference included the Strategic Forum for Construction Integration Toolkit, IPT Workbook 2 <u>http://www.strategicforum.org.uk/sfctoolkit2/ipt_workbooks/02.html</u> ⁸ To ensure these are comparable across the trial projects, soft measures would be evaluated against a defined scoring range e.g. 1 to 3, where each score is defined by a statement describing the level achieved.

Table 2: Consideration of feasible measures to address the evaluation criteria in Table 1					
Theme / Stage	Stage Specific Measures	Cross Stage Measures	Who undertakes evaluation?		
2) Establishment / maintenance of collaborative integrated team BIM Drop: Concept	Selecting the Team and the Strategic Forum Assessment Tool, which is based around a set of maturity statements. The common process outlined within the tool is that assumed by the proposers of IPI and is sufficiently flexible to accommodate BIM.	 Cost [h] Sustainability [h/s] Design for operation; handover / operational readiness¹⁰ [h/s] Monitoring and capture of stage data / learning / 	Combination of self and facilitated assessment by external specialist / independent verifier.		
 3) Team ability to innovate, create acceptable solution, remove waste BIM Drop: Commitment to invest or point of award 	Refer to cross stage measures	benefits and its dissemination to other projects / future phases [h/s] - Risk and value / opportunity management ¹¹ [h/s] - Client / project specific criteria [h/s]	Combination of self and facilitated assessment by external specialist / independent verifier augmented by client's, end users' and suppliers' perspectives.		
4) Outcomes	Refer to cross stage measures	These would be measured in terms of:	Combination of self and facilitated assessment by		
BIM Drop: Completion		a) whether common minimum criteria	external specialist /		

¹⁰ Refer to the work of Soft Landings Task Group.
 ¹¹ The systematic appraisal of different options to ensure an optimal solution is generated.

Table 2: Consideration of feasible measures to address the evaluation criteria in Table 1					
Theme / Stage	Stage Specific Measures	Cross Stage Measures	Who undertakes evaluation?		
5) Whether brief was delivered? BIM Drop: 1 year after completion	Refer to cross stage measures	 were met; b) demonstrable value added achieved¹². A successful trial project outcome would therefore be defined as one which achieves both of the following: i) 20% cost reduction (or targeted interim percentage¹³); ii) Overall client / supplier satisfaction against the above criteria - compared with earlier project experiences - is either maintained or exceeded. 	independent verifier augmented by client's, end users' and suppliers' perspectives. Combination of self and facilitated assessment by external specialist / independent verifier augmented by client's, end users' and suppliers' perspectives.		

 ¹² Whether relating to cashable or non cashable benefits.
 ¹³ It may be deemed appropriate that initial trial projects target a marginally less ambitious percentage than 20% cost reduction against the 2009/10 baseline, while later trial projects are more ambitious in their cost reduction targets.

5. Establish criteria to be used in selecting suppliers under the new models of procurement, aligned with trial project evaluation criteria

It was proposed that the Construction Industry Council's *Selecting the Team* - which is endorsed on the Strategic Forum's website and complies with option (a) of Article 53(1) of the EU Procurement Directive ("most economically advantageous" against selected criteria, not "lowest price") - provides suitable existing criteria. This guidance supports the approach that suppliers would be assessed by the client and independent reviewer in terms of their competence, ability, experience and delivery record as it relates to the trial project criteria identified in Table 2 above.

In addition to these criteria, it was also proposed that suppliers should be assessed in terms of the corporate culture and mindset, since there can be natural churn in project personnel.

Examples cited included:

- HA Managed Motorways which involved structured workshops where members of the different bidding teams worked together to resolve particular issues and were assessed against behavioural criteria.
- Project Andrew (BP) where bidders were challenged to respond to "impossible" requirements e.g. how to organise the project so there are no claims; or injuries. Suppliers were visited and observed in their own environment (also covered by CIC guidance) and emphasis was placed on ensuring all team members contributed / spoke during the evaluations. The outcome of this was that corporate culture became the key differentiator elevating the competition to CEO level.
- 6. Establish criteria for accepting projects into service under new models of procurement
 - a) Client was given what was required (or more) against the original output requirement;

This was dealt with as part of the development of Table 2 above.

b) Realisation of benefits will be monitored, captured and disseminated over the longer term.

The guidance on evaluation criteria should include recommendations relating to the ongoing long term measurement and dissemination of learning relating to those aspects that the project team can influence (see below). Otherwise, there was no remit to go beyond the handover / soft landings stage.

- $\circ \quad \text{Design in use} \quad$
- Sustainability
- Flexibility / adaptability