

BRE

Service Life and WLC

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Workshop *Whole Life Costing in Social Housing*

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Drivers for improved procurement?

- HM Treasury's procurement guidance that applies to around £7.5 billion of Government property procurement ¹ says decision-makers should ensure that "**risks have been properly identified, evaluated, allocated and managed effectively**" before investment is made ².
- *"Through the Achieving Excellence Initiative, Central Government Clients commit to maximise, by continuous improvement, the **efficiency, effectiveness and value for money** of their procurement of new works, maintenance and refurbishment." - Mission Statement Achieving Excellence Initiative, Construction Division of OGC.*

¹ *Modernising construction*, HC 87, Report by the comptroller and auditor general, The Stationery Office, London 2001.

² *HM Treasury, Procurement Guidance No 2: Value for Money in Construction Procurement*, available from <http://porch.ccta.gov.uk/treasury/reports.nsf>.

What is service life assessment?

- It is the consideration of service life at all stages of the construction process, from development of the client brief, through the design and construction phases, into operation of the asset itself.
- Service life assessment is:
 - a structured traceable method to manage the risks inherent in construction procurement.
 - a mechanism for information management which allows the involved parties to learn from best practice and poor performance.
 - a system to demonstrate value for money in construction procurement.
 - a method to assess the implication of variations during the project and mitigate the impact of such variations.

What are the benefits?

- Clear definition of client's requirements for service life.

This leads to:

- Better understanding of project priorities and where valuable resources should be most effectively applied.
- Increased clarity in the client's understanding of the scope of the design and construction process.
- Optimisation between capital expenditures and operational expenditures through whole life costing of construction solutions.

What are the benefits?

- Clear definition of client's requirements for service life.
- Design and construction fulfilling these requirements.

This leads to:

- Reduced costs due to over-specification of the service life of materials or components.
- Improved risk management by quantifiable decision making.

What are the benefits?

- Clear definition of client's requirements for service life.
- Design and construction fulfilling these requirements.
- Effective planning of the design and construction process.

This leads to:

- Clear guidance and allocation of responsibilities in the design and construction phases.
- Improved construction quality, particularly of the aspects critical to service life.

What are the benefits?

- Clear definition of client's requirements for service life.
- Design and construction fulfilling these requirements.
- Effective planning of the design and construction process.
- Clients benefit from a clear understanding of the building/structure they will own.

Planned maintenance scheduling and reduced disruption associated with repairs.

Reduced costs associated with service life failure.

Reduction in risk and uncertainty and improvements in budgetary control.

Methods of service life assessment

BS ISO 15686 *Buildings and constructed assets - Service life planning*
Part 3: *Performance audits and reviews* (in draft)

Building Performance Group
*Technical audit of building and
component durability* (BPG,
London 1998)

BRE Service life assessment
methodology (BRESLAM)

- BPG Technical Audit and BRESLAM are methods to implement BS ISO 15686:3.

Importance of whole life costing

- Whole life costing (WLC) has been identified as a mechanism to deliver improved value for money ³.
- Government clients are expected to use WLC in 100% of procurement projects by March 2003 ⁴.

³ *Whole life costing, a clients guide*, Construction Clients' Forum, London, 1999.

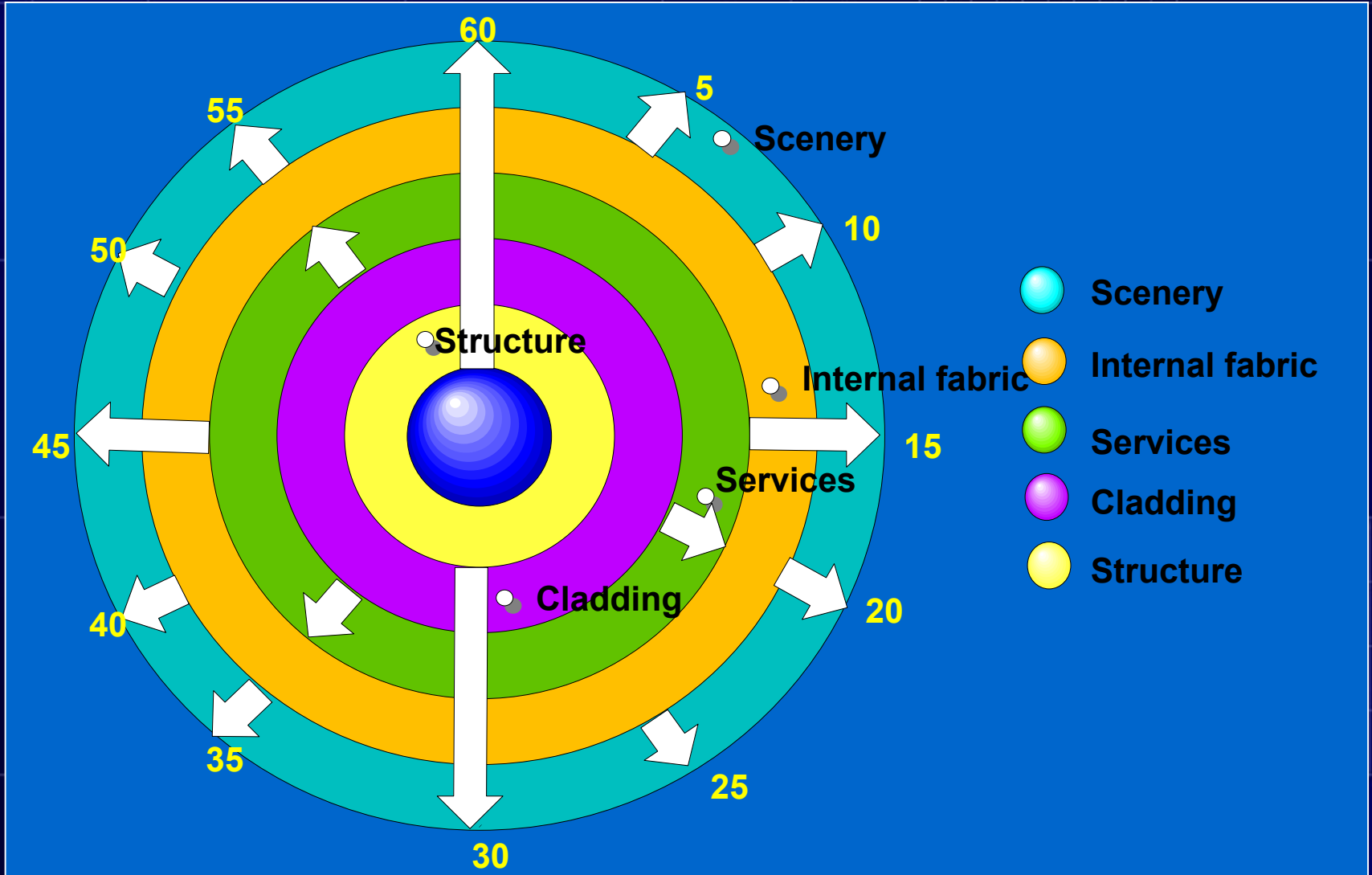
⁴ *Constructing the best government client, Achieving sustainability in constructing procurement, Sustainability Action Plan*, Government Construction Clients' Panel (GCCP) June 2000.

service life
Assessment

Whole Life
Costing

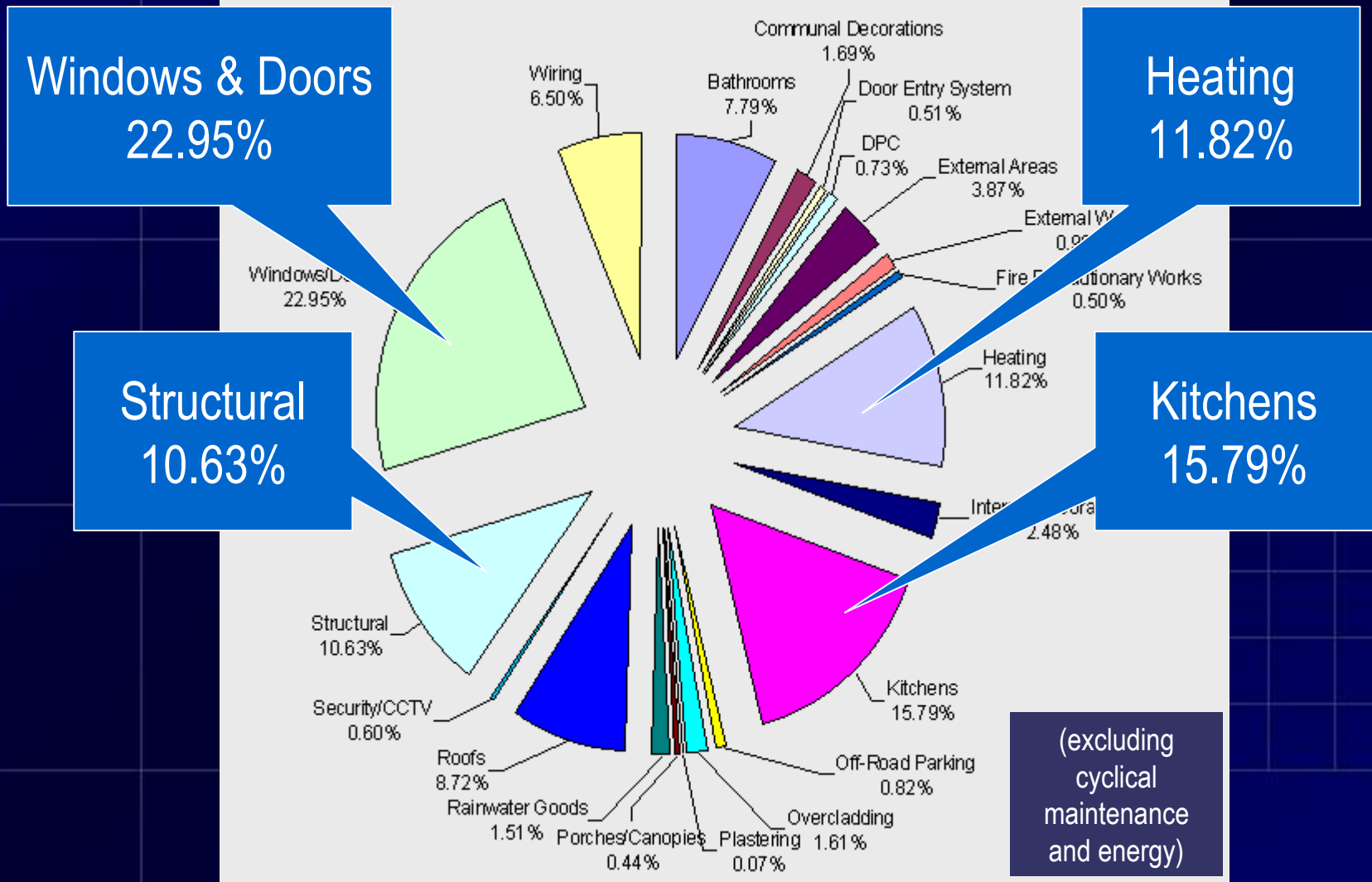
- Both are tools to assist decision making.
- Definition of minimum levels of performance in-service.
- Optimisation of construction solutions to provide performance.
- Evaluation of tenders.
- Assess impacts of variations during the costs of construction.
- Provide strategies to assist operational performance.

Service Life Clock

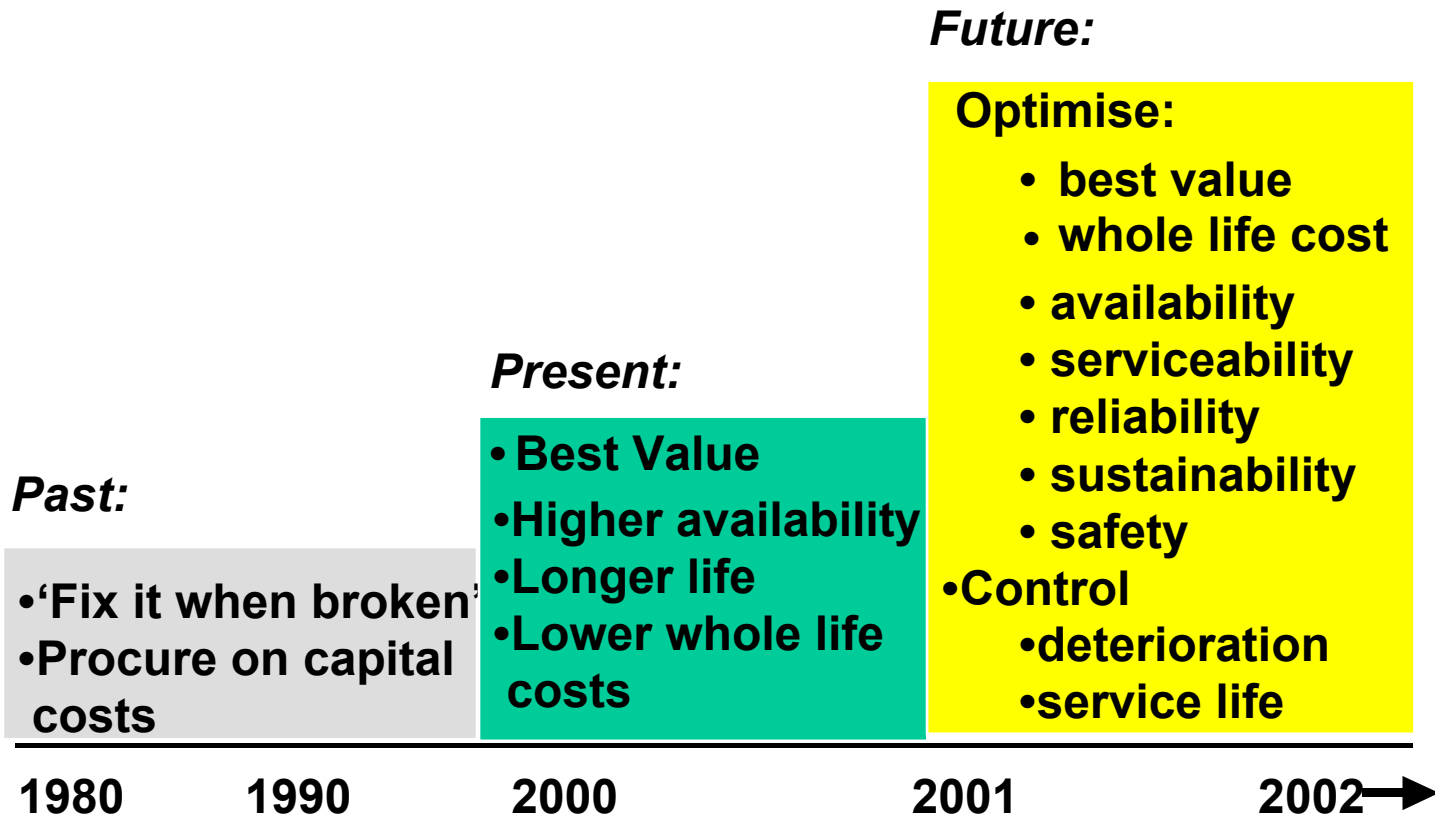


Operational Costs of Housing

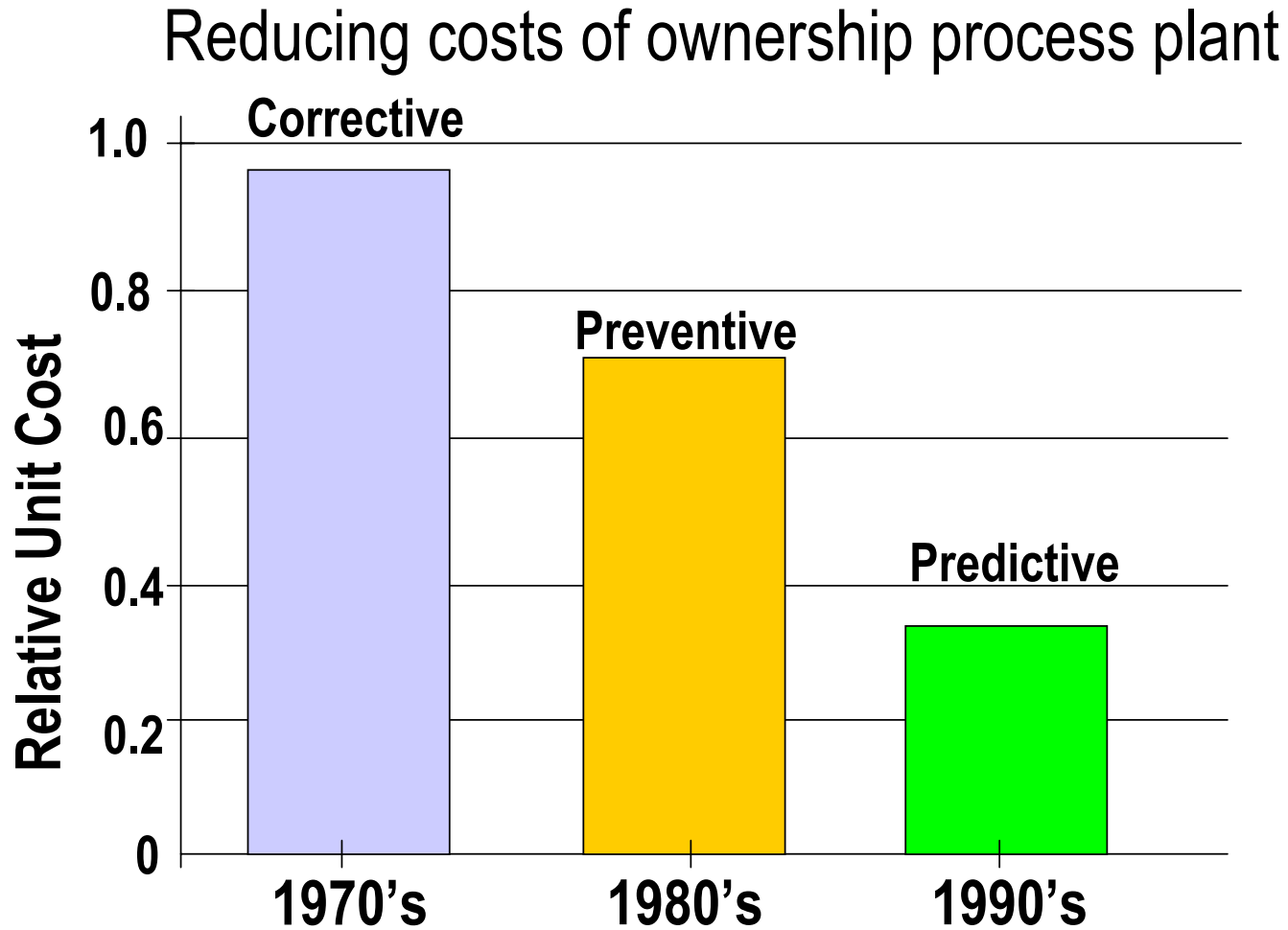
PFI 35 Year Replacement Profile Expenditure



Expectations of ownership



Lessons in life-care



Conclusions



- service life assessment is a powerful but underused tool.
- WLC and service life assessment are complementary decision making tools.
- Both provide improved management of the risks inherent in construction procurement.