Whole Life Costing

The whole-life costs, also known as total ownership costs or Cradle to Grave analysis, of a facility or asset are the costs of acquiring it (including consultancy, design and construction costs), the costs of operating it (including management resources and health and safety aspects), and the costs of maintaining it.

Whole-life costing is a useful technique for facility managers when evaluating options for procuring new assets, decision-making to minimise whole-life costs throughout the life of an asset, comparison of actual costs for similar asset types or as feedback into future design and acquisition decisions.

The primary benefit of whole-life costing for FM is that costs which occur after an asset has been constructed or acquired become an important consideration in decision-making. Where previous focus has concentrated on the initial capital costs of creation or acquisition, management may have failed to take account of the longer-term operating costs of an asset.

Whole Life costing raises the importance of the FM viewpoint and encourages the earlier involvement of building operators in building projects. It becomes important to consider long-term maintenance very early in the design stage as most of the cost of running, maintaining and repairing a facility is fixed through design decisions made during the early part of the design process.

In a report published in 1998 by the Royal Academy of Engineering, the authors identified the relationship between capital cost, the cost in use and the cost to the business of assets as a ratio of 1 (for construction costs): 5 (for maintenance costs): 200 (for costs of the operation being carried out in the building, including staff costs).

What this means is that to operate and maintain the building will cost five times the capital costs over the life of the building. However, the total cost to the business occupying the facility is two hundred times the capital cost. This reinforces the importance of how a building works in practice.

If the builder focuses on achieving the lowest capital cost, they may produce a poor performing building that adversely affects the productivity of the occupying organisation. Reversing the whole life ration shows that saving 10% on £1m of capital cost could increase operating costs by £500, 000 and impact on occupying costs by £20 million!

The Whole Life Cost Forum is a construction industry group which promotes use of the methodology within the built environment sector. Their website contains many useful links and reference documents. [*www.wlcf.org.uk*](http://www.wlcf.org.uk)