Innovation and Transformation in Asset Performance Assessment Ensuring the Right Blend of Asset Management Strategies

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This paper looks at an innovative approach to asset performance assessment that enables transformation in strategic asset management processes ensuring the right blend of strategies based on informed decision-making. The approach is aligned with international practice and guidelines such as ISO 15686 Parts 1 to 10: Buildings and Constructed Assets — Service Life Planning, the NASA Deferred Maintenance Parametric Estimating Guide and the TEFMA 'How to Undertake a Facilities Audit' guideline.

Delegates will get information on the latest trends in strategic asset management and learn how they can transform their condition assessment information to the next level without increasing assessment costs by applying this unique and innovative approach. They will also see how they can use assessment information to get an integrated view of asset performance and report this information in a way that enables informed and responsible decision-making ensuring the right blend of asset management strategies.

Firstly the paper deals with the methodology of performance assessment, followed by three case studies where the approach has been applied in the tertiary education sector and closes with an overview of current trends in strategic asset management.

There is a movement away from the common practice of condition assessments or surveys to a more integrated approach that provides for a gap analysis to determine the gap between assessed performance (supply) and required performance standards (demand). An important part of this process is the setting of appropriate performance standards in terms of threshold and target levels. Performance metrics include condition, functionality, utilisation, compliance and risk, providing an integrated view of asset performance enabling informed and responsible decision-making.

An innovative rating system is used to assess all performance metrics to ensure consistency and enable integrated strategic planning. The rating system increases the level of information without increasing the assessment cost, which means more information for the same assessment cost. This common rating system and the use of colour and graphics make reports more user-friendly to non-technical users of the information, ensuring reports are read and understood, and thus solving one of the most common problems and frustrations experienced by facility and maintenance managers.

Unique and innovative Service Life Curves based on 'state-of-the-art' technology are used to predict changes in condition over time and improvement in an asset condition for a nominated dollar. The ability to predict changes in condition also enables the prediction of the remaining Service Life and proactive, appropriate and pre-emptive maintenance interventions and renewal / replacement strategies to ensure continuity in and cost effectiveness of service delivery aligned with business objectives.

Focus is shifting away from the quantification of condition-based maintenance backlog to the gap between current performance levels and the desired performance standards. The approach provides for the translation of visual performance assessment data into $'s required to achieve desired performance levels. This approach is more palatable to decision-makers than the rather confronting maintenance backlog approach. It empowers decision-makers to set achievable performance standards subject to financial constraints.

Three case studies, where the approach has been used at two Australian Universities and a TAFE to undertake asset performance assessments and determine appropriate maintenance strategies, will be presented.