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Peter Buckland on Physical Asset Management

Our Guest Editor for this issue is Peter Buckland. Peter is well known in asset management, particularly within the water industry, as he was previously Manager Assets Policy for Hunter Water Corporation, an organisation with an enviable track record in asset management. He is now Principal Consultant for his own consulting company, Physical Asset Management Pty Ltd, which specialises in life cycle management for capital fixed assets.

For this issue, Peter reviews the recent ICOMS conference held in Perth and draws from it 6 Keys to the New Asset Management. (pp.2-4). I then asked him to address a few of the issues that he considers important for the future of Asset Management. He chose

"Where does the Asset Manager Sit?" p.5
"What makes a good Asset Management Decision?" p.6
"Business Maintenance" p.7

It seemed appropriate in this issue to continue the theme of challenging our future AM role by questioning the role of Life Cycle Analysis in Asset Management - so I have! See p. 8

I know that this is an issue that you will
Consider and Enjoy!
Penny Burns

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Guest Editorial:

The Asset Management Council's ICOMS 2008 in Fremantle WA was an ICOMS with a difference. Past ICOMS delegates who attended this conference would agree the mix of presentations this year was markedly different to previous years. A stronger focus on what I will call the "soft" disciplines. There was, as in the past, a respectable representation by the technologists, both academic and practitioner, strutting their mind stretching wares to extend those who enjoy a mental beating and from whom I have learnt so much, but here there was something else. The beatings were punctuated with people papers, no less valuable but a lot less arduous, especially for those whom may have entered into the spirit of the ICOMS gathering the night before.

For many years, when presenting a paper, I have asked the audience as to its composition - how many engineers and technicians, how many accountants, how many economists, how many human relations people and so on, and I was always disappointed that the audience was predominantly technical. My disappointment stemmed from my realisation quite some time ago that asset management is a multidisciplinary team sport, and here in front of me was but part of the team. I have twice now been invited to talk to CPA conferences about physical asset management and I have read this as an omen that perhaps the world is changing and there is a growing awareness that asset management is in fact not a middle management technical function, but a discipline that encompasses everything from the boardroom to the shop floor, from establishment of business objectives and throughout the commercial and technical management of fixed assets necessary to achieve those objectives by assuring the capability of the fixed asset.

I would suggest that this year's ICOMS stands as testimony that physical asset management is coming of age with a widespread realisation that it is as much about people and economics as it is about technology – and what's more, that the technology may well be the lower hurdle.

So how was ICOMS different? The following is a brief outline of what I saw as the 6 main messages.

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6 Keys to the New Asset Management

People

Asset management is achieved through people – there is a need to focus more on the people aspects.

By its very nature it involves nearly everybody in a capital intensive organisation – the board, the CEO, the finance people, the technical staff, operations personnel, human resources (a term I don't like), everybody. This typically requires a unification of direction in a siloed organisation and a need for an asset management "culture" to be nurtured.

Behavioural Organisation

Asset management requires a change in the behavioural fabric of most organisations, a change which takes several years to be successful.

The number of aspects to changing the way an organisation behaves is huge. One presentation suggested at least 30including such things as leadership, work processes, structure, learning, technology, communication, values, role models, cultural fabric and so on, and if all such aspects are not addressed in the change it will fail. It takes many years of consistent effort to effect such a change, and in a world of mobility it is not surprising therefore that most change initiatives fail.

Knowledge is key

Knowledge is the key to nearly everything and we need to manage it a lot better than we do.

Data, the raw material, with processing becomes information which with application results in knowledge. The weakest link doesn't lie in technological systems for knowledge management but in the delivery of the raw material, data. There is a need to focus on data acquisition processes and especially the people aspects. Not all data acquisition is automated, it is often people intensive. Unless the culture is such that the data gatherer feels ownership of the process the data drives it will fail. This has been a major impediment to implementation of maintenance management and is similarly pivotal in successful asset management.

Integral to Business

Asset management, and business objectives and their achievement are inextricably linked

Asset management is about capability assurance, assurance that the asset/people systems will provide that level of performance necessary and sufficient for the organisation to meet its business objectives. This requires a clear annunciation and communication of the business objective (derived with input from stakeholders to ensure it is achievable), the acquisition of assets complete with all associated support requirements (training, facilities, information, spares etc), their operation and maintenance (progressively optimised), and renewal/disposal at end of economic life. Underpinning all of the above is the need for quality management and configuration management systems.

Accrediting a Multi-Disciplinary Profession?

Asset management is a new discipline encompassing many others – how do we teach and accredit it?

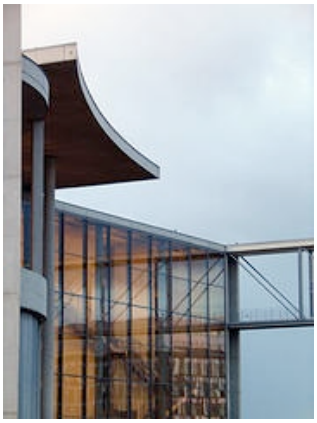
There is recognition that physical asset management is a new discipline comprising a composite of many others – finance, engineering, information technology, economics, systems analysis, and the list goes on. There was much discussion at ICOMS about the need for training, qualification, accreditation for future “asset managers” and the mechanisms by which this will occur.

The pyramid is at the root of many managerial approaches.

Ancient Egyptians at ICOMS would have been impressed with the managerial tool they conceived all those years ago. If I saw one pyramid used in the explanation of a managerial process, I saw ten. The message:- no matter what you are doing – get the foundations right.

This is what I took away from ICOMS this year, however it was a 3 stream conference and others may put a slightly different spin on it. I haven’t delved into the technical content of which there was enough to satisfy any technocrat. The common view however throughout the conference and in the wind up session was that this was a different ICOMS, a much softer people focussed ICOMS providing a nice balance of people, process and technology. I look forward to Sydney next year.

For any readers interested in accessing ICOMS proceedings, abstracts and presentations will be posted at www.amcouncil.com.au



Where does the Asset Manager sit?

In the early days of risk management how many organisations introduced a middle management position entitled Risk Manager? Ten years on how many Risk Managers are there? There are some in organisations that are a little off the pace, but in those organisations strong in risk management there was a realisation long ago that risk cannot be managed from a middle management position. Analysis of risk in an organisation reveals it covers the entire operation and the only effective way to deal with it is for all managers to be risk managers. If indeed you think about the role of managing, how much of it is foreseeing what could go wrong and acting to make sure it doesn't – risk management.

Now, back to Asset Management, which is now in its early days in most organisations. How many organisations have an Asset Manager somewhere in the middle ranks? When you realise that, in a capital intensive organisation where a large proportion of the financial picture is dominated by the capital and recurrent aspects of fixed assets, the job of nearly the entire staff is in some way contributory to Asset Management. What then is the role of a middle management Asset Manager? Like the Risk Manager, the Asset Manager will be frustrated by a job description which encompasses nearly every other job. The Asset Manager position will probably go the same way as its middle management Risk Manager predecessor.

Asset management is not a middle management technical function but a multidisciplinary team sport carried out by everyone across the organisation. What's more, the deeper we look, the more asset management looks like an application of risk management. Risk Manager / Asset Manager - CEO?

Ed: Now if the asset manager sits within everyone from CEO on down we need to ask some serious questions:

- What does the CEO and other managers need to know to incorporate AM thinking into their daily tasks?
- How does this impact the way we train for Asset Management?
- If there is to be no one role of 'asset manager' how does this affect accreditation?

What is a good decision?

This is a new spin on an old paradigm – the benefit / cost ratio.
We are all familiar with the financial tool, the benefit /cost ratio. Through the 90's with microeconomic reform in this country it was the bane of engineers. Having come from a past where little financial analysis was carried out for prospective engineering projects, engineers found themselves having to learn "financial speak" to be able to get projects up. Building stalled while engineers learnt to jump the hurdle rate of return. The world has turned. Engineers are now good at asset economics and it is basically the engineering world which is now pushing the limits of asset investment justification.

From our financial learning a good decision is one where the benefits exceed the costs. In this financial context both benefits and costs are currency dollar amounts. Asset Management decisions however do not reside in such a neat financial context – they reside in tortuous terrain bounded by an entanglement of economics and finance, social expectation and environmental management imperatives. In this context the formula for a good decision that the benefits should exceed the costs, is still fundamentally sound so long as the concept of benefits and costs is expanded past things just financial to cover all manner of considerations which may have a stake in the decision at hand.

But the benefits (and the costs) go beyond the purely financial. I recall writing recently that people who install a new kitchen do so because they consider it to be "worth it" – the perfect example where intangible benefits are deemed to exceed a dollar amount. For benefits to exceed costs (or for a benefit cost ratio to exceed 1) we must use consistent units and I can suggest no better unit than the $ (or whatever currency you prefer). In this new world of asset management there is an imperative for us to value intangibles in terms of currency. How you do that is a secondary consideration and will not be dealt with here save to say there are several established ways. What is important is that under this wider definition of benefits and costs, either of which may include intangible considerations, a good decision is still one where the benefits exceed the costs. Establishing this to be the case may in some instances may be difficult but there is no alternative, no silver bullet or sidestep like ranking processes, if the decision is to be good.

Ed: Readers may like to read **"Risk Management is not a cost, it is an investment!"** by Peter Buckland in Issue 204. (Available in the Archives)

Business Maintenance

Maintenance has long been treated as a cost. How many times when there is a budget squeeze has maintenance been seen as an easy cost saving. Well no more.

As I mentioned above, engineers have learnt about return on investment and it does not apply only to building things. It applies to everything, capital and recurrent. The only difference between Capital money and Recurrent money is the way it expensed, the former by depreciation - they are both the same coloured money.

The above “good decision” rule, that benefits should exceed costs, applies both in capital and recurrent camps, not just the capital camp where it is long established. If maintenance does not return a benefit greater than its cost we should not be doing it.

The problem in the past has been that for those responsible for financial management, maintenance was no more than something which appeared on the ledger as a cost. It has not been until today, where with the growth in asset management and managers taking a more holistic view of the business rather than focussing on their silo, that we start to recognise maintenance to be that which assures the capability of the asset – which brings the money in through the door.

Expenditure on maintenance, like any other investment should generate a return.

How does it generate that return? By optimising the productive life of the asset and by managing the risks which threaten its capability. Both of these outcomes, with our new found ability to dollar quantify intangible benefits, can be evaluated in dollar terms and presto - benefits and costs associated with the various maintenance options. The best maintenance from a business perspective? - that strategy comprising the options generating the greatest return on the maintenance investment.

> ***Message:*** From here in, think twice about cutting the maintenance budget. Maintainers of tomorrow will be in a position to advise the cost to the business and its stakeholders of cutting the maintenance budget.

The Place for Life Cycle Analysis - Penny Burns

All of the illustrations in this issue have been taken from my collection of photos from Berlin. Buildings in the city centre - where the wall used to be - are all, of course, less than 20 years old. The architectural design of these new buildings is awe inspiringly unique. The problems of maintenance are probably just beginning - and could be equally awe inspiring! It is highly likely that when the buildings were designed, life cycle costs were not uppermost in the designers' minds. Instead, they were concerned to build something that would re-establish the city as one of the great cities of Europe, something to inspire, to enthuse, to motivate a new future for the newly re-unified Germany.

Some models put life cycle analysis at the centre of asset management.

Designers in Berlin thought first of all about service - what the buildings were **to do.** Can we really say they were wrong? In fact shouldn't we all put service at the centre of our models?

At the first address I gave on the coming impact of asset renewal in the public sector (to the National Accountants in Government Conference,Perth, 1987) question time went on for over an hour, which later I was to find was very unusual for normally reticent accountants. However it came to a screeching halt when I was asked "With all the knowledge we now have, surely we can build all our buildings to last for 300 years!" And my reply? - "My Goodness, why would we want to?"

I still get questions that assume that physical longevity is the asset management aim. For many it is a natural outcome of a life cycle cost focus.

It is not, or at least it shouldn't be.

Take the example of a baby's cot. Most are made with a drop down side that can be removed to make a child sized bed as the baby grows. However, eventually the child will need to migrate to a full size bed. Why don't we build the original baby's cot to the longer length so that it could continue to be used as the child grows? The answer is, of course, as every parent knows, that length is not the only criteria. An older child is heavier and needs a mattress suitable for its growing body weight. (The baby and younger child has limited control of its bladder and a lighter mattress that can easily be cleaned is thus important for the early years in the cot.)

The point is: *needs change!* With the child and the cot we can predict the changes. With buildings and with most assets, we cannot. That does not mean that they do not occur.

Life cycle *thinking* - including the ongoing costs in our reckoning is important. But LC analysis must focus on optimising the long run cost *for the service required - realising that the service required will change.* This means putting efficient service delivery at the centre of our models not life cycle costs. We need to manage TWO things - *changing service* and *cost optimisation*. They need to be of equal importance. Difficult but not impossible.