

Issue 168 June 10, 2005

SURVIVAL OF THE SPECIES



A recent communiqué from Chris Champion, IPWEA, read

“Up to 50% of the engineering workforce will retire in the next 10 years.

1,700 First Year university engineering places were not filled last year.”

Engineers, of course, do more than asset management, and Asset Managers are drawn from many disciplines – nevertheless this should ring alarm bells for the future of Asset Management.

What can we do? Chris makes the following suggestions

- Offer new engineering cadetships in your organisation
- Actively provide work experience for local schools
- Take a young engineer to the **Adelaide International Public Works Conference**

I would endorse them all. Especially the last one! Our young asset managers need nurturing and many are drawn from the field of public works engineering.

In this issue, we look at two related questions:

1. What can we do to increase the pool of potential Asset Managers?

- At High School Level
- At Undergraduate Level
- At Community Level

2. What can we do to maximise value from our existing Asset Managers?

- Knowledge Transfer
- Leveraging – improving utilisation, availability, reliability
- Extending their ‘asset life’

The key to success is to understand the importance of asset management and give it respect.

See “The Best Ad for an Asset Manager I have ever seen”, p. 936

Enjoy! Apply!

Penny



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ATTRACTING YOUNG PEOPLE TO ASSET MANAGEMENT

ACORN Inc. is now up and running with activities designed to increase the numbers and quality of future asset managers. Building Asset Management Capability is something that every asset manager can do. Here are some of the ways.

Attracting the High School Student

Ask any High School student what they expect to be and "Asset Manager" is not likely to be the answer. And it is not difficult to see why. For them, infrastructure and its issues are largely invisible.

But they can be made visible!

Young people today have an affinity for games and simulations. Understanding the importance of infrastructure and particularly the link between cause and consequence as it applies to infrastructure decisions – the essence of asset management – is normally difficult because there is a long time gap between the 'action' and the 'reaction'. However by using a simulation model that speeds up time so that the consequences of actions can be readily perceived, understand *and managed*, we can make the normally invisible, visible.

We don't have to invent this simulation, it already exists. Sim City is a popular, exciting and complex computer game that allows students to create their own cities and spaces from scratch – and then to manage them as they grow. If they forget to deal with the basics such as maintaining their roads and power stations, visible potholes appear on the screen and power stations blow up! Failure to attend to the environmental consequences of asset growth similarly has real and visible impacts. Success in the game is a result of triple bottom line asset management in action!

Sim City Competitions for Years 10 and 11 are now in pilot planning stage at ACORN Inc. By engaging the minds of young people at this stage they are encouraged to choose subjects of relevance to future infrastructure management when they move into the critical year 12, and then into under-graduate study. High schools within a Council Area compete for local, regional and state awards.

If you would like to be part of the pilot stage, or to know more about the Sim City Competitions so that you may encourage young people in your area, write to nut@acorninc.org.

Attracting the Undergraduate

Undergraduates in many disciplines are needed to take up an interest in asset management – but they seldom get exposed to the ideas.

What you can do – Offer yourself as a guest lecturer in your own speciality to undergraduate courses at institutions near you. Bring the disciplines of engineering, economics, planning, etc to life through your own experience. If you would like to do this but do not know who to approach – approach us! Write to nut@acorninc.org

If you have your own contacts, use them – but please also tell us, so that we can use your stories to inspire others and thus increase the capability building effort.

If you already teach, approach colleagues who can give that 'authentic and practical' flavour. Or ask us!

Attracting the Post Graduate

Only a small number of Universities currently provide accredited post-graduate courses in asset management; and an even smaller number provide non-engineering focussed courses. Stimulating the interest of undergraduates could encourage this number to grow.

Encourage your young recruits to do post graduate training. Provide them with time to do 'on the job' research projects.

Take part in teaching. Even more than undergraduate courses, post-graduate courses need the experience of practitioners. Why not offer yourself to the course convenors? You will find all the courses in asset management that are currently being taught listed at www.acorninc.org (AM capacity building)

THE BEST AD I HAVE EVER SEEN FOR AN ASSET MANAGER

The following advertisement was issued in February 2003 by the Argyle Diamond Mine, West Australia and listed on the internet at CareerOne. If you can inspire your potential recruits like this, I reckon you are on a winner!

Area Superintendent Asset Optimisation

The Argyle Diamond Mine is 100% owned, controlled and managed by Rio Tinto Limited. Through innovation and focused application the Argyle team has recently extended the operational life of the mine considerably. A cornerstone of our future success will be our ability to increase competitive advantage through the collaborative capacity of our people.

There is currently a challenging opportunity for a highly motivated individual to join the Rio Tinto Group of companies in the following role

Area Superintendent Asset Optimisation, Asset Management Department

Argyle Diamonds is seeking a suitable person for this permanent position, Area Superintendent – Asset Optimisation. It is site-based commuting to and from Perth or Kununurra. Reporting to the Manager – Asset Management, the person will be accountable for the optimisation, utilisation, and deployment of assets across the entire business, involving Production, Maintenance, Logistics, Engineering and external suppliers of labour and services. This is in line with the redesign of the organisation and the company's transition to a 'one business' value chain.

The role will suit those who have a background in a sophisticated manufacturing organisation and have succeeded in creating an effective business model to manage the interfaces of people, processes and

technology. To have implemented such a model it is envisaged that they have challenged the 'status quo', set relevant benchmarks to ensure best practice systems, integrated and aligned improvement initiatives and produced tangible benefits and savings on the cost of operations.

The Asset Management portfolio services the entire business. The person will assist the Manger of this unit in formulating strategies based on department needs, conducting business analysis, gathering intelligence and setting objectives. They will proactively collaborate with senior staff across the value chain to interpret their expectations, plan and initiate projects, drive change processes and quantify the results achieved.

As the leader of Superintendents responsible for Resource Optimisation and Planning the person will translate and balance the organisational and departmental needs, strategies, objectives, activities and work that is required. They will articulate the value and relevance of the work to the team and how it contributes to the performance of the world-class mining operation.

Ideally the person will have experience at a significant level in a manufacturing/ production environment and have tertiary qualifications in Industrial Engineering or a related discipline. It is expected that they can think creatively, facilitate novel solutions and be able to balance technical work with a commercial focus. Equally important will be their enthusiasm, drive and willingness to work in a dynamic and fast changing environment.

CREATING COMMUNITY AWARENESS OF THE IMPORTANCE OF INFRASTRUCTURE

If the community is to respect and revere Asset Managers (a good way to ensure a future supply of Asset Managers) then they need to understand the connection between the infrastructure and community assets that they take for granted—and the services that would be lost without them.

ACORN Inc., the community asset management organisation, is addressing this. Acting on an idea from Kik Magro of Marion Council (SA) in "ACORN Live!", Ruth Wallsgrove, in Burntisland, Edinburgh has developed the following to be launched in the next children's holidays.

BE A TOURIST IN YOUR OWN TOWN

Here is her working plan, why not adapt it to your area? More info: www.acorninc.org

ACORN INFRASTRUCTURE TOURS

Proposal for an innovative 'infrastructure' tour of Burntisland, Fife

To demonstrate the infrastructure assets that residents depend on and promote discussion between infrastructure managers and the community.

The idea is to organise a day, which could then be repeated, for a limited number of Burntisland residents to look at the infrastructure assets that serve them and talk with the managers about the current and future issues. Rather than focus on one kind of service, it would show the variety of asset services we depend on, and ideally bring out common issues and interconnections between them.

Main points of contact

- Water and sewerage via Scottish Water (Cheryl Black, Geoff Aitkenhead)
- Electricity distribution & generation via Scottish Power (Alan Laird, Steve Wood)
- Gas and high voltage transmission via NGT (Mel Karam, Aled Williams)
- Roads via Fife Council, who also may want to include other things, and possibly also FETA
- Rail via Network Rail (Andrew Newby)

Why Burntisland?

Because it is where I live and can organise around – and fortunately the main providers of infrastructure here,

Scottish Power, Scottish Water, as well as NGT and Network Rail, are all supporters of the Institute of Asset Management with contacts available through the IAM (and in fact known personally to me). Burntisland has another specific advantage in this dialogue, in that its Westminster MP is Gordon Brown, Chancellor of the Exchequer, who commissioned a report published in January 2005 on the importance of Asset Management to the public sector by Sir Michael Lyons.

Rough plan for the day

- Start at the 1838 monument on the supply of piped water on Cromwell Road
- Look at a utility hole in the road
- Visit to local sewage works
- Find appropriate excuse to travel a few stops by train – if only to the Forth Rail Bridge, which also gives an opportunity for FETA, the road bridge authority, to talk about the road bridge which is visible from the train
- Visit to an appropriate big electricity asset
- Trip to reservoir in Glen Devon? – also to include quick talk on the reforestation there by the Woodland Trust?
- Sandwich lunch provided by a kind corporate host

Local organisations to promote it through

- Fife Council
- Speakers Club
- Rotarians
- Women's Institute?
- Library
- BURNTRA

LEVERAGING EXISTING SKILLS & KNOWLEDGE TRANSFER

Leveraging Existing Skills

Are we making the best use of the Asset Managers that we currently have?

An experienced Asset Manager is a valuable knowledge asset. Let's apply some asset management skills to this asset.

Extend the useful life. Use experienced asset managers as mentors – this particularly applies to those approaching retirement, or the recently retired, who may like to spend some time, just not full-time, working. Because asset management decision-making requires good current knowledge of customers, regulators and community expectations; it is best to use such resources in an advisory, rather than an implementation, role.

Increase availability. Make greater use of experienced asset managers by using them in group situations where they inspire, guide and educate others. Leverage their experience!

Increase high-level utilisation. Review their workload – are they doing things that could be done by others with less skills?

Knowledge Transfer - Let's improve it!

The traditional means of knowledge transfer has been **'the conference'** – a series of 30-40 minute presentations with ten minutes question time. However being incarcerated in a windowless, dimly lit room, staring at power point presentations for up to eight hours a day is hard on both mind and body. There are better methods and we should encourage our professional associations to take them up.

The **Infrastructure Information Exchange** that I attend in London is mostly a series of guided workshops. Each consists of a 10-15 minute presentation of the issues and 30 minutes for comments from the floor.. Attendees are restricted to senior AM practitioners thus allowing a common level of discourse. This year I will run workshops on "The limits to the growth of wind energy". Attendees have a choice of three workshops at any one time and each workshop is repeated.

Roundtables are informal versions of the exchange. A topic is introduced in a round table setting. There are no overheads and the focus is on group discussion. These can be a bit scambly without an agenda but are less intimidating for many. The round table setting is designed to remove the delegate-to-presenter two-way conversations that other formats encourage and to encourage multi-way conversations.

The Washington Conference (see Issue 166) made effective use of **Progressive Break-Out sessions**. They were organised around sets of related issues. One was designed to explore what could be done to improve asset management at a government/regulatory level; another, what utilities themselves could and should do; a third, the research questions and a fourth, issues of training. The audience was allocated to four groups. Each participated in each break out in rotation. The first group to address a breakout session topic defined the issues. The second group elaborated on the issues, adding any they thought were missing. The third group attempted to categorise the issues, to put some shape on the problems. The fourth group arranged them in order of priority. The breakouts then reported back to the assembly for final questions and assembly voting. By this means a group of 140 people were intensely involved in interchange for about ten continuous hours!

Finally, how do we **disseminate Lessons Learned?** See "Fifteen Minutes of Fame" overpage.

15 MINUTES OF FAME



*If you had just 15 minutes to address a really keen audience on your area of asset management, what would you tell them? Think of it this way: you have time to present **just three observations***

Coming Next

I have asked a range of very experienced and keen asset managers from different levels of government and different areas to apply themselves to this task and we will be seeing their thoughts in coming weeks.

To kick off:

Here are the observations I chose to share with an audience of utility managers, researchers, trainers, consultants and regulators in wastewater. at the Washington Meeting last month. (See Issue 166 for a summary of that pioneering two-day session.)

1. What it means to be long term viable - and why it is important in setting standards

Twenty years ago I measured the replacement value and economic lives of the components of major infrastructure holdings in water, electricity, roads, public transport, health, housing, schools and colleges in South Australia. From this I was able to calculate the rate at which those assets were being consumed, the average annual asset consumption or AAAC (= Replacement Value / Average Economic Life).

If our long-term revenue projections do not cover the AAAC + O&M + Admin, then we are not long-term viable.

The South Australian study showed that several agencies were approaching this position and that one, public housing, had clearly exceeded the limits of viability. Despite the evidence drawn from data

that they had themselves provided, the Housing Department refused to believe that they could not continue their expansionary path with the funding available to them. They did not want to change their management style and demanded more government funding. (Sound familiar?)

But if not long-term viable, you have to change. You either make the decision to down-size, or your assets will fail to be sustained and do it for you! Today South Australia has less housing units that it had in 1985.

Implications for Standard Setting

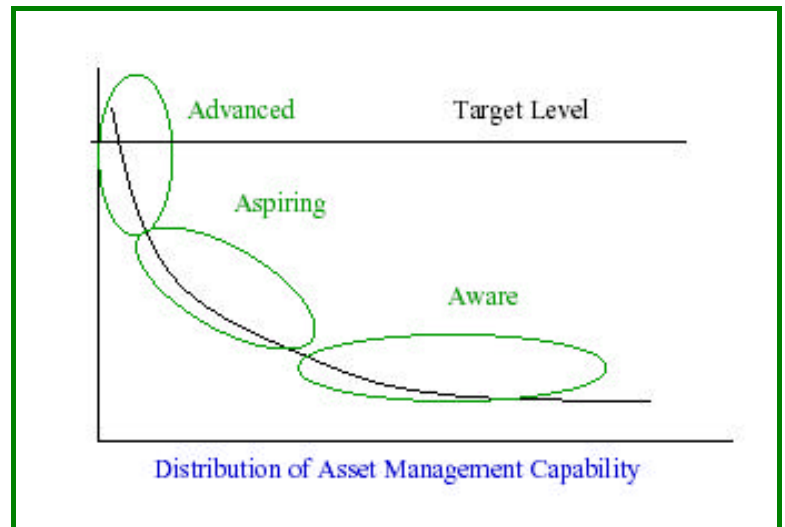
Before mandating service or asset management standards or setting service or policy goals, it pays to make sure that you can afford the standard or policy; you need to calculate the ongoing annual costs and see whether it is within your means.

2. Capability is not evenly distributed - and this presents opportunities

Studies of local government infrastructure in Victoria, South Australia and New Zealand, have showed one thing very clearly – asset management capability is not evenly distributed. In each case there were examples of very good councils, and there were the 'basket cases'. And then there were the vast majority who were somewhat aware but would not be considered, or consider themselves, to be 'advanced'.

It is this disparity in capability and experience that presents the biggest opportunity for improvement in asset management. The figure is a rough approximation of the distribution of capability that is generally found at the beginning of growth in asset management.

There are a few at the very upper reaches and the bulk towards the bottom.



Mentoring and Training benefits the bulk

Simply raising the aggregate level to somewhere near the current top level the can make major gains, more than tripling the current levels of ability, without further research and without the development of more tools and technology. This can be done through mentoring, collaborative work, regional groups, training programs – in other words through better dissemination of good practice, and what we already know.

Research mostly benefits those at the top

By contrast, if we were to focus on research and refinement of tools and technology, only the relative few at the upper reaches would be immediately able to benefit from them. Thus it pays to start at the bottom and work up. As the general level of ability is raised, more will be able to take part in, and benefit from, research and the improvement of technology.

3. Excellence – or Continual Improvement?

Australia started asset management in the late 1980s; it became 'trendy', money was provided. But the monies were not well accounted for in terms of results. The International Asset Management Competitions were introduced in 1996 to encourage better justification and documentation. We looked for examples of excellence, success stories in the application of asset management. In 1996 some 53-competition entries were received but the standard was not high. By 2000, the number of

entries had fallen to 26 but the quality of the entries had risen many fold.

However, if I were to do the competitions again, I would do them differently.

I would not aim for stories of success (asset management excellence). Rather I would seek well-documented examples of lessons learned and how they were being put into practice.

Why this change in focus? A number of reasons:

1. Lessons learned is a game that anyone can play. So it is more encouraging.
2. It forces a focus on the quality of the process (and not the luck of the outcome)
3. Reporting lessons learnt encouraged honest reporting, there is less percentage in 'spin'.

This latter point is very important. In the early days of asset management, conference presentations were much more inclined to 'tell it as it was'. After all, there were no established benchmarks at that time to live up to, and for the most part the agency PR people were hardly aware of asset management and did not try to script it. Now ask yourself when was the last time that you heard a 'warts 'n all' presentation? It probably wasn't at a public conference. Probably more likely at an unofficial group gathering.

Let's get away from the notion of 'excellence' and 'best practice' – **and focus on continuing improvement - and better practice.**

Being involved in community awareness and the training and encouragement of future generations of asset managers brings its share of frustrations as well as successes. I received this anonymous contribution via a colleague in the UK several years ago. Its message is universal.

I'm on a committee!

Oh give me your pity, I'm on a committee
Which means that, from morning to night,
We attend and amend and contend and defend,
Without a conclusion in sight

We confer and concur, we defer and demur
And reiterate all of our thoughts.
We revise the agenda with frequent addenda
And consider a load of reports.

We compose and propose, we suppose and oppose,
And the points of procedure are fun.
But though various notions are brought up as motions,
There's terribly little gets done!

We resolve and absolve, but we never dissolve,
Since it's out of the question for us.
What a shattering pity to end our committee
Where else could we make such a fuss?

Anon

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