



LET'S GET PRACTICAL

Why am I, an infrastructure economist, nervous?

It is because economists have a theory that tells them that buyers will increase their demand until the (declining) value of each new dollar spent approaches the marginal cost. This means that as the marginal cost to a grant recipient is zero, he or she will continue spending government money till the marginal dollar spent provides zero benefits!

That is, we are encouraging people to spend YOUR rates and taxes to the point where they provide NO marginal benefits. Have I made you as nervous as I am? Good, *then let s get practical.*

Here you will find simple procedures that you can give out to small infrastructure spenders (e.g. schools) and to larger infrastructure spenders (local and state government). The procedures cover spending on maintenance and upgrade as well as spending on new capital works. None of the procedures takes more than a day and most can be carried out in just a few hours.

Editor: Dr Penny Burns, AMQ International
PO Box 75 Salisbury South Australia 5108
Telephone 61 (0) 8 8359 0559



Let's get practical! - For Small Players

Down at the grassroots, the Chair of the local primary school council is delighted with the money now being made available to her as a result of the Federal Government spending. The school has decided to spend their money on a new hall that they have long wanted. They have costed it and figure that they can get it started by June, and reasonably completed by December (the grant conditions). This does, of course, suppose that the local building industry will not be completed overheated in this period and can supply to order.

What are the basic factors that she should take into account?

A quick check list

1. Can you operate and maintain it for the next 5-10 years, assuming that your annual income budget is not increased?
2. If not, what adjustments do you plan to make to provide for the operation and maintenance of this new asset (i.e. do you plan to increase revenues or do you intend to cut back on other expenses)?
3. Is your plan reasonable (i.e. will your users pay increased prices/rates; can you find money some other way; will you get a community backlash from cutting back on other expenses)?
4. Is the benefit from the new asset worth the adjustments you will need to make?
5. Or are you relying on an increase in your annual income to fund the operation and use of this new asset?
6. How reasonable is this?
7. If, in a year or two's time, the government has to cut back your funding to manage its deficits, will you still be able to operate and maintain this asset (and your other assets)?

Passed all the checks? Good, then go ahead and enjoy!

This simple check list will apply to most asset investments.



Let's get practical! - For Local and State Government Players

In the last issue I gave you a fool proof check list - *but, of course you won't follow it!* Why do I know that for sure? Because it is time consuming and expensive!

So let us see if we can't find a quicker, cheaper, way.

There is, and it is the Investment Logic Map technique that I wrote about in SAM Issue 246

In 2 hours - with the RIGHT people in the room - you can determine which projects are prima facie worth the effort of moving to a decent business case and which ones you can chuck on the scrap heap straight away.

In fact, you can probably do much of the work just sitting at your desk. Use the ILM template (which you will find on the DTF website - www.dtf.vic.gov.au - (choose "Gateway Reviews" from the side menu, and then "Investment Management") Follow the guidelines and facilitator instructions that you find there

If you can come up with a prima facie case that would withstand a solid critique, then run a proper ILM with the room. If you can't - and if your knowledgeable colleagues can't - then put it to one side and move on to the next. *There are so many projects available for choosing between today, and the choice has to be made quickly, so move on to those that seem to have a good chance to succeed*

You can do this solo but you will get a much better result from teaming up with someone else - preferably someone who would really want the project to go ahead.

If you can reduce the number of projects that are worthy of further consideration to a handful by passing them through a desk top and then a full ILM workshop filter, you will not only have reduced the cost of the business cases needed, but the ILM workshop will provide you with much of the data, evidence, KPIs, etc that you need for the task, so they will be both quicker and cheaper.

What possible reason, now, could you have for not doing them? Other than that you don't know the process - in which case read SAM*, study the website, and - if you are still uncertain,

- **ring the Treasury, ring one of the Treasury consultants who have been accredited for the task**
- **or ring me.** I can demonstrate the process but for a proper ILM you will want a fully accredited facilitator. However, the cost of that is truly minimal compared with the savings you will make.



Let's get practical! - Not all rushed expenditure is on new assets

So is there a similar quick check for determining the optimum type of expenditure on your existing capital stock? Indeed!

If you know what elements of each of your assets are affecting your service most, you can concentrate your expenditure on those elements to greatest effect

- better than simply *maintaining for maintenance sake* .

And the answer lies in **Star Ratings**. We discussed this in SAM Issues 224 and 225 You may wish to re-read them. Then follow this simple step by step procedure.

STAR RATINGS Step by Step

1. **Understand the concept.** Read SAM Issues 224 and 225. Remember that the star rating of an asset is a weighted average of its ability to deliver service across a broad range of attributes. *It is not a prescriptive grading. No Star Rating **has** to have so much of this and so much of that.* OK, you have read and understood.

2. **Now make a copy of this check list and think about the services your asset supplies.** Always take the perspective of the user. It is what they GET, not what you Give that counts. So in a library you, as a librarian, might like a polished marble benchtop but that is probably not terribly important to the user. The users' perspectives always prevails. Ask yourself whether there is any service attribute of your asset that cannot be fitted within one of these categories. If there is, add it as another line item.

Comfort & Amenity

- Weather Protection
- CPTED
- Cleanliness
- Level of Internal Finish
- Ventilation
- Lighting

Function & Usability

- Capacity space
- Compatibility

Accessibility

- Site accessibility
- Network fit
- Proximity

Condition

- Internal
- External

Environment

- Water Usage
- Energy consumption

3. Now think of how important each item is to the service delivery and give each one a weight from one to five with one being the least important and five being the most important.

4. Done that? Good, the next task is to take each line item one at a time and ask yourself 'what is the least quality that this characteristic would have?' Give it a score of 1. Then ask yourself 'what is the best quality that this characteristic would have?' Give it a score of 5.

5. Now find the middle ground. Give it a 3

5. If you are able to, add scoring descriptions for 2 and 4. See the following examples:

Element

Lighting

1. Very low light levels even in sunny weather. Facility shaded in thick vegetation. Very small windows/openings for natural light. Minimal if any electric lighting.
3. Low light levels only when inclement weather
5. Good light levels at all/majority of times. Ample electric lighting. Large windows/openings for natural light. Use of skylights, clear panels and similar use of natural light

Element

Ventilation

1. No mechanical ventilation and no attempt in design to provide even basic natural ventilation.
2. No mechanical ventilation but there is introduction in the design to provide basic natural ventilation
3. Natural ventilation clearly a design item and forms part of the buildings functionality
4. Mechanically ventilated building
5. Building has been designed for an integration of both mechanical and natural ventilation systems.

(These examples are for public toilets but you can see how they can be generalised to many other facilities. Take these and modify according to your need. To get more examples, join the Star Ratings User Group - this enables you to talk to other users and to download many more examples.)

For public toilet #1

Element	Weighting	Rating	Score
Weather protection	1	3	3
Security/CPTED	2	3	6
Cleanliness	5	4	20
Level of internal finish	3	4	12
Ventilation	4	3	12
Lighting	1	5	5
Site accessibility	3	2	6
Network fit	1	3	3
Proximity	3	3	9
Design compatibility	1	3	3
Capacity / space	5	4	20
Availability	4	3	12
Design features internal	5	4	20
Design features external	5	4	20
Condition internal	4	4	16
Condition external	3	3	9
Water usage	3	3	9
Energy consumption	3	3	9
Total	56		194
Star Rating			3.5

6. At this stage you should have

- a complete listing of all of the asset attributes important to your service

- a weighting indicating the importance in the total scheme of things for each of these attributes (from 1-least to 5-most)

- a scoring grade for each attribute. (the fuller and clearer the description, the more likely it is that different assessors will judge the asset the same way.)

the above will probably take you about 2 hours to work through with a guide.

7. The next step is to apply these scoring grades to a particular asset.

see diagram opposite (from SAM 224)

To do this, choose 2-3 people who know the asset well from a service perspective, usually guided by the asset manager, think about the asset in the light of each of the descriptions in the scoring grades and decide whether it is a 1, 2, 3, 4 or 5.

Note: Where it has only been possible to think of three scoring grades (1, 3 and 5), it is always possible to interpolate if, in

consideration, an asset seems to rate more than a 1 yet less than a 3, in which case, give it a 2.

8. When all attributes have been scored, perform the following arithmetical exercise.

- calculate the score for each element by multiplying its significance weighting by the rating assigned to it (or column 1 by column 2 in the table above)
- the result is the score for that element.
- Divide the total score by the total weighting (sum of column 3 divided by sum of column 1)

Note: the first time you do this for an asset it may take a couple of hours to agree what the scores should be and in the process you may revise the scoring scales. That is fine. Subsequent assets however can be scored very much more quickly.

Run a consistency check!

9. When the first asset has been scored, run a consistency check. Explain the process to a few others who are familiar with the asset and have them score it.

10. Examine all the items where the two sets of scores differ to see how you can express the scoring grades more clearly.

11. When you have a clear set of scoring grades that bring consistent response from different assessors, you can devolve the scoring process. This is very useful if you have a large number of assets for any service category (e.g. public toilets)

Now you have the information to make informed choices about

- **what maintenance and/or upgrades**
- **and to which elements**
- **in which assets**

will give you the greatest impact on service delivery for your customers/ratepayers

A final safeguard is to make sure you are clear about the problem you are trying to fix. I would suggest that defining the problem as “How to spend as much money as far as possible” is not a viable strategy for efficient spending, for community benefit, or for sustainability.

What's the problem?

How we define the problem determines the options we consider. Unfortunately it also rules out a range of options that may be far more productive. Consider the following situation, how would you define ‘the problem’?

The Situation:

The State Government has just closed a high school in your council area which has until now provided a somewhat limited recreation facility to the general public. The Government has offered the Local Council some capital funding in lieu (but no maintenance, operations or renewal costs) for council to construct a facility of its own. Although relatively little use was made of the original facility, the community has been galvanised by the fact that something has been taken away and there are now demands from a small but vocal section of the community for a new, considerably expanded, facility to be constructed - on the grounds that similar facilities are available in other wards, so why not theirs? With the other facilities just 10 or 15 minutes drive away, you, the asset manager, decide that you need to research ‘the problem’ - but just exactly what *is* the problem?

Some Options:

- How do we manage a lack of recreation facilities in this area (i.e. focus on the lack)
- Recreation facilities already exist, so how do we manage local community perceptions of a lack in their area? (i.e. a focus on perceptions)
- How do we get the best, most cost effective community outcome from a new recreation facility in this area? (i.e. accept that the politics of the day will mean that a new facility will be created.)
- How do we knock this project on the head? (i.e. recognising that the benefit:costs do not stack up, how do we bring this to a satisfactory conclusion without the cost of building a new facility)

It should be clear that each of the problem definitions above would give rise to very different discussions and options consideration. But there is no one clearly right answer.