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AMQ International's

STRATEGIC ASSET MANAGEMENT

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Beyond our Shores

Asset Management may now be approaching its 30th year but this does not mean that everything is done and dusted. Far from it, as this issue shows. We look at new trends in policy, new documentary evidence on infrastructure investment, new tools, new regions and new participants in the AM game.

In this issue:

The Pacific Rim A new book "Infrastructure Maintenance: Challenging the Build-Neglect-Rebuild Paradigm " raises some interesting issues about what is needed to ensure that infrastructure pays off - for developing countries in the Pacific Rim and equally for already developed countries.

America Ruth Wallsgrove looks at what America's involvement might add to the AM picture

Europe In "Trends" I look at the new focus on the 'Third Sector' and Social Value, how it has operated in Europe and what it might mean for others.

In "The continuing story- BIM" I look again at BIM, presenting some pros and cons to consider if thinking about adopting BIM.

Enjoy!

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Infrastructure Maintenance in the Pacific

I would strongly recommend that everyone read this recently released report by the Pacific Region Infrastructure Facility "Infrastructure Maintenance in the Pacific: Challenging the Build-Neglect-Rebuild Paradigm" (2013). The reason is simple: issues that are often obscured in richer, more complex, developed societies show up here in stark relief.

Infrastructure will pay for itself through increased productivity - or will it?

For example, it is often assumed that infrastructure will 'pay for itself' through increased productivity. This is subject to doubt even in developed countries (for reasons we will look at in a later issue) but is even more problematical in small, developing, countries which do not have economies of scale or much economic reach. With the Pacific Islands, most infrastructure is inevitably social (improving lifestyle) rather than economic (improving the economy) simply because there is little viable economic production, or scope for such, to start with. Social and environmental infrastructure investment are 'good things' but do not generate the means by which they may be sustained. Thus it is important to (a) be clear about the nature of the infrastructure in which we are investing and (b) to deliberately provide for infrastructure sustainment where it cannot be assumed that the economy will take care of it. This report makes clear that -

Maintenance of infrastructure depends on the

- Availability of resources
- Capacity of organisations managing infrastructure, and
- Incentives of staff

In other words, simply providing capital funding for infrastructure is insufficient.

Let us take them one by one - and while doing so, *think of the extension to the agencies and societies that we are dealing with.*

But first consider the size of the Pacific Islands. These are the most budget dependent of all nations.

This excerpt from Table 2.1 shows the population figures for these small Pacific nations - for the most part they are tiny!

Country	Last Population Census	Population
Cook Islands	2006	15,324
Federated States of Micronesia	2010	102,624
Fiji	2007	837,271
Kiribati	2005	92,533
Nauru	2006	9,233
Niue	2006	1,625
Palau	2005	19,907
Papua New Guinea	2011	7,059,653
Republic of the Marshall Islands	1999	50,840
Samoa	2006	180,741
Solomon Islands	2009	515,870
Tonga	2006	101,991
Tuvalu	2002	9,561
Vanuatu	2009	234,023

Availability of resources

1. Financial Resources

The Pacific is one of the most aid-dependent in the world. Many of the islands are dependent on external assistance not only for capital but for ongoing operations and maintenance.

2. Resource constraints on asset management.

Two problems common in the Pacific Area (and around the world) are (1) Even where Governments have sufficient funds they are often reluctant to spend them on maintenance and (2) Where user fees are set, they seldom cover the full costs of operations, maintenance and renewal, so service inevitably declines, making it even harder to raise the user fees.

"World Bank estimates of the resources required for infrastructure maintenance range from an average of 5.1 per cent in middle income countries to 6.9 per cent of Gross Domestic Product (GDP) in low income countries. For Pacific island countries, we estimate an average of six per cent of GDP is required for the maintenance of existing infrastructure, equating to USD1,266 million per annum.1 Pacific island countries must also address the backlog of delayed maintenance and budget for the maintenance of planned infrastructure. Data on current maintenance spending are not available, but there is common agreement that maintenance is being avoided within the 'build-neglect-rebuild' paradigm." (page

Capacity of Organisations to manage their infrastructure

The range of infrastructure tasks are largely independent of the size of the infrastructure. Thus smaller portfolios are at a disadvantage. They require the same range of skills but have less ability to fund or provide them. (Look again at the population chart above). In the Pacific, 'much community infrastructure is provided by community organisations that have limited access to a pool of maintenance personnel.'

Incentives of Staff

"Managers must be motivated and provided with support to undertake asset management activities. Clear roles and responsibilities for which managers are accountable are important for establishing such incentives. Communities must also value infrastructure services for their provision to be a success. A typical reason for the failure of service delivery in rural areas is that communities are not involved in the planning for and design of infrastructure services."

READ THE REPORT!

The report discusses these issues in more depth and looks at how they may be overcome. Many of their suggestions relate just as well to larger developed countries as to the Pacific Islands that they specifically address. As you read it, consider whether the 'Build-Neglect-Rebuild' approach is inevitable for communities that have little scope for funding their own operations and maintenance, and where financial infrastructure assistance fails to build-in a sustainment mechanism. How far is that situation applicable to you?

Sometimes a picture is worth a thousand words!

This photo by Kerry McGovern for the cover of the above PRIF Report paints a very clear picture of the problem. The report is equally illustrative of the solutions. Although I am still left with a nagging question "If Infrastructure is a good thing - can we have too much of a good thing?"

This PRIF report is a publication of the Pacific Infrastructure Advisory Center (PIAC). It was authored by Maria Corazon Alejandrino-Yap (Project Team Leader, PIAC), Matthew Dornan (Individual Consultant, Australian National University) and Kerry McGovern (Individual Consultant, KMcGovern & Associates) with guidance and direction from John Austin (Manager, PIAC).

The Americans are Coming

The Institute of Asset Management held its summer conference in Exeter 24-26 June and for the first time it had a significant number of delegates from the USA. The reason is probably straightforward: Americans are involved in, and quite enthusiastic about the upcoming ISO 55000.

As one American committee member put it, the USA was never going to accept PAS 55 because it's from Britain. I don't believe that he meant engineers there have something peculiarly against the British; more, what I have always suspected, that they were not going to take notice of something that wasn't American. But now there's something being produced with US representation.

There were three other strong statements made about America and Asset Management.

First, that the sectors interested were much more likely to be mining, manufacturing and military, rather than utilities & transport (as in the UK) or than those plus the public sector (in Australia, New Zealand and Canada)

Second, that it's federal agencies that are most interested in Asset Management and they are likely to mandate it.

Third, that litigation (or fear of it) is likely to be the main driver to adopt it.

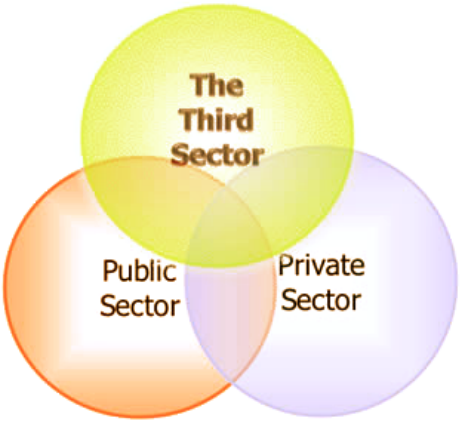
This made me wonder if litigiousness may be the unique contribution the USA makes to asset management - and I'm not being completely facetious here. Could someone sue an organisation for failing to implement good Asset Management, and if so what for? How about for failing to maximise corporate value, profit and dividends?

To be able to sue a company or public body successfully, people would need to have a clear idea of the benefits of Asset Management. A clear idea of Asset Management indeed.

The ideas in Asset Management are not all new to Americans, of course. The Department of Defence has long been interested in reliability (and their standards used by reliability engineers elsewhere). Aussie pioneer, Roger Byrne, persuaded the Environmental Protection Agency to take up Asset Management in around 2006, and New York City Transit was determined to adopt good practice Asset Management before it was mandated by the Federal Transportation Agency.

So far, so risk-based maintenance, compliance and regulation - all very familiar to the rest of us for Asset Management focus. Litigation would at least be a new one.

by Ruth Wallsgrove



The Third Sector and Social Value

There is the private sector, the public sector - and then there is the 'third sector'.

The third sector has received far less public attention than the private and public sectors, as far as the provision of public services is concerned but this is changing.

What is the Third Sector?

There is no precise definition for the third sector but it includes non-profit organisations (for example, the Red Cross), co-operative companies owned by the employees, charities, sheltered workshops and organisations with specific goals such as rehiring firms, to help long-time unemployed people to get re-used to work, or with environment protection objectives and/or social objectives, for example the numerous groups that are now springing up in many cities with the goal of beautifying public gardens. It also includes the informal sector, for example, the many scavengers who exist on the returns from gathering recyclable materials. All of these groups and individuals add social value.

Why is it important?

In a number of countries, including the UK, the government is now recognising the value that the third sector provides and is actively seeking to provide financial support for it by requiring public bodies, and private companies responding to public tenders, to include a social value / or support for the third sector component.

Now in a number of countries, the government is seeking to enhance the funding for these social outcomes by including a requirement in public tenders that a given percentage of the turn over (as much as 5-10% in the Netherlands) be devoted to improving social value.

In the UK, under the Public Services (Social Value) Act 2012, public authorities are required to consider how the procurement of a service may improve the social, economic and environmental well-being of an area. It was enacted in March 2012 and came into effect in January 2013. Social Value is the additional benefit to the community from a commissioning/ procurement process over and above the direct purchasing of goods, services and supplies.

A Critical Change in Focus

- from Cost Minimisation to Value Maximisation for Public Tenders;

- and from Efficiency (Cost Minimisation) to Effectiveness (Value Maximation) for public bodies.

- and value itself is being interpreted more broadly

This is the first time that public bodies in the UK have been required by law to explicitly consider how what is procured might improve the economic, social and environmental well-being of an area, and how it might secure that improvement (e.g. by writing the social value objective into the procurement process).

Amongst the potential benefits are improved outcomes for service users and communities, can encompass assets approach, gives third sector and neighbourhood organisations an opportunity to prove their value, frees up providers to innovate, can engage communities in defining priorities.

Its relevance to us as Asset Managers?

(1) Many of the changes initiated in the UK are subsequently adopted more widely.

(2) This is an opportunity to include ongoing infrastructure maintenance and management in capital bids and public tenders - if we plan ahead to demonstrate the social value consequences of so doing.

(3) It provides the opportunity to be innovative. Maintenance resources are hard to come by - certainly at a price that most councils can afford. However, it is possible to teach simple maintenance skills to the long term unemployed.

(4) It is an indication of a changing approach to business (cf the waste industry, see below)

Examples of Social Value / Inclusion of the Third Sector in the Waste Industry

"Waste is a Social Issue first, and a market issue second"
Eric Lombardi, Eco-Cycle, 1989

Why is Waste a Social Issue? Eric explains:

Upstream - Resource Wars - the roots of conflict in the 21st Century will be about gaining access to natural resources - yet we waste those resources after a single use - there is blood in our trash cans.

Downstream - Toxic Emissions and Resource Destruction - cannot be stopped from landfills and incinerators - yet no one pays for the impact on public health and ecological damage.

Examples of zero waste social enterprises include:

•Scotland - re-use of household furnishings for homeless people apartments (and the work of the Salvation Army and similar organisations in other countries)

•USA - Blue Star Recyclers users autistic adults to disassemble computers. They have the skills and enjoy the work .

Suez Environnement, a large French multi-national water company, participates by

- Scaling down and decentralising end-of-life disposal facilities
- Maximising creative collection schemes, providing opportunities for people to work in sifting household packaging
- Partnering with Social Enterprises and working with neighbourhood groups and individuals rather than trying to compete with them
- Sponsoring charities related to its activities and providing funding via the Suez Environnement Initiatives Fund
- Developing their own social economy, for example, creating a rehiring firm, SITA Rebond (100% SITA France) and a social enterprise, 2 SWITCH (40% SITA Netherlands) This latter social economy is active in 12 cities in the collection of wastes, runs 10 thrift shops, and has a staff of 400, 300 of whom are 'social return', in other words, people who would otherwise found it difficult to get employment.
- *Monetising social value through FCA (full cost accounting) and getting paid for it through public contracts.*

Whether you are in the waste industry, tendering for public projects, or a public body

What are the policies towards social / not-for-profit organisations and effective development of this third sector (strategies and performance in the market) that affect your industry?

What are the opportunities and threats in relation to the third sector that apply (or could apply) to you if the UK law was adopted?

Homework

Environmentally, we are all interested in repair - reuse - recycle. These practical examples of encouragement to the third sector who are innovating in this area is something worth keeping an eye on - and doing some web related research to find examples of best practice that you could incorporate to improve social value in your council area or region.

BIM - Some Pros and Cons

A BIM - a Building Information Model - is a sophisticated database which can be queried by end-users to view a building's 3D geometry, spatial program, equipment schedules, equipment manufacturer information, and attached files including PDF and JPG files, all in one place. BIM models can be integrated with any Information System that uses database technology as a platform for sharing information.

BIM has great value for design and construction and greatly eases information transfer - what used to be a turnover of tens of thousands of documents in different formats (paper, digital files such as CDs and DVDs, etc) is now the turnover of only a few BIM files.

The more interesting question for us, is the value of BIM for the ongoing maintenance and management of assets.

The conversion of the whole capital assets inventory into a BIM enabled environment may take a decade for some large owners and millions of dollars. While those promoting BiM argue that they can demonstrate a viable return on this investment, the greater problems are probably the time over which commitment must be maintained - ten years or more - and the need for strong leadership from the owner organisation's management team, an educated workforce, the right set of tools, and most important, the re-engineering of business processes (the toughest part).

Given the rapid turnover of staff in most organisations these days, the difficulty of maintaining commitment over a decade, is a great barrier. Another is the lack of supporting evidence for its success. Those who adopted BIM some five or six years ago, still have little to show for their investment.

Theoretically it would seem that a case can be made.

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Steve DeVito (Focus, Spring 2011) gives the following example.

> "if there were 24,000 work orders issued in a given year, and two hours savings per work order at a cost of $50 an hour, there would be $2.4M savings on maintenance costs alone due to BIM's ability to quickly, through automation, detect and pinpoint sources of and information about faulty mechanical, electrical, plumbing, and HVAC operations. This integration process enables facility managers to reconcile and analyze information about their facilities to more efficiently and effectively perform maintenance and manage their inventory. By doing so, building owners will ensure a higher level of tenant satisfaction, while simultaneously saving significantly in portfolio operations costs."

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But would there really be a two hour saving per work order, given that many maintenance tasks are repetitive and having learnt what to do once, the research would not need to be done again?

In any case these are maintenance rather than asset management tasks. Asset management is more to do with setting directions for the level of maintenance that needs to take place (service levels) and for making portfolio-wide decisions and it is not immediately clear how major detailed maintenance related documentation would assist these broader questions, questions that need as much demand-side information (not included in BIM) as the supply side information that is.

IS BIM USEFUL FOR ASSET MANAGEMENT?

I noted in an earlier SAM that Asset Managers had had little input into the design of BIM in Australia. Perhaps the reason for this is that BIM is really not that helpful for Asset Management. I spoke about this recently with Ruth Wallsgrove and this was her reaction

> "I first came across the idea of 3D CAD attached to a sensible database more than 20 years ago, when I was working on a project looking at the design of North Sea oil platforms. At the time this seemed technically tricky; I guess they've now sorted out the technical issues. I am sure it is a useful tool for designers and, if used to ensure that no equipment is inaccessible, useful for ensuring maintainability too. (The analysis has to be formally done, though, and designers don't always care.) Maybe it will assist in setting up maintenance schedules (though for that it should be attached to reliability tools to support risk-based optimisation?)
>
> The hand-over of as-built information is a persistent headache, and using the tools the designers use as also the vehicle for projects to hand over equipment information could help populate the asset register, because it isn't asking them to do something extra. This assumes the designers will be using it, of course.
>
> However: I remember all too painfully just how long it took to persuade some major asset owners that they did need a single, comprehensive asset register – the problem was nothing to do with technology. Plenty of people still have problems keeping their asset registers accurate - I am sure the answer lies in the relationship between asset managers and maintainers, maybe with the help of technology in the form of nice to use hand held devices, but beyond that a process and motivation problem. It's hard to see how BIM could make any of this easier, and if it's expensive and at all complicated to use it can only make it worse.
>
> More thoughts, please, from the people selling BIM on exactly where in the lifecycle, for what, it will be used. I think the world has moved on from generalised statements about helping maintenance and managing inventory.
>
> I don't want to sound like I'm too old to be impressed, but – haven't we been here before, being told that a piece of software (however clever) was the solution to Asset Management? Which remains stubbornly, unhappily or happily, a people, process and culture issue for most organisations."

OK, WHAT HAVE WE OVERLOOKED? IF BIM IS INDEED USEFUL FOR ASSET MANAGEMENT - HOW? (responses please!)