

Development of Construction Project Management in the United Kingdom

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Overview

- ❖ **About CIOB**
- ❖ **Developments in Construction Project Management in the UK [1995-2005]**
- ❖ **CIOB's role in the development of *codes and standards* in the construction supply chain**

- Established in 1834 – 170 Years
- Royal Charter - granted in 1980
- 42,000+ individual members in 96 Countries
- 450 Chartered Building Companies
- 160 Chartered Building Consultancies
- Maintains standards, practice and discipline, in the UK building and construction industry
- Itself an Awarding body

- Headquarters at Ascot, UK
- 24 Regions in UK
- Offices in China, South Africa, Malaysia, Singapore, Hong Kong and Australia

- **CIOB qualifications are recognised in the European Union under the First and Second General Directives 89/48/EEC and 92/51/EEC**
- **UK Government has appointed the CIOB as a designated competent authority for building under the terms of the EC Directives**
- **CIOB - developed agreements with professional bodies throughout the world**
 - **National Board of Construction, China**
 - **American Council for Construction Education**
 - **Australian Institute of Building**
 - **Konstrucktorforeningen, Denmark**
 - **Consejo General de la Arquitectura tecnica, Spain**

Developments in Construction Project Management in the UK [1995-2005]

UK Construction Industry

- ❑ £60 billion turnover - 10% of GDP
- ❑ Employs 1.4 million
- ❑ Low profitability
- ❑ Low levels of investment
- ❑ Low levels of investment
- ❑ High client dissatisfaction
- ❑ Substantial under-achievement

Government Pressure to
Change

So What Is Wrong With the Traditional Approach to Supplier Relationships?

- ☐ **Bids based on designs to which suppliers make no input, so may be hard and expensive to build and then assemble**
- ☐ **Low bids win – so suppliers are encouraged to bid low**
- ☐ **But low bid prices are unsustainable – so have to increase by some means or another**

On cost.....

- ☐ **Clients & Contractors take no interest in their suppliers**
 - ☐ **They don't understand underlying costs – which may be high**
 - ☐ **Think low price means low cost - so margins are attacked**
 - ☐ **Give short term contracts – so no chance of suppliers investing to reduce underlying costs**

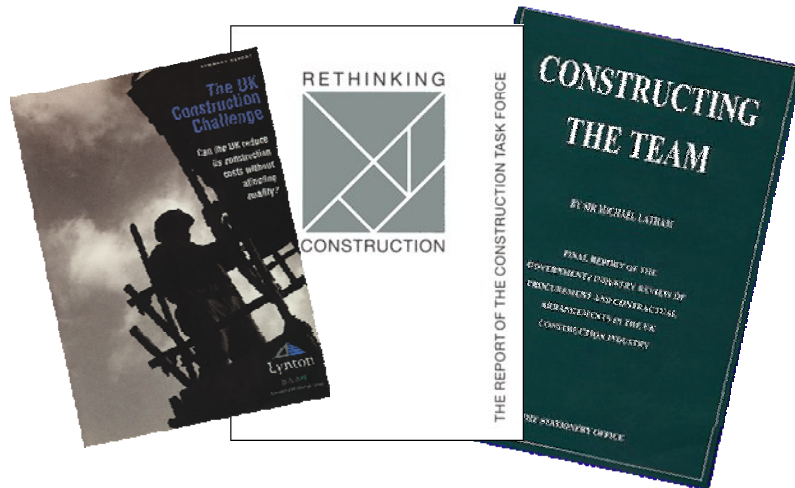
And yet more

- ❑ **Technology**
 - Margins cut to bone so suppliers had no money to invest in development
- ❑ **Quality**
 - Starts with design – which may be faulty
 - Needs investment in people and systems – but no money since overheads attacked
- ❑ **Contractors don't focus on what they do best**
 - Too busy trying to do everything

The result of all this?

- ❑ **Functionality of finished product is compromised, cost of ownership high, and slow technical improvements**
- ❑ **Cost growth is inevitable as all parties find ways to make money – hitting customers' pockets**
- ❑ **Profits low and made by expediency – not planning – so industry unable to plan and invest**
- ❑ **Suppliers are distant from the final customer and take only limited interest in quality**

The Key Reports



UK Government Reports

- **Constructing the Team -Sir Michael Latham (1994)**
- **The Levene Efficiency Scrutiny into Construction Procurement by Government (1995)**
- **Rethinking Construction -Sir John Egan (1998)**
- **Efficiency in Civil Government Procurement - the Gershon Report (1999)**
- **Modernising Construction -the National Audit Office (2001)**

LATHAM Report

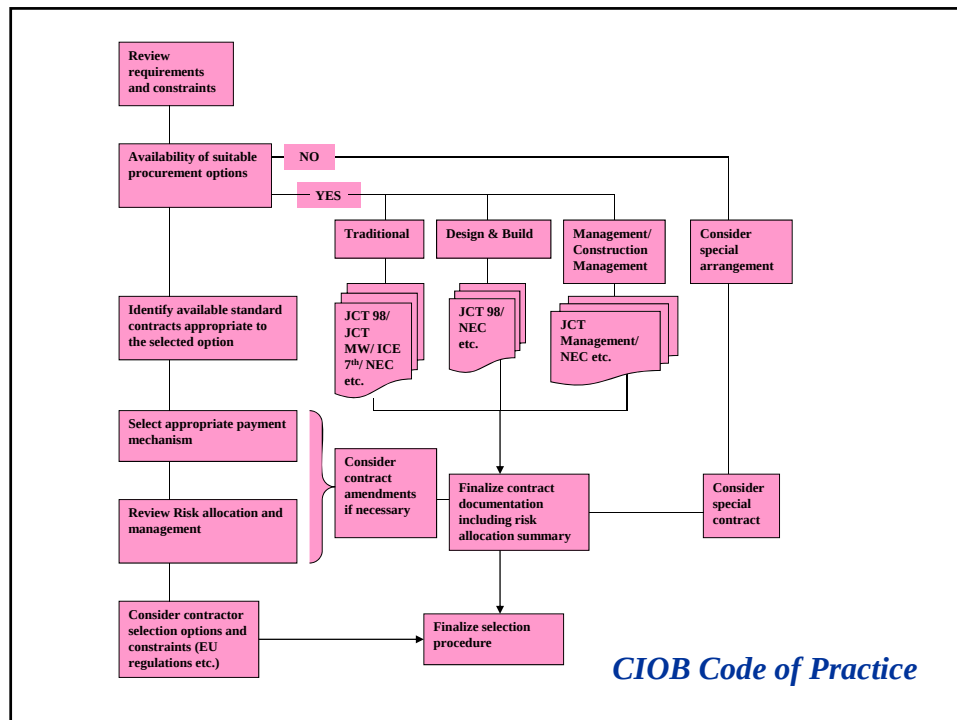
In the *Constructing the Team* report Sir Michael Latham concluded that the industry's traditional methods of procurement and contract management and its adversarial culture caused inefficiency and ineffectiveness. He concluded that addressing these issues had the potential for saving 30% over five years.

New Engineering Contract

- **First published 1991**
- **Revised edition 1995 with Latham's recommendations renamed as Engineering and Construction Contract (ECC)**

Objectives

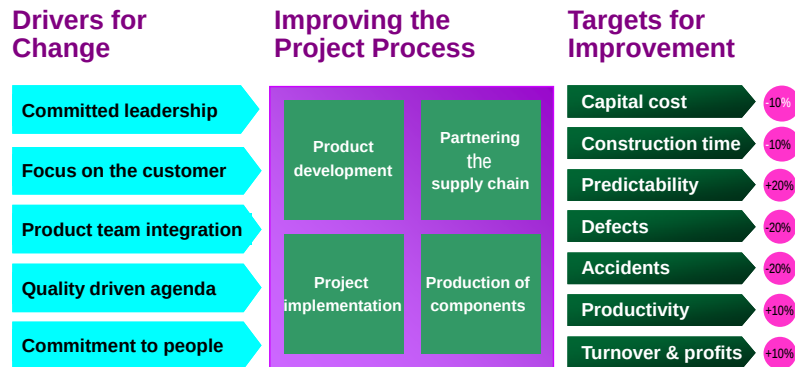
- **Flexibility**
- **Clarity and Simplicity**
- **Stimulus to good management**



THE CONSTRUCTION ACT 1998

- **APPLIES TO ALL WRITTEN CONTRACTS**
- **WITHHOLDING PAYMENTS**
- **SUSPENSION OF WORK**
- **PAY WHEN PAID**
- **ADJUDICATION**

Rethinking Construction



Five key drivers

Committed leadership
Focus on the customer
**Integration of process and team
around the project**
A quality driven agenda
Commitment to people

Four key processes

Partnering the supply chain

Components and parts

Focus on end products

Construction process (elimination of waste)

Seven annual targets

Reduce capital costs by 10%

Reduce construction time by 10%

Reduce defects by 20%

Reduce accidents by 20%

Improve cost and time predictability by 10%

Increase productivity by 10%

Increase profitability by 10%

NAO Report

DRIVERS FOR CHANGE

- **Client expectations are too low**
- **2/3rds over budget and 3/4 delivered late**
- **Lowest Price rarely if ever gives good value**
- **Clients must specify needs not solutions**
- **Government clients should form long term relationships with suppliers**

Is there a better way?

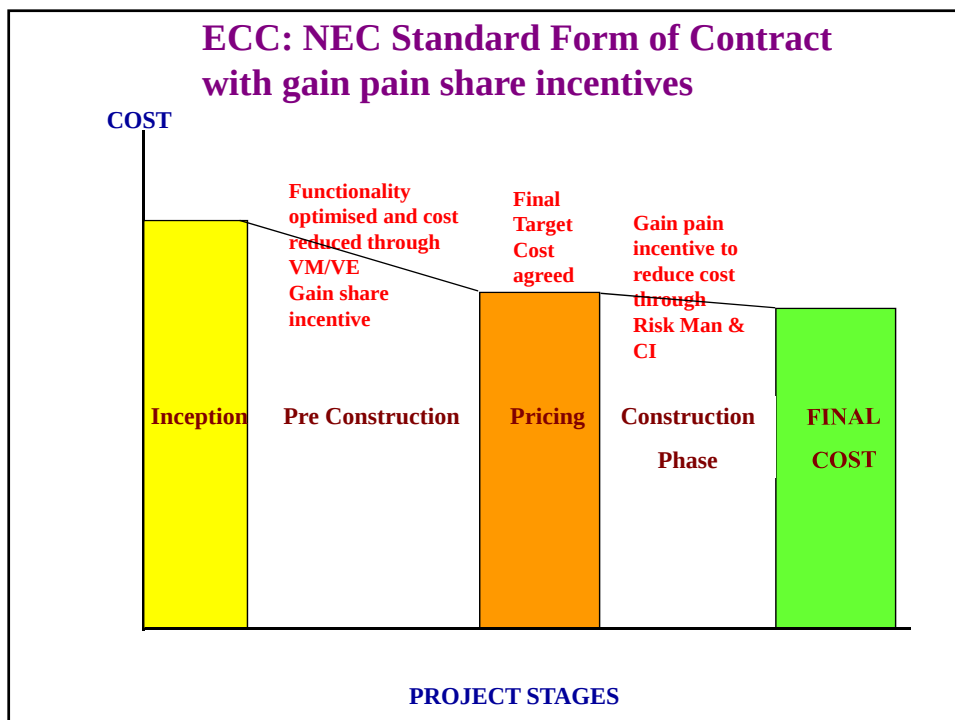
PARTNERING

**Real Improvement Requires Much More
Than Simply Partnering!**

**SUPPLY CHAIN MANAGEMENT
COLLABORATIVE WORKING**

The New Procurement Principles:

- Early involvement of suppliers in design, costing, planning - often with contractors taking the lead
- Collaborative contracts - that accept at the start that contractors should make a reasonable profit
- Long term relationships with contractors and key suppliers
- Learning and Improvement from project to project



The Principal behind Supply Chain Management

Given that 80% of the cost of a manufactured product (car, aeroplane, ship, oil rig, building) is in the labour and materials used by the suppliers, then:

- the suppliers accounting for the greatest elements of those costs should be selected for their capabilities to deliver excellent work at competitive cost, and**
- the chosen suppliers must be capable of contributing new ideas, products and processes, and**
- they should be managed so that waste and inefficiency can be continuously identified and driven out**

And supply chains compete with supply chains

The Immediate Implications

- ❑ Suppliers need to be *chosen* on criteria other than on competitively quoted prices, job by job - although they still must be competitive**
- ❑ Suppliers must be *managed* so that the client's needs are fully satisfied – every time**
- ❑ The suppliers need to make sufficient profits to invest in new products and processes and to help improve the final product**
- ❑ The selected suppliers must be in a long-term relationship so that Continuous Improvement activities can take place –but retain their preferred supplier status only if they continue to deliver**

THE OBJECTIVE

- ❑ For the Single Point Deliverer to deliver superior underlying value by improving functionality *and* reducing cost - without endangering margins

- o Agree and ring-fence

Margin

- o Design cost out and Manage cost out

Risk,
Component
And Process
Cost

What We Are Trying to Achieve

- The need to select key suppliers for reasons other than “price” but comply with EC Procurement Directives
- The need for long term relationships
- The need to ensure that the long term relationship sustains long term competitiveness
- The need to manage the team for the benefit of all

Project Procurement Process

- Agree Auditable Process and find clients
- Place OJEC Advert
- Send out PQQ including soft, technical and commercial issues & Develop short list
- Send out cost model – 80/20 prices
- Interview short listed organisations and select
- Develop target costs and KPI' s
- Project Contract award
- Measure and feedback performance and set new improvement targets

EVALUATION CRITERIA

Criteria	Key Issues To Be Evaluated
Technical	• Experience & track record on previous & current Portsmouth CC Schemes • Quality of resources and expertise available • Ability to advise on all Design, Construction, and Risk issues • Ability to prepare target costs and programmes • Ability to work with an 'open book' arrangement • Ability to manage Health and Safety Issues
Commercial	• Relevant financial & economic information on Contractor • Economic test - (eg Schedule of Rates)
Soft	• Evidence of ability to work in a partnering manner • Evidence of supply chain management ability • Evidence of appropriate attitude and culture • Understanding of Portsmouth CC • Proven ability to innovate • Willingness to take part in continuous improvement • Commitment to staff & equal opportunities

What everyone must understand

- Each project must deliver real BENEFIT for PCC
- All underlying costs subject to scrutiny to ensure they are justified in delivery of value to the client
- Profit is agreed but not guaranteed
- $\text{Price} - \text{Cost} = \text{Profit}$
- Suppliers' underlying costs subject to continual downward pressure - but with help from supply chain integrator where needed

Managing key suppliers

- Allocation of responsibility - Clustering
- Need for co-ordination and leadership
- Process - VE, CI
- Value of sharing savings - incentivisation
- Books are open
- And eventually, trust is established
- And they need continuity of work

Proposed Commercial Arrangements

Incentive Scheme

- Target Price agreed at 6 month intervals based on submitted 'Project Cost Model' - including agreed labour and materials, risk allowance, and overhead and profits. Materials specification to be agreed with client during development of target costs.
- PCC ensure costs favourable in relation to Historic Reference Costs.
- Risks analysed during the development of target price and 'reasonable' contingency allowed for real unknowns. Any provision for client or shared risks also agreed at this stage.
- New Continuous Improvement targets set at 6 month intervals in key performance areas such as cost, reaction times, customer satisfaction. Long term continuation of the contracts to depend on satisfactory performance improvement.
- Open books with auditable costs used by both parties to interrogate and reduce high cost areas.

Contractors integrating in design, costing and planning

- Collaborative development of specification & planning
- Single point responsibility given to main contractor for planning & installation
- Use of contracts for mutual benefit

Continuous Improvement Now Being Introduced

- **Thorough understanding of the process and costs and targets set for improvement**
- **Taking cost out through systematic planning and process improvement.**
- **And carrying improvements forward from project to project**

Only possible with long term relationships

Open Book - Savings



- **Sub-Contractors paid actual costs**
- **Savin`gs on base cost and contingency**
- **Agreed profit and overheads paid regardless of actual cost**

Challenges for the Client:

- ❑ All client stakeholders understand the process and benefits
- ❑ Select a Contractor:
 - on basis of ability to deliver superior underlying value
 - Not lowest price
- ❑ Establish a Collaborative commercial agreement motivates the contractors team to work in the clients interests
- ❑ Define a need, not a solution
 - Through the use of an output specification
- ❑ Collaborate in optimising design and defining functionality
 - Through participation in VM

Challenges for the Contractor:

Develop the processes and skills to:

- ❑ Establish long-term relations with key suppliers
 - Selected for their capability
 - Relationship established for mutual benefit
- ❑ Involve the Supply Chain in jointly developing design, programme, and costs
 - Using VM to optimise functionality and VE to minimise cost
- ❑ Participate in Continuous Improvement

Challenges for the Designer

- ☐ Defining and accepting their role in an integrated design team benefits
- ☐ Accepting that others have valuable contributions to make.
- ☐ Following a defined design process
- ☐ Balancing the need for PI protection with the need to develop the optimum solution for the client.

Challenges for the Cost Consultant

- ☐ Understanding collaborative approaches to ensure proper advice to clients on the most appropriate procurement route.
- ☐ Contributing to the design process - to help identify high cost areas and to identify opportunities for cost reduction.
- ☐ Developing the skills for target costing and setting up gain, pain incentive schemes.
- ☐ Understanding the cost base of suppliers in the supply chain to help target high cost areas for improvement.

What everyone must do:

- ❑ **Allow people to deliver to their full potential**
 - Through delegation
 - Through training
 - Through facilitation
 - Through incentivisation
- ❑ **All under clear leadership from the Single Point Deliverer**

CSCS Cards

Construction Skills Certification Scheme

- **Started in 1995 with 5 Occupations - now 215**
- **Driven by Clients/Contractors - MCG, NCF, CCG**
- **Administered by CITB (Construction Industry Training Board)**
- **Competency based - NVQ's or Professional route (CIOB, ICE etc)**
- **Pass of Health & Safety Test is mandatory**
- **700,000 Cardholders**



CIOB's ROLE IN THE DEVELOPMENT OF CODES AND STANDARDS FOR THE CONSTRUCTION SUPPLY CHAIN

- **Developing standards**
- **Monitoring and policing of those standards**
- **Developing new products and services**
- **Accreditation standards**
- **Research and legal services**
- **Technical support to partners/ deliverers**
- **Projects and events**
- **European Affairs**

Working Groups

- **Accreditation Panel**
- **Examination Panel**
- **Vocational Education Working Group**
- **Continuing Professional Development**
- **Legal Services**
- **Welfare, Health and Safety Caucus**
- **Professional Conduct (Disciplinary) Committee**
- **Innovation and Research Working Group**
- **Societies (FM, PM and ABCM)**
- **Awards (CMYA, I&R)**

Education – Major Issues

- **New Education Framework**
- **Non-cognate Route**
- **Postgraduate Qualifications**
- **Vocational Qualifications**
- **Direct Member Review**
- **CPD Review**
- **Develop I&R Awards**
- **Major objective: develop a cohesive education policy, in line with current policies and Institute Standards**

Practice – Major Issues

- **Publications (Contracts, COP's, Tech & Mgt Papers)**
- **Management Practices in Construction**
- **Technical Services and Recognition**
- **Disciplinary Procedures Review**
- **Dispute Resolution Programme**
- **Innovation and Research**
- **CMYA Adjudication**
- **Major Objective: to promote the science and best practice of building, raise awareness and increase recognition of the CIOB qualification**

Publications

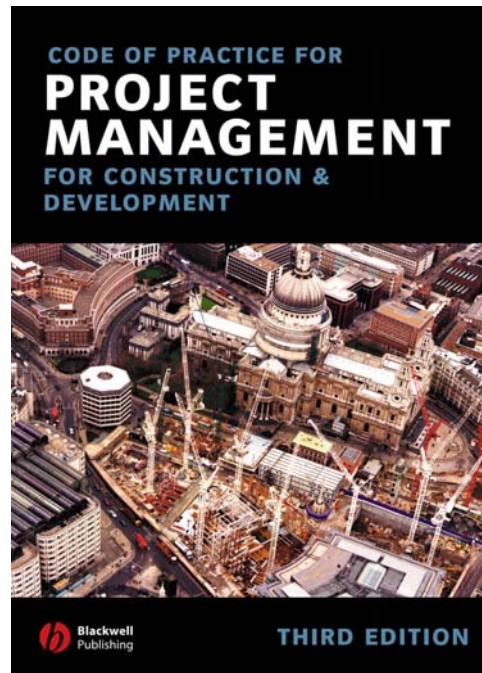
Code of Practice:

- **for Project Management (3rd Edition) – 2002**
- **for Value and Risk Management (New) – 2005**
- **for Project Partnering (New) - 2006**
- **for Facilities Management (New)- 2007**
- **for Estimating Practice (2nd Edition) -2006**
- **for Refurbishment (New) - 2007**

Facilities Management:

- **Contract – 2001**
- **Guidance Notes – 2002**

A Contractors Guide to Conservation (2nd Edition) -2004



Thank you