

Session 5

LIFE CYCLE COST ANALYSIS - BEYOND BACKLOG

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While the concept of Life Cycle Modelling has been acknowledged for many years, the practice of Life Cycle Modelling has been largely confined to academe and assessments of life cycle maintenance and operating costs have been few in practice.

The literature indicates that while the theory is useful for organisations to make decisions about alternatives in design or about the long term maintenance and operating costs of a facility there is little coherent asset management information which is formulated systematically or tested by experience.

Work done from the mid-1980s to the mid-1990s was produced by a few individuals and organisations. The driver was the result of the huge boom in construction in the universities in Australia in the 1960s as the first wave of “baby boomers” demanded higher education. The rush for new buildings often resulted in poorly designed buildings with little regard to life cycle costs but with emphasis on reducing the first time construction cost.

Capital Funding Sources (usually specific Government grants) were disconnected from Maintenance and Operating Funding Sources which had to compete with budget demands for academic staff salaries, library books and scientific equipment.

By the mid-1980s, these buildings were close to the end of their Economic Life and little if any provision had been made for their renewal or replacement. While the work generated some interest, little changed in the way provisions were made for maintenance costs other than an acknowledgement that recurrent provisions were inadequate.

More recently, Life Cycle Modelling has re-emerged because of Public Private Partnerships (PPPs) which usually require the proponent to be responsible for the design, construction, and the operation and maintenance of the facility for 25 to 35 years (or even longer for infrastructure). The financiers and operators are anxious to ensure the risk of operation and maintenance is eliminated or, at least, mitigated.

In the tertiary education sector there has been another wave of development funded by the Commonwealth Government which is not necessarily matched with maintenance and operating funds in grants or from the institutions’ own resources. Using Life Cycle Cost Analysis can at least highlight the need for maintenance and operating funds into the future rather than simply using Condition Assessments to detail the sins of the past.

The presentation will show how some organisations, in the education and other sectors have been able to use Life Cycle Cost Analyses to present future needs extending over twenty five or thirty years for individual buildings or for a portfolio of assets.

Presenters Biography

Sam Ragusa is Director of Ragusa Asset Management and works with Aquenta Consulting as Senior Facilities Consultant. Sam was Director of Facilities Management at Griffith University from 1978 to 2007 and previously Principal Engineer.

Sam is an Emeritus Associate Member of TEFMA and a past president of AAPPA.

Sam Ragusa provides advice on Strategic Asset Management. He has particular skills matching the facilities requirements to the strategic needs of the organisation including needs analysis, space planning and management, planning for and the delivery of specialist facilities for teaching, research and administration.

Sam has thirty-five years' experience working in facilities management, planning and construction and has been involved across the whole range of issues which confront practising facilities professionals.

Expertise includes Strategic Asset Management; Facilities Planning and Management; Space Planning and Management; Life Cycle Cost Analysis, Condition Assessments, Maintenance Reviews; Maintenance Specifications; Contract Management; acting as Principal's Representative.