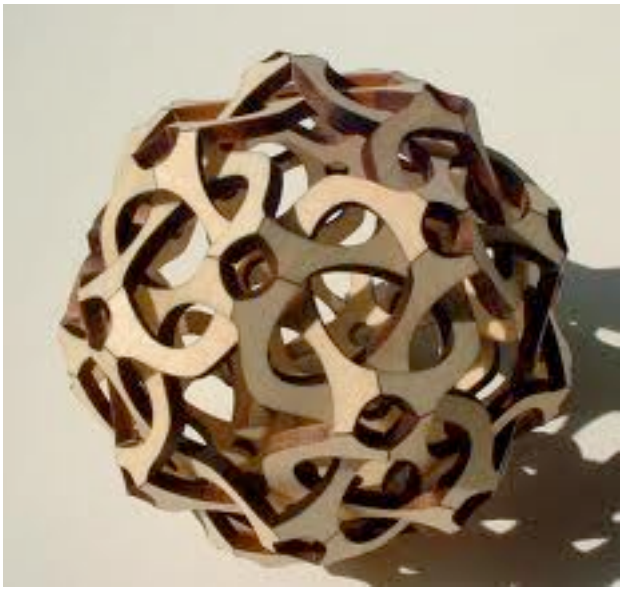
AMQ INTERNATIONAL
STRATEGIC ASSET MANAGEMENT



Issue 298 August 23, 2010

Organisational Structure for Asset Management in Local Government:

What works?

Whenever problems arise, it seems the first thought is to 're-structure'. Does the 'perfect' structure exist, or is it illusory? Can any structure be made to work with a bit of effort and imagination? Clive Deadman addressed the structure of utilities in his "Strategic Asset Management" (see the 'Your AM Bookshelf' feature on the website) - and even if you are not in a utility, it is worth reading, for the factors he examines are applicable anywhere.

On pages 3-5 I look at some popular organisational 'types' that have been adopted in local government, based on a study of how 120 councils in South Australia and Victoria had structured their AM organisation, expressed as a 4 model framework with some of the pros and cons of each.

Recognising the 'grass is greener' syndrome, I am looking for councils or government agencies, which have been operating their current system for a number of years - *and are pretty happy with it*. I would love to talk to you about this, so please give me a call - or send me an email and I will call you. The number is 08 8359 0559. I look forward to speaking with you.

Also in this issue:

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Research in Asset Management

The future of asset management tools and systems lies in the hands of young researchers, like **Jag Shinde, Queensland University of Technology, Brisbane, Australia.**

We know that the *most costly and avoidable* asset management mistakes occur *before the asset is even acquired.* This is where Jag is aiming his research, described below.

If you can help by taking part in interviews, please do! See contact details below.

Decision Support model for Acquiring & Maintaining Heavy Engineering Assets/Spares.

Research Abstract – In asset intensive industries lot of capital is spent in acquisition and maintenance of engineering assets. However, acquisition decisions are not always taken in considerations with equipment's operational requirements, maintenance needs, operating conditions and disposal requirements.

There is a lot of research and reengineering done on how to implement and execute an efficient procurement process for buying assets and spares. However, not much has been done to arrive at a procurement decision i.e. what to buy (exact specification)? Why buy it? When to buy? What are the operating, maintenance, renewal and disposal requirements of an asset or spare?

There are silos and disconnects between maintenance, warehousing and procurement functions in the many organisations. Lot of organisations (Govt & non Govt) use integrated software systems but their processes and decision making is generally not integrated. Procurement decisions are made in head office with limited consultation with engineering group.

Jag wants to develop a framework for an "Acquisition Engineering Model". The Acquisition Engineering Model (AEM) will consider inputs from corporate asset management strategy, production management, maintenance management, warehousing, finance and HSE.

Acquisition decision should be an outcome of an integrated, engineered decision making process. Life cycle costing does provide a framework for an efficient economic decision making. Perhaps it can be stretched further to make the acquisition decision of assets/spares as an "Effective decision" for the enterprise profitable, sustainable and reliable?

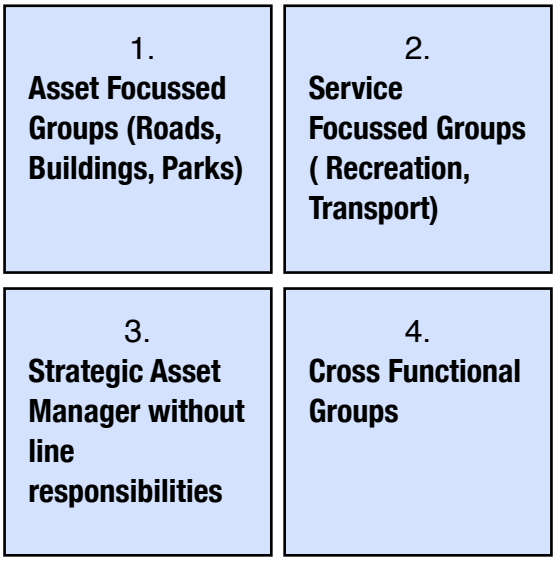
This is Jag's intention. He is at the beginning of this work - and you can help a young researcher and future asset manager. If you are in an asset intensive industry (mining, oil&gas, utilities, etc) Jag would much appreciate the opportunity to speak with you about your procurement processes along with the acquisition decision making process and criteria.

You can contact Jag on 0402 576 742 or at

jag.shinde@student.qut.edu.au

Four Models of Asset Management Organisation within Councils

Here are four basic models, there may be others, but most are variations of these. Those newly moving into asset management would, of course, like to know, which works the best. To my mind, the jury is still out. Here are some of the pros and cons of each.



Model 1. Asset focussed groups.

This is perhaps the most common model. Roads, buildings, drainage and parks and gardens, each tend to be managed by its own group, with little, if any, interaction between them. The only connection with the rest of council is to argue for their share of the funds. In this model, capital works plans may be quite detailed, but there is generally no feedback on the outcomes, for the simple reason that there is no-one for whom feedback is a necessary piece of information. This is a input driven model, rather than an outcome based one. This does not mean that strategic corporate level decisions are not being made, they are, but managers of one asset may have little knowledge of what is happening to assets elsewhere - and little interest.

Example of problems with this arrangement: During an asset survey of one such council, I noticed that the survey question related to bridges had not been answered. I asked the group of asset managers present about bridges but no-one could tell me anything. So I told them! I said that they had 17 bridges, 3 are in a seriously poor condition and have been listed or urgent work over the next two years, 6 are relatively new and not a problem and an asset management strategy is now being designed to cope with the remaining eight. The group looked at me in amazement. I explained that my information could be had simply by reading the report available in the foyer!

The report, and the asset managers' reaction to it told me a number of things about the organisation - 1) because each manager was responsible for only one group of assets, no-one had either noticed or taken responsibility for the absence of information on bridges, no individual in this group, or the group as a whole, was looking at their assets in a total council portfolio sense. -2) No-one knew of the report which was a critical asset management study -3) the report was part of the council's strategic plan, so it does not seem as if any of the AM actions were actually being informed by the strategic plan and - 4) they themselves had had no role in the development of the strategic directions of the plan.

Model 2 Service Focussed Groups

In this model, asset management is still carried on within silos but the silos are different. They are not structured around an engineer or technical officer concerned with the assets but rather around a manager of services. In this model, the service manager is responsible for everything including the management of the assets. This model has the advantage of being service focussed but with so many responsibilities, it is unlikely that any expertise in asset management will develop. The 'silo' effect is often even stronger, with managers attempting to expand their own patch. The absence of good asset information often goes unnoticed in this model.

A variant of this model has an asset information database established and placed in the hands of a special data management unit (often misnamed as 'the asset management' unit). Members of this unit collect and enter data, manage the database and produce 'reports' for the use of service managers. They manage data, not assets. This data unit usually has no responsibility for analysing the data or for making recommendations on the basis of such analysis to the service managers.

Model 1 is 'asset focussed' and yet fails the 'asset management' test by not being able to relate asset actions to service outcomes. Model 2 has the advantage of being 'service focussed', but suffers from having little asset knowledge. Attempts to maintain the advantages but mitigate the disadvantages of models 1 and 2 result in two different ways of 'bringing everything together' - Models 3 and 4.

Model 3 Strategic Asset Manager Model

This introduces a strategic asset manager who has no line responsibilities whatsoever but liaises with all of the operational asset managers. The strategic asset manager advises the CEO, the executive panel and council from a corporate perspective - avoiding the self-promotion problems of the asset group (Model 1) and service group (Model 2). This manager acts as the link between the executive panel and the operational managers. This model has good theoretical prospects since it is well known that the urgent will drive out the important, so that managers with both strategic and line responsibilities will generally find the day to day urgencies mean no time for strategic thinking.

However, success is critically dependent on personalities. In practice, line managers may resent the 'non-working, non-productive' strategic asset manager acting as a 'block' between them and the executive. Or Executive may see the position as a 'free resource' to devote to specialised projects, so that instead of the corporate wide view being developed, the Strategic Asset Manager becomes an ad hoc Project Manager. I have seen both outcomes.

Model 4 Cross Functional Groups

The last model is relatively scarce, and I have limited experience with it. It takes the good things of the previous models and combines them. This is the 'cross functional group' model. The cross functional group operates outside departmental boundaries to develop organisational strategies for key areas (these may include human resources and information technology as well as asset management) Cross functional groups

- contribute to strategic planning for relevant areas
- identify new projects and assist project completion
- facilitate strategic impact reviews
- negotiate resources to address critical issues
- research, discuss, recommend or report on current developments in the areas of interest; and
- collaborate with relevant functional areas and contribute to the development of the project and/or capital sections of relevant business plans.

The asset management cross functional group consists of staff members from all departments of council, from Strategy and Policy, Organisation Services, Economic Development, Customer and Community Services, Environmental Services and Asset and Infrastructure Services.
In the example with which I have experience, the chair of the asset management cross functional group reports to a Strategic Advisory Group comprising the heads of departments plus the chairs of the various cross functional groups.

This is the first model to seriously tackle the problem of overcoming 'silo' mentality and developing a genuine corporate portfolio approach. Yet the difficulties are considerable and include: time commitments (for everyone, the time spent in the cross functional group is time not spent doing their job!); language difficulties (all the groups have different interests and 'languages' that reflect those interests, from finance to human resources to assets); and the common problem that there seems to be no one person who has the responsibility to make this all work. Maybe a combination of the Strategic Asset Manager (Model 3) as Chair of the Cross Functional Group, and with the responsibility to create common cause amongst the different groups, might work. And if it did, it would be a superior model.

Finding problems with asset management structures is not too difficult

Finding a system that works well is something else!

Is your system working well?

If so, please tell us - and tell us why you believe it is working for you

Part 1, or Oh, for a one-handed economist

Out of curiosity a facility manager took a one day course in **Logistics Management** *and noticed the similarities to the objectives in* **Facilities Asset Management.**

For instance, when Defence deploys troops to East Timor or Afghanistan, they need to know:

- what logistical supports the troops need to have whilst operating over there: trucks, tents/ buildings, equipment, weapons?
- how they will acquire these - acquire them all in Australia and transport them across, or acquire them over there, or somewhere else?
- how they will be maintained over there - what's even available there, car mechanics and spare parts of equipment, consumables like fuel and bullets?
- how much should they send away and how much should be regularly sent along?
- what kind of human/ medical supports would they need?
- what to do when the mission is finished - who wants to buy second hand tanks and trucks?
- what Australian quarantine needs before Defence can bring all those items back into Australia?

- and these are issues which are very similar to those facing facility managers.

There is much to be learned from others with similar objectives, but we need to be aware that we can share the same AIMS and OBJECTIVES and yet *still want different things and need to take different approaches.* How can this be?

Take goals of cost saving, reliability improvement and safety as an example.

Most asset managers would share all of these goals. Yet, even when you are told that all are important, you know, instinctively that at any point of time, one may be slightly more (or less) important than another. An economist might say

> "*On the one hand* we have Measure A (= improvement in reliability, no impact on costs, good improvement in safety) and
>
> "*On the other hand* we have Measure B (=same improvement in reliability, but reduces costs, with a small but recognisable improvement in safety)

You need to know **the priority rankings of YOUR ORGANISATION'S decision makers** for they can be quite different from the organisation that you are learning from!

***** *When confronted by my 'two-handed' approach, the Chairman of the Public Accounts Committee would often exclaim 'Oh, for a one-handed economist' to which I would usually reply 'Oh for a politician who can rank his priorities!' For that is where the difficulty lies. And it is the reason why you may think you are making the best recommendation to your board or council - and yet it gets ignored in favour of something else.*

PART 2, What comes first, the chicken or the egg? - or, in asset management terms, asset lives or service standards?

Do service standards determine asset lives, or do asset lives determine standards? The answer depends on where you are.

If you are in a regulated utility, service standards largely depend on licence conditions and the requirements of the regulators. That is, they are independently determined.

It is now up to the regulated utilities to manage within these service requirements and to select the asset lives that best enable them to manage their profits and their commitments. **Thus service standards drive asset lives.**

As illustration, in New Zealand, where there is 'light handed' regulation and companies are not required to maintain supply to customers as part of their licences, the city of Auckland was blacked out a few years ago, in some parts for weeks. Without the service standards being established, the asset lives were stretched to failure point. 'Run to failure' may be a profit maximising position where the absence of strict service standards permit it.

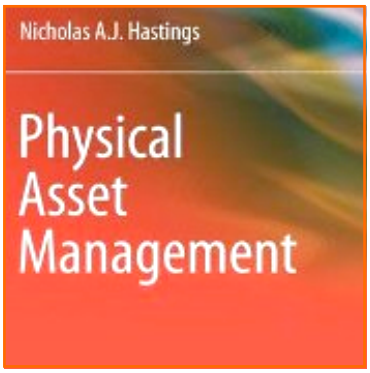
If you are in a council, service standards are difficult to describe since asset failure generally does not result in service failure (as was the case for Auckland). Rather, asset failure shows up as a lowered level of service - roads become rougher to drive on, the facilities become shabbier, technology is not kept up to date. This tends to be gradual, rather than instantaneous, and how quickly the matter is addressed (i.e. how quickly the assets are renewed) will depend on community acceptance. **Service Standards are thus determined by asset lives** (or rather both service standards and asset lives are determined by political decisions on funding.)

For the default projections of asset renewal that I did for South Australia in 1985, I explicitly assumed continuation of the asset lives that were currently being practised, current maintenance and management practices, and current pricing - in fact, current everything. The Public Accounts Committee's message was a simple one - "If you don't like the default projections - change the defaults!" And this was, in fact, done. The water authority deliberately chose a lower pressure standard in country areas where the costs to renew would have been prohibitive, and the roads authority rethought its practices on the 30 year life rule it had been applying to all roads and decided that for lesser used country roads in good soil conditions, the life could be considerably extended. The transport company did its sums and realised that replacing buses after only 12 years, which had been its unanalysed standard, was in fact wrong and that the economic life was closer to 16 or 17 years. **In each case, the change in asset lives changed the service standard - but the impact on service was relatively slight, and the impact on cost savings was impressive!**

There is an important message in this: If you are in state or local government, asset lives are a **choice! And the choice is not yours.** If you assume it is, you will face problems with your decision makers.

Physical Asset Management

by Nicholas A.J Hastings
Published by Springer-Verlag London Ltd in 2010



Reviewed by Ami Sudjiman
Asset and Facility Management Consultant
GHD, Canberra

This is an excellent book of introduction into physical asset management by an author who has vast experience in asset management in Australia and the UK.

In his book, Hasting adopts a systematic approach to describing all phases of assets life cycle, clearly identifying the aim, outcomes and topics for each chapter. The format and language used throughout the book can easily be understood by a wide audience, from operations and maintenance managers, new and existing asset managers and finance managers to senior executives of all types of industries. The book not only includes introduction and guidelines to developing asset policy, asset strategies and asset plans, but also describes how asset management works with other parts of the organisation in order to create sound development plans.

For those who have been involved in asset management for a while but would like to do more, the book also provides useful guidelines to topics like financial evaluation, life cycle costing discount cash flows and asset decisions, Profit, Depreciation and Tax, Risk Management, Outsourcing and logistics support analysis. Whilst focusing on the physical assets, Hastings does not ignore the human factors involved in asset management, and clearly identifies the need to incorporate change management and training supports when implementing new asset policy and/or procedures.

To assist readers better understand the concepts outlined in each chapter, Hastings also provides practical examples of day to day domestic and/or work place scenarios where the issues may occur. Each chapter concludes with a set of exercises to assist readers to test the application of their new knowledge. And even better, you can find the solutions to these exercises in the Appendix of the book.

Only available on line

Biographical Note: Nicholas Hastings is an engineering graduate from the University of Cambridge who has served in the British Army. He is now the training coordinator for the Cooperative Research Centre in Integrated Engineering Asset Management and Adjunct Professor at the Queensland University of Technology in Brisbane.