

Overcoming the barriers to energy efficiency



Is this true?

THE AGE OF
STUPID



Some facts

- 80% of existing buildings will be around in 2050
- Commercial properties and public buildings currently account for nearly 25% of the UK's carbon emissions
- Government is increasing spending on long term projects
 - Severn Barrage
 - Nuclear power stns
 - Carbon capture
 - Kingsnorth
 - Electric cars.....
- All the Carbon reduction targets can be met using **Energy efficiency** measures!
- Increasing number of market drivers

Today's Energy Market Drivers

- Increasing Energy Prices
- Increasing Consumption in Emerging Markets
- Diminishing Resources
- Environmental Concerns
- Political Stability in Oil Producing Countries (Russia)
- Growing needs and declining EU energy production (50% of EU energy bill is represented by imports)
- Growing demand from transport, households and electricity generation for fossil fuels
- European Legislation increasingly focussing on Energy Efficiency (CRC)



Public Sector Drivers

NHS

- “Core action points include a target for **all** buildings to be low-carbon by 2015 and zero-carbon by 2018”

Source: SDU

Government

- Legislation – ESD, EPBD, CRC
- Carbon league Tables (CRC)
- Emissions in the UK to be cut by 80% by 2050.

Barriers

- Risk averse public sector marketplace
- Lowest funding levels for 10 years
- Credit Crunch!
- Clueless about impending reg's
- Everyone watching everyone else
- Scepticism



Maintaining Comfortable & Energy Efficient Facilities

Aging HVAC

Deteriorating mechanical equipment

Building owners are faced with many issues today...

Environmental Quality Issues

Non compliance with regulation

Degrading Building Envelope

Occupant discomfort

Decreasing Building Efficiencies

Increasing Pressure on Facilities Engineering

Physical Asset Deterioration

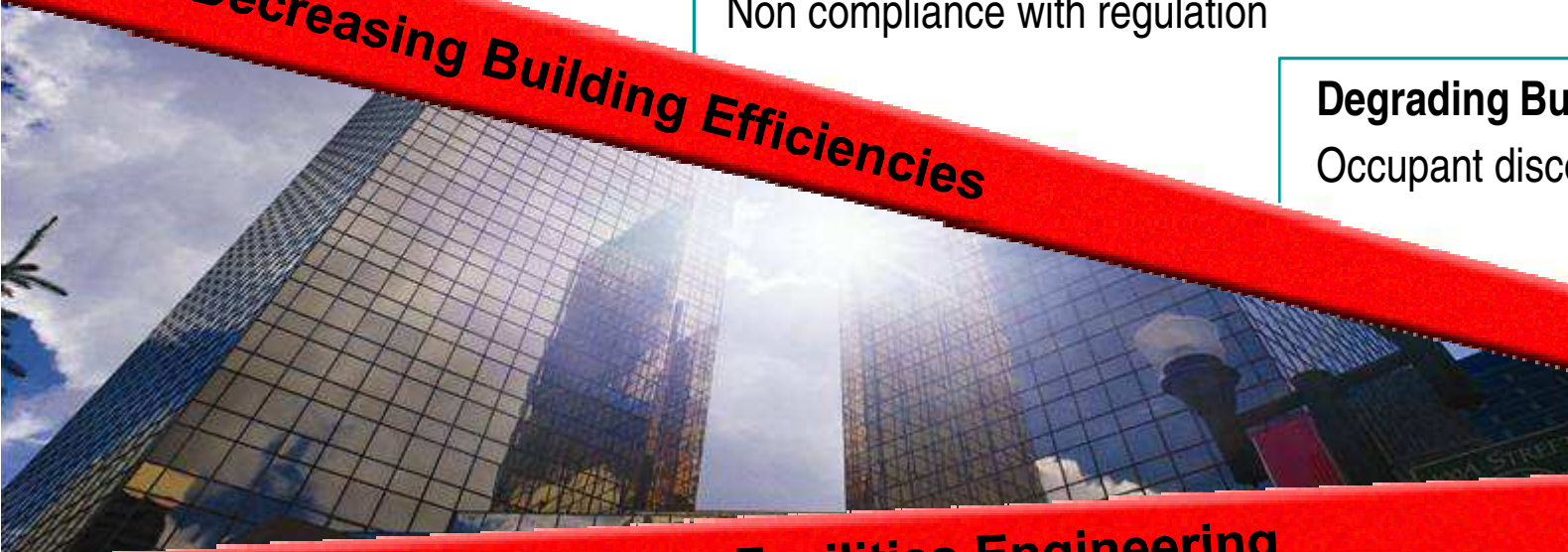
Capital investment required

Increasing Environmental Req.

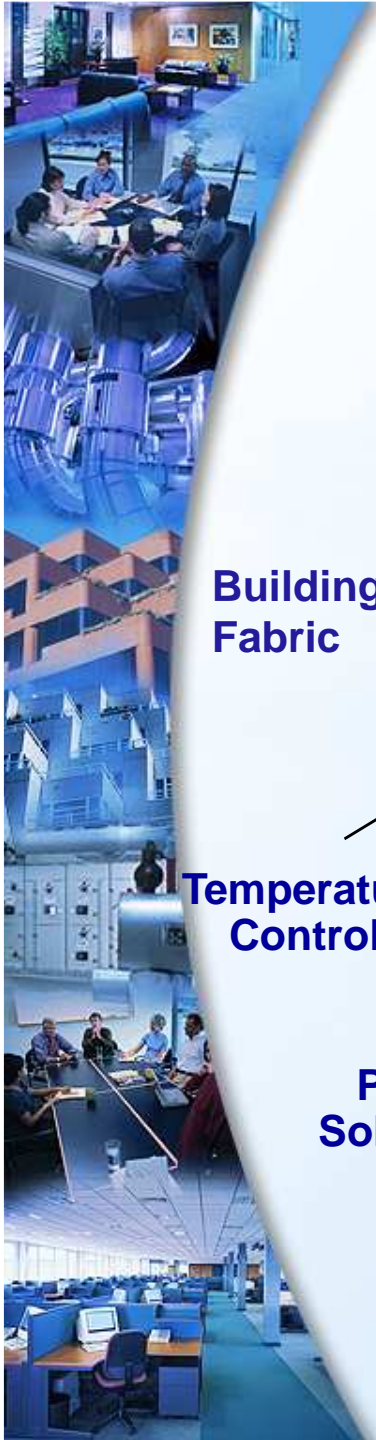
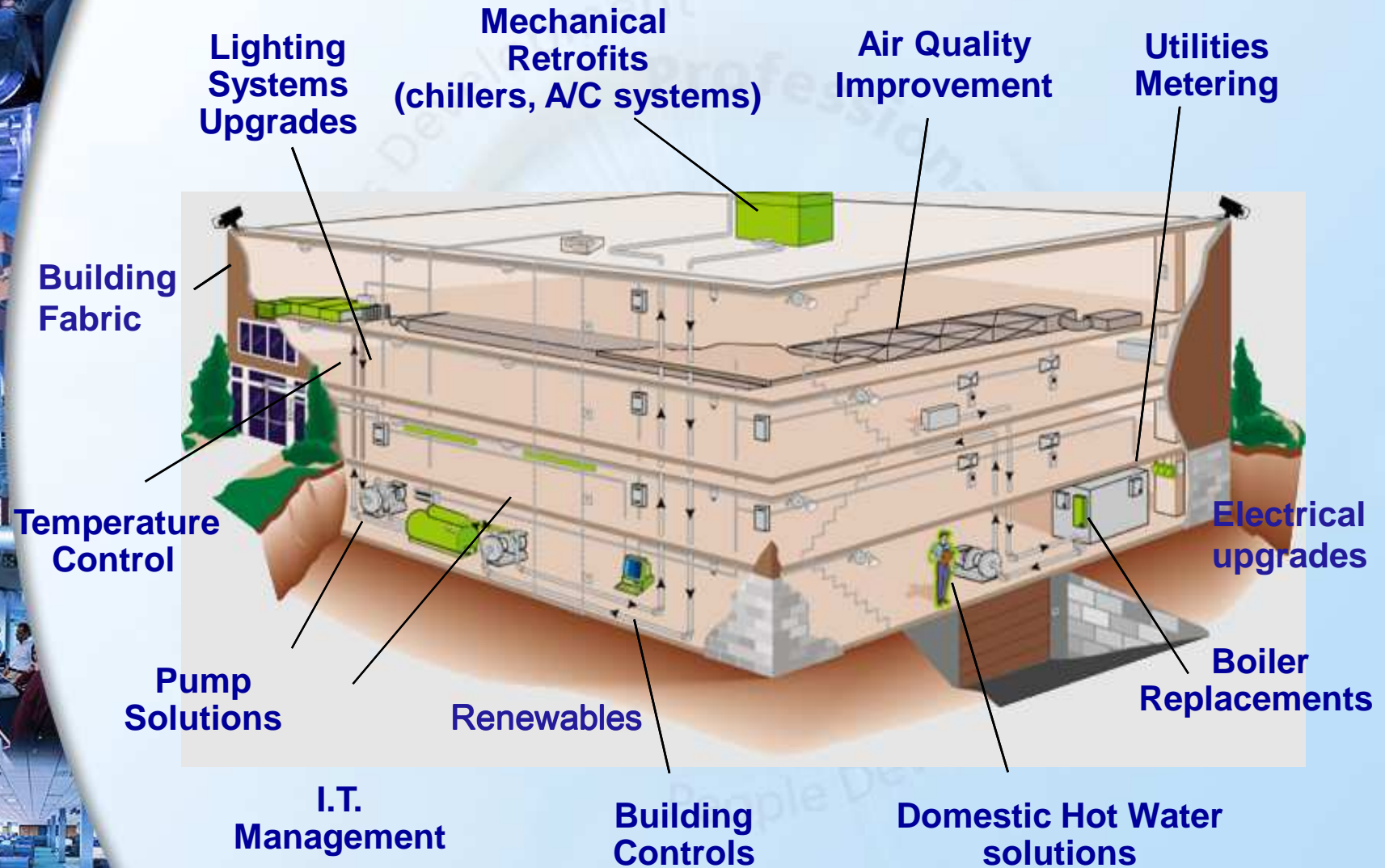
Company 'green' image

Increasing Energy Costs

Ongoing pressure on energy savings



The big picture



Solutions

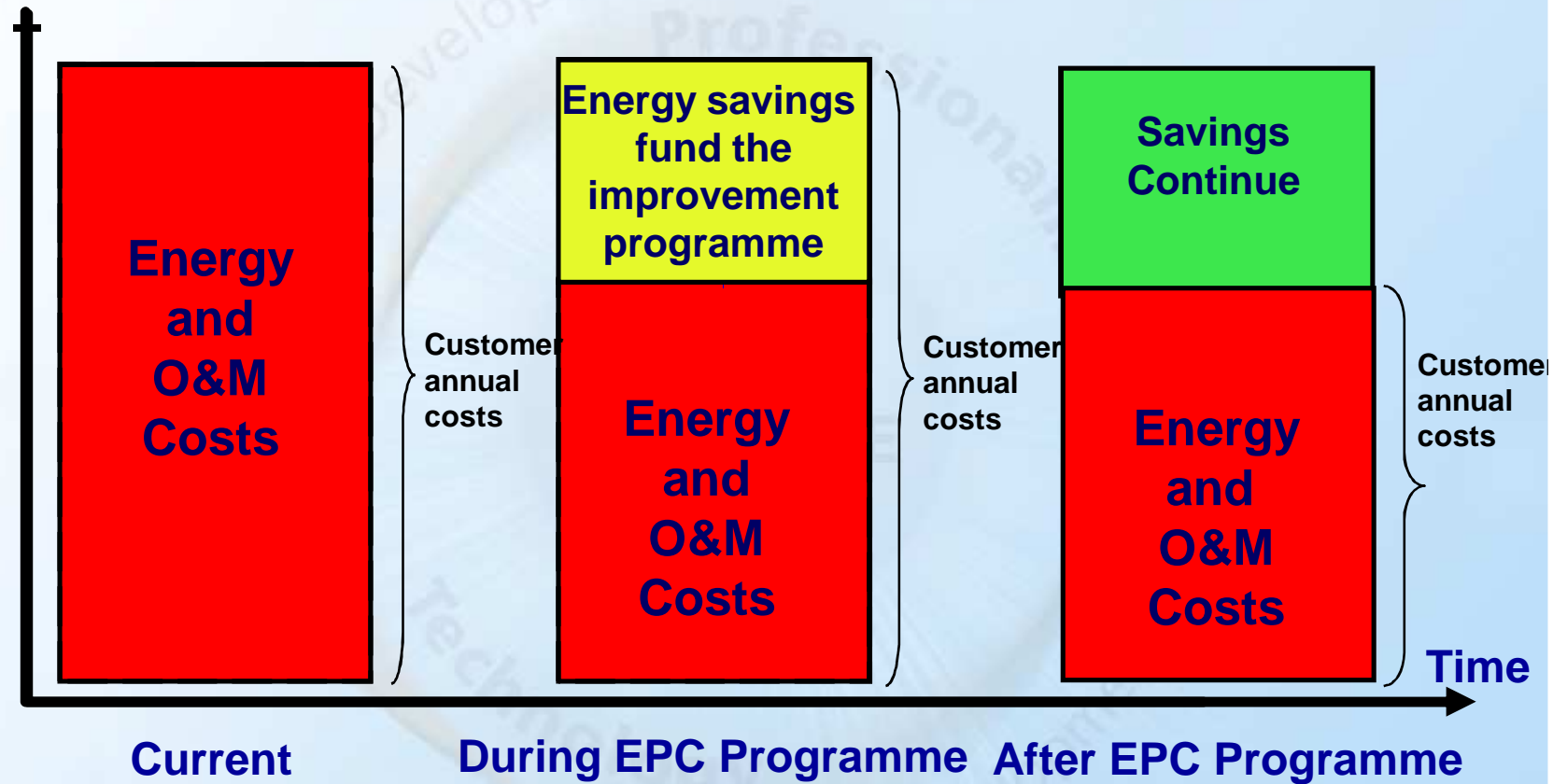
- ***Energy Retro fit is....***
 - Client or 3rd party funded
 - Plant replacement programme, where the energy savings pay for the equipment replacement / upgrade
 - Paybacks typically between 2-5 years
 - M&V is important to demonstrate payback
 - No guarantee's – therefore less expensive – lower risk to supplier

Solutions

Performance Contracting is...

- An implementation of energy efficiency measures including equipment replacement and upgrades to reduce energy & operating costs and improve infrastructure with no up-front investment.
- Positive cash flow investment guaranteed by energy and operational savings
- Payback can be from 2 – 20 years
- Third Party Financing may be possible
- Customer is buying Energy Savings

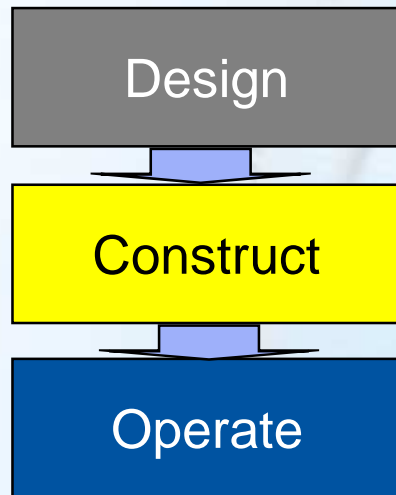
EPC - How the funding works



Budget Neutral

Contrasting Processes - Example

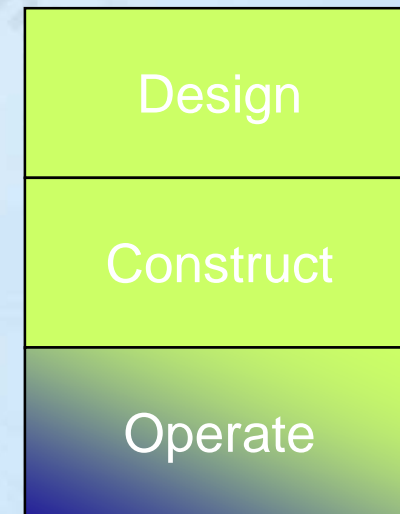
Standard Construction Contract



**ESCO
assumes
performance
risk**



EPC



Best Lifecycle Value Procurement vs Lowest First Cost



The benefits

- Customer get an upgraded building with little risk
- You cut customers energy costs and carbon footprint
- You gain a partner relationship with customer
- It's a board level area of interest
- You can increase your sales !

Is it?

**THE AGE OF
STUPID**

I don't think so!

