

Should P&SM professionals take the lead in the whole life costing process?

Whole Life Costing (WLC) is not new nor is it a difficult concept to understand, but traditionally it has been associated with high-value procurement decisions. There is no reason why it should not be applicable to relatively low-value purchases.

WLC is a highly effective tool which enables the right procurement decisions to be made. It takes account of the total costs of making or purchasing a product and then owning (including hiring or leasing), operating, maintaining and managing the product right until its end of life. These costs can be recorded and analysed to provide a rational comparison of alternative means of meeting a requirement. The benefits of being able to do this type of assessment are applicable for any value of spend.

There are basically three principles to the WLC process:

- 1) An initial analysis of the cost structure. Each of the cost elements should be identified and recorded
- 2) Cost estimating. Having produced a cost structure (shown graphically if possible) it is necessary to calculate the cost for each category. This should be done as accurately as possible
- 3) Discounting. A selected discount rate should be developed enabling each future cost to be adjusted to the point at which the purchase decision was made.

WLC is not an accurate science and there is not a single approach to it. There are a number of available tools in the marketplace, but they need to be chosen wisely to suit the needs of the organisation. Different categories of spend will require different WLC approaches i.e. the purchase of software is different from that of buying vehicles so they will require different criteria. You may be familiar with some of the basic techniques such as discounted cash flow or a simple spreadsheet showing all the different cost categories.

The level of detail will depend on what is being purchased but should include timescales and at the very least:

- Acquisition costs such as delivery, installation and commissioning costs
- Operating costs such as energy, spares and maintenance
- End of life costs such as decommissioning and removal costs

The key to identifying all the different costs is understanding the product life cycle of what you are buying. A suggested PLC was first presented in International Journal of Purchasing Management by L Birou et al in 1997, but is still very relevant today. The key stages to the PLC are:

1. **Design**
2. **Introduction**
3. **Growth**
4. **Maturity**
5. **Decline**

Information on costs should be readily available for each of the stages of the PLC. One way to capture these costs is to provide a questionnaire during the tendering process. Suppliers can be asked to complete the questionnaire and include details such as a breakdown of overheads, margins, production costs, operating costs, energy consumption, maintenance or any other applicable costs.

The benefits of carrying out such an extensive exercise are:

1. **the ability to evaluate fairly competing options**
2. **an improved awareness of total costs**
3. **better forecasting**
4. **performance trade-offs against cost**

Whole life costing is particularly important at the present time because the rate of technological change is continuously increasing. Some companies are beginning to consider through life costing which endeavours to look at the costs of entry and exit in addition to the identifiable costs.

WLC is not without its limitations though. There are three main disadvantages:

- Identifying the initial cost of a product can be straightforward, but as a product goes through its lifecycle a range of considerations can affect cost such as design and development costs, marketing and advertising, product redesign and replacement. The costs can be more difficult to forecast
- Future costs tend to be based on sales figures which traditionally are over-optimistic
- WLC needs considerable manpower even if using a computerised system.

The full article on WLC is available to CIPS Members on the CIPS website. For details of other benefits to becoming a CIPS Member, additional professional practice resources or information on how to join please go to www.cips.org