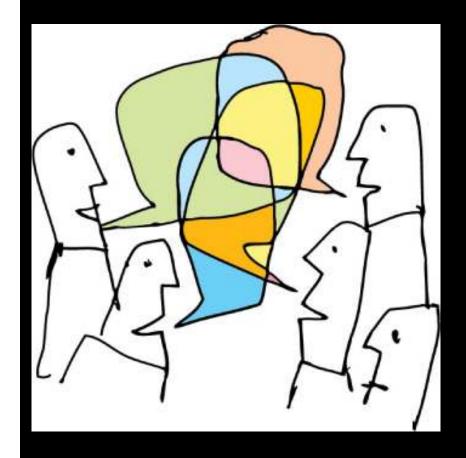
#### Major Strategic Priorities and Opportunities for Construction

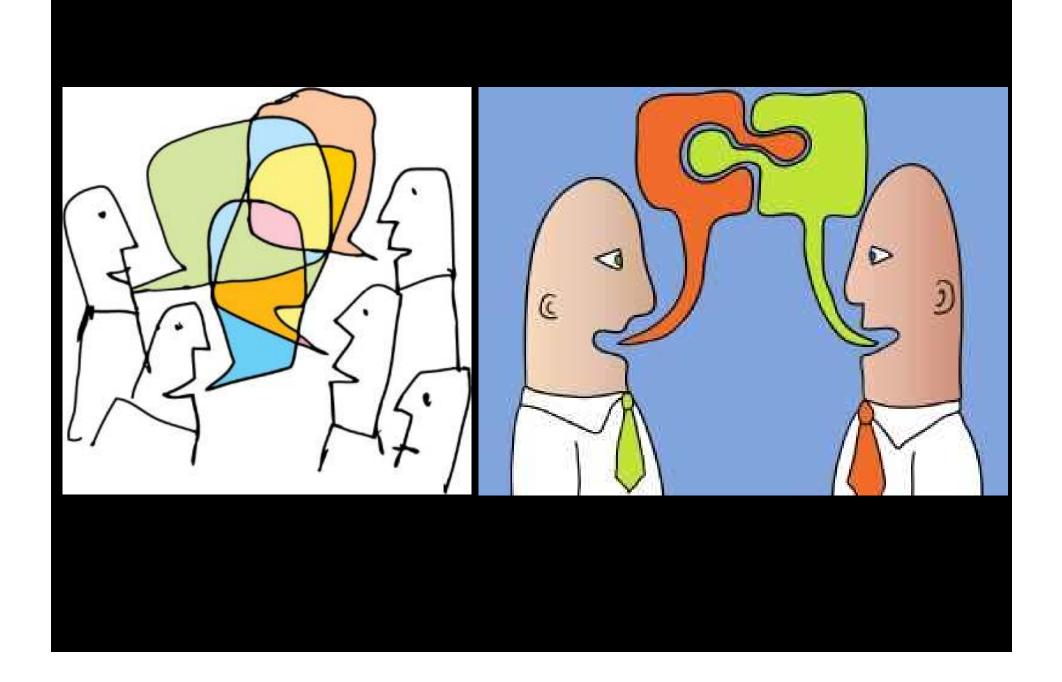


#### Paul Morrell, Government Chief Construction Adviser

## The Chief Construction Adviser will be independent, reporting to BIS and HM Treasury Ministers, and will:-

- Chair a new Construction Clients Board, to oversee the implementation and further development of best value Government construction procurement.
- Chair a sustainable construction strategy delivery board to help ensure policy regarding the industry is effectively co-ordinated.
- Assess the key barriers to growth in the UK's Low Carbon construction sector to ensure the UK industry is well placed to serve developing needs and markets
- Work with the industry, through the Strategic Forum for Construction, to deliver the industry improvement agenda, including the Construction Commitments.
- Promote innovation in the sector, working closely with the Technology Strategy Board and other funding bodies.
- Co-ordinate the Whitehall response to reports featuring construction.



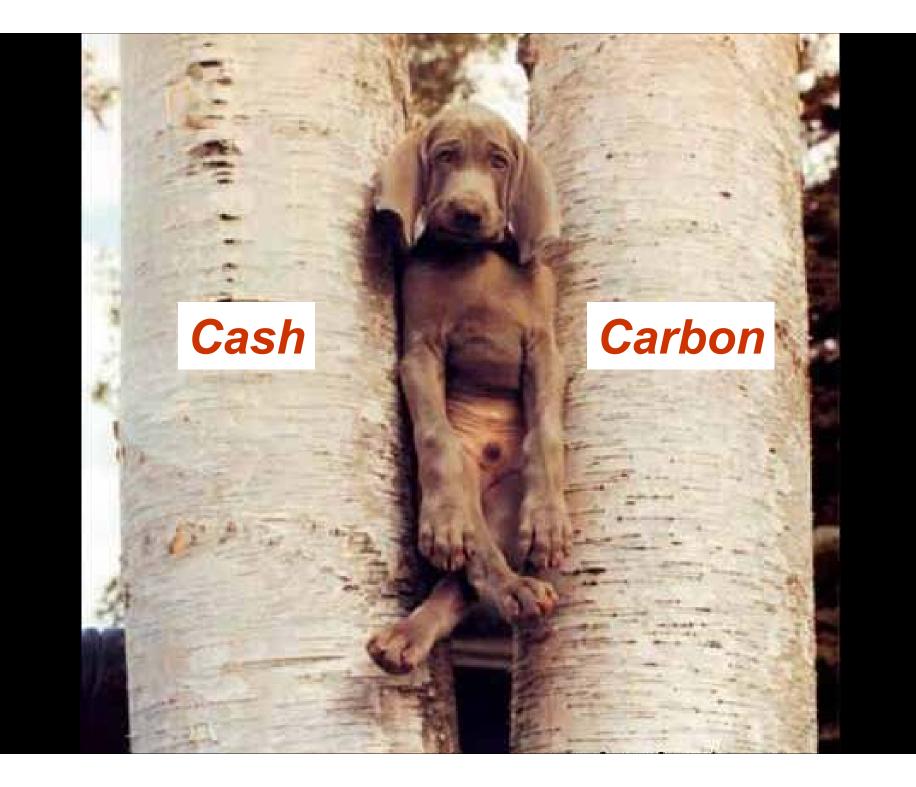




The question which urgently needs answering is: how can the construction industry most effectively deliver a low carbon future?



I am laying down the challenge to major Government suppliers to ask them what they can do to take costs out.



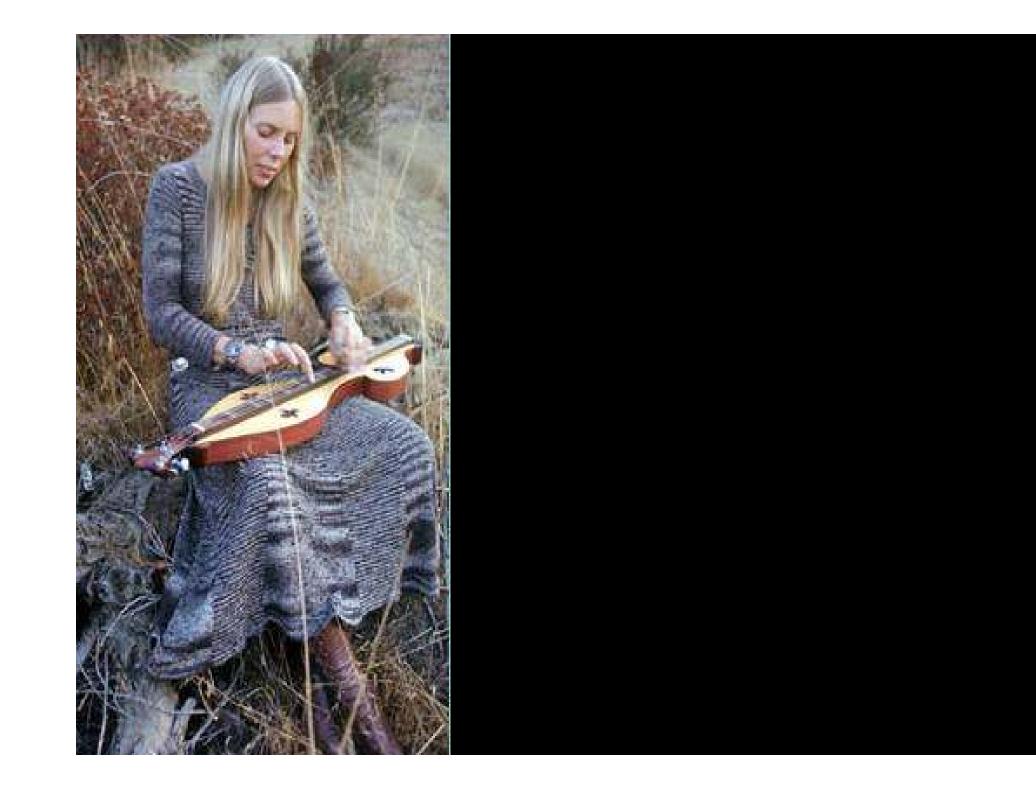
#### Growth







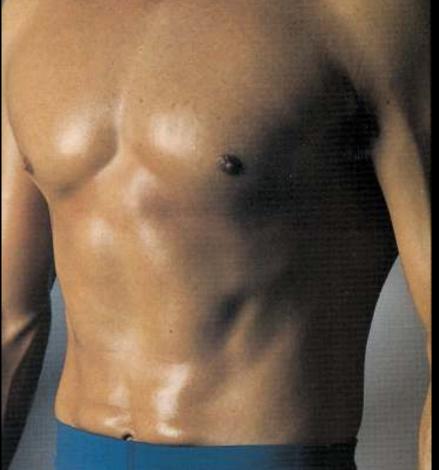






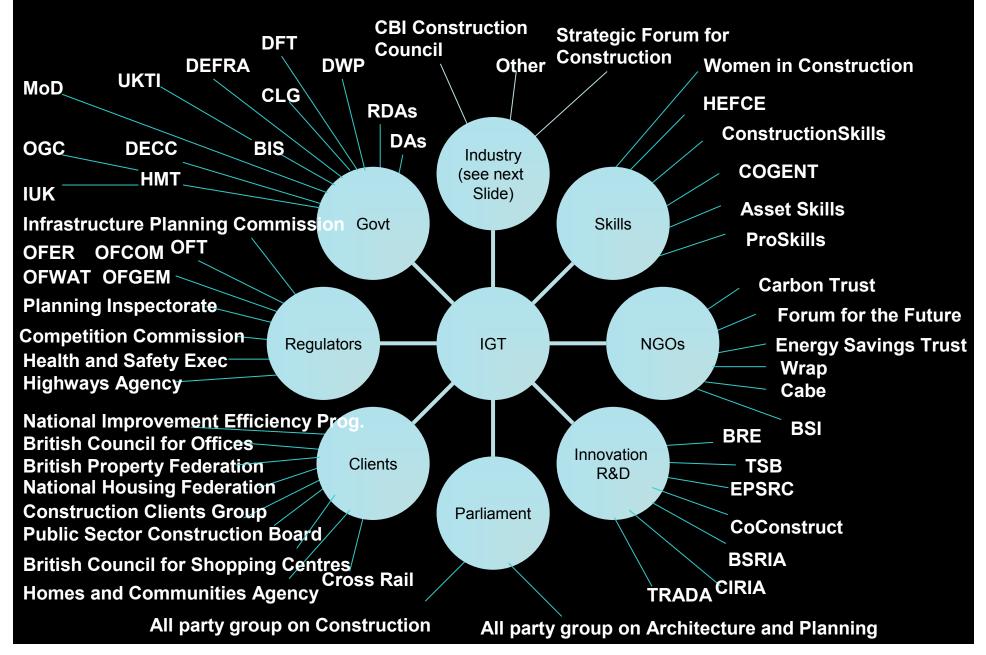
### An industry fit for purpose?



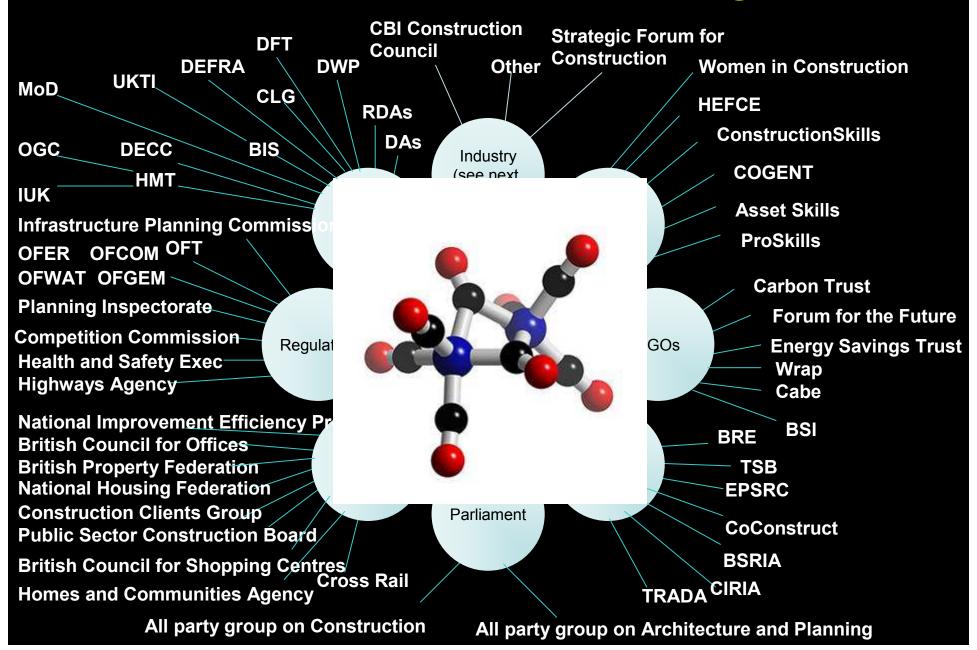


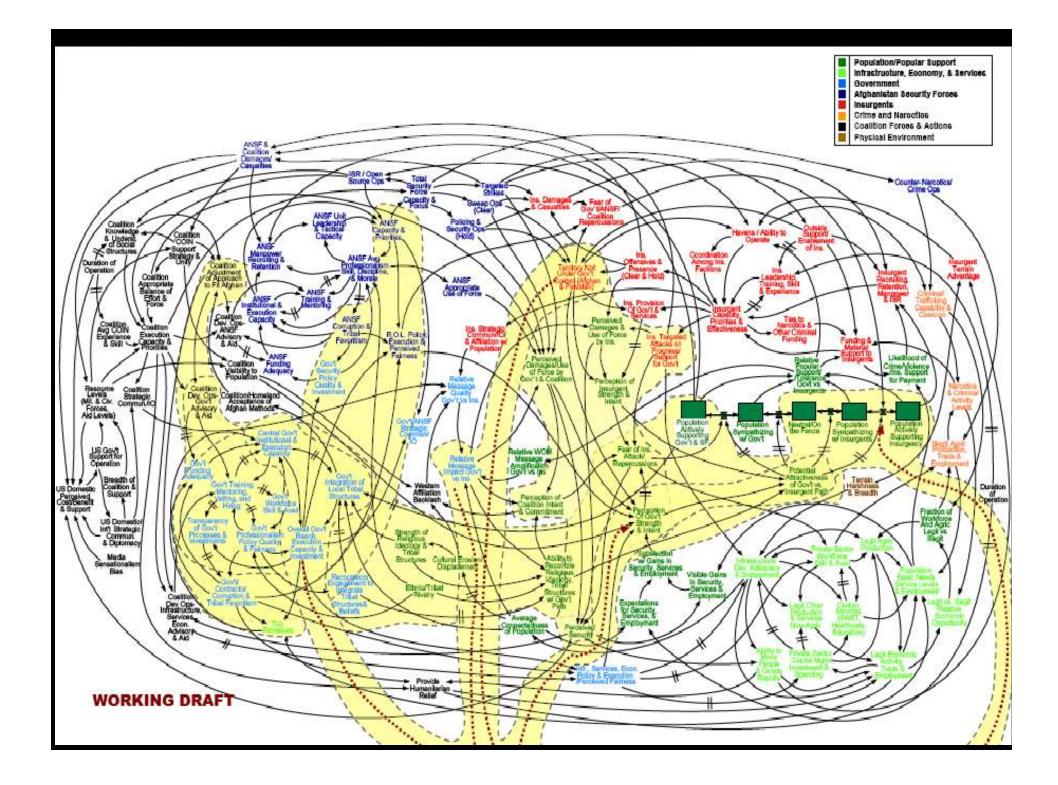
# The fragmentation problem

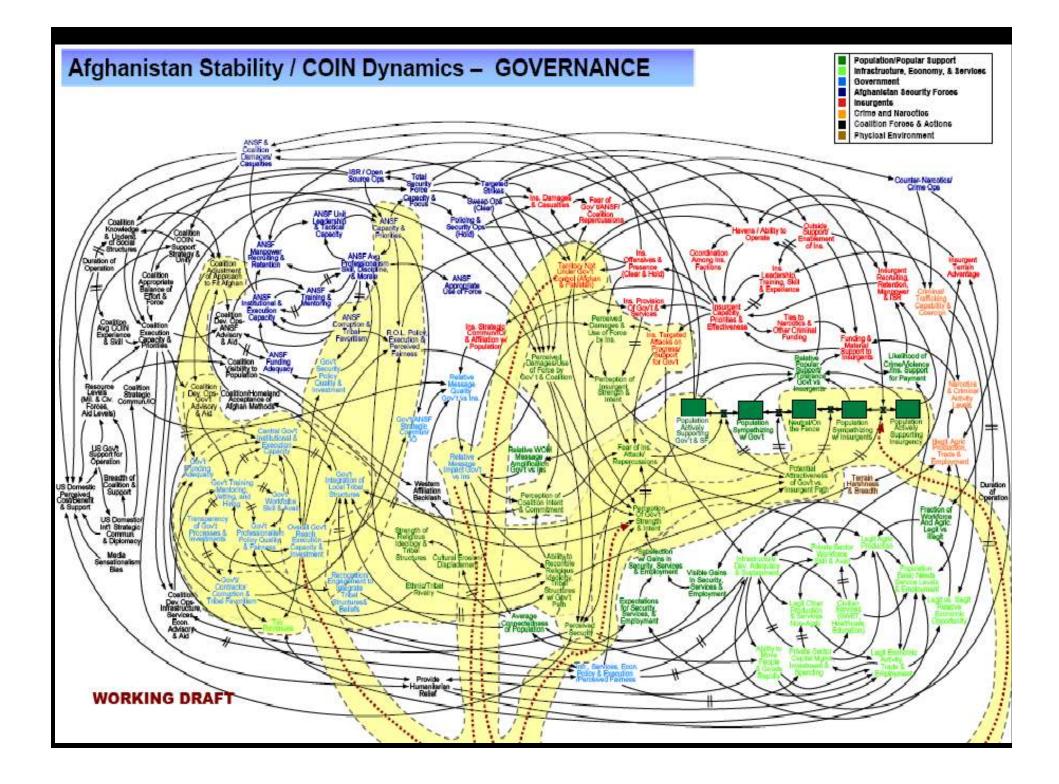
#### Stakeholder mapping



#### Stakeholder mapping

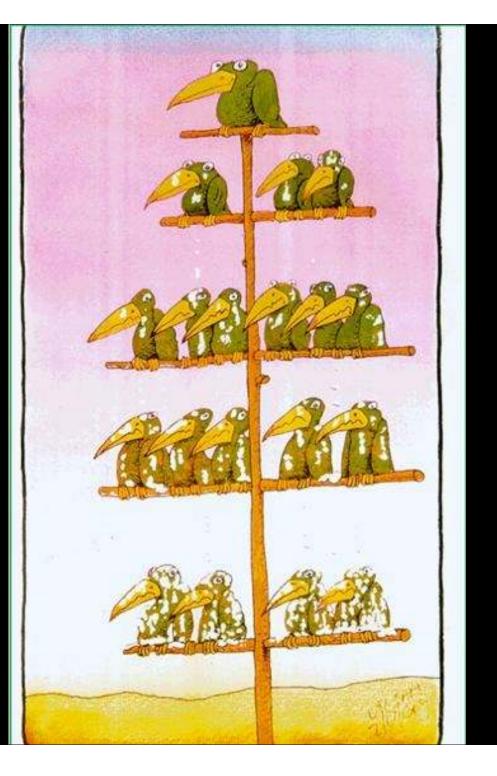






# The silo problem

#### Hierarchy

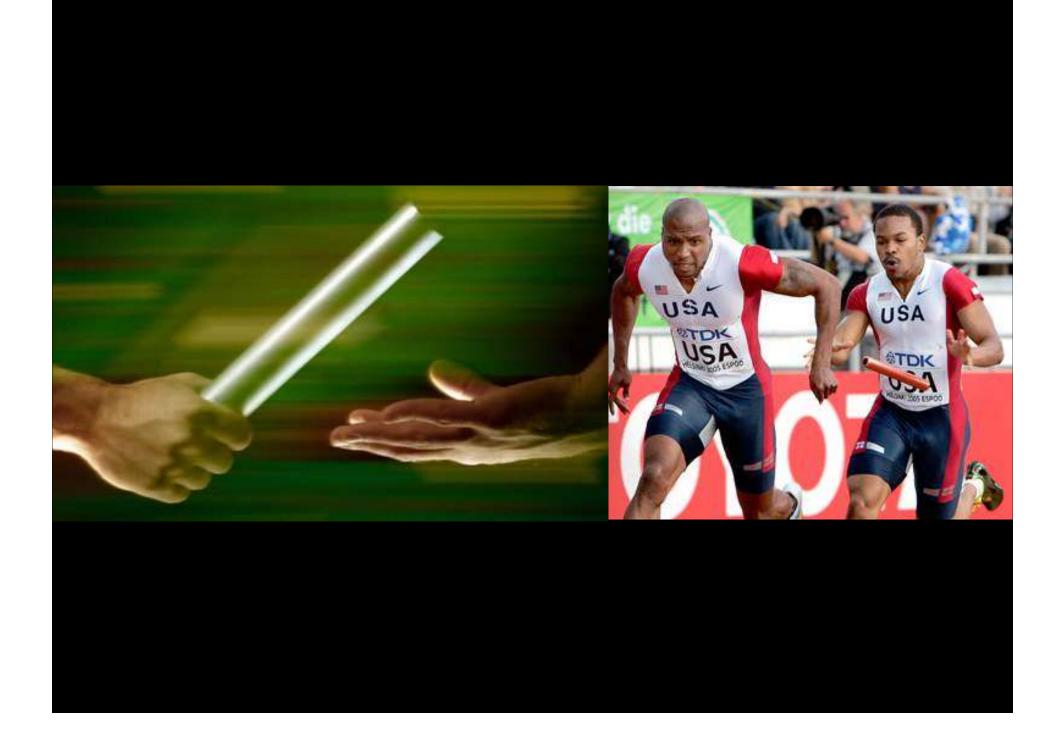


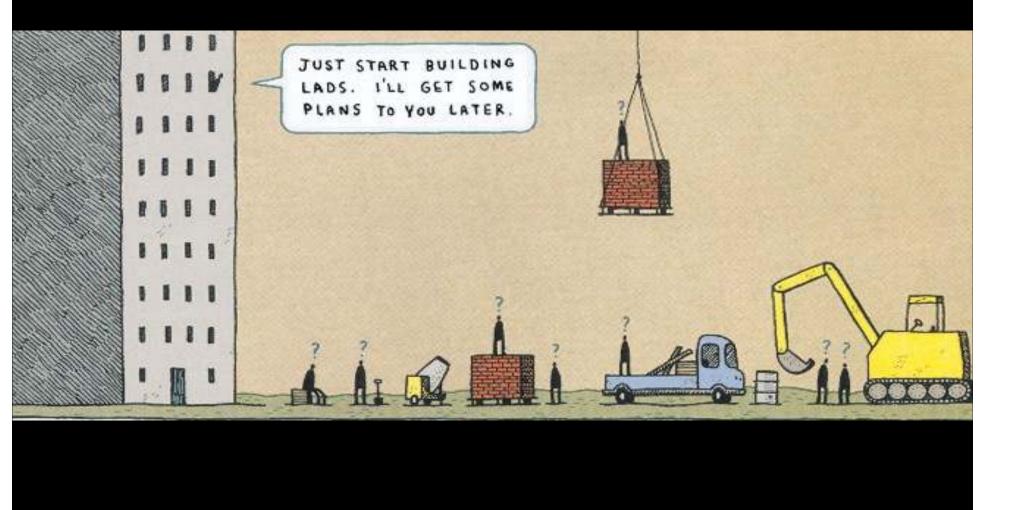
#### **Vested interest**



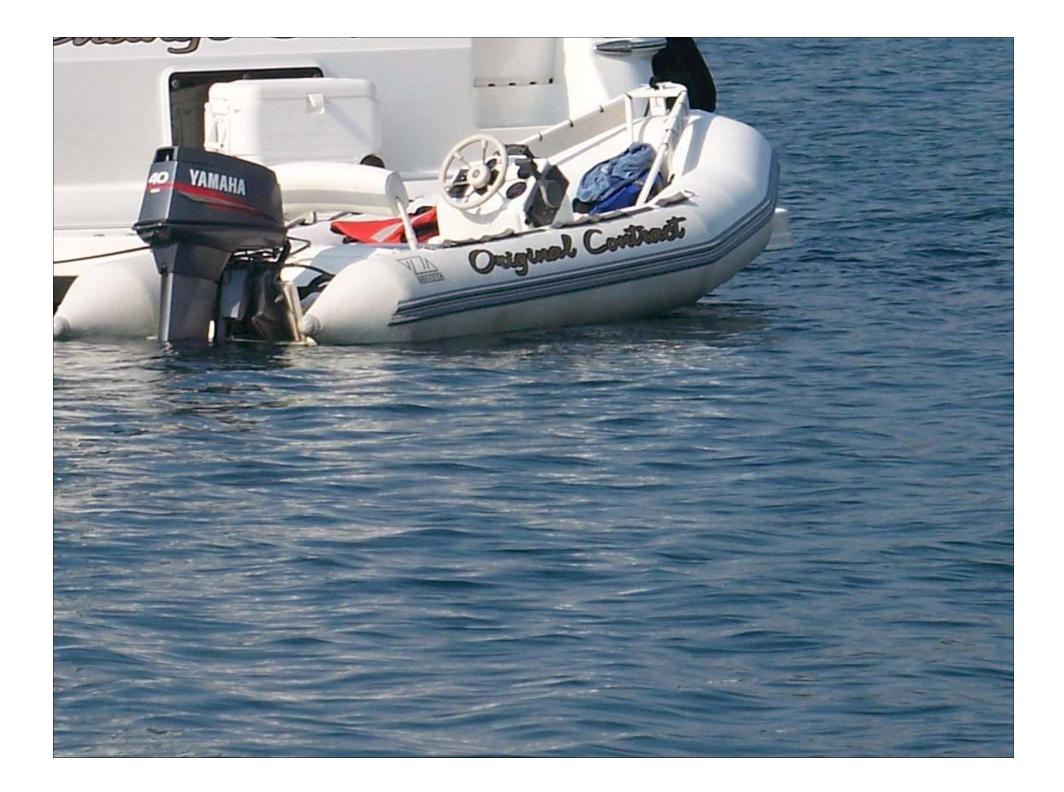










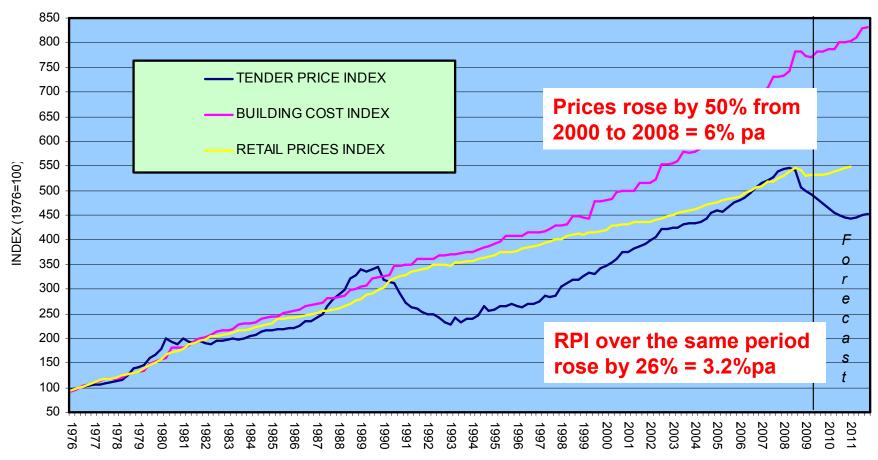




# Design Freeze



#### Inflationary/deflationary trends

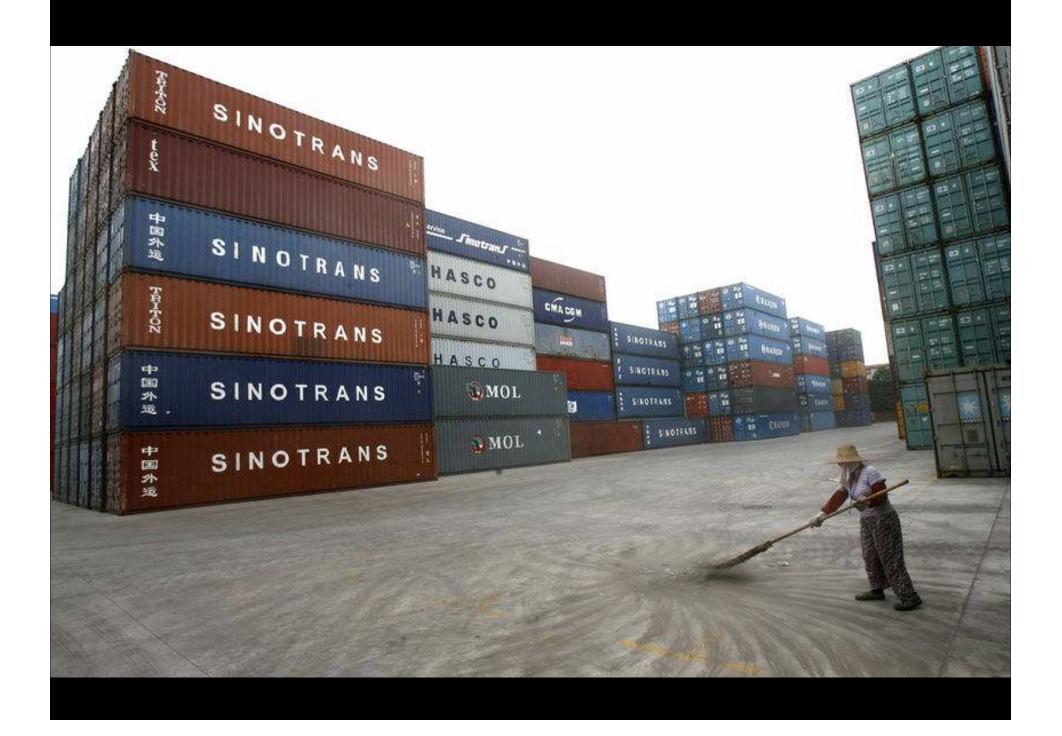


YEAR

#### International construction cost league table

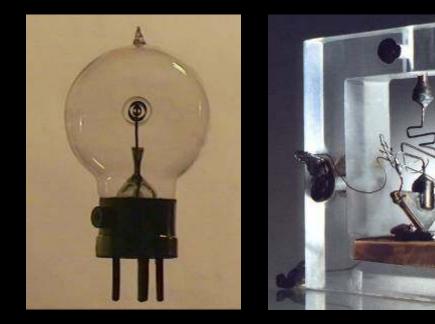
Philippines	21
Malaysia	26
Indonesia	26
India	27
Thailand	30
South Africa	32
China	35
Bulgaria	38
Brazil	45
Romania	52
Slovakia	56
Portugal	57
Croatia	59
Cyprus	61
Singapore	63
Czech Republic	67
Hungary	67
Hong Kong	69

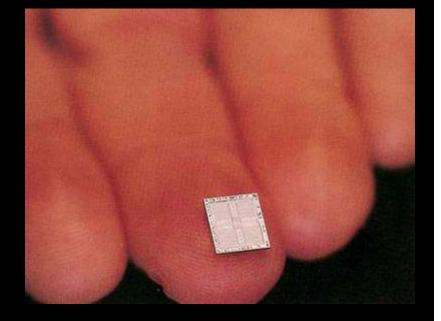
Canada	71
Greece	73
Poland	73
Russia	77
Spain	77
USA	77
Australia	80
Italy	81
Belgium	87
Germany	92
Japan	93
Netherlands	94
France	99
Austria	100
United Kingdom	100
Finland	101
Ireland	102
Switzerland	113

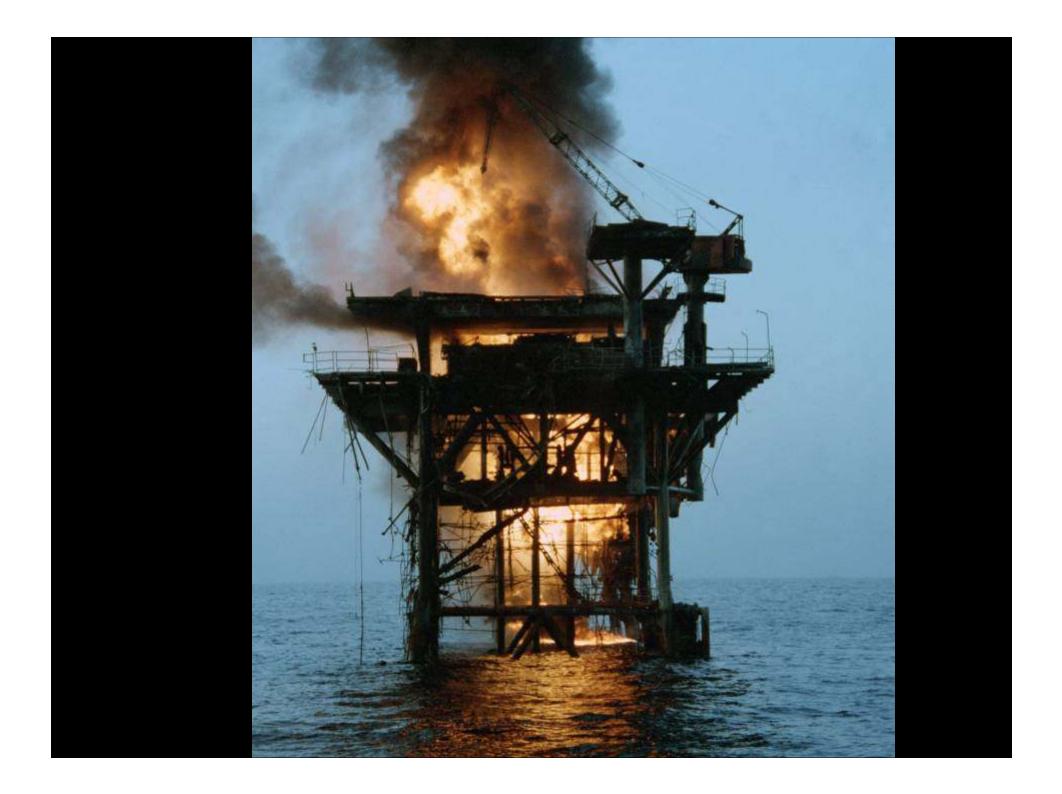












### Dear Chief Secretary

### *I'm sorry to tell you there's no money left.*



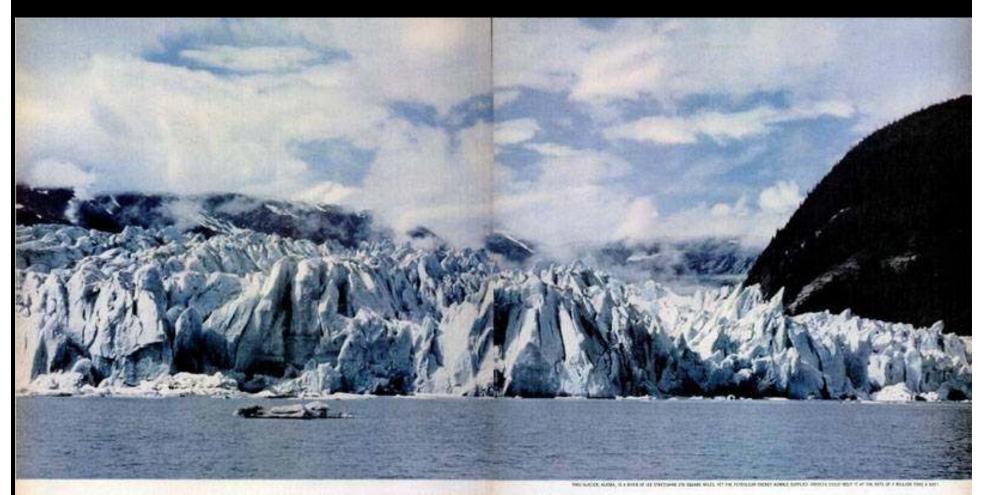








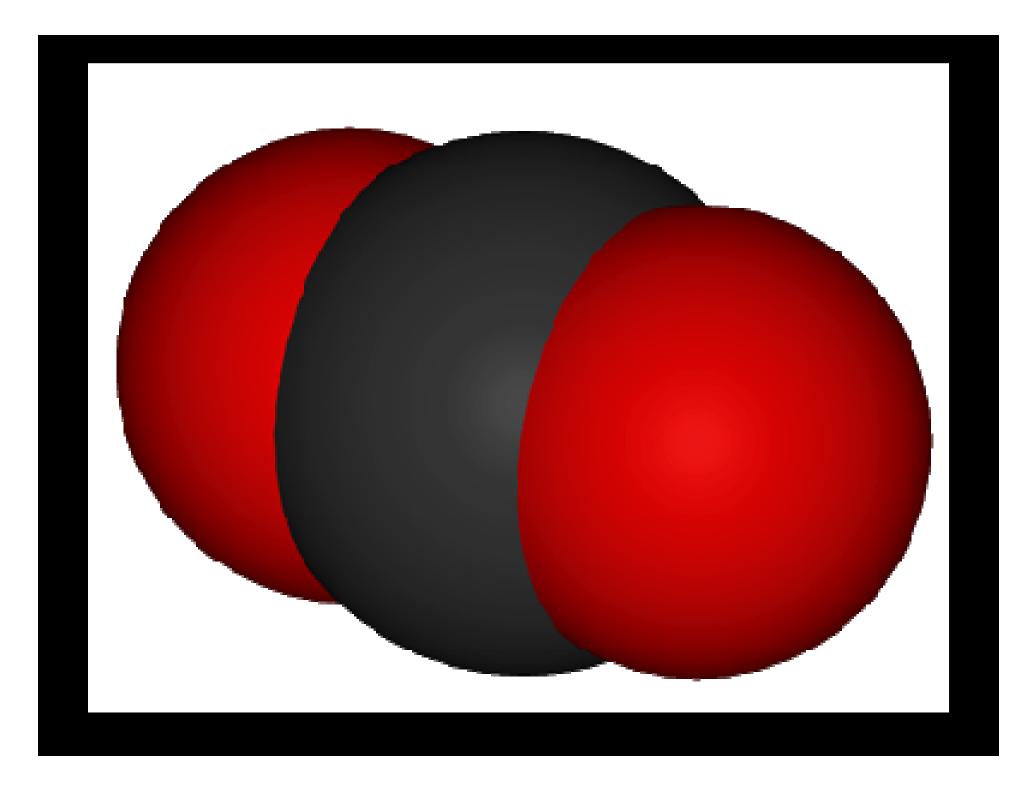
### How times change...



#### EACH DAY HUMBLE SUPPLIES ENOUGH ENERGY TO MELT 7 MILLION TONS OF GLACIER!

This giant glacier has remained unmelted for centuries. Yet, the petroleum energy Humble supplies—if converted into heat—could melt it at the rate of 80 tons each second! To meet the nation's growing needfor energy, Humble has applied science to nature's resources to become America's Leading Energy Company. Working wonders with oil through research, Humble provides energy in many forms—to help heat our homes, power our transportation, and to furnish industry with a great variety of versatile chemicals. Stop at a Humble station for new Enco Extra gasoline, and see why the "Happy Motoring," Sign is the World's First Choice?

America's Leading Energy company



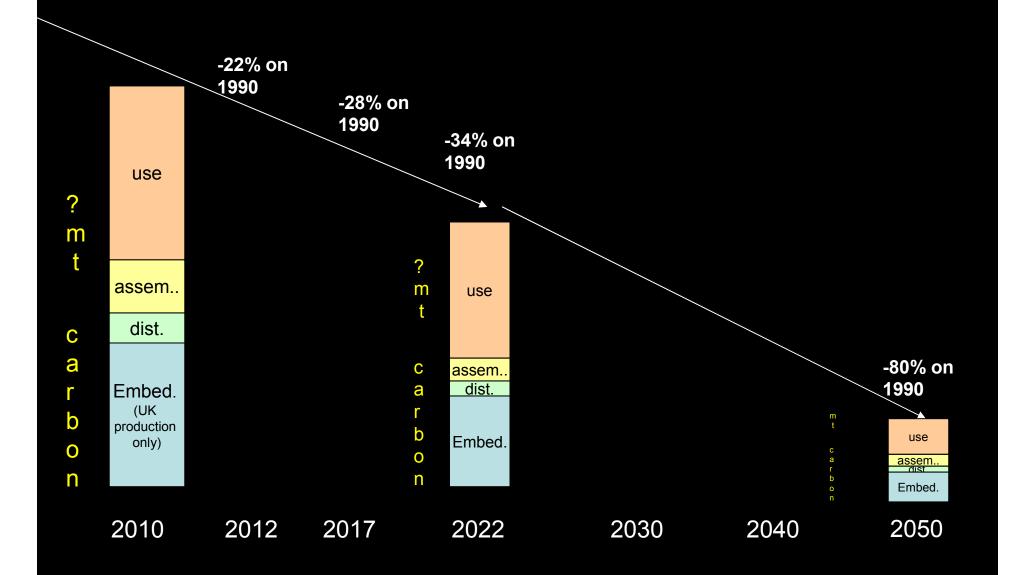
### A plan for our future

An Independent Report on the Future of the Automotive Industry in the UK

New Automotive Innovation and Growth Team (NAIGT)

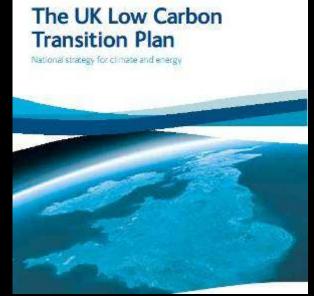


### Baseline and carbon budget target



## The main assumptions of DECC's Low Carbon Transition Plan

- 20% cut in emissions from existing homes by 2020
- 13% cut in emissions from non-dom buildings by 2020
- Zero carbon new homes by 2016
- Zero carbon non-domestic buildings by 2019
- Smart meters
- Carbon capture from fossil fuel power stations
- Bigger smarter grid
- 1.6gw of new nuclear power stations
- Other renewable energy sources
- "Clean" transport

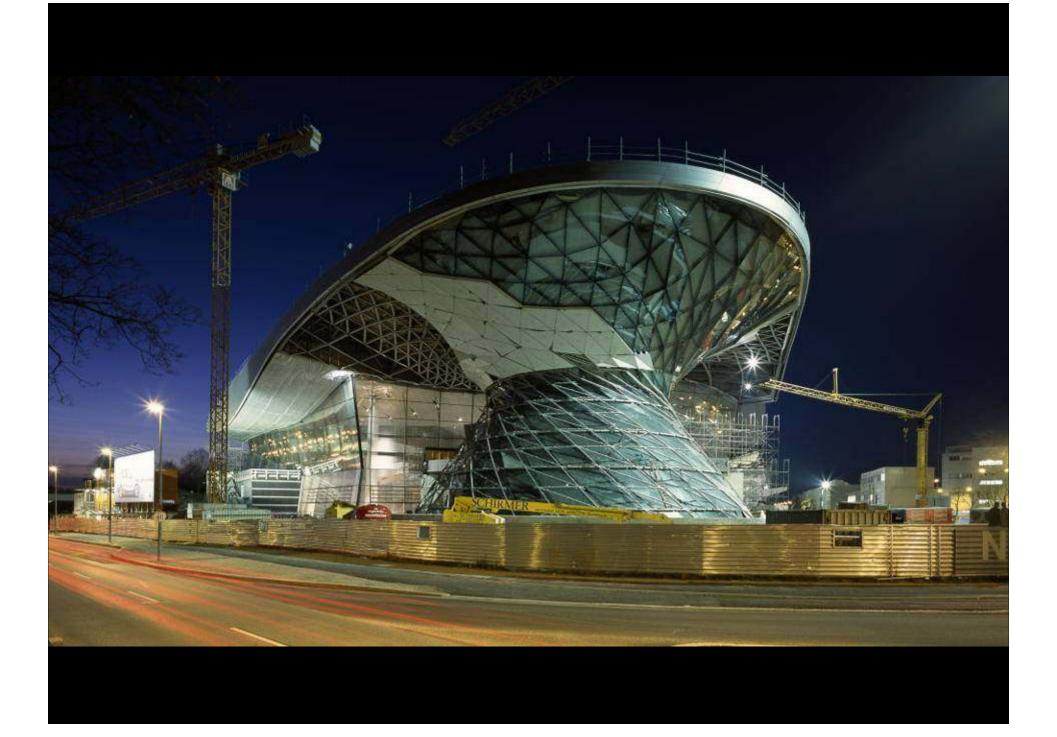




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### Tesco zero-carbon store, Ramsey, Cambridgeshire



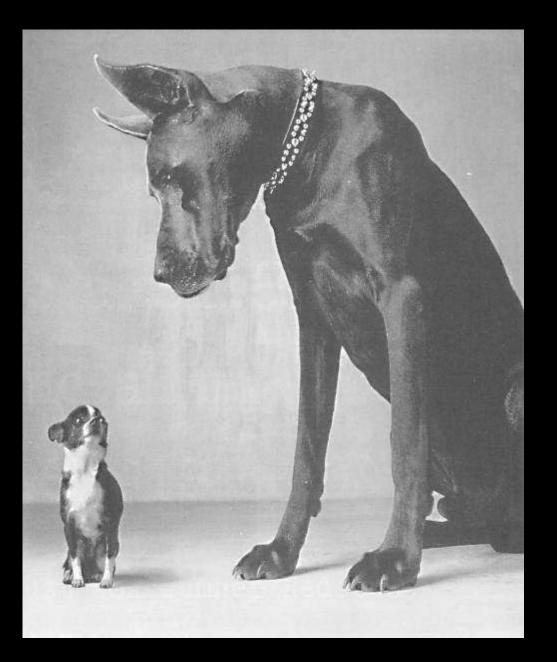


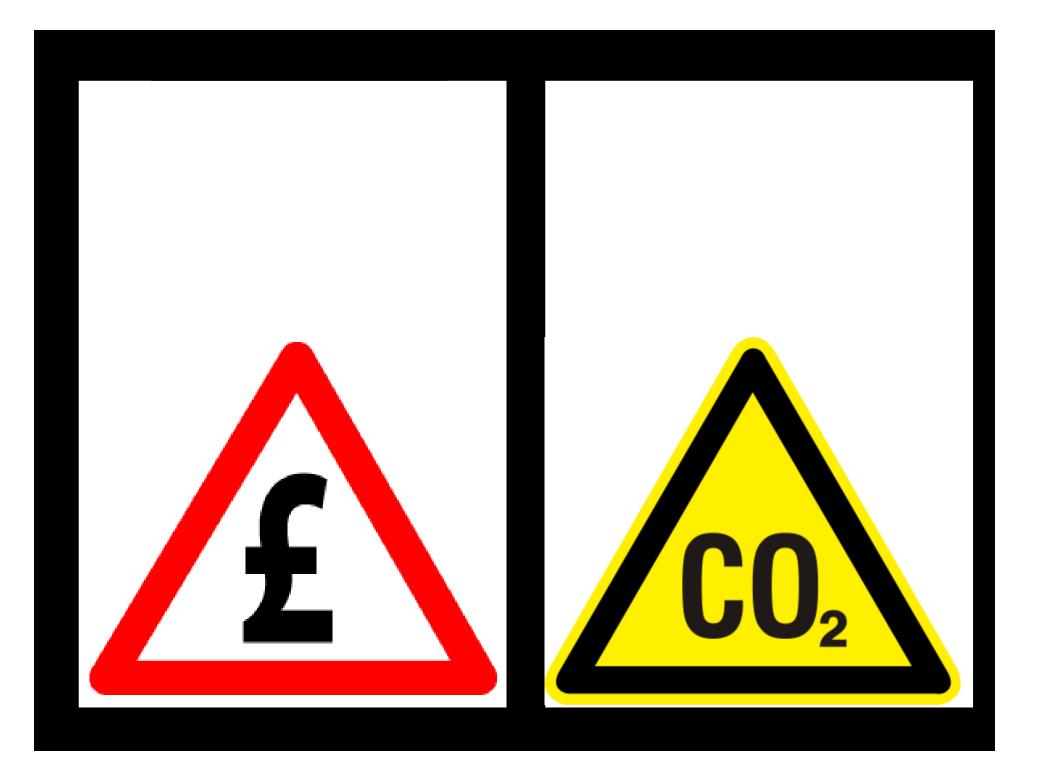


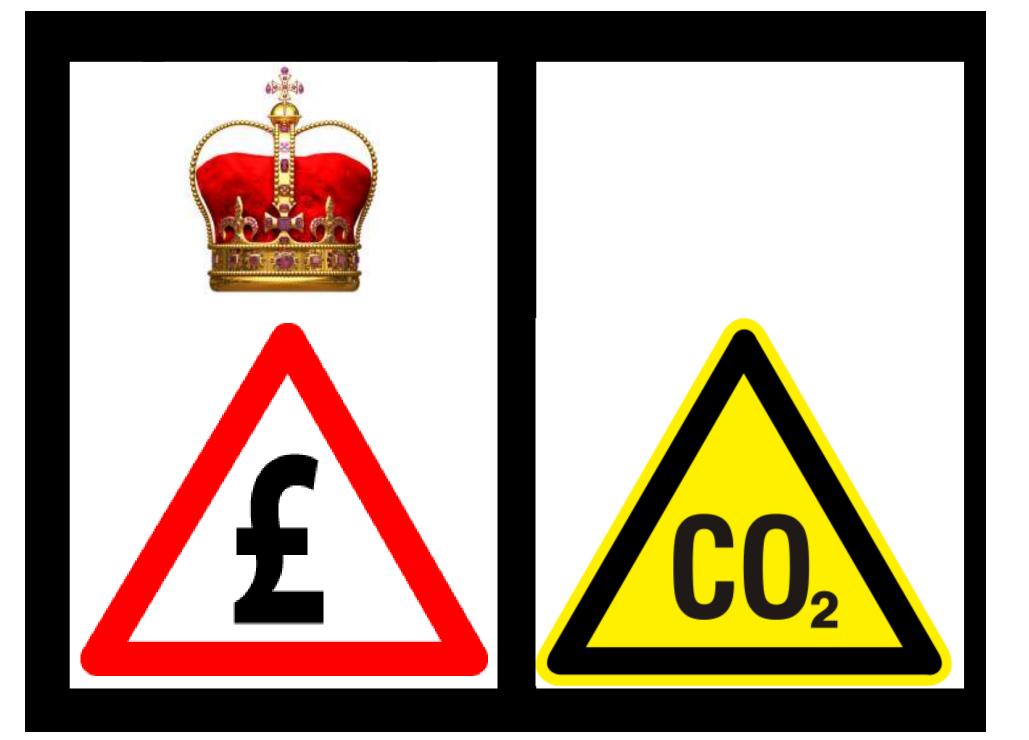


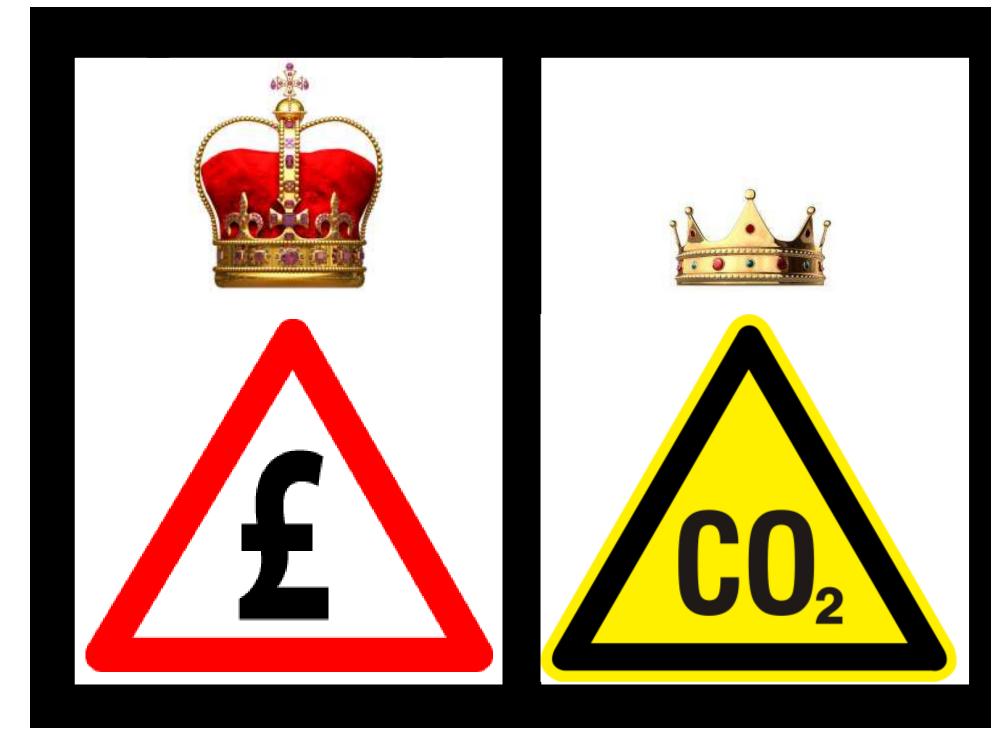


# This thing is huge









### There are 26 million homes in the UK today



21 million of them will still be with us in 2050

14 million still need to be insulated (7.3m lofts, 2.9m cavity walls and 3.5m solid walls)

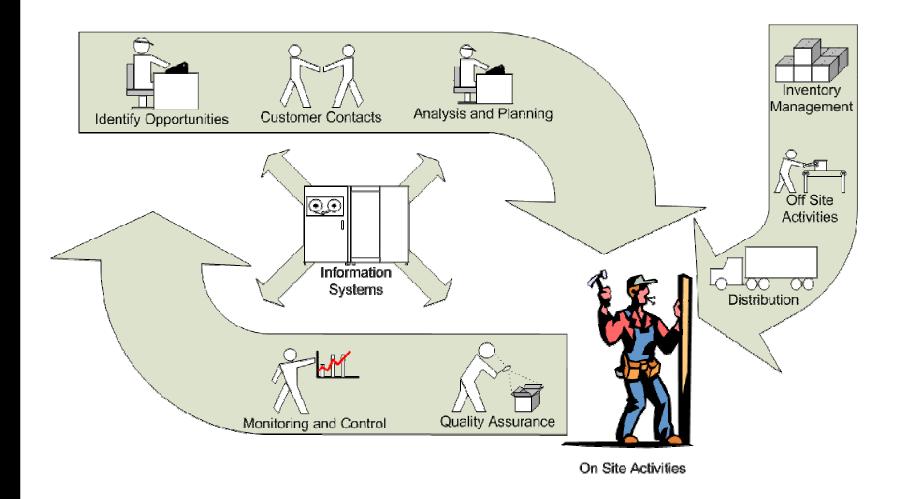




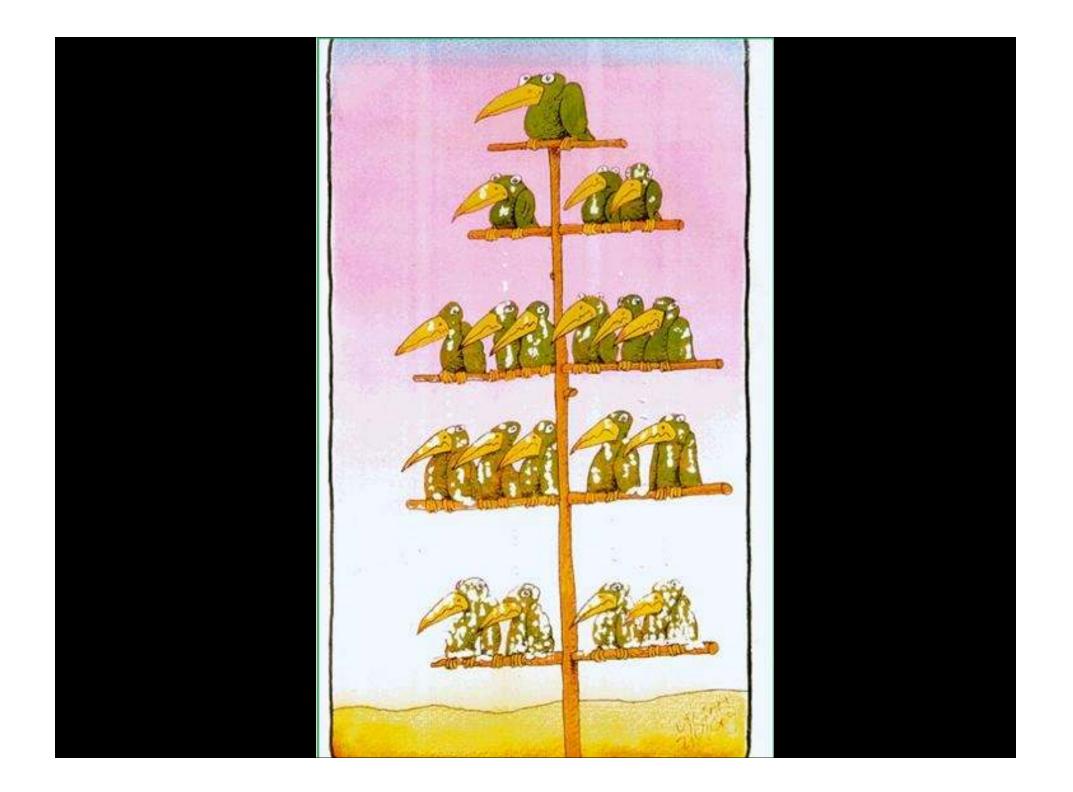




### An integrated supply chain



#### Energy Technologies Institute Buildings Retrofit Project

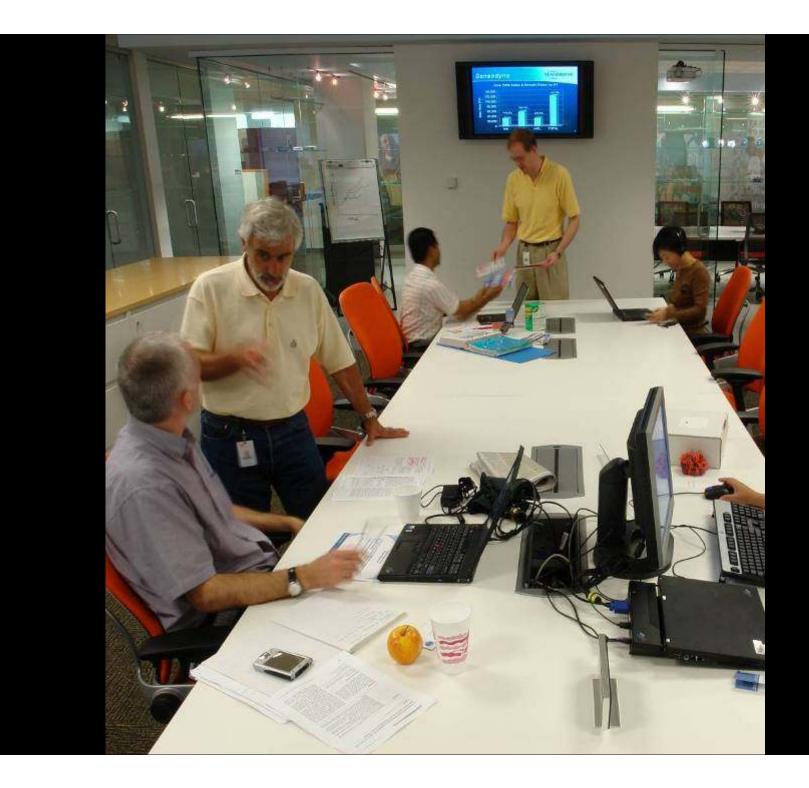




- Client at the core of the process, client leadership
- People: culture, image, conditions, training and skills
- Better dispute resolution procedures
- Integrated processes and teams
- Co-ordinated project documentation
- Tendering out, partnering in
- Choices made on value-for-money basis
- Product development
- Standardisation, prefabrication
- Means of implementation





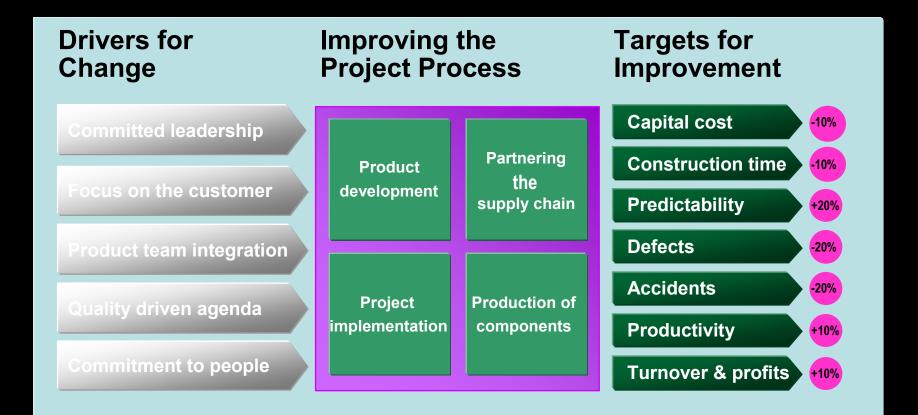




### **Bayer EcoCommercial Program**

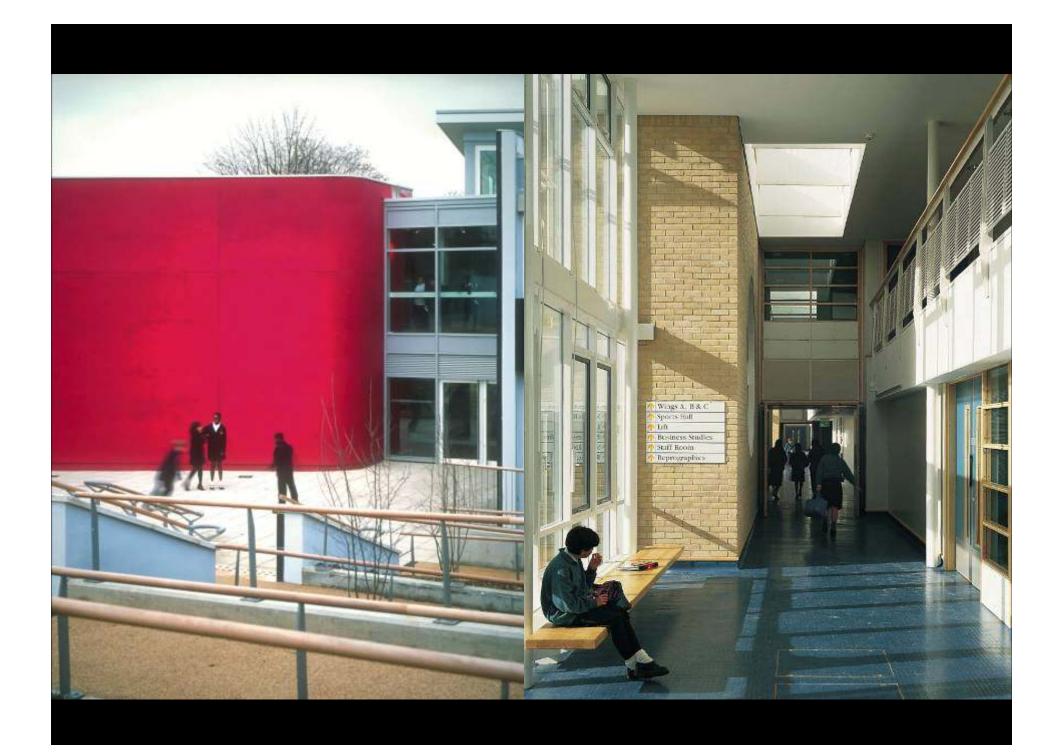


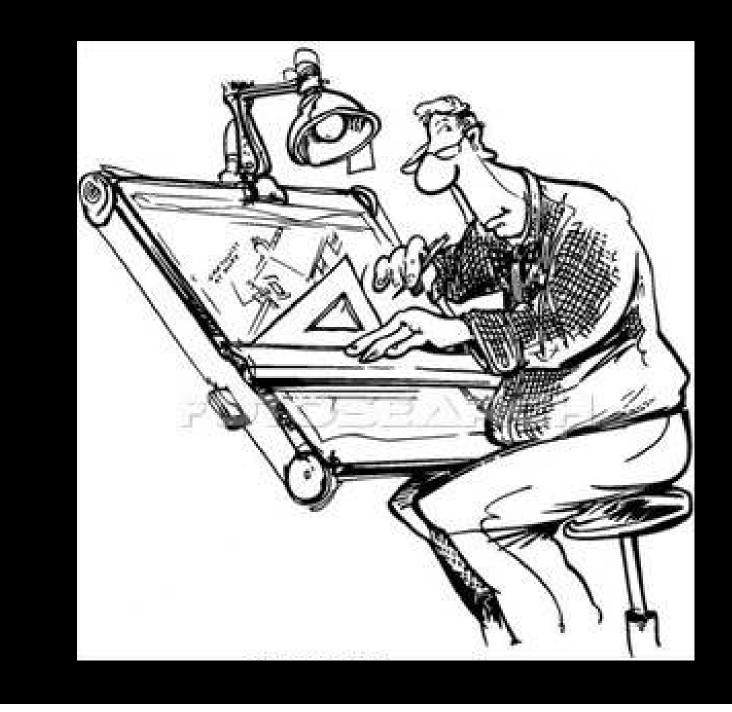
#### **Rethinking Construction**



#### Nothing on design quality or sustainability



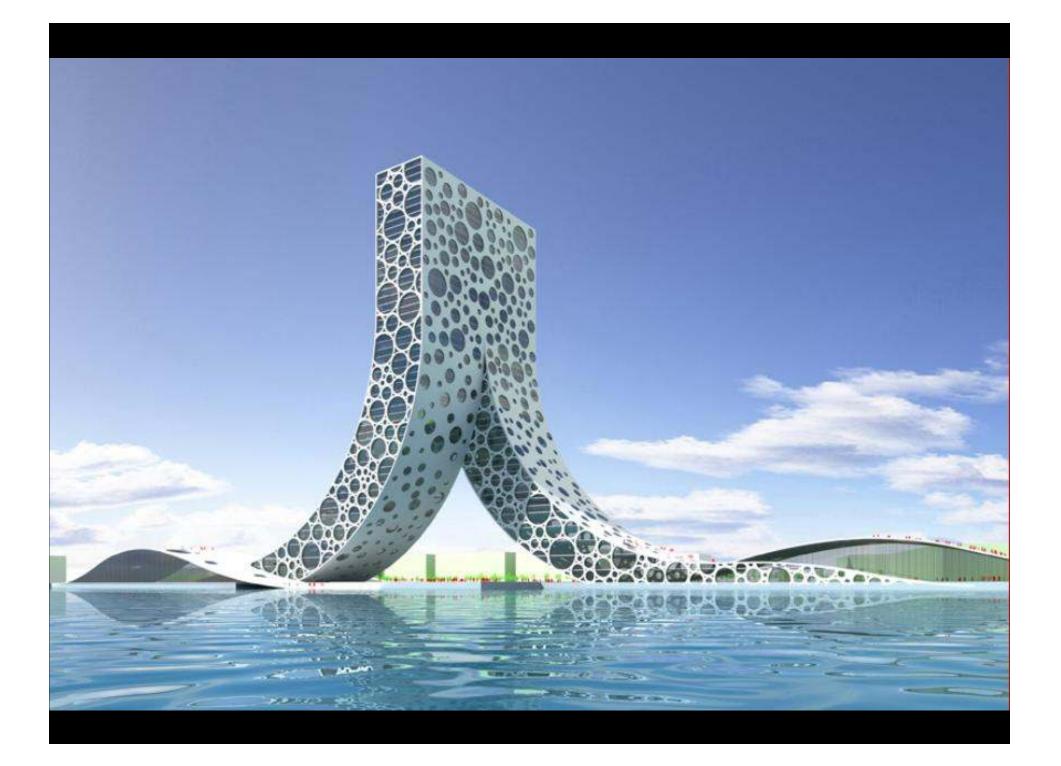






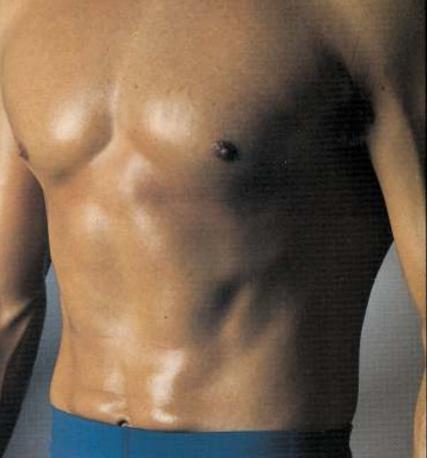


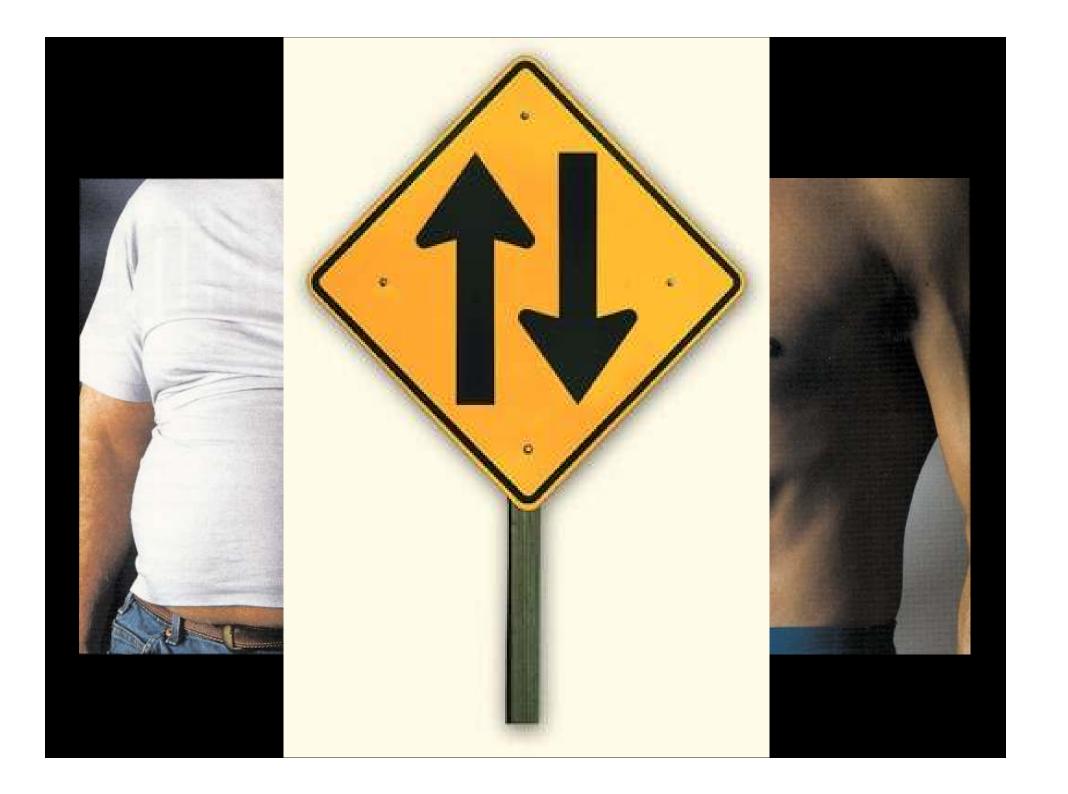




## A Client fit for purpose?







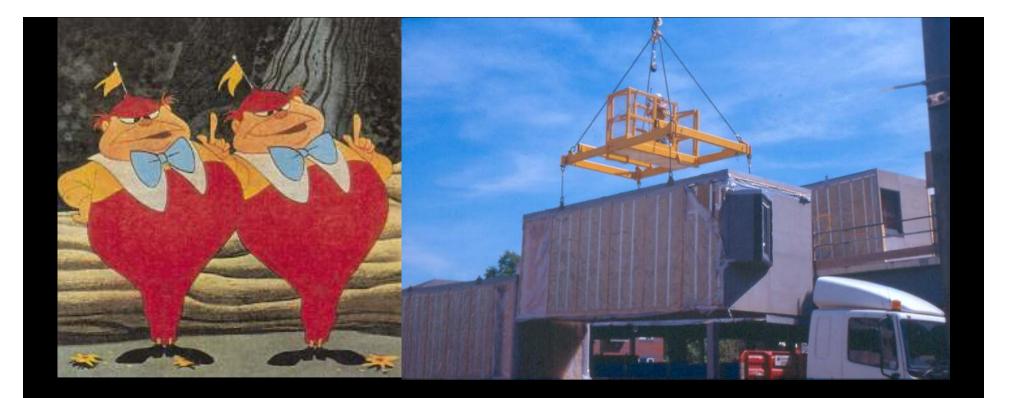
### **Construction Clients Board**

- Paul Morrell, Chief Construction Adviser (Chair)
- John Aspinall/Terry Stocks, DoJ
- Tim Byles, Partnerships for Schools
- Graham Dalton, Highways Agency
- Stephen France, Infrastructure UK
- Deborah Heenan, CLG
- Richard Hill, Homes and Communities Agency
- William Jordan, Cabinet Office
- David Olney, Defence Estates
- Andrew Smith, NIEP
- Rob Smith, DoH, or Peter Sellars, Procure 21+
- Denis Walker, BIS
- Support: Paul Meigh, John Ioannou and Phil Heenan, OGC/ERG







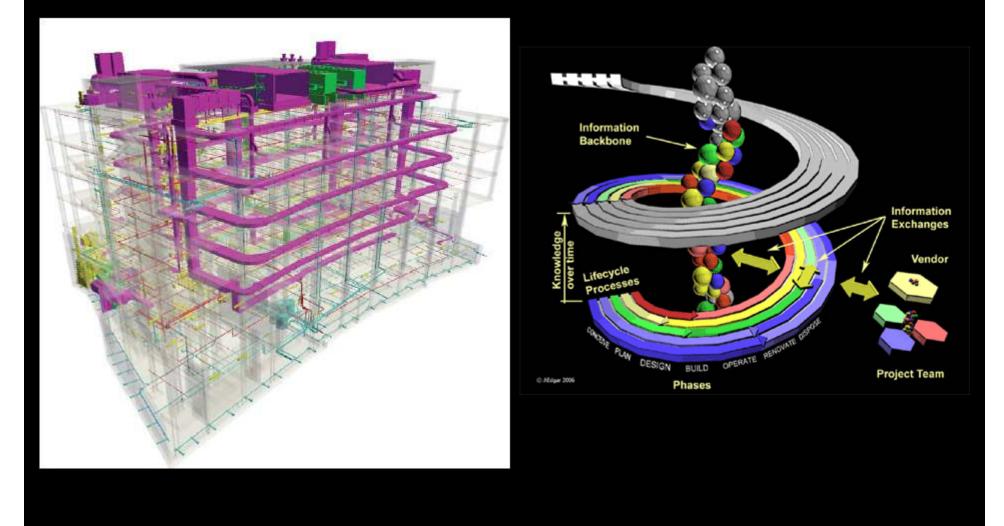




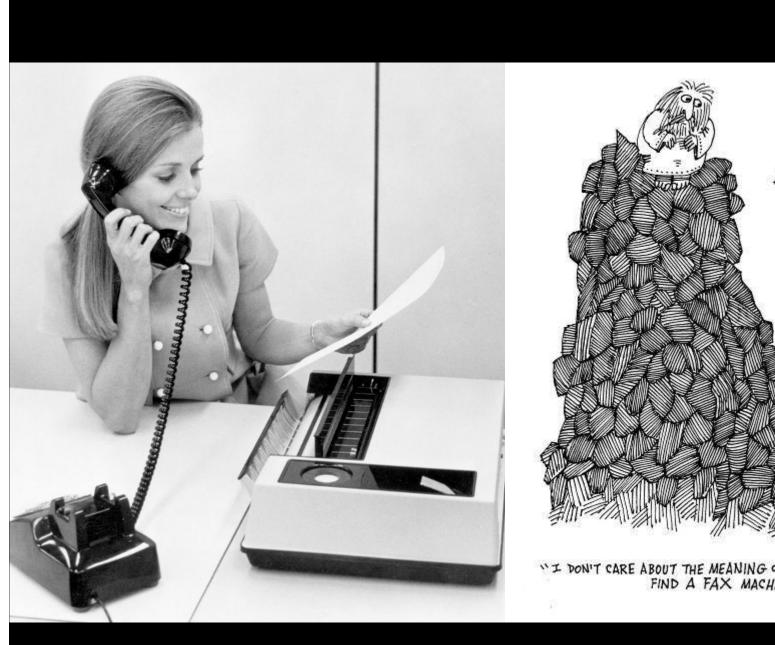




#### **BIMM - Building Information Modelling and Management**



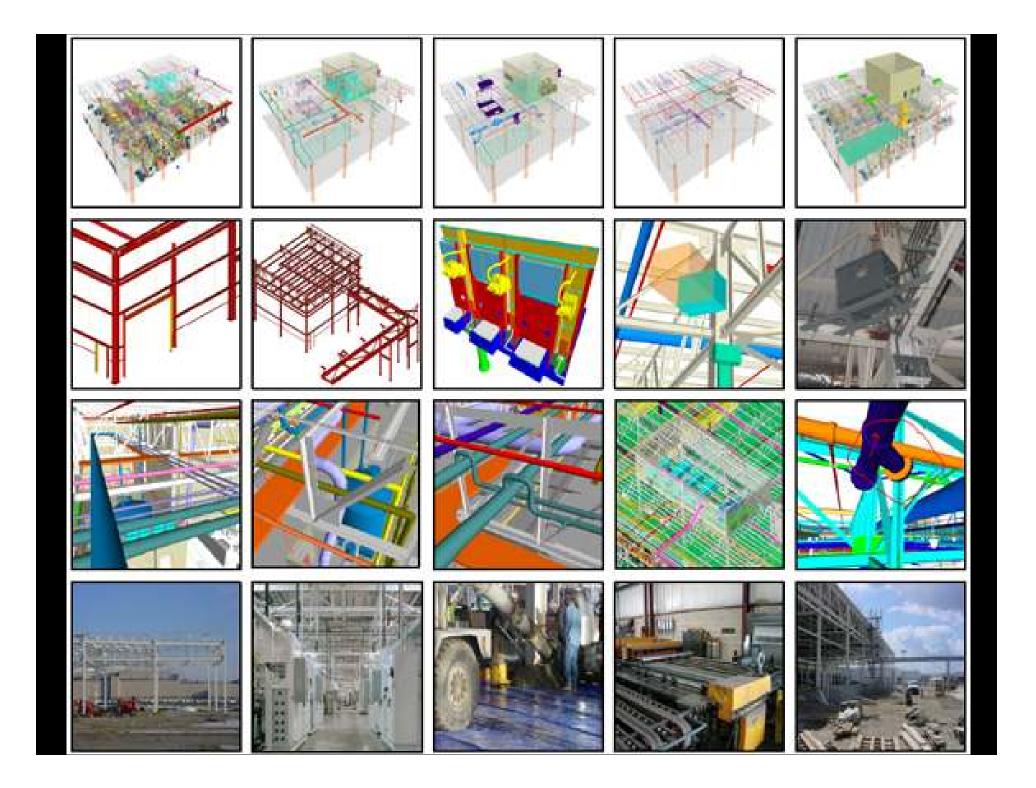






"I DON'T CARE ABOUT THE MEANING OF LIFE ... I'M TRYING TO FIND A FAX MACHINE."









# Prequalification

#### PAS 91:2010 Construction related procurement – Prequalification questionnaires





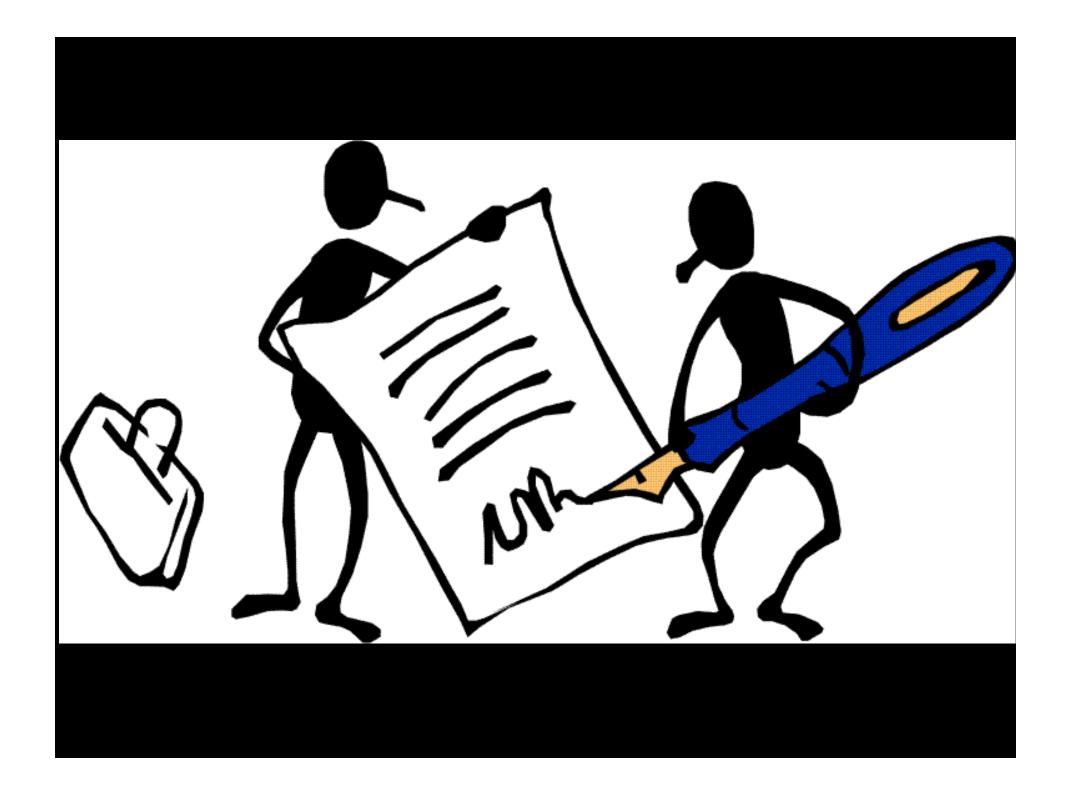
#### PAS 91:2010 Construction related procurement – Prequalification questionnaires







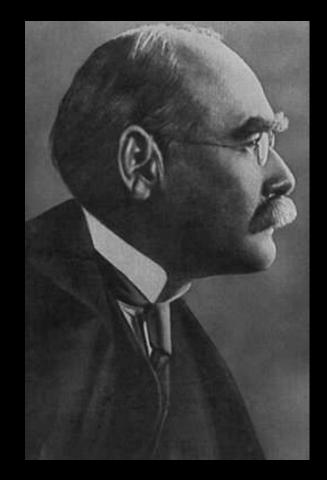




# Insurance







I tell this tale, which is strictly true, Just by way of convincing you How very little, since things were made, Things have altered in the building trade

**Rudyard Kipling** 



Unless there is substantial change within the industry and with associated regulation, it is likely that the progress to solutions will be much slower than it should be.



What is needed is a step change in:-

- R&D on new materials, components, systems, energy and environmental modelling
- New skills and capabilities to design, engineer, assemble and integrate manufactured components.
- Factory or modular (system) production and logistics to enable swift, accurate installation



