AMQ International's **STRATEGIC**

 # 337 ASSET MANAGEMENT

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BEYOND MAINTENANCE, BEYOND RENEWAL

Turn it around!

During the 1984 USA presidential campaign, there was considerable concern about Ronald Reagan's age. Speaking during the presidential debate with Walter Mondale, Reagan said, "I will not make age an issue in this campaign. I am not going to exploit, for political purposes, my opponent's youth and inexperience." A masterful 'turning around'! You can do the same if, *instead of saying*

"We don't have enough money and *therefore I can't do anything***"**
(thus casting yourself in the role of **victim**)

say, **"We don't have enough money and** therefore *I have to do something***"**
(thereby casting yourself in the role of **saviour**).

If you are content to stay with Maintenance and Renewal, that's fine, but if you want to move beyond these issues and work to minimise the problems of future assets and help ensure that they are appropriate and fit for service, then you will want to get involved in the *front end decision making*. In this issue we present a step by step guide, in two stages, as to how you may do this in

While we are on the subject of capital planning, see **"When not to use Cost Benefit Analysis"** (**Page 7**) We also look at the main findings and recommendations of the latest Audit Commission to examine asset management - **the NSW Commission of Audit (Page 9)** and take at look at **research issues that are coming up (Page 10)** (you are welcome to suggest others)

Please consider - and be happy!
Penny

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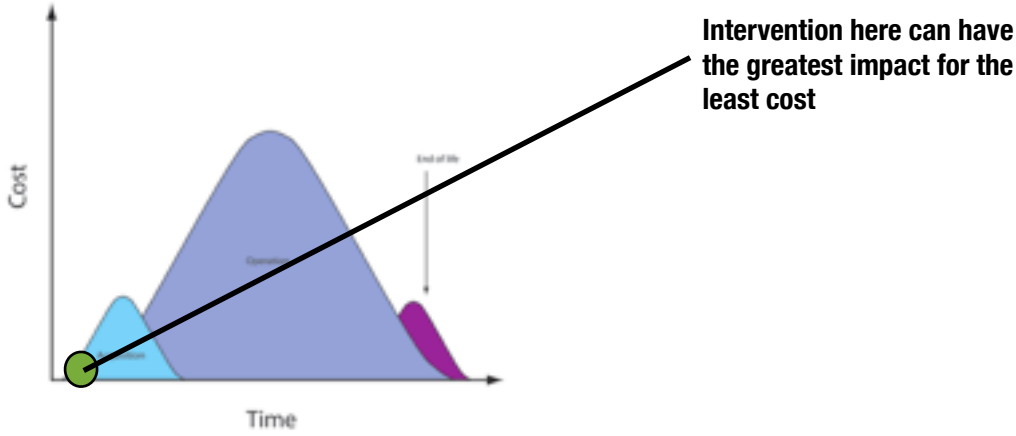
Should Asset Managers be involved in the early discussion stages of new capital projects?

Early input into a decision enables the easiest and cheapest changes to be made.



Yet Asset Managers are frequently brought into the picture only when the asset has been conceived, designed, constructed and handed over.

Why?

Is it that you **actually** have nothing of benefit to add at the pre-construction stages?

Or Is it that you ***are perceived as*** having nothing of benefit to add?

In many organisations capital maintenance and capital planning are in separate silos with no connections between them. Thus the opportunity to avoid the expense of a new capital asset by repairing, modifying or upgrading an existing asset is not taken into account.

In addition, an almost exclusive focus on forecasting the renewal of the existing asset stock and the development of long lists of maintenance 'backlog' items may have conditioned a view of the asset management team that 'they are only interested in existing assets', or worse, 'that they are only interested in getting more money'.

(leading to a view of some CEOs that I have heard on several occasions along the lines of "Asset Management is getting in the way of what I want to achieve for the community".)

Do you wish to change this situation?

NO (I have enough to do already) - please ignore the next few pages

YES (I am the one who is going to inherit all the problems with the new asset, so I would like to have the opportunity to help minimise them) - OK, see over

STAGE 1.
BE A CORPORATE SOLUTION PROVIDER

I am not proposing you aim for a 'seat at the table'. An asset manager (even a strategic asset manager) is not a decision maker, but an analyst and provider of useful knowledge that will help decision makers avoid future problems. Your value is in communication.

Start where you are - in charge of existing assets - **and show that you have the corporate interests in mind.**

Things that you can do

- Establish the current asset renewal situation

- Use depreciation figures to show the overall *long term average* cost of maintaining the asset stock.
- Point out that renewal requirements - based on the number of assets currently falling due for renewal - over the next five years (10, 15) are lower than the average depreciation amount (they almost certainly will be unless your asset portfolios are very old)
- Tell them what this means - that if your renewal requirements are lower than average depreciation *now* that they will inevitably be higher than depreciation *in the future.*
- When they have understood this, you can point out that while extra grants from other bodies, extra revenues from your users or running up debt can be helpful in the short run, it is not a permanent solution since renewal costs will - if nothing else is done - continue to rise.
- Use your depreciation figures to make the point. If the average life of all of your assets is say 50 years, then your portfolios are wearing out at 2% per annum. Tell them that every $100 of asset requires $2 every year just to be sustainable. Every new asset added to the portfolio will also add $2 every year. This does not take into account the costs of regular maintenance, operations and the inevitable upgrading as standards change.

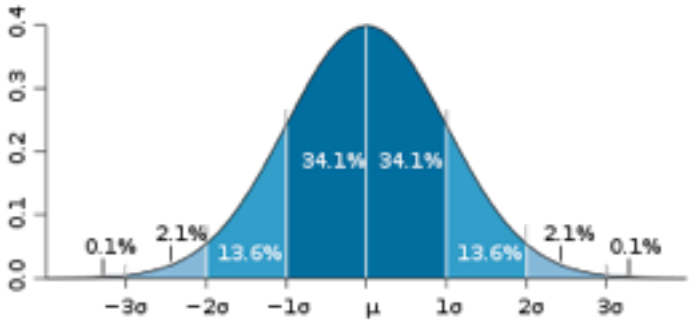
- Be part of the solution, not the problem

Having established that there is a problem and that funding - even if it some should be available in the short term - is not the answer, you can tell them what is! Using knowledge of the assets, their performance and capabilities to *reduce the size of the problem.*

- And here is what you can do

1. **Reduce the replacement costs**. Infrastructure Gaps are traditionally calculated as the cost of bringing all assets up to an 'as new' standard. But when you take a service centric approach you realise that not all of your assets need to be at 'as new' standard to do the job that they need to do. First you define your service criteria. Then you determine what LoS you wish to achieve. (For more on this service centric approach which can greatly reduce your recorded infrastructure gap, see SAM 216

2. **Rethink the asset lives**



Asset lives are a range and not a point. Here is a normal distribution of asset lives. Any given asset can fail anywhere along this distribution. When we purchase an asset we have no idea whether it will be one of the longer living subset (to the right in the diagram) or one of the shorter living subset (to the left of the diagram) - and so we take an average, the 'mean' and call that our 'useful life'. But what this means is that if the useful life is, say, 50 years, half of our assets will last longer, some will last *much* longer.

> **Watchpoint:** If we are not careful we could designate these assets in the longer living subset as 'backlog' simply because they have exceeded the mean and not yet been replaced. Unless there is evidence of poor service, the fact that you have assets that have lasted beyond the 'mean' life is to be welcomed! Recognise the fact and remove from your infrastructure renewal projections those items that are simply 'oldies but goodies'!

Useful lives are always just a guess. Be prepared to change your understanding of where the 'mean' of the distribution occurs when you have more evidence.

> **Tip:** Do you keep records of when and why an asset is replaced? If you do, you will be in a better position to get your lives 'right' and avoid both overstating the renewal problem and renewing assets when there is still much good service value left in them.

Custom tailor your asset lives. Generic life estimates are great when you are just getting started because they enable you to quickly populate your databases and establish asset management plans. But these generic lives may be very, very, different from the lives that you actually experience.

> **Tip:** Take your most important assets (the ones that figure predominantly in your renewal estimates, probably roads) and calculate more applicable asset lives. This is not as difficult as you may think and can make a great difference to the size of your renewal problem, as well as pinpointing where your money and your planning effort is best spent.
>
> John Howard provides simple steps to do this in SAM 161 - *extra benefits are that it provides a system that will please your auditors!*

Change the function category and re-life Many assets start life in one category and, over time, move to another. Thus a building (when new) may be 'prestige' but over time, move to purely 'functional', and later still, to 'occasional use only'. When these changes occur, the service level changes and the lives extend. Thus a prestige building will need renewal at frequent intervals to retain it in that category. When it moves to a lower category, renewal is not needed as frequently.

> **Tip:** Because we seldom deliberately re-allocate our assets from one category to another, this is an opportunity yet to be taken advantage of.

3. Set Reduction Targets

Set yourself a moderate goal to reduce the renewal gap, say by 10%. Start with those assets that are falling due for renewal within the next 5 years for greatest impact. Then move on to the next 10 and the next 15.

Make it clear to your council when you report your successes, that this has only been made possible by applying your in-depth and field knowledge of assets. Explain that this requires a justifiable adjustment to the generic estimates previously used for accounting and planning purposes.

Explain also that future renewal is a fact of life and you cannot make it go away but you can make it manageable

> **- after all, it is the role of the asset manager, to make asset problems manageable!**

STAGE 2
BECOME A KNOWLEDGE INTEGRATOR

Successfully completing Stage 1 will give you the status you need to move to Stage 2 - becoming a knowledge integrator.

Your in-depth knowledge of the asset portfolio and the condition, utilisation and costs of running individual assets will enable you to do TWO important things:

(1) **Examine alternatives to any capital proposal** (with approximate cost estimates) that make greater use of existing assets (by greater utilisation, renewal, modification or upgrade).

(2) **Determine what information decision makers will need to make optimal capital decisions.** This will move beyond purely asset supply information and therefore beyond the Asset Management Team. Be prepared to be an 'Integrator'. Most organisations really need someone who can pull all the required information together so that wise decisions can be made. If your organisation does not have such a role, this is a great opportunity for you.

To be an Integrator, you need to

(1) **Develop personal status** (that is the role of the actions in Step 1)

(2) **Be prepared to spend time outside the AM Team.** You will want to develop strong liaisons between you and Strategic Planning, Customer Service, Finance, and even your Legal Section, amongst others.

Use Teams If it is possible (with the support of your CEO) develop a team approach.

Tip: SAM 161 presents an excellent example of the use of self-selecting and self-supporting teams at Mornington Peninsula.

If a Team Approach is not yet possible - you can still do it simply by asking someone out for coffee - and then *listening* to what their issues and problems are. You may not always have an answer, and you certainly don't have to come up with an answer on your first encounter (in fact it may be wise not to).

But if you develop and then keep up these the connections when a new capital proposal is on the table

(a) you will know about it (your friendships with Strategic Planning)

(b) you will be able to develop useful back-of-the-envelope calculations that can guide discussion (your friendship with Finance)

(c) You will be better equipped to understand the service demands (your friendship with Customer Service)

(d) You will even be able to demonstrate a fuller understanding of risk and reliability (through your friendship with the Legal Section)

All of this will put you in a unique position to pull together the information needed for decision making, and give you a honoured role. (like the shampoo commercial "It won't happen overnight, but it will happen.)

In a future SAM, we will tackle the issue of Capital Optimisation - following the steps above will put you in a good position to make use of this coming issue.

For Economists (and those who have to make economic based decisions)

Using Cost Benefit Analysis in a Risk Context requires extra care

At a recent workshop held at the SMART Infrastructure Facility at the University of Wollongong, David Grieg of ACIL Tasman made a very useful point for all who have to make decisions in the face of uncertainty - and that, I fear, includes almost all of us.

He recommended staging your decisions, i.e. keeping your options open

The demand for many projects is uncertain, for example the demand for water depends on rain! If we decide up front, the answer may be "NO" - and we miss out on a potential good project, or it may be "YES" - and we end up with a white elephant.

STAGING YOUR DECISION MAKING

If, instead of deciding Yes or No straight off, we

(1) **prepare** (desktop study, obtain land/easements, environmental and other approvals, design)

(2) **then** construct if justified by updated information

(3) and otherwise delay or drop

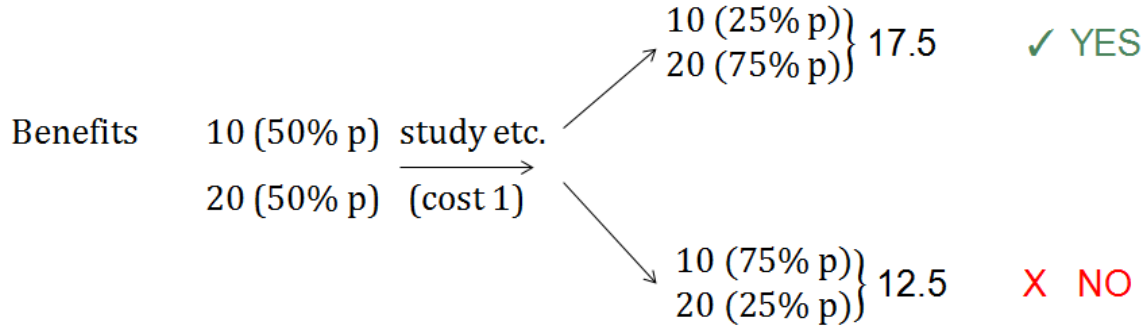
We take full advantage of the fact that more information is coming all the time. The staged approach enables good projects not to be rejected too quickly but it also protects you against too quickly assuming a beneficial outcome. Maybe, when the pressure is off and cooler minds are prevailing, a project which had much support at the beginning, may turn out to be not worthwhile. In any case, you lose no time in going ahead with a project by staging - since the preparation must be done anyway. **You do, however, gain in flexibility.**

Real Options Decision Tree

Supposing your initial cost benefit analysis suggests that there are two possible outcomes, and both are equally likely. One outcome will yield benefits of 10, the other of 20. Applying cost benefit analysis, we argue that 50% of 10 is 5, which together with 50% of 20, which is 10, will yield an overall likely benefit of 15. Suppose out cut-off position is 16, we will decide against the project. Thus:

Benefits — 10 (50% probability)) / 20 (50% probability)) } 15 — X NO

Supposing, however, that you stage your decision making. And as a result of the preparation you gain more information. If that information now suggests that there is a greater probability of achieve the more beneficial outcome, you can decide YES. If, on the other hand, it suggests that the less beneficial outcome is the most likely, you can decide no. In this case all you have lost is the preparation costs.



8.

ASSET MANAGEMENT AND GOVERNANCE

The major asset management conclusion of the NSW Commission of Audit inquiry into the Public Sector which was released recently is that

> **The broader framework is conceptually sound, but its components appear to be implemented inconsistently and often not all.**
>
> **This has consequences, the most serious being inattention to maintenance and, when infrastructure commitments are considered, not all options are thought about that could meet government objectives**

The reference is to state departments and public owned enterprises in NSW, but it is not unreasonable to suppose - given that at all levels of government in Australia and in all States, there has been considerable interchange of ideas, policies, guidelines and experience - that the same could apply more generally.

This makes the need now, not for more guidelines but for better governance. This is clearly recognised by the Commission in its recommendations.

Interestingly, this makes the new ISO standards, now in development, more useful for the consistency and pressure that they may apply in governance than in the transference of knowledge.

The other two major findings were

> **Agencies and Treasury must ensure that agency Total Asset Management (TAM) plans are meaningful and robust, not simply a „tick and flick" exercise.**
>
> **There is significant scope for agencies to improve the management of their existing assets through more focus on maintenance, increased asset utilisation, and by selectively rationalising assets which no longer have a strong connection to service delivery objectives.**

Neither of which will be surprising to anybody who has been in asset management for any time. The test of how much clout this Commission has, however, will come in the next budget. The findings cannot be addressed without funding, and the same applies to their recommendations. Still, those who are grappling with similar problems will find much of interest in the Commission's Interim Report:

*www.**nsw**.gov.au/...**NSWCommissionofAudit_InterimReport***

RESEARCH ISSUES

I am researching the following and would be happy to speak with any practitioner or any consultant or researcher who would like to contribute (with acknowledgement of course.)

(1) Getting Meaning from Data

Every year the ability to collect and store data becomes easier and cheaper. We are awash with data! Yet how much of it is really useful, and how much is really used?

I am talking with asset managers to find out what data is most useful for them, and how they use it. Do you collect data that you do not use? If so, do others use it and what for? If the data you currently use was not available, how disastrous would that really be? Are there not alternatives to guide your decision making?

And I am also interested to find out how comfortable asset managers are with using statistics, which techniques they use most, which other techniques they think might be of use but haven't tried yet.

What are the major issues that you have with statistics and getting and presenting meaning from data?

(2) Consultancy Studies

The NSW Commission of Audit has come down against the use of consultancy studies, so I am looking at the following:

Questions for Practitioners

What benefits have you gained from consultant based research? Why did you choose to go to consultants rather than do the work in-house? What have been the major problems you have found in getting full use out of consultant research?

Questions for Consultants

What benefits can you point to for clients from your research? What have been the major problems you have found in enabling clients to get full use from your research?

YOUR SUGGESTIONS

Other subjects which have been suggested to me include: (1) developing generic lives for assets to make it easier for small councils or those new to asset management and (2) developing a means of making different asset hierarchies, used in different places, compatible with each other.

WHAT OTHER SUGGESTIONS DO YOU HAVE?