

The Construction Supplier Conference

Time	Subject	Speaker
08:45 – 09:25	Breakfast Rolls	
09:30 – 09:40	Welcome	William Jordan (ERG)
09:40 – 10:00	Construction : A Strategy for Savings	Paul Morrell (BIS)
10:00 – 10:30	Keynote Speaker	Andrew Hudson (HMT)
10:30 – 10:45	Keynote Speaker	Mark Prisk, MP
10:45 – 11:00	Q&A	Panel: Mark Prisk Andrew Hudson William Jordan Facilitator: Paul Morrell
	Networking Break – Tea and Coffee	

The Construction Supplier Conference (Cont)

Time	Subject	Speaker
11:30– 11:40	Introduction to second session	Paul Morrell
11:40– 12:10	BIM	John Tocci (Tocci Building Companies)
12:10– 12:30	Procurement Models	Ian Tyler (Balfour Beatty) Martin Davis (Specialist Engineering Alliance)
12:30– 13:10	Q&A Discussion	Panel: Paul Morrell John Tocci Ian Tyler Martin Davis
13:10– 13:15	Closing Remarks	Paul Morrell

Welcome

William Jordan

**Chief Sustainability Officer
Efficiency and Reform Group, Cabinet Office**

Construction: A strategy for Savings

Paul Morrell

**Government Chief Construction Adviser
Department of Business Innovation and Skills**

Key Suppliers Conference 3

Raising the bar



Paul Morrell, Government Chief Construction Adviser





IGT Low Carbon Construction Report, November 2010

IUK Cost of Delivery Study, December 2010

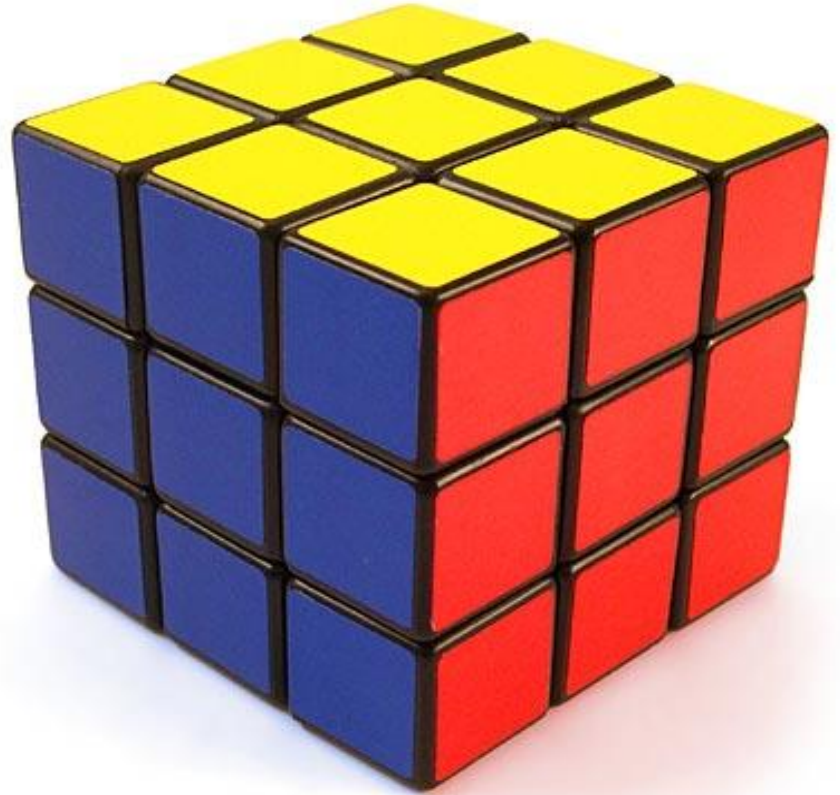
Budget 2011

BIS/HM Treasury Plan for Growth

IUK Implementation Plan

McNulty Review Final Report, due April 2011

**Public Sector General Construction Strategy,
due May 2011**





Great Kanto Highway, Japan



Great Kanto Highway, Japan



Great Kanto Highway, Japan



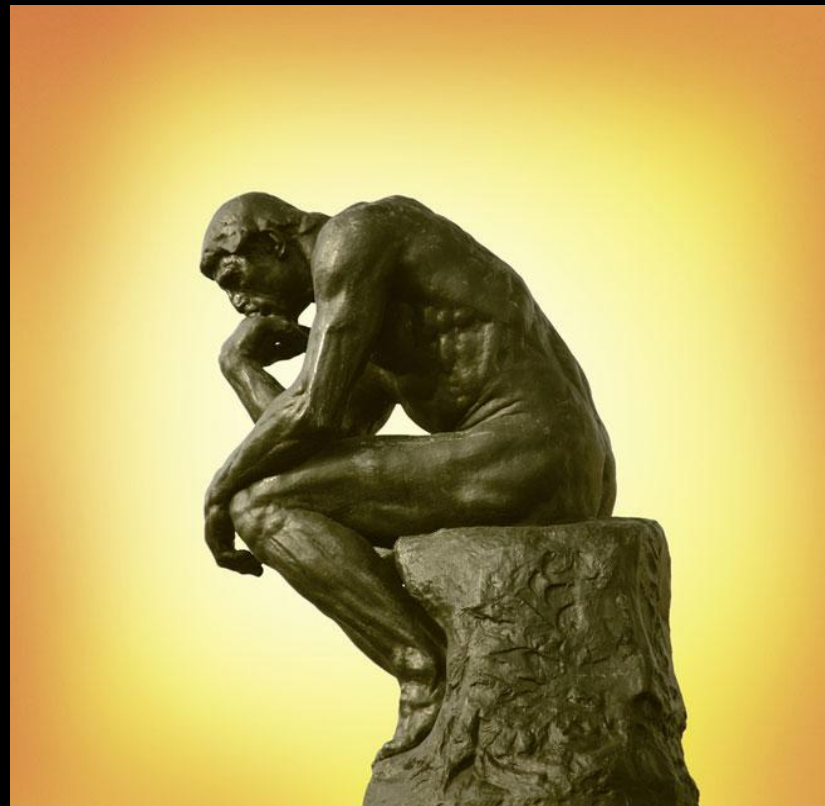
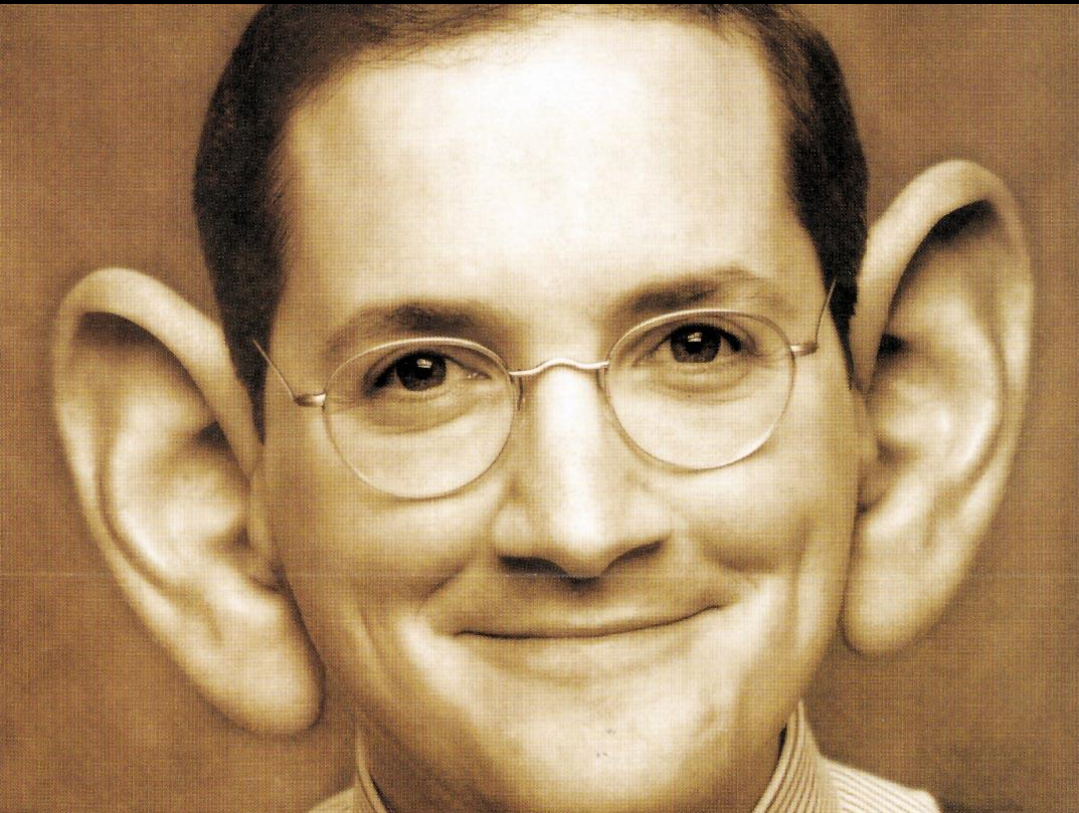
17 March 2011



23 March 2011



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**Bump, bump, bump on
the back of his head.
Winnie thought there
must be a better way of
coming downstairs
if only he could stop
bumping for a moment
and think about it.**

Pipeline



2 Years →



Value in service delivery





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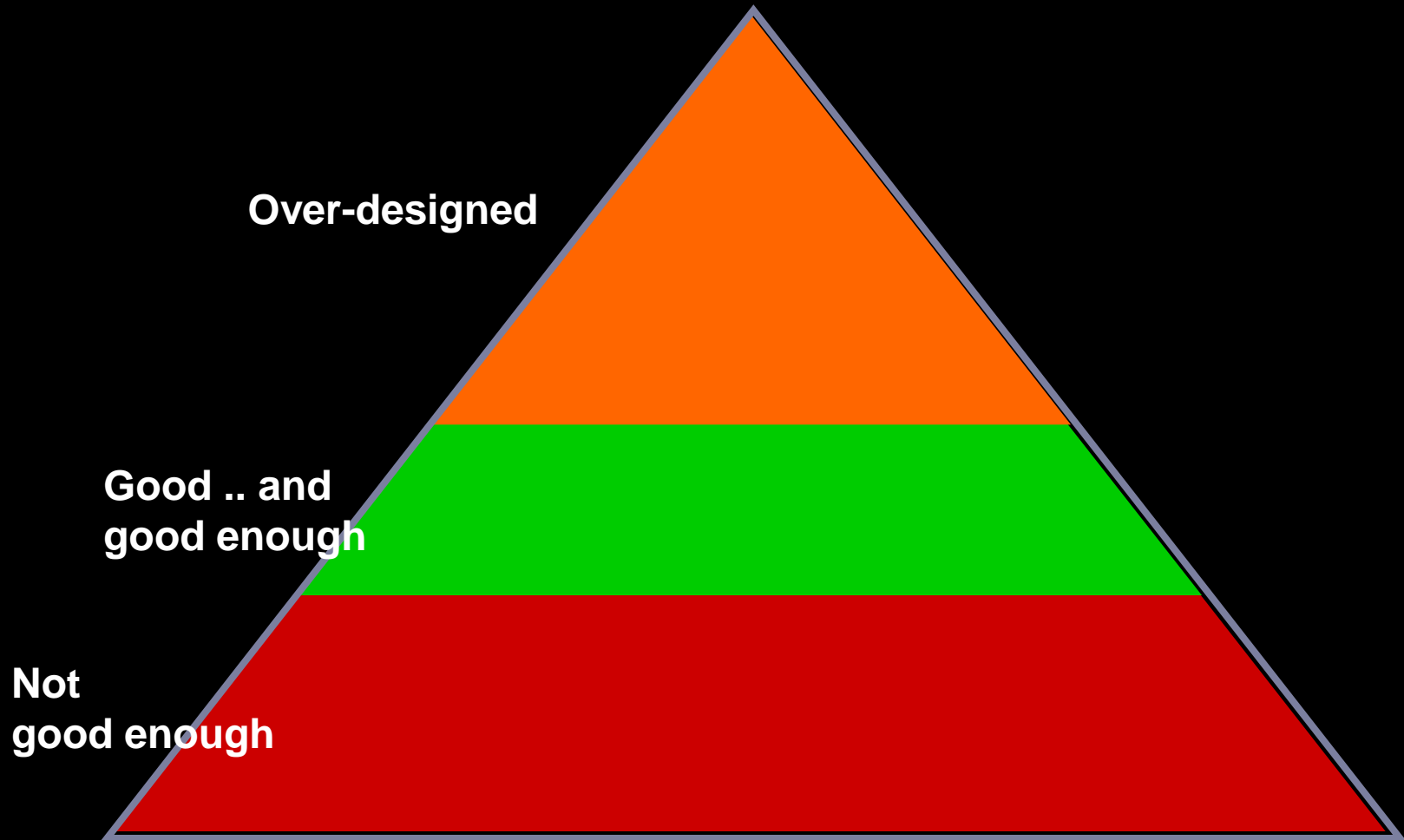


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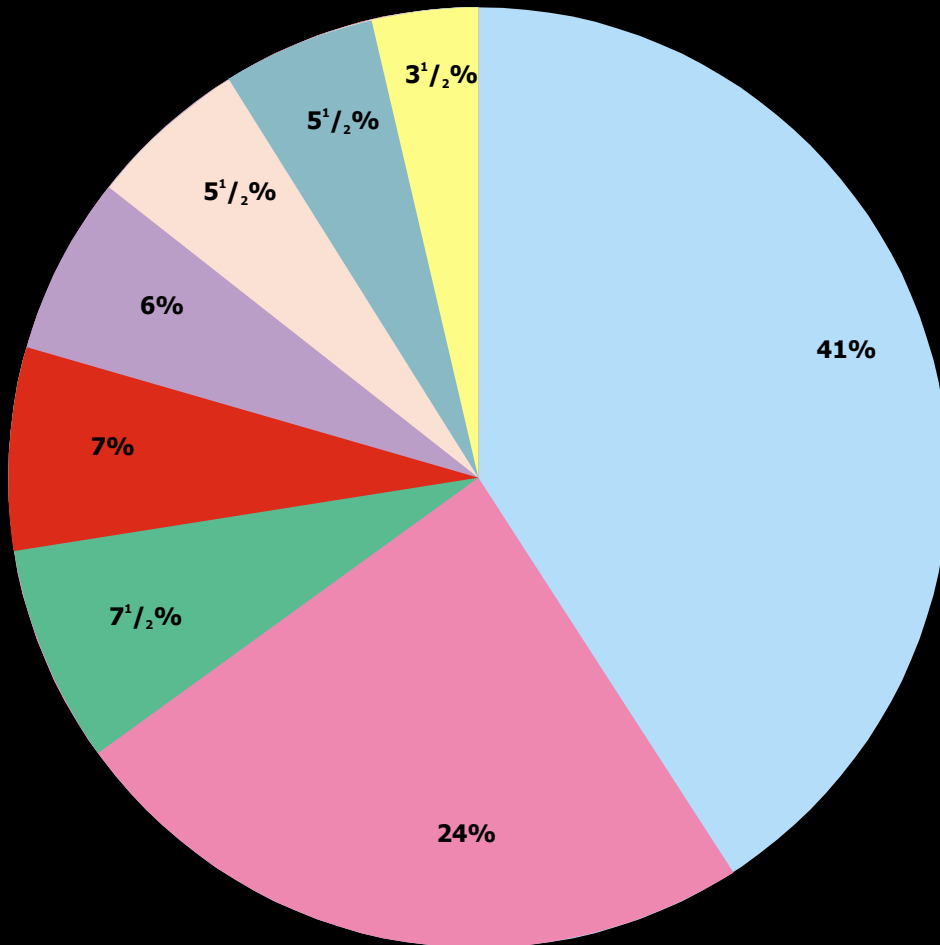


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Good .. and good enough



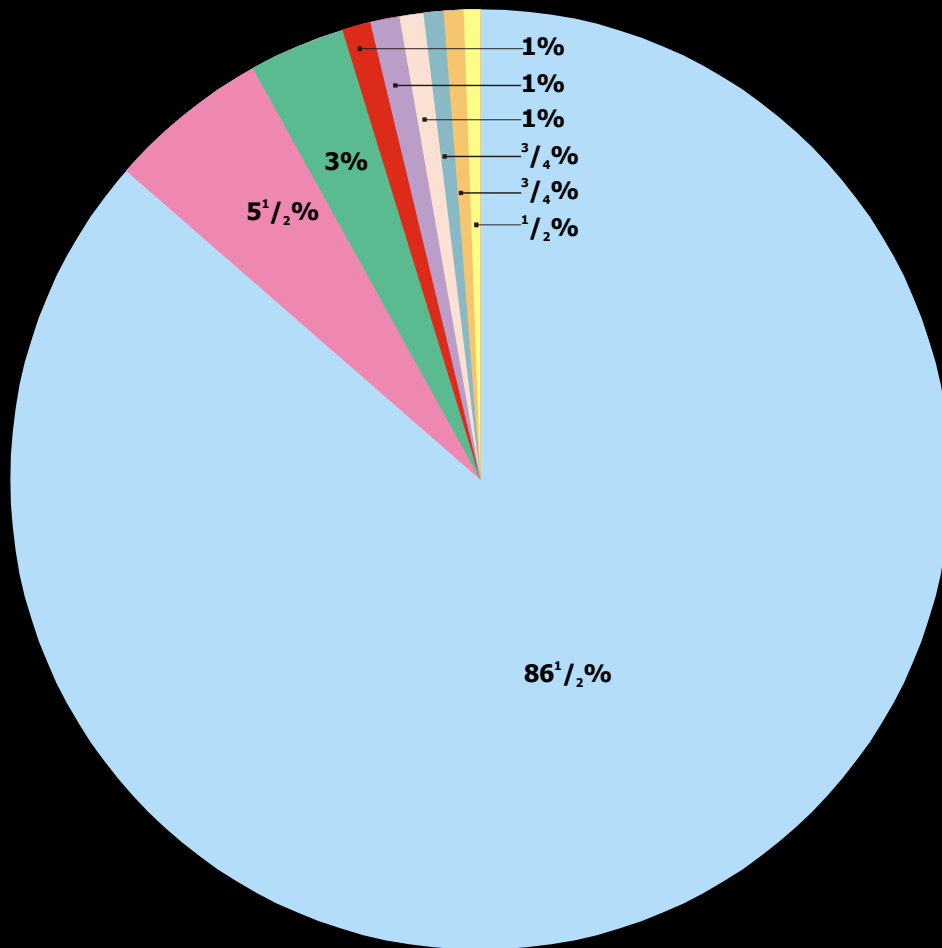
TOTAL INVESTMENT IN OFFICE BUILDING DISCOUNTED TO PV



NOTE: EXCLUDES OCCUPANTS' STAFF COSTS

- 1. Building - construction cost** 41%
- 2. M&E services - running & maintenance** 24%
- 3. Furnishings & furniture - capital cost** 7 1/2%
- 4. Land** 7%
- 5. Building - maintenance** 6%
- 6. Cleaning** 5 1/2%
- 7. M&E services - depreciation** 5 1/2%

TOTAL INVESTMENT IN OFFICE BUILDING DISCOUNTED TO PV



NOTE: INCLUDES OCCUPANTS' STAFF COSTS

- | | |
|--|----------------|
| 1. Salaries of occupants | 86 1/2% |
| 2. Building - construction cost | 5 1/2% |
| 3. M&E services - running & maintenance | 3% |
| 4. Furnishings & furniture - capital cost | 1% |
| 5. Land | 1% |
| 6. Building - maintenance | 1% |
| 7. Cleaning | 3/4% |
| 8. M&E services - depreciation | 3/4% |
| 9. Furnishings & furniture - maintenance & depreciation | 1/2% |



Benchmarking

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Governance





Challenge

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Elimination of waste

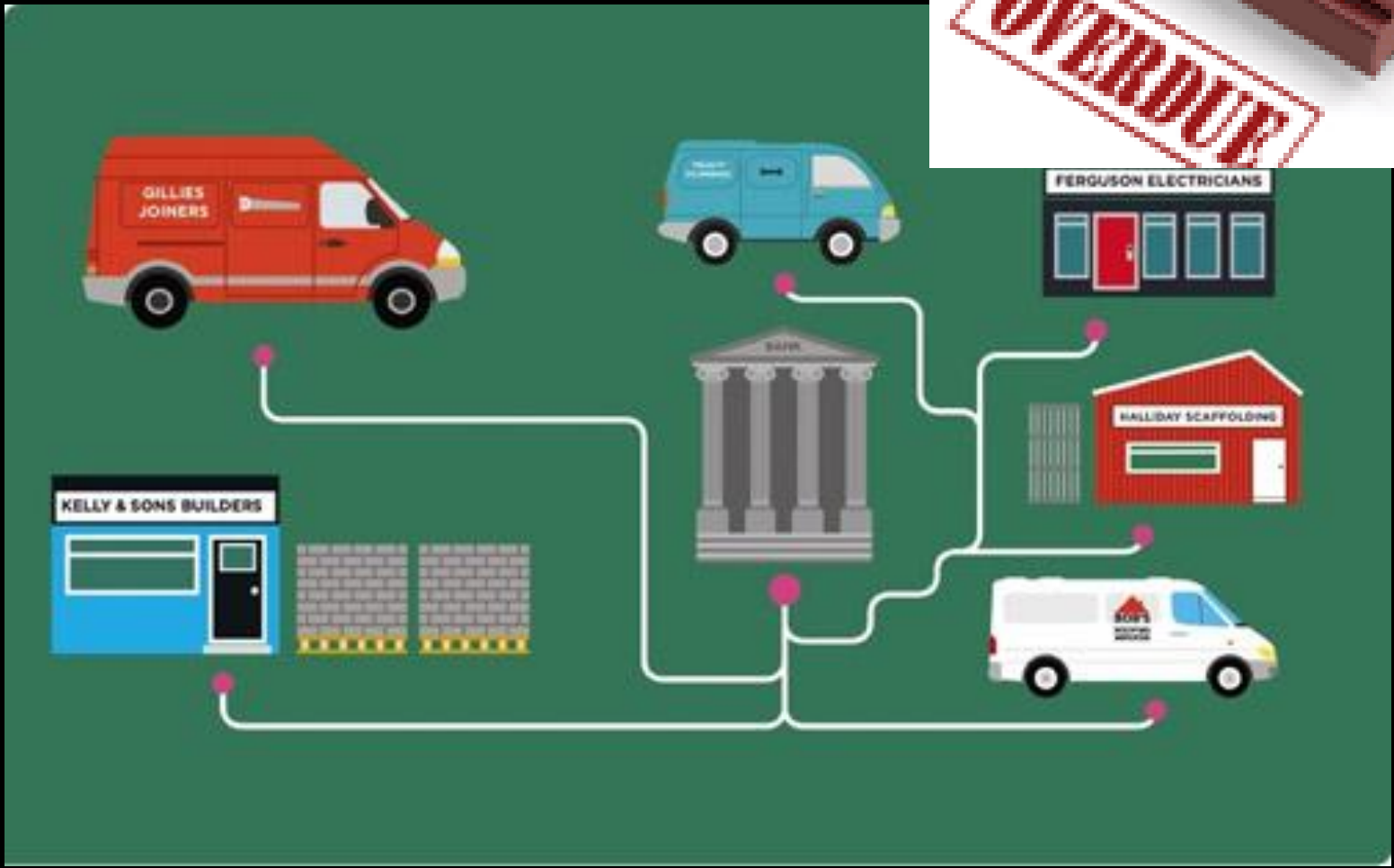


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Prequalification

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Guide to best 'Fair Payment' practices

Construction procurement

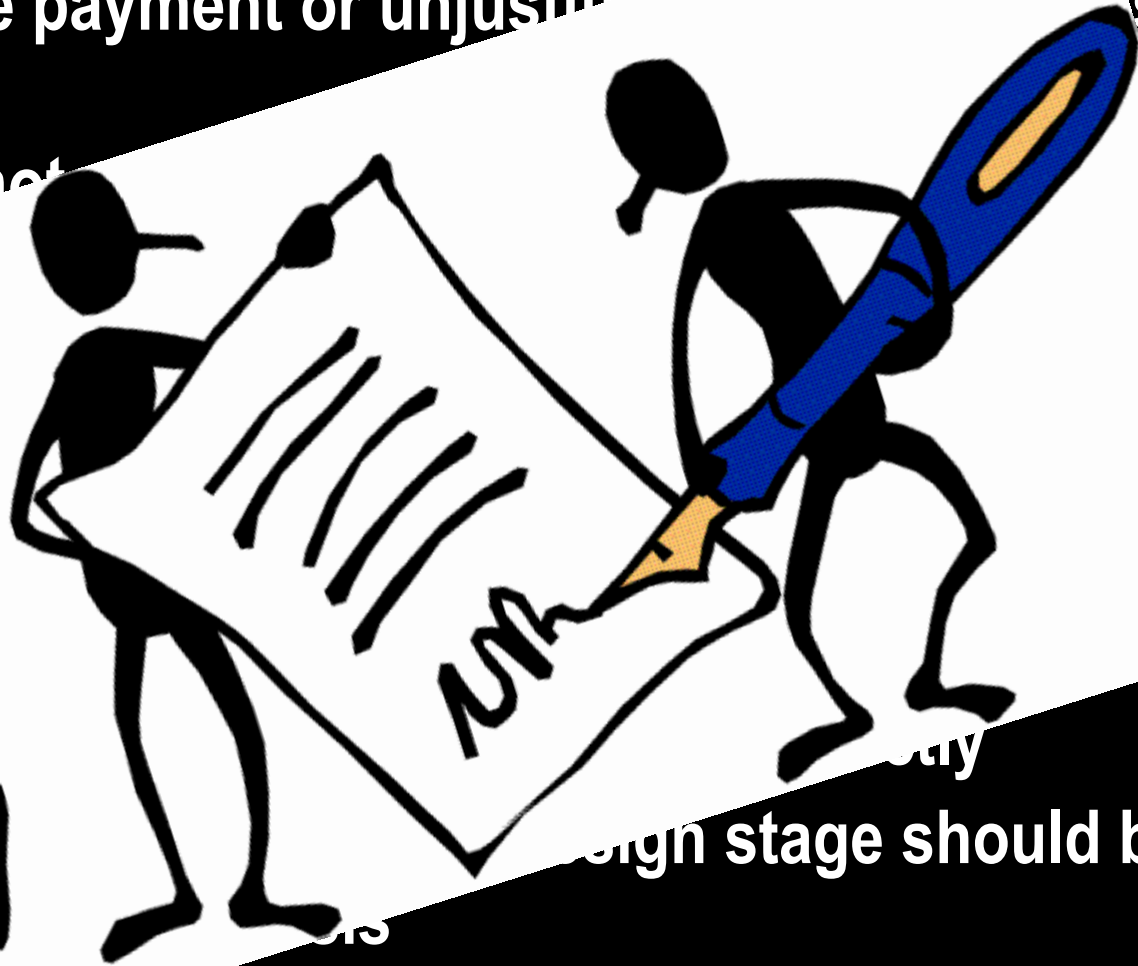
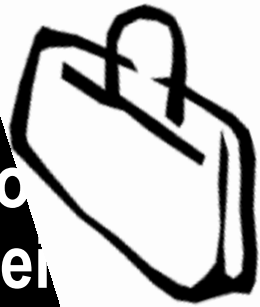
Fair payment

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Principles of fair payment

- Deliberate late payment or unjustified non-payment is not acceptable
- If clients are not paid, the contractor should be paid
- Payment should be made in accordance with the contract
- Payment should be made in accordance with the contract
- Payment should be made in accordance with the contract
- Payment should be made in accordance with the contract
- Client should be paid in accordance with the contract
- Subcontractors should be paid in accordance with the contract
- Valuation processes should be replaced by milestone payments and payment schedules







New procurement models

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Integration

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Integrated Supply Chains

- **Shared goals & objectives**
- **Play to strengths**
- **Early involvement**
- **Cross company understanding**
- **Committing necessary resources**
- **Maximise potential of IT**
- **Good communication**
- **TRUST**
- **Value driven procurement**
- **Shortening cradle to grave process**
- **Embrace continuous improvement**

Integrated Supply Chains

- Shared goals & objectives
- Play to strengths
- Early involvement
- Cross company understanding
- Committing resources
- Maximise performance
- Good communication
- TRUST
- Value for money
- Shorter time to grave process
- Embrace continuous improvement

May 2002



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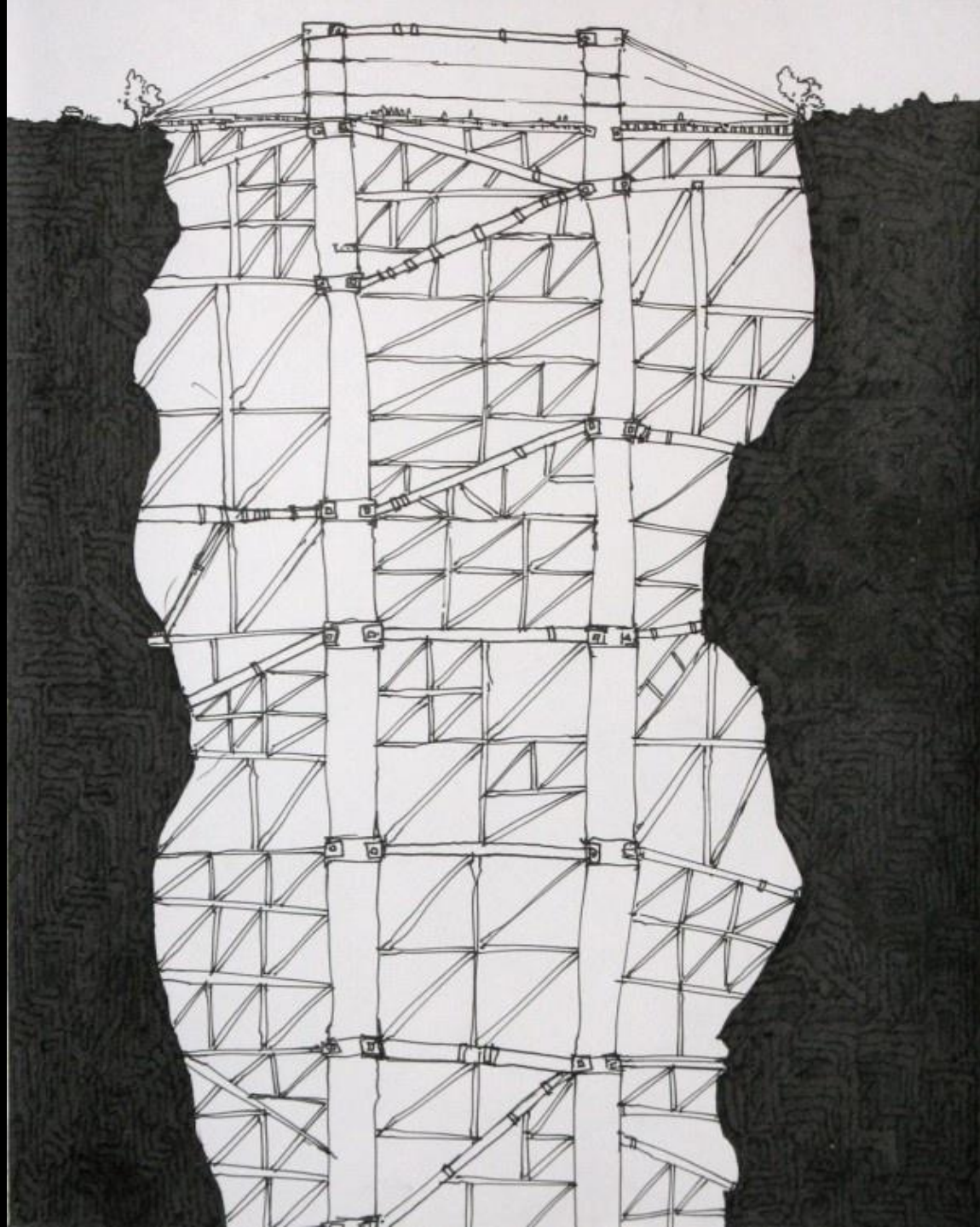
Incentivisation



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A low-angle, silhouette photograph of construction workers on a steel framework. The workers are positioned at various heights, with one prominently in the center. The background is a bright sky with scattered clouds. The overall mood is industrial and dynamic.

Frameworks



Protecting smaller players







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BANKERS

THE HOUSE ALWAYS WINS

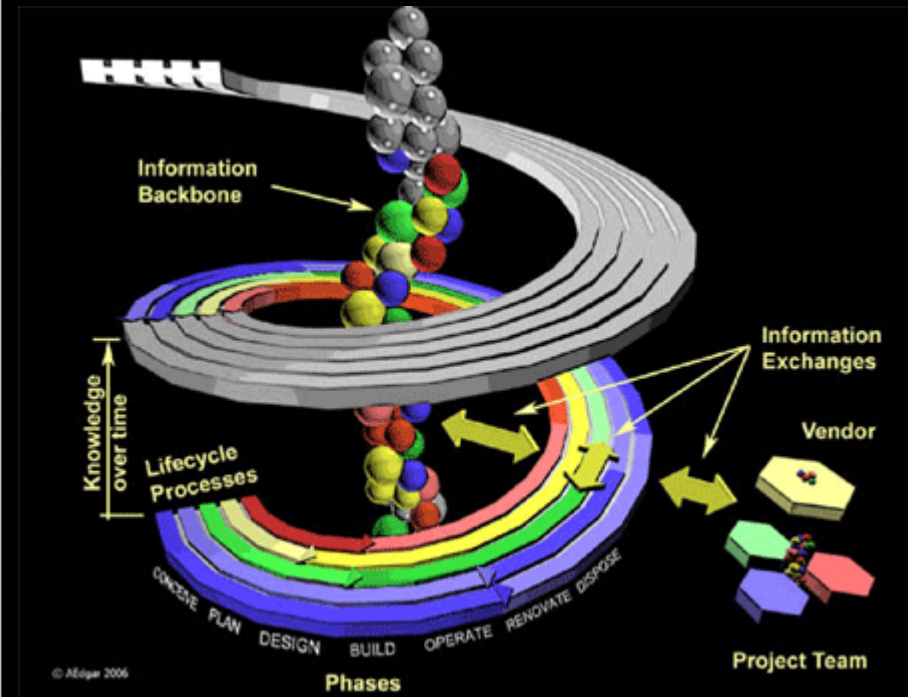
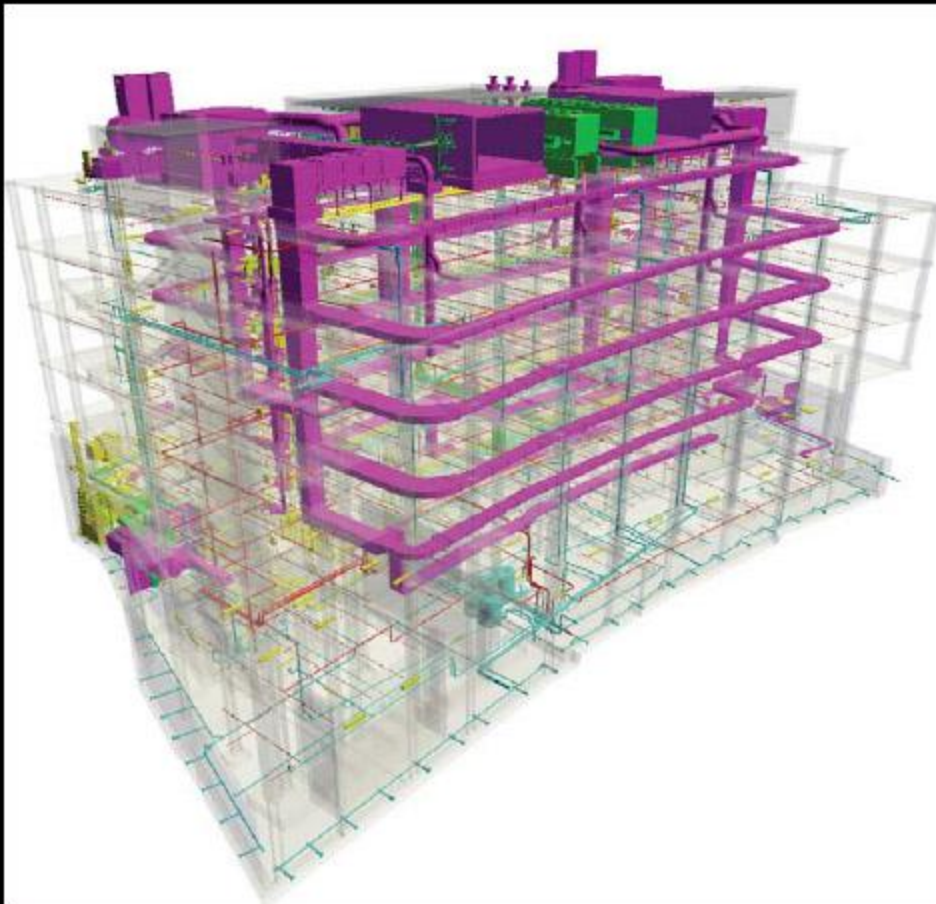
Soft landings





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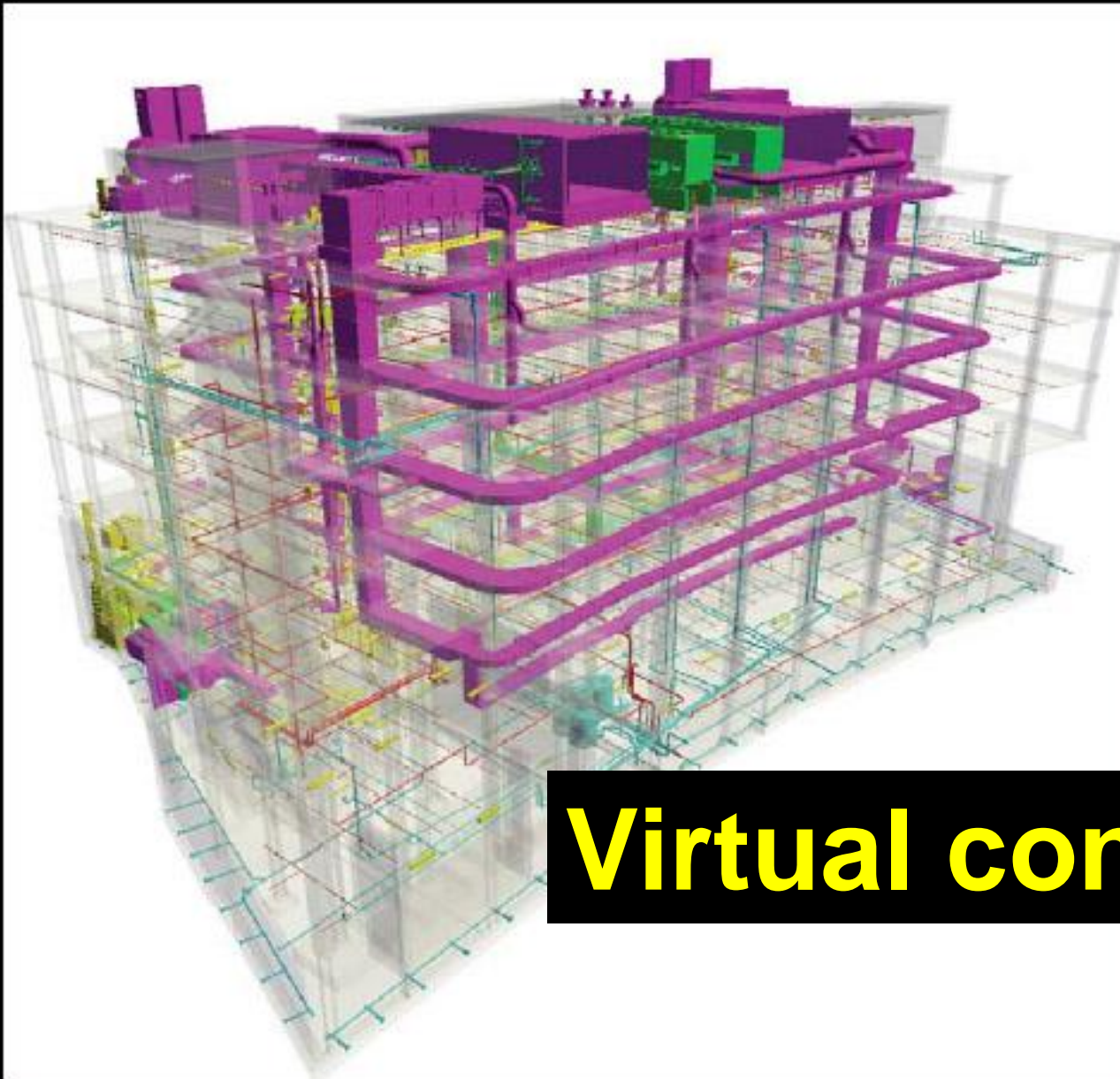
Building Information Modelling (and Management)





A shared platform





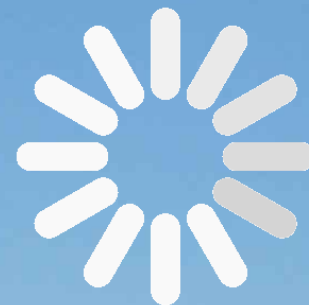
Virtual construction



Loading data



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Obama endorses BIM

In his State of the Union Address last week, President Barack Obama ... made reference to the power of BIM.

During his discussion of innovation and the digital age, Obama recognized the role BIM can play in emergency management, “It’s about connecting every part of America to the digital age...It’s about a firefighter who can download the design of a burning building onto a handheld device.”



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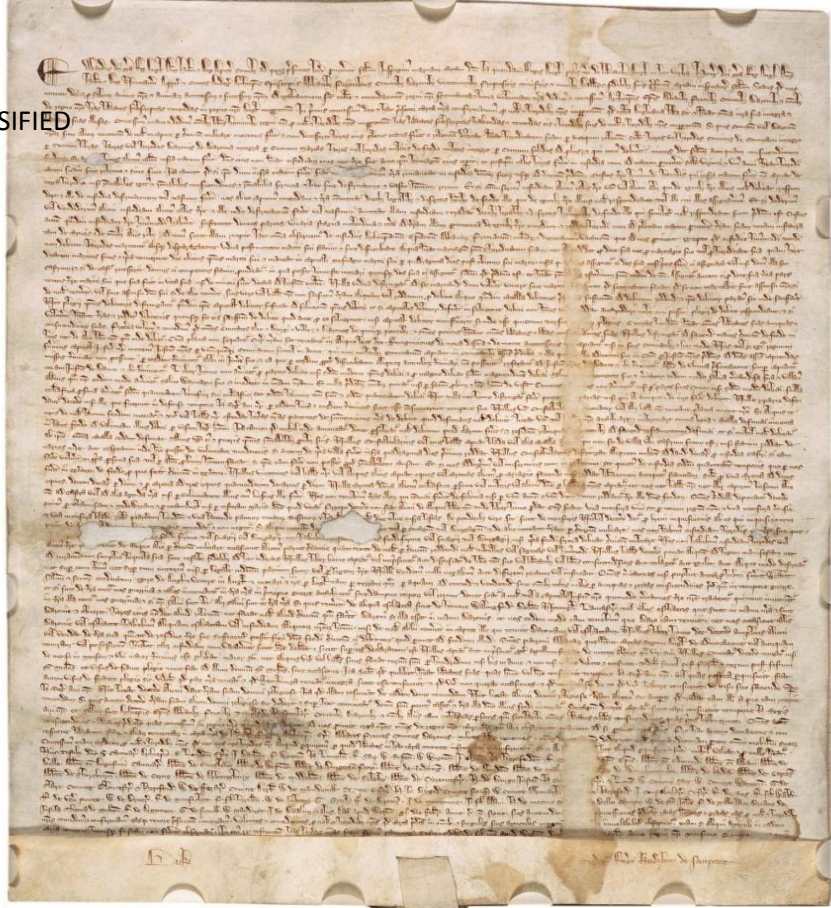


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Trial projects



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A charter ?



HM TREASURY

Government plans for construction sector efficiency and growth

**Andrew Hudson
Director General,
Public Services & Growth
HM Treasury**

4th April 2011

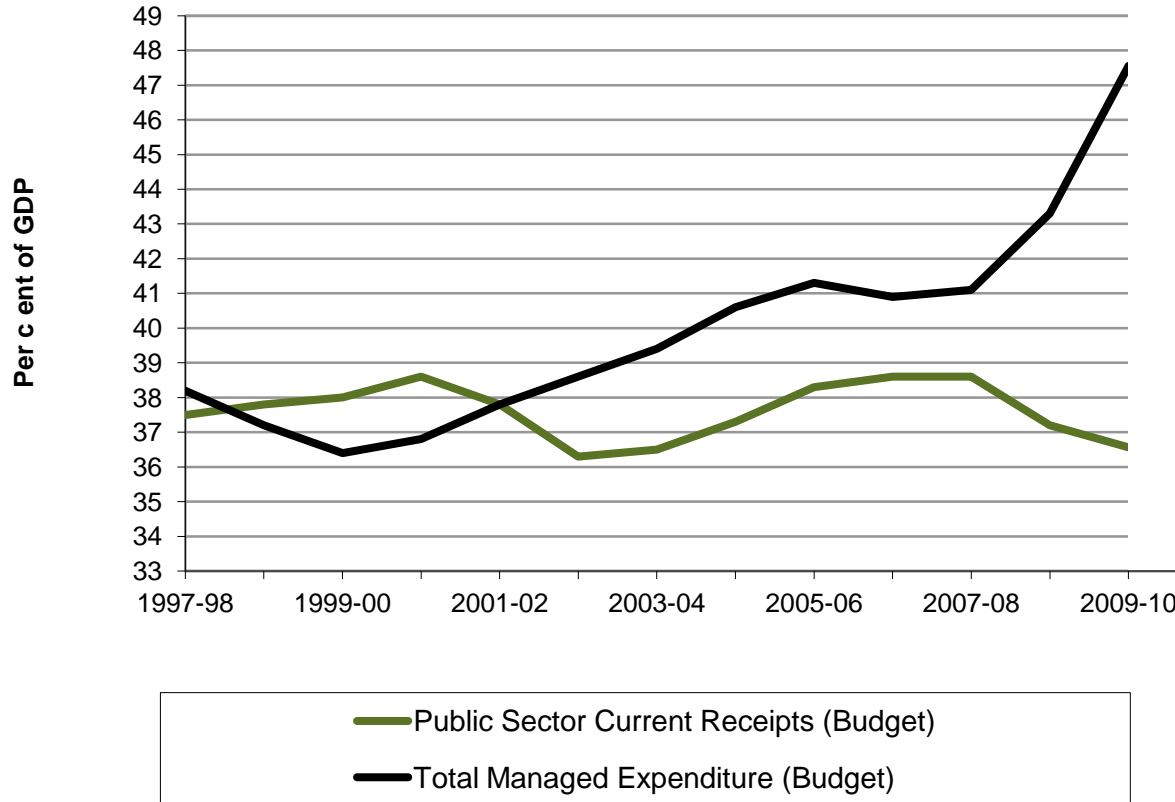


Contents

- The overall context
- The Spending Review
- The Budget
- Opportunities and challenges for the construction industry



The fiscal challenge





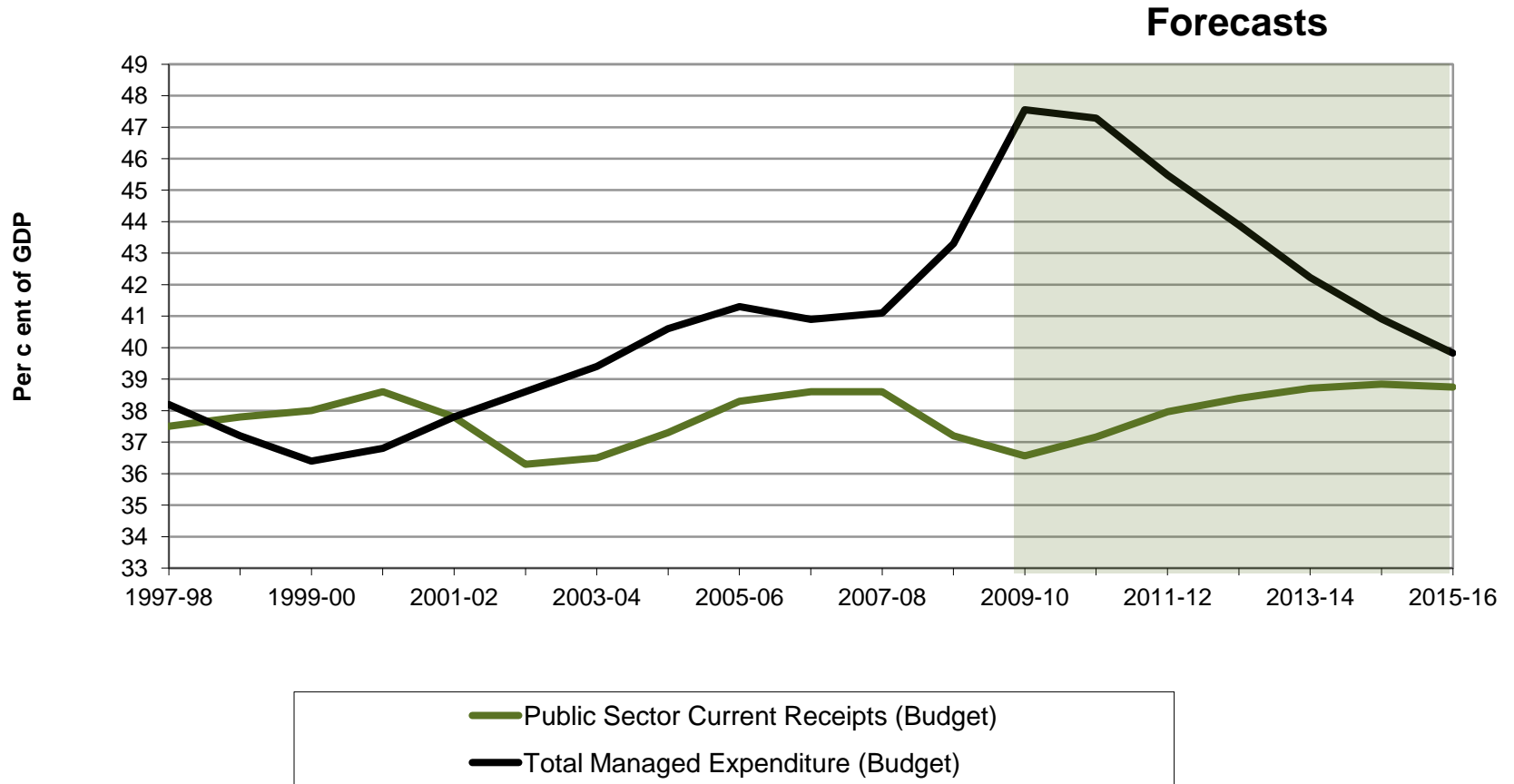
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The consolidation





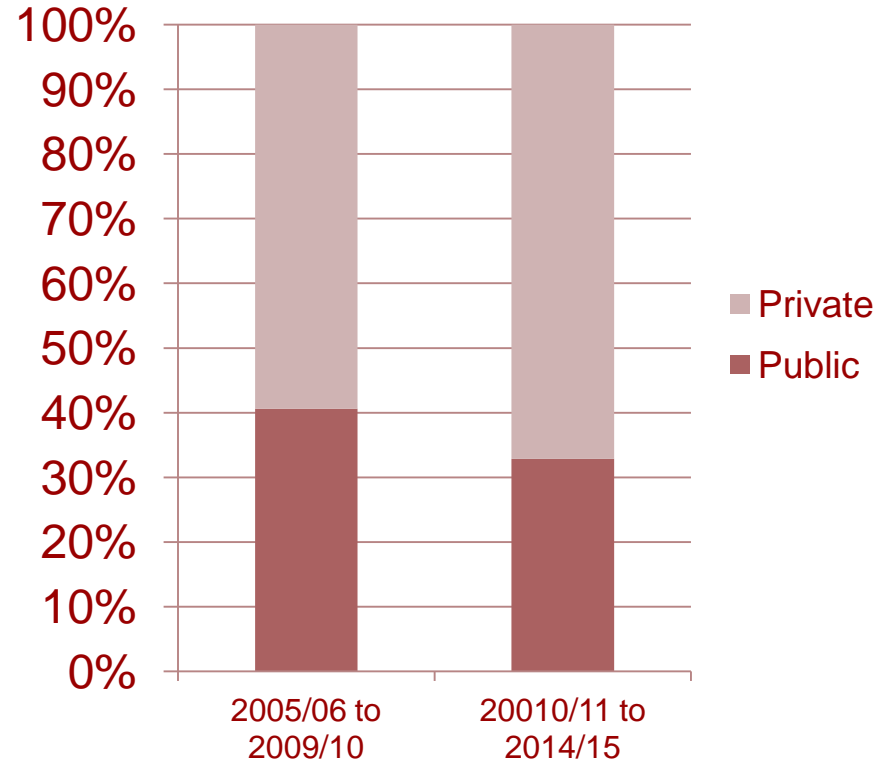
Prioritising growth enhancing investment

- Spending Review increased the capital envelope by £2.3bn a year by 2014-15 to protect high-value investment
- Prioritised investment to underpin the transition to a high-tech, low-carbon economy :
 - Transport capital investment - which will be higher in 2014-15 than in 2005-06
 - Carbon Capture and Storage
 - Green Investment Bank
 - UK Centre for Medical Research and Innovation
 - Diamond 3 Synchrotron



Investing in infrastructure for growth

- National Infrastructure Plan identified some £200 billion of infrastructure investment by public and private sectors between 2010 and 2015
- Private sector share of is expected to increase from under 60% to some 70%





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Budget 2010



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Plan for Growth - Ambitions

- To create the most competitive tax system in the G20
- To make the UK one of the best places in Europe to start, finance and Grow a business
- To encourage investment and exports as a route to a more balanced economy
- To create a more educated workforce that is the most flexible in Europe



The most competitive tax system in the G20

- Reduced the rate of corporation tax for smaller companies to 20% from 2011
- Reducing the main rate of corporation tax
- Emphasis on improved competitiveness, stability and investment.
- Particular support to Mid-Caps and SMEs



Best place to start, finance and grow a business

Actions to minimise the regulatory burdens:

- Implement proposals from the Lord Young review of H&S
- Pushing EU to bear down on overall impact of legislation

Planning Reform:

- Presumption in favour of development
- National Planning Policy Frameworks reinforced
- Extended permitted development rights
- Planning applications and appeals processed in 12 months.

Regulatory Competition:

- Binding set of principles of economic regulation to provide greater certainty for long term investors



Investment and exports as a route to a more balanced economy

- Regional Growth Fund and priority investment in infrastructure already announced
- 21 New Enterprise Zones
- Reform of UKTI to encourage investment in economically significant projects
- Publish forward programme of infrastructure projects
- Reform public sector construction and infrastructure procurement
- £3 billion capital to the Green Investment Bank



Educated workforce that is the most flexible in Europe

- Up to 50,000 additional apprenticeship places over the next four years
- 100,000 work experience placements

Plan for growth construction actions

- Publish the UK's long term forward view of projects
- Publish a rolling two year forward programme of funded projects
- Reform public sector construction procurement
- 'FirstBuy' programme assisting over 10,000 first time buyers
- Accelerate the release of public sector land
- Reform the stamp duty land tax rules applied to bulk purchases
- Range of measures to remove barriers to entry for new REITs
- Review construction standards and codes to take out redundancy and duplication
- New regulatory requirements for zero carbon homes, to apply from 2016



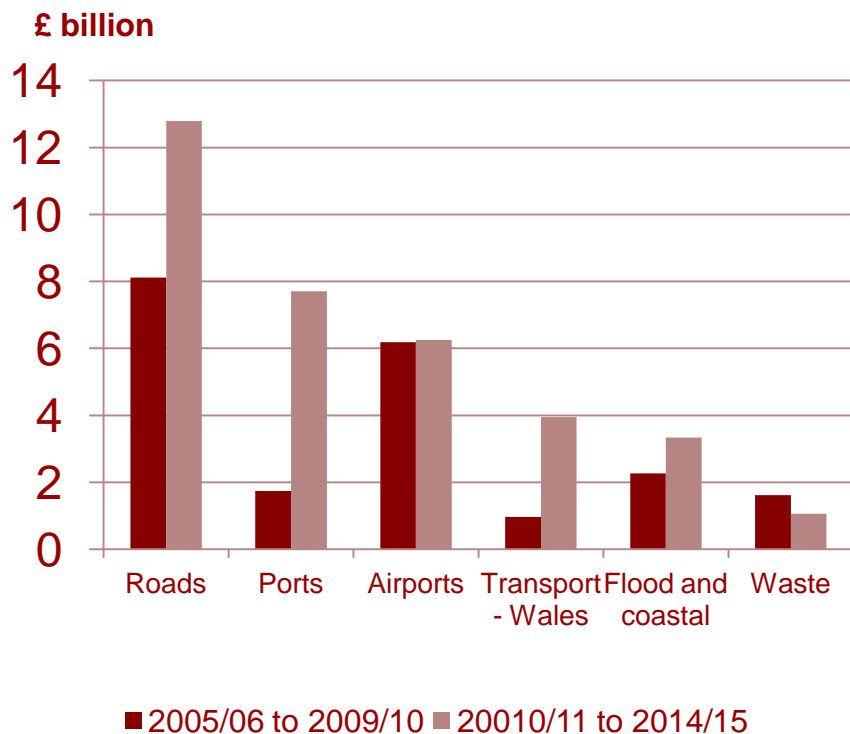
Over-prescriptive standards?



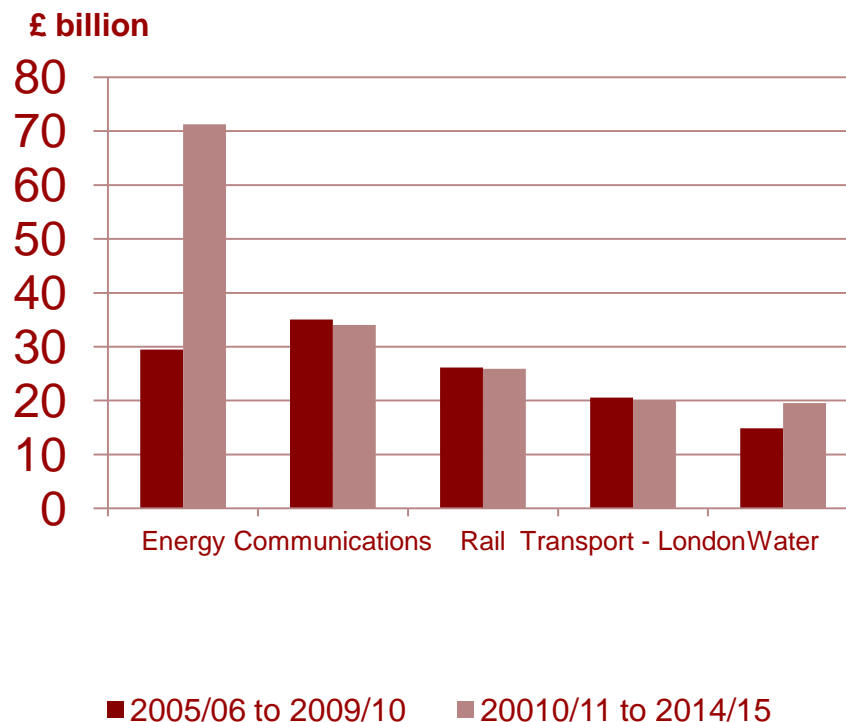


Opportunities for construction

Other sectors / sub-sectors



Largest five investment areas (over 80% of total)





UK transport investment



Strategic roads

- Over £10 billion allocated at the Spending Review
- Highways Agency re-planning investment following Spending Review allocation, including:
- Programme includes hard shoulder running projects (e.g. M1, M65, M5/M6), capacity enhancements (e.g. A11) and key junction improvement works (e.g. A13/A130).



Local authority major projects

- £1.5 billion announced in Spending Review for new and committed local schemes
- Confirmation of first round of projects that are being supported following the Spending Review announced February 2011



UK transport investment (cont)

Rail



- £14 billion funding to Network Rail. Current 5 year Control Period (CP4) runs to 2014.
- Projects include:
 - Improvements to Birmingham New Street and Leeds Stations
 - Capacity and line speed enhancements across the network
- Thameslink Programme confirmed with a new 2018 completion date to reduce project risks
- Significant programme of rolling stock investment



London including Crossrail

- £6 billion capital programme confirmed in Spending Review
- Continued investment in modernising the Underground network
- Crossrail also confirmed with a re-profiled timetable



Water and Flood & Coastal Erosion Risk Management



Water regulated investment programme

- Price Review 2009 runs to 2015. Combined £21 billion of investment planned for the period.
- Balance to be struck between increased competition and investor confidence/interest to ensure delivery of investment programme post 2015.



Flood & Coastal Erosion Risk Management investment programme

- Funding allocated to continued investment at spending review
- Alternative funding model being considered to increase available funding and local choice.



Digital communications



Mobile communications

- Liberalisation of 2G spectrum will enable investment to improve coverage and speed of mobile data services
- Auction of valuable 800MHz and 2.6GHz, planned for Q1 2012, will enable deployment of 4G services. £280 million Government funding to “clear” spectrum for sale
- Government committed to releasing 500MHz of public sector spectrum by 2020



Government investment in broadband

- Initial pilot projects announced for North Yorkshire, Cumbria, Herefordshire and the Highlands and Islands
- Pilots into procurement in Q1 and Q2 2011 with connections starting in Q1 and Q2 2012
- Further round planned for April and then continuous bid process for further projects. £530 million over the SR period



Energy networks



Offshore transmission

- £15-20 billion of investment over 10 years
- Ofgem first two tender rounds launched
- Round 1 total value £1.1 billion - bids received and appointed
- Round 2 (£1 billion) process for offshore generation



Price control reviews

- Next price reviews for transmission and gas distribution due to be implemented from April 2013
- Next price review for electricity distribution to be implemented from April 2015
- Longer, 8 year settlement periods



Roll-out of smart meters

- Estimated cost to energy suppliers of £1.6 billion to 2020



Energy generation



New nuclear

- 8 sites identified for new Nuclear build. Estimate over £47 billion of projects starting by 2015
- Dependent on NPS/EMR decisions. First site Hinkley Point seeking licenses, works could start 2011/12
- Other sites including Sizewell, Oldbury and Sellafield expected from 2014/15



Offshore wind

- Projects valued at £7bn expected to start over the next two years
- Several projects expected to reach close in next 12 months including Teeside and Humber Gateway



Construction

At least 7% of GDP circa £110 billion per annum

Sector	Public	Private	Total
Commercial and social	£20 billion	£29 billion	£49 billion
Residential	£14 billion	£28 billion	£42 billion
Infrastructure	£ 7 billion	£11 billion	£18 billion

Refurbishing and improving the existing built stock accounts for about half of this total.



Challenges for construction

- Mixed evidence on comparative performance
- Productivity growth better than US, France and Germany
 - ... but Less than half capital intensity of those countries
 - ...and 4th highest costs in EU
- House building at lowest peacetime levels since 1924
- Perceived industry fragmentation and lack of supply chain integration – low levels of innovation and skills
- Lack of forward view of workflow and poor procurement practices a barrier to growth



Potential for efficiency

- National benchmarks and industry indices constantly place UK in upper quartile of peer group comparables on construction costs
- Infrastructure Cost Review benchmarking:
 - HS Rail costs at least 23% higher in UK
 - Major stations as much as 50% more expensive
 - Roads 10% higher but potential for greater efficiencies
- Savings of about 15%, or £10bn, possible over the next five years
- Plan for Growth target to reduce costs by up to 20% for wider public sector construction



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Infrastructure Cost Review



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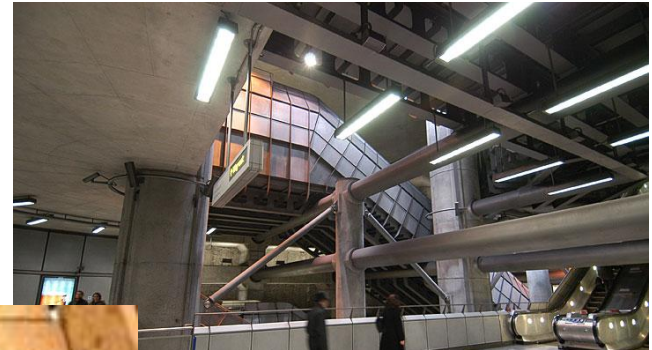
Infrastructure UK

Infrastructure Cost Review: Implementation Plan

March 2011



Summary



Keynote Address

Mark Prisk

Minister of State for Business and Enterprise

Panel Session

Mark Prisk

Andrew Hudson

William Jordan

Facilitator: Paul Morrell

Networking Break

Second Session

Paul Morrell

**Government Chief Construction Adviser
Department of Business Innovation and Skills**

Building Information Modelling

John Tocci

**Chief Enabling Officer
Tocci Building Companies**

Procurement Models – Cost Led Integrated Procurement

Ian Tyler

**Chief Executive Officer
Balfour Beatty Plc**

Procurement Models – Cost Led Integrated Procurement

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Procurement Models – Cost Led Integrated Procurement

Martin Davis

Specialist Engineering Alliance

Low Carbon Construction IGT

Final Report – the challenge

“In the Emerging Findings, one of the propositions was that a number of integrated teams might develop a delivery proposal to show how an alternative procurement framework might enable the team to

- drive down costs and**
- deliver a “close to zero carbon” building for the same price as one built only to current Building Regulations”**

Our Proposition:

how an integrated industry will deliver “more for less”
with “integrated project insurance”

	CAPEX targets
Cut out waste and improve efficiency with smarter integrated procurement and insurance	(15% - 20%)
Invest - with BIM - in innovative design, cost-effective low carbon solutions and sustainability*	5% - 10%

Target net saving (before OPEX savings)	(10%)

*“Sustainable Buildings need integrated teams”
www.secgroup.org.uk see “activities”

NB: In accordance with principles backed by NAO, Strategic Forum, PSCCF and House of Commons Business & Enterprise Committee in “Construction Matters”

Our Industry Proposition

By:

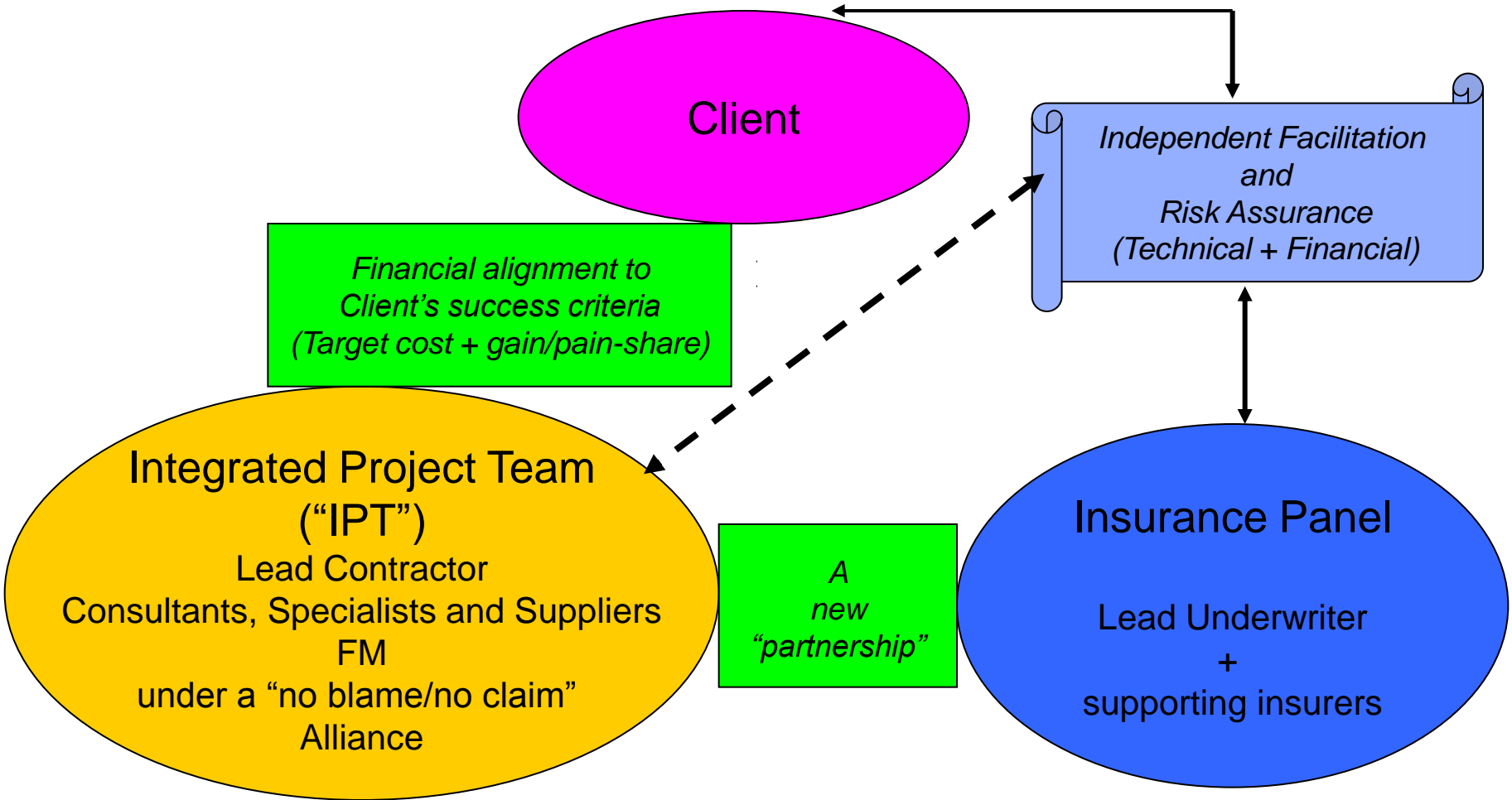
- **the Specialist Engineering Alliance: CIBSE, BEAMA, ACE, BSRIA, SEC Group and FETA**
- **30+ design/cost consultants, contractors, specialist contractors and suppliers/manufacturers**
- **insurance brokers and 5+ leading underwriters**

Proposition is for GENUINE integration and collaboration, with:

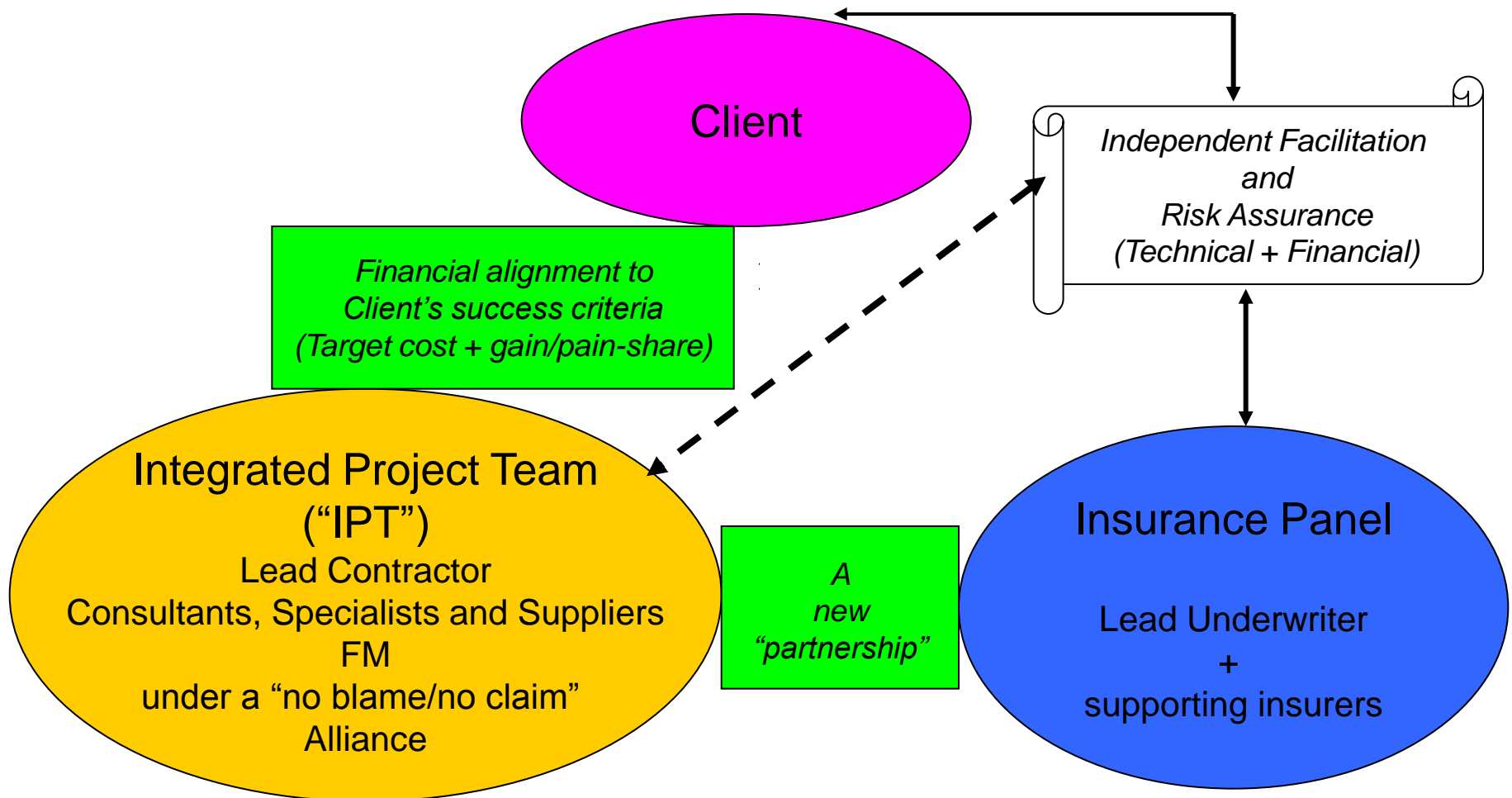
- **independent facilitation,**
- **independent risk assurance – technical and financial**
- **insurance of the cost plan with “integrated project insurance”**

Corollary: Government can itself save significant supervisory costs

An “alliance” between the client, the industry and its insurers - a partnership in risk management

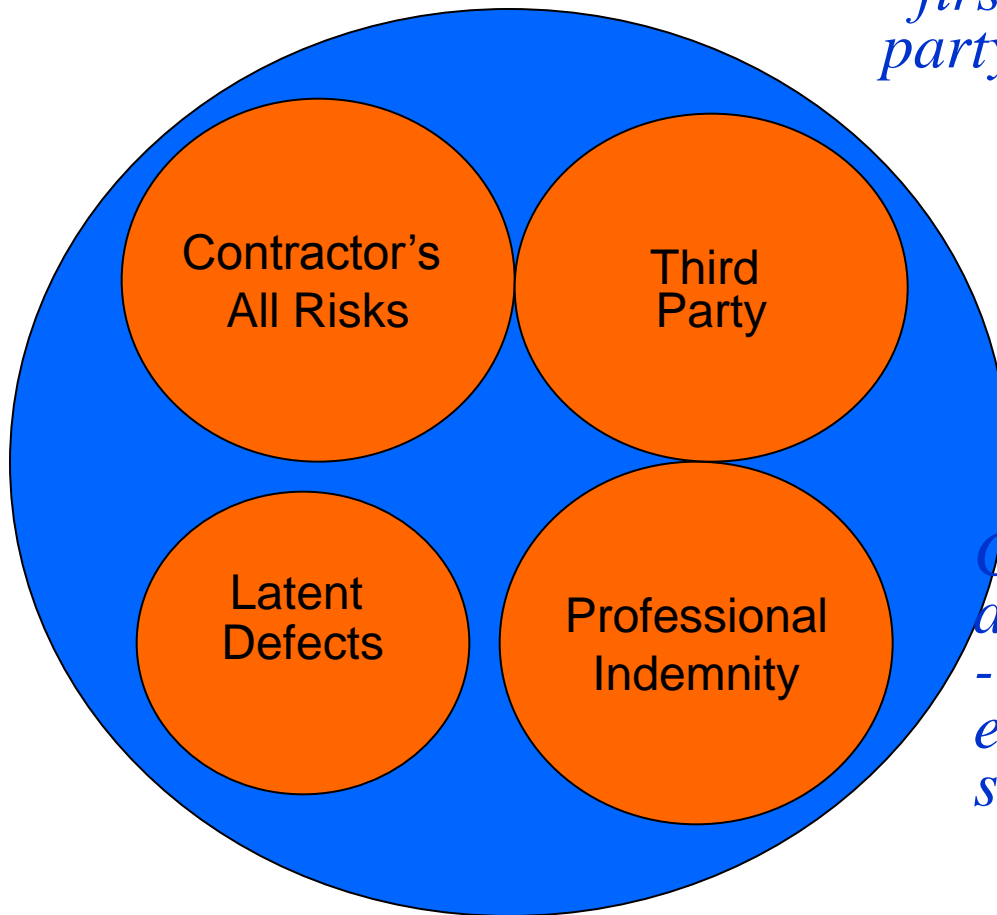


An “alliance” between the client, the industry and its insurers - a partnership in risk management



The manifold traditional **individual Risk Insurances** are subsumed into one “Integrated Project Insurance” (“IPI”)

Integrated Project Insurance



Covers all members of the Integrated Project Team including the Client on a “first party” basis; also covers 3rd party actions

Covers “cost overrun” over the agreed cost plan; and it’s a new form of security for the funders

No blame: demonstrate loss, not culprit - legal costs saved. Rights of subrogation waived.

Cost - including facilitation, risk assurance and latent defects cover - will be 2½%; IPI replaces all existing policies totalling about the same down the supply chains

Criteria for the award of a public contract

The Public Contracts Regulations 2006 N0 5

(based on Directive 2004/18/EC of the European Parliament and Council Article 53)

Either most economically advantageous tender from the point of view of the contracting authority – criteria such as:




- quality,
- price,
- technical merit,
- aesthetic and functional characteristics,
- environmental characteristics,
- running costs,
- cost-effectiveness,
- after-sales service and technical assistance,
- delivery date and delivery period or period for completion,

or

- the lowest price.

Business need and selecting the team

Selecting The Team



STRATEGIC FORUM
FOR CONSTRUCTION

Complements
Strategic Forum's
"Integration Toolkit"

www.strategicforum.org.uk

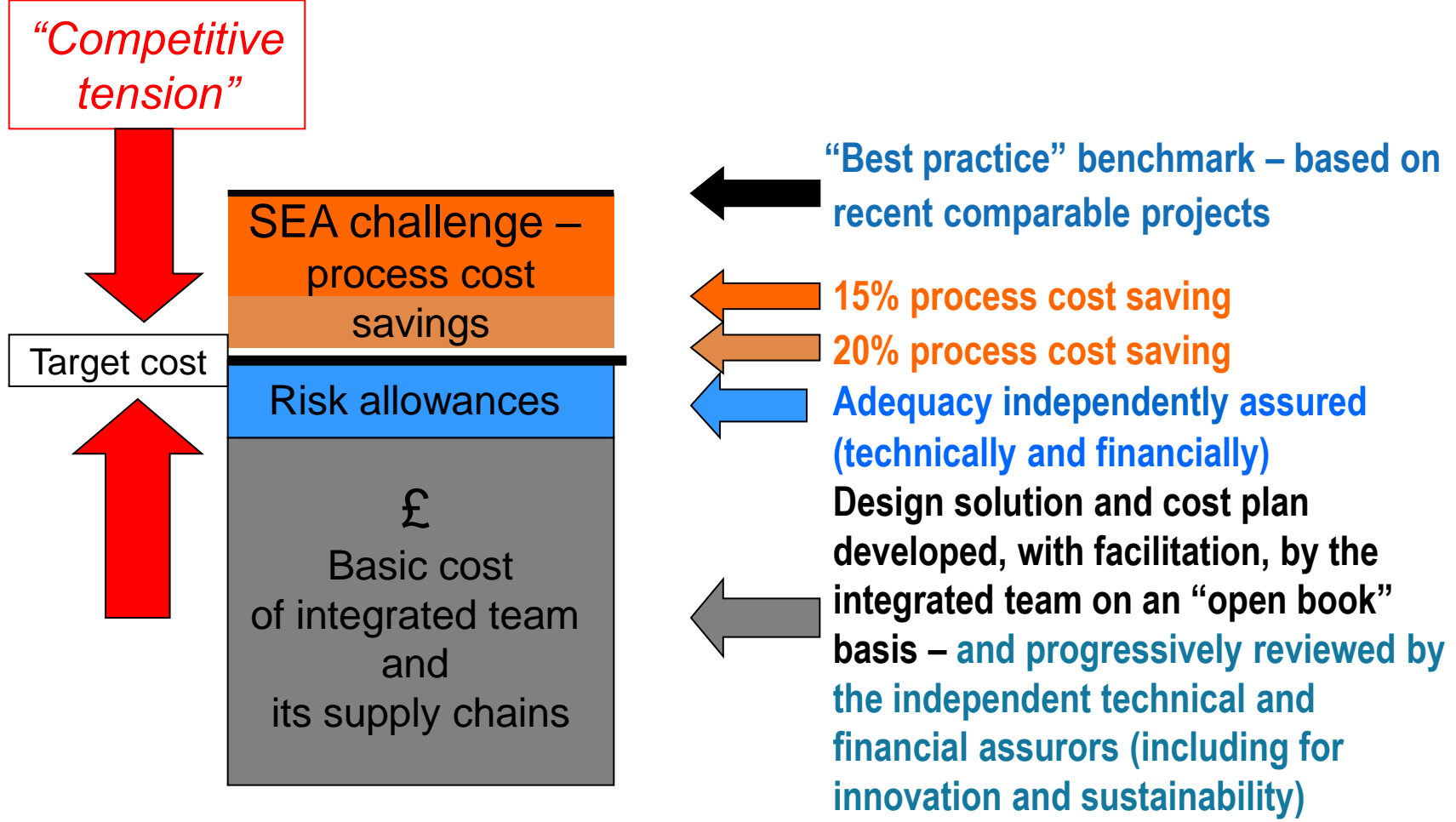
- Client/Advisory Team decides Functional Brief including investment benchmarks
- Selection "most economically advantageous" – competitive but NOT "lowest price"
- Independent technical and financial risk assurance checks before appointment
- Core integrated team, including project/construction manager, specialist contractors (with their access to supply chains), cost adviser and facilities manager are appointed
- Complies with Achieving Excellence in Construction, Common Minimum Standards, and the Construction Commitments

Cost saving

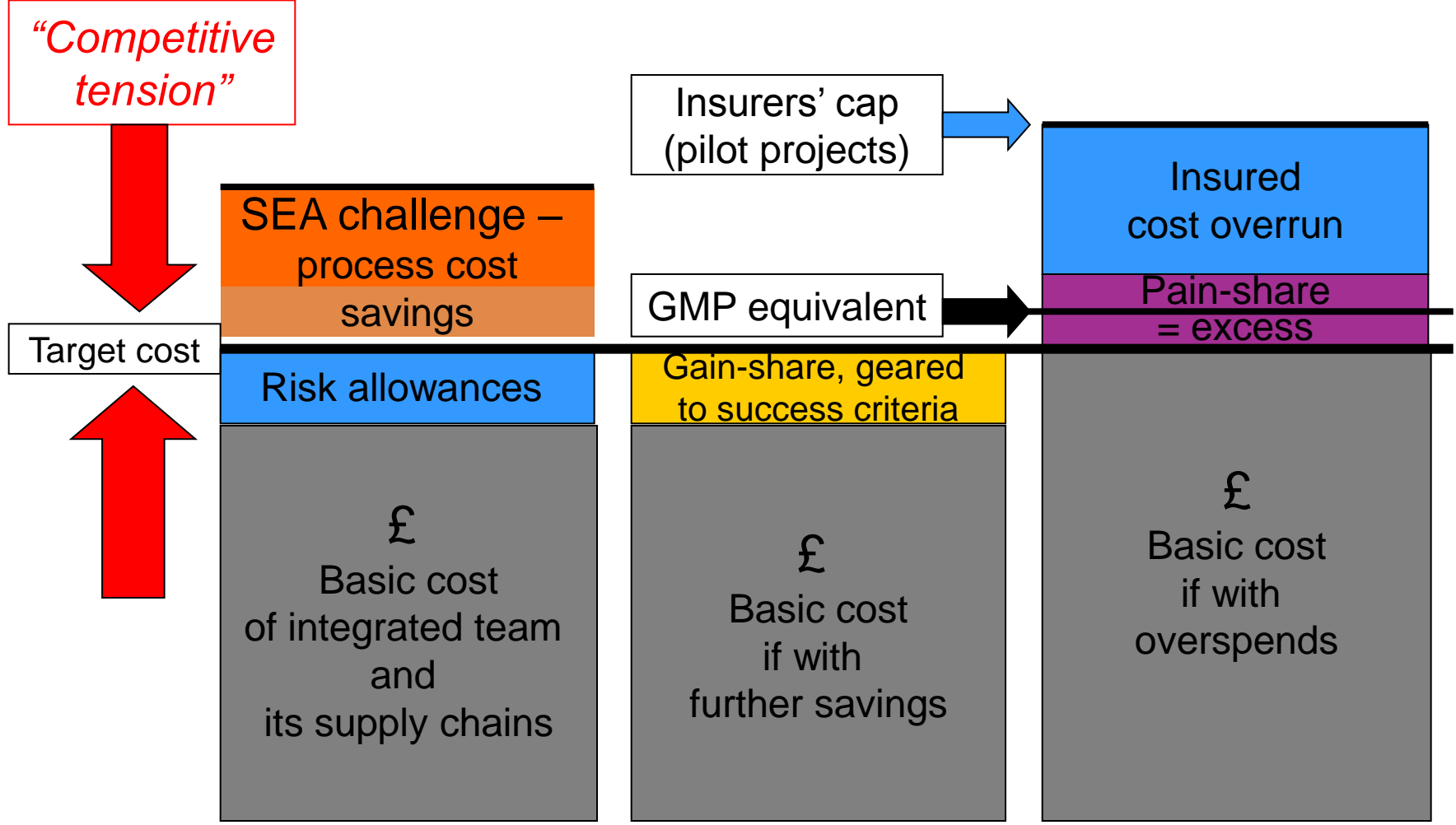
- Traditional enquiry, estimating and tendering processes are avoided

-
- Can select groups of practices/companies
 - Can select for series of projects (framework)
 - SME teams will often be highly appropriate

Development of design solution and target cost plan - risk assurance and benchmarking



Risk-sharing and “integrated project insurance” for Gateway 3 approval



Implementation

- Integrated Team excels at meeting the brief by collaboration and innovation
- With facilitation, every needless process is challenged
- BIM and “BuildOffSite” can develop their full potential
- Gain-share/pain-share up to completion are settled, and any insured losses are finally paid
- Risk assurance is active through to completion, so as to give “clean bill of health” for latent defects cover

Cost savings:

- Only changes in the brief (or client interference) have to be tracked – until incorporated in target cost plan
- Interim and final account (“price”) issues are avoided

Proving and Operation

- Facility is operated/ maintained by integrated team for pre-agreed period
- Gain-shares earned for performance “in use” are paid, say annually
- Latent defects cover takes over, and pays on a “no fault” basis for 12 years
- Performance shortfalls (e.g. low carbon) may be covered under IPI

Cost savings:

- Inefficient operation and poor maintenance: minimized
- Failure to identify culprit for latent defects/ under-performance (designer/ specialist contractor/ supplier) and recover: avoided

Discussion Session

John Tocci

Ian Tyler

Martin Davis

Closing

Paul Morrell

Government Chief Construction Adviser