361 AMQ International's STRATEGIC ASSET MANAGEMENT

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Future Thinking

Every time we make a decision about an asset repair or modification, its acquisition or abandonment, we are implicitly making a statement about the future we expect. In this sense, all asset managers are futurologists - it's just that we are not very good at it!

Too often the assumptions about the future that underlie our recommendations or decisions are unstated and unexamined. Many times they amount to little more than an extrapolation of poorly understood and poorly measured past trends. Evidence based decision making requires us to avoid these unstated assumptions and look for evidence to support our future expectations.

When things are uncertain, keeping our options open as long as possible is a good strategy ((cf SAM? after Wollongong about February/March last year). However, it will do us no good if we are unable to use the greater information that time brings us. We need a systematic process to enable us to recognise what we are seeing and to re-evaluate our directions.

Scenarios alert us to future possibilities and we can watch for them. However the most important thing is that scenarios bring to the surface the assumptions we are making and allow a dialogue to take place within our organisation to examine and refine them.

In this issue:

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Editorial:

Back in the early 90s I was asked by the CSIRO to forecast the shape of asset management some ten years hence. This was the time that they needed to design their research projects, get approval and funding and carry out the work in time to be ready for whatever the future would bring. Only ten years hence, that shouldn't be difficult, should it? But it was. I got the changes right - but I got the timing very wrong. (In this case, things happened far faster than I had anticipated.)

I thought about that when I was reading Richard Watson's "Future Files" the 2010 edition. He referred to the fact that in the 2007 edition he had "thought the global economy would eventually collapse due to the high level of debt and the newly networked nature of risk" He followed this up by saying that he wasn't claiming any particular insight here, but rather that *"The 'what' is often quite easy if you stand still long enough to look at things properly. It's the 'when' that is so extraordinarily difficult."*

Futurologists seldom claim to 'predict' (it's too easy for time to prove them wrong), so what is the point of their future scenarios? If we can't 'predict' the future, can't escape it, and have remarkably little ability to change it - 'what's the point?' Well, of course, some things lend themselves more easily to future forecasts. If we know enough about the rates of wear and tear on certain assets, then it is not too difficult to know when a renewal will be due for reasons of physical need. This is where we can use our risk management tools and probabilities. However, forecasting technological and demand change, or structural and organisational change is more difficult. Here the best that we may be able to do is to describe a range of possible future states and what might drive them - then watch closely to see which, if any, of them look like coming to fruition.

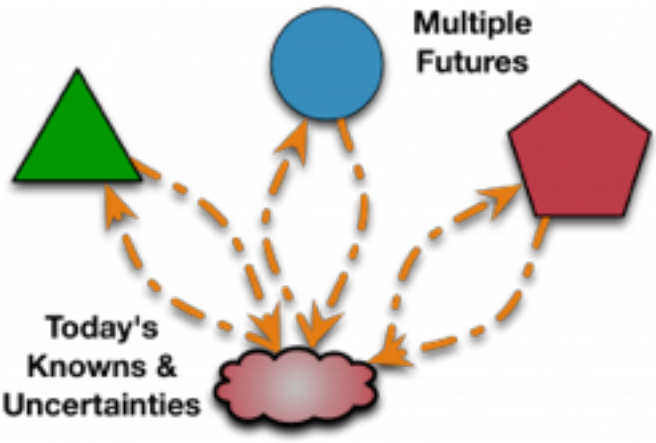
Over to you

You might want to think about this as you look at the last two scenarios on 'The Future of Asset Management' in this current issue. Are there any signs that these scenarios (or the previous 4) look like coming into being? Maybe you can see elements of all of them? Which? This could be a useful topic for AM team building (cf the Asset Mates discussion on page 5). Having looked at these scenarios, you may then wish to try your hand at scenarios relating to important issues facing your own organisation. There are, of course, many techniques for thinking about the future, but scenario thinking is a very useful tool to include in your tool box.

Please consider - and enjoy! ***Penny***

ASSET MANAGEMENT FUTURES

A message.



As with the previous scenarios (Asset Management driven by regulation, Scenarios 1 and 2; Asset Management as a technology, Scenarios 3 and 4) you will no doubt like some aspects of the following and strongly dislike others. You might ask yourself 'why?' Do I dislike them because I fear them, because I don't believe them or don't understand them, or because I believe that they will be bad for asset management or my organisation or my career?

I have classified the impacts that I have described here as being 'positive' for AM or 'negative'. You may not agree. That's fine. You may see other aspects as being just as, or more important. That's OK, too. These scenarios are not designed to be the 'answer', they are instead designed to generate useful questions. So do join in the dialogue - with others, or with me - I welcome your comments.

A WORLD WHERE ASSET MANAGEMENT IS A MANAGEMENT PHILOSOPHY

Scenario 5 - The Strong Version

Major characteristics; multi-asset, multi-disciplinary, focus on corporate goals.

Senior management view, service levels, innovation

In this scenario senior management see asset management as the means by which their corporate objectives are achieved. They embed asset management as their way of doing business and asset management issues are regular items on the corporate agenda. Business goals are tracked and asset actions are monitored, when they veer off-course, they are rapidly adjusted. Management decides on the most appropriate asset actions based not only on their financial value but also their value to company by way of reputation, and by their contribution to social, ecological, and political goals. New measures are constantly developed to track these non-financial goals.

Asset management plans, lead disciplines

Because asset management is adopted as a management philosophy, it is applied to all assets, physical, financial, IT, human resources and intangibles - and to their full integration. This requires the involvement of many disciplines however the lead is usually taken by the management, economic and planning disciplines. Asset management plans are the major tool both for organisation and communication. They are taken very seriously. Assumptions need to be verified and are challenged as a regular course of action. All asset managers are financially literate.

Automation, IT and risk/uncertainty

Asset management is considered a strategic issue. Automation is reserved for routine actions. The quality of service delivery is seen as critical to business success and effort is directed to the development of business intelligence that moves beyond purely asset based tools such as life cycle costing and condition analysis to build in the impacts of technological and demand changes and other social factors. Clear distinctions are made between risk (for which probabilities are assigned) and uncertainty, where scenario planning is key.

Teaching, Research and Publication

Engineering, Finance and Planning Departments within Universities join forces with Management to provide integrated asset management training. Research is multi-disciplinary. Masters and PhD programs attract students from different disciplines. New, highly rated, journals appear dedicated to articles on integrated asset management.

Scenario 6: the weak version, or the version not so conducive to AM

Characteristics: KPIs are dominant, absence of clearly communicated corporate goals and lack of incentives to achieve them.

Asset management plans, lead disciplines

This scenario sees the ‘measurement equals management’ paradigm prevail over everything. What cannot be measured is ignored. KPIs determine all decisions and conflict between individual KPIs is common. Management, believing that the KPIs will keep everyone on track, puts little effort into clear communication of its corporate goals, making conflict resolution more difficult. Economic goals dominate. Service levels are evaluated terms of short-run financial gain. Intangibles, such as reputation, are discounted because they do not allow easy measurement. Asset management is seen as a framework for delivering lower costs, but not as a means for adding value. Asset management is seen as a means of exerting centralised control. Individual incentives and innovation is weak.

Asset management plans, lead disciplines

Integrated asset management is thwarted by units seeking to exert their own independence. The necessity to adhere to local KPIs and absence of clearly communicated corporate goals and reinforces this. Units use asset management plans and their tracking to create the illusion of success rather than to identify areas needing attention. The lead discipline is usually administration and reports to Finance.

Automation, IT and risk/uncertainty

Automation is desirable because 'efficient' but with no process for systematically challenging and revising the assumptions built into the automated processes they rapidly become outdated. There is pride in having the 'latest IT'. New IT models and approaches are quickly taken up, and as quickly changed. In the risk/uncertainty balance, risk management dominates because it lends itself more readily to measurement. Uncertainty is anathema to organisations devoted to managing by KPIs.

Teaching, Research and Publication

Asset management is taught within schools of management but is considered inferior to 'proper' business management and attracts limited interest. Research in asset management tends to the theoretical. Publication in journals of management or administration attract little discussion. Asset management fails to engender much interest and enthusiasm.

Try it yourself!
YOUR SCENARIOS

A group exercise

If you decide to try your hand at scenario thinking, you can do it by yourself but you will get far more out of it if you do it with a group, even a small group. Also, the more diverse the group, the better. So rather than just your asset management technicians, invite someone from customer planning, the accounts section, and strategic development.

Getting started

The headings you use to think around will be different from those above. Don't even try to think of what they will be until you have had discussions with your group. Instead you might like to do what I did with the Scenario Workshop I ran in London. A week or so before we met I sent a starting list of six questions. Although they were based around the question of AM Futures that we were going to discuss, if you look at them, you will see that they really are quite genetic and can easily be modified to suit any question you want to examine. In just a few hours you will easily cover a wide range of issues, attitudes, and valuable questions related to the topic at hand. The ideal would be to come back a week later and look for the evidence underlying past and future expected trends.

PRELIMINARY QUESTIONS

1. How would you, personally, like to be able to describe an ideal future for AM in ten years time?

2. What do you think will be the key factors and events that will be necessary to make this happen?

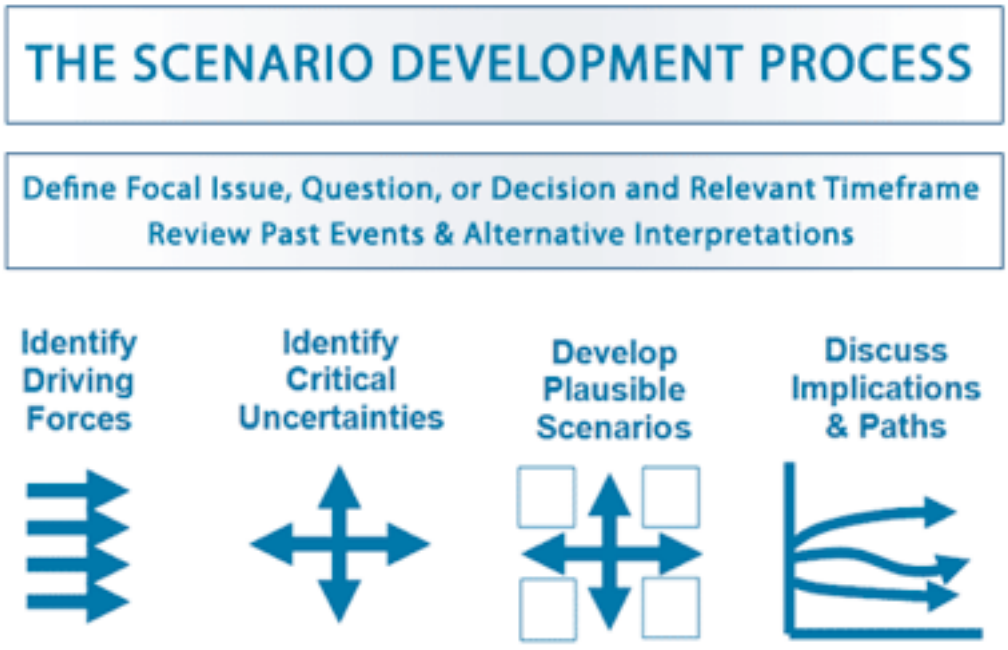
3. Who do you think will be the key players in making this happen?

4. What factors at the present time do you see as forming foundations for the ideal future?

5. What obstacles do you see in the present that might prevent this future happening?

6. What do think have been the major factors over the past five years in bringing us to where we are now?

Think of this as warm up. With this initial exploration you are now in a much better position to tackle the stages of scenario development, as illustrated below.



A good reference is: George Wright and George Cairns, "Scenario Thinking: practical approaches to the future" Palgrave MacMillan.

Two Long Standing Problems:

Do you have any answers?

Problem 1. What is important, to spend capital or to gain beneficial outcomes?

You might think that the answer was self evident and that we would all wish to see the best outcomes. However this may not be true. For state government public authorities, capital expenditures are often seen as a means of increasing the states GDP (gross domestic product). Departments that do not spend all of their capital budgets are regarded as inefficient by the politicians who decide on their allocations.

When I was Policy Manager in the state public works department, budget meetings were only concerned with how *fast* money was being spent, not how *effectively*. In fact, taking the time to find more efficient ways to produce the end result and to spend the capital money more efficiently was actively discouraged - because it both slowed things down and the department did not spend 'enough'.

Much of the problem is that there is no easy way for politicians to demonstrate performance - only dollars of spending. I doubt that this happens for any organisation with a quantifiable 'bottom line' (utilities, mining, manufacturing, etc) but maybe they have other problems?

Even for local governments, which are generally very short of capital money overall, and one would think the ideal would be to get the 'most bang for the buck', dependence of capital grants from state and federal sources that often come with short expenditure deadlines, can lead to the same problem.

Do you have a solution to this long standing problem?

Problem 2. Silos

Are some problems too difficult to solve?

For as long as I can remember we have been bemoaning the fact that organisations work in silos. Of course, they do. It is the easiest and, for the most part, most efficient way of working. It's just that it isn't terribly effective. Consider the following:

An accounting decision

The accounting group redefines its depreciation accounting methods and much of what was part of the capital program moves to operations. Amongst the impacts are: information is no longer collected on capital renewal (now regarded as 'maintenance'); more is demanded of the operations and maintenance budget (without necessarily receiving an increase in funding); different groups in the organisation are now responsible for renewal actions. Probably none of these impacts were considered when the accounting decision was made. How could the changeover have been made more effective? With greater information on the consequences would the accounting group have made the same decision?

Technical or Organisational

As hard as it is to get all the technical tools, processes, and data into place for integrated asset management, integrating the wider management decisions of the organisation is so much harder. Some have tried getting all significant decision makers in the room at the same time, but this is time consuming and hard to sustain in the long term. Enterprise AM systems have sought to break through the silos by providing universal access to data. Data is important (and we look at one major breakthrough in the next article on BIM) But as important as the 'what' is (the data), the 'why' and 'why not' and 'when' discussions require more. We have, in the past, discussed the role of the Investment Logic Maps for conveying not only what has been decided, but why, and with what expected results, to those outside the decision making group. But how do we design processes that ensure that these maps (or other information) are actually used by other sections of the organisation.

Do you have any solutions?

BIM AND THE ASSET MANAGER

An introduction

If you do not know what BIM is, think of it as 3D CAD with functional data. Think of it as the answer to your building needs as an asset manager.

According to Wikipedia: "Building information modelling (BIM) is a process involving the generation and management of digital representations of physical and functional characteristics of a facility. The resulting building information models become shared knowledge resources to support decision-making about a facility from earliest conceptual stages, through design and construction through its operational life and eventual demolition." (accessed 4.3.13)

BIM, or Building Information Modelling has been around for at least 40 years, but it is only recently, at least here in Australia, that it has reached a critical mass of users. Amongst others, the new Royal Adelaide Hospital is using it, NSW Health Department is using it, and - the big one - Defence is planning to take it up in a big way.

Starting with large new buildings, it will move down the chain to smaller new buildings and to existing buildings. How long will this take? Difficult to say, but current activity could prove the tipping point.

Why is this of interest to us as asset managers?

An American study has shown that the **capital facilities industry is highly fragmented** with many stakeholders including architects, engineers, contractors, suppliers, owners and operators - with little communication between them, leading to interoperability problems. *This will come as no surprise to asset managers!*

The study estimated that the problems caused amounted to about 1-2% of industry revenue, but thought it could be higher. **Two-thirds of these costs were borne by the owners and operators of the assets and occurred during ongoing facility operations and maintenance.** *Again, no surprises there.*

No, the surprise is that with two-thirds of the costs borne by owners and operators - and therefore the responsibility of asset managers - we have taken so little interest in a tool that can make life immeasurably better.

Where are the Asset Managers?

BIM models are in development now. Who is involved? Mostly architects (designers) and builders (constructors). Where are the asset managers? Hardly there at all! There are a number of excellent books written about BIM - but always from the perspective of designers and constructors. Never from the perspective of the guy who has to keep the whole thing afloat for the next 20, 30 or 60 years.

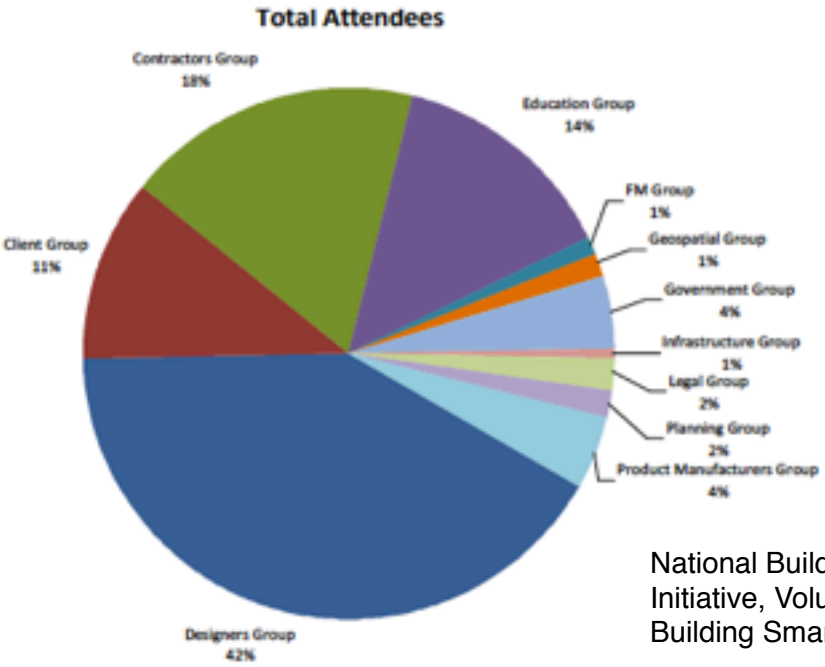
Look at the chart at the bottom of this page. It represents total attendees from a series of workshops that were held around Australia. Designers and Constructors make up 65% by number (and probably more by voices). You have to look hard to find the tiny sliver that represents the FM Group (1%) or the Infrastructure Group (1%).

Yet that 2% have to stand in for the group that wears two-thirds of the costs of faulty interoperability!

The Message!

BIM is coming, with you or without you. If it is without you, then you will wear the costs of adjusting to a new system but it will not be able to serve your needs well. Now is the time to understand more, and put your weight behind your organisation, your groups or professional associations, to ensure that the Asset Manager's voice is heard in the design of these models.

Start now to find out more. SAM will help. Dream big! What questions would you like to be able to easily solve? Write them down - send them to me! Let us ensure that further development takes asset management issues into account.



National Building Information Modelling Initiative, Volume 1. Strategy. p.18. Building Smart Australasia. 6 June 2012.