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AMQ International's

STRATEGIC ASSET MANAGEMENT

I started "Strategic Asset Management" almost 20 years ago now because I believed that the strategic (and to a certain extent the tactical) lessons learnt in one place, with one type of asset, could be usefully extended to other places and other assets. I still believe this to be true and to illustrate it, here are three very different ideas that surfaced during discussions on waste management six weeks ago in Paris - *yet have potential application everywhere and to all assets.*

Repair Cafes - reversing the 'throw away' society, providing a low cost service to some of the least advantaged members of your community - and enhancing society's appreciation of asset management

Interpreting demand data. How do you determine where and when to increase capacity? Here is an interesting debate over potential residual waste infrastructure over-capacity in the UK that has many lessons for infrastructure providers and asset managers everywhere.

Down and Out in Paris - The Paris Sewers. Does your asset and its management have tourism potential?

Please enjoy!

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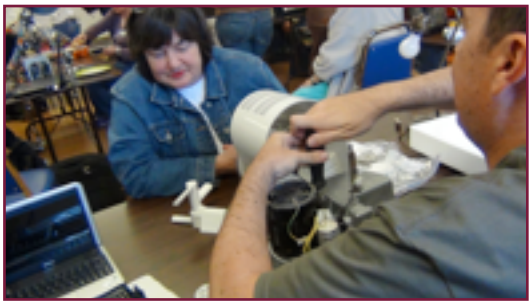

It is not often that *"Strategic Asset Management"* deals with a subject so 'hands on' as this but it is the very 'hands on' nature of Repair Cafes that provides the potential for society attitude change - and attitude change IS strategic.

REPAIR CAFES:

Reversing the 'throw away' society, providing a low cost service to some of the least advantaged members of your community - and enhancing society's appreciation of asset management

The idea of 'repair cafes' originated about 4 years ago in Amsterdam. In just a few short years the idea has spread around the world. It is simplicity in itself. Find yourself a few people who enjoy fixing things and are happy to volunteer their time, a few more people who have something that needs fixing, and bring them together. In one stroke we are addressing the issue of sustainability, helping those who cannot afford to have their goods repaired, teaching new skills, and developing community spirit. We are also establishing the idea that 'repair is good'. From here it is a short step to appreciating that if repair of small individual assets is 'good', then repair of large community assets is even better. Voila!

Suez Environnement is a multi-national water and waste management company that takes its social responsibilities very seriously. For the last three years I have been a member of its international, interdisciplinary, 'foresight advisory committee'. One of its social projects

is an “Initiatives Fund”, promoting partnership with community organisations in its aim to improve sustainability. The fund has a budget of 4 million euros (almost $Aust 6 m) and supports about 100 projects, some direct managed but many for which it just provides assistance. One of those proposed this year was the idea of a “Repair Cafe”, or rather support by way of a place where it could meet, the community itself was prepared to do the rest.

The more I thought about Repair Cafes, the more it seemed that they had the potential to create a groundswell of support for asset management, so I started looking to see what had been done in other places. **Here are some of the stories - how they did it, and the media attention they generated. See if they whet your appetite for community involvement - and attitude change.**

1. Amsterdam - Media Popularity

From a small beginning in 2009 there are now over 120 Repair Cafes in the Netherlands. The initiative was appointed ‘Radical Innovator 2013’ A chair with a loose leg, a toaster or expresso machine that does not work anymore, a wool sweater with moth holes in it? Before the Repair Cafe most of these items would have been destined for the garbage heap - and new ones bought. Repairs to small appliances are so costly (just to have them looked at) that most of us just don’t bother any more. As a result, much is wasted. Not now in the Netherlands. The Repair Cafes are wildly popular and attract much media attention, with journalists turning up to photograph and report on the activities.

2. Toronto - Get it fixed and learn how to do it yourself

It gives you a certain glow of satisfaction when you are asked a question that you know the answer to, and that is probably why the Repair Cafes are so successful at attracting capable volunteers to repair items that others bring in. And probably why, having experienced the atmosphere, many recipients turn around and become helpers at later cafes.

3. Portland - How they make it work.

In Portland there the Repair Cafe is a community group that manages a data base of repairers and those interested in attending. The Group is invited to host a repair event at a venue, which may be a scout hall or a church, any large space where tables can be set up (and tea and coffee served). Notice is then sent out to the volunteer pool to see who is interested and available on the day. Information about who is participating, time, location and what kind of items to bring is sent out to our email list. Most cafes will have people who know how to use a sewing machine and a soldering iron.

Typical repairs include small appliances, toys, jewelry, garments. Each cafe is unique based on the venue and the volunteers present. Again, there is much media interest - their first repair cafe was covered by three local TV stations.

4.Seattle - Repair Cafes, known as 'Fixer Collectives' are associated with 'Tool Libraries'

In West Seattle, repair cafes are known as 'fixer collectives' They started by partnering with the West Seattle Tool Library. I had not heard of Tool Libraries so I looked them up. Apparently there are about 40 of them across the USA. They accept that it might be considered risky to lend power tools to people who may be idiots but the concept seems to work. The tools are donated and lenders supply ID and an insurance waiver. In the Seattle case, the tool library already had most of the resources for starting the fixers' collective, namely 'a work area with decent lighting and heating, internet access for looking up repair solutions an abundance of tools and repair books, and the most important resource of all; a small but dedicated group of volunteers, fixers and tinkerers. The last piece of the puzzle was to organize regularly scheduled meet-up times, supply a few snacks and refreshments, and see who shows up. Since opening in mid-2011, the West Seattle Fixers' Collective have repaired a wide range of items from an antique dental drill, a few kitchen mixers to various electronic devices as well as maintaining and repairing the tools in the Tool Library itself.'

If you are a local government asset manager imagine the great community pictures and media attention you could generate - and then imagine getting your councillors involved. Once decision makers start thinking about how to 'manage what we have' rather than 'let's get something new', our ability as asset managers to improve our community increases greatly.

This is still a new idea - you could be in on the ground floor!

INTERPRETING DEMAND DATA

How do you determine where and when to increase capacity? Here is an interesting debate over potential residual waste infrastructure over-capacity in the UK that has many lessons for infrastructure providers and asset managers everywhere.

> This is not primarily a 'waste management only' story, rather an illustration of the issues to take into account when developing a sound business case (or evaluating one) for infrastructure investment.

In Europe incineration has been widely adopted by member states and eight are now burning more than one third of municipal waste. But energy recovery from waste is far from the top of the list. Re-use and recycling are more profitable and sounder environmentally.

Countries are doing their best to reduce the total amount of waste generated, and then to re-use and re-cycle (or compost) as much of that as possible, and the greater their success, the less the feedstock available for the incinerators. Concern is now growing over avoiding creating excess capacity in the expensive incinerators.

The European Commission's recent green paper on "A European Strategy on Plastics" reports that just over 20% of plastics used in Europe are recycled, half goes to landfill and the rest goes to energy recovery. The Commission has called for 100% collection rate for plastics alongside efforts by manufacturers to use plastics more sustainably and to make re-use and re-cycling easier.

Now this is where the story gets interesting. At the moment, the UK has between 17 and 18 M metric tons per year of incineration capacity either existing or under construction. This compares with about 27.5 M tonnes of residual waste - a gap of about 9 million tonnes, material that currently goes to landfill.

If the EU targets are reached, increasing recycling from less than 42% to over 78% would take out about 9M tonnes of residual waste - All the current 'capacity gap' - and this doesn't even take account of reductions in commercial and industrial waste and they, too, are subject to waste prevention programmes.

Development consents have already been given for between 2 to 4M tonnes of further incinerator development and are continuing to be given.

Over - or under Capacity?

This has given rise to a very public, and very fiery, debate between two major environmental consultants. One argues that the UK is headed for over-capacity, the other says not. Both have access to the same information given above and do not dispute it.

So why are they in such disagreement?

1. **They are in dispute not over the current situation but the extent of exporting feedstock to Europe.** One argues that heavy oversupply of incineration capacity in Europe will attract feedstock from the UK at more favourable prices than can be offered by local incineration. The other argues that, although there is excess supply in Europe, the export markets are volatile, unpredictable and prices unreliable and this will encourage UK facilities to regain self sufficiency and treat waste at home.

2. **They also seem to be in dispute - although this is not exactly clear - on the future trends in waste generation** (essentially how successful the waste reduction programs will be and how quickly they will achieve their targets).

3. **But perhaps the most important source of disagreement - and one that can affect any market - is how effective the market will be in sorting out any potential oversupply.** Both consultants agree that market oversupply will have a dampening effect on new development - investors in the early stages of their development will choose not to go ahead when they see that the market is already full. The difficulty here is how efficient and effective is the market? A perfect market would handle this with ease, but we do not have perfect markets. The consultant arguing for overcapacity says "There is a juggernaut effect as projects reach financial close which means that there will not be an immediate response to reaching capacity. Yes, new project development will eventually tail off- but there will still be a capacity overshoot due to the time lag between changing market conditions and the response to this."

   (For those who can remember when fried chicken shops were first introduced in Australia will remember this juggernaut effect - for a period we were swamped with fried chicken shops, many of which subsequently closed. However, it wasn't until this oversupply was visible that new construction tapered off. Perhaps not important with chicken shops, but with large and expensive public infrastructure it is a different matter.)

The lessons?

1. It is unwise to accept static - or increasing - trends (many an infrastructure project has over-estimated demand)

2. Policy changes (both current *and future*) can have a major impact

3. Don't expect markets to correct themselves necessarily quickly

The Situation in Australia

Local Authorities remain the waste management service provider, just as in the UK, either direct or through contracts with big waste operators.

In a recent address in Brisbane, Adam Read, Ricardo-AEA, made the following points

1. Collection authorities are often large in area, low in population and have limited

budgets, this is driving the need for more co-ordination and joint working to get economies of scale.

2. The State Government has almost all the power in terms of targets, budgets,regulation, etc. and Federal Government has little power. Thus there is no real national alignment or direction and the local agendas can be very different from each other.

3. Lack of alignment is holding Australian development back. There are different targets, policy structures and regulatory frameworks in each State and lack of cohesion in Australian waste management. For example, the recent removal of the landfill levy in Queensland has opened the doors for waste from NSW and Victoria to travel up to 100km to be deposited in cheap Queensland dumpsites. (the Australian equivalent of the UK exporting to Europe?)

4. Attitudes towards waste management and to buying recycled content need to improve in order to encourage recycling.

In addition to these, many current targets are aimed at getting quality feedstock for importers, mostly China. What happens when growth in China slows either because

economic growth is slowing or because China is becoming more aware of environmental damage?

The Lessons?

Australia may not face competition with near neighbours (as with the UK and Europe) but it doesn't need to - there is plenty of competition between the States! No infrastructure project should fail to anticipate likely reaction by other States, especially if the likely outcome of the project would be detrimental to them.

No infrastructure project can afford to ignore policy changes that are still in the debate stage. It takes a long time to get an infrastructure project off the ground.

Other lessons?

Could your asset and its management 'win hearts and minds' through tourism, like the Paris Sewers?

DOWN AND OUT IN PARIS

aka: visiting the Paris Sewers

If I had a 'favourite' asset, it would be sewers. I visited my first sewerage treatment station in 1982 and despite many since they have never lost their fascination for me. To actually go down into the sewers, however, is a much rarer pleasure. In 1996 I paid $500 for a team of city engineers to open up the Vienna Sewers for me. The promised interpreter did not arrive and so I had the entire explanation presented to me in German, a language which I only partially understand. For that amount of money, I insisted that my - initially very unwilling - husband come along with me and, surprisingly, he ended up being just as fascinated as I was. Since there are not many sewers that are large enough to enable visitation by the tourist, when I had the

opportunity recently in Paris, I couldn't resist.

Our guide was a young university student with a dramatic flair. This was his third consecutive year of 'holiday' work as a guide in the sewers and he was an enthusiast.

Here are my notes on this visit. (Question to ask yourself is could you tell an equally fascinating story about your assets - how they were constructed, problems with them, how the problems were overcome, etc.? Bet you could!)

A museum about the sewer IN the sewer! Most exhibits are in French, English and German and they are clear and detailed.

Size The sewers are large, they have to be to take both sewerage and storm water.

History Paris sewers have a long history. In 1370, a 300-meter stone-walled sewer was built under rue Montmartre, and in the late 1600s Louis XIV undertook additional sewer construction in certain areas, Napoleon further extended the sewers in the early 1800s but growth of the city outpaced its capacity and the Seine became grossly polluted.

Mapping the Sewers Finally, in 1850 after the major cholera epidemic of 1832, Napoleon commissioned Bruneseau as Sewer Inspector to map the sewers as they existed in the early 1980s (before that there had been no plan or written record).

Designing the Sewers An engineer named Eugene Belgrand was hired to design a complete system for water supply and waste removal and the result was the current design. In 1894 a law was enacted that required all waste to be sent to the sewers.

Napoleon was very proud of his sewers. Paris sewers have been a tourist attraction since 1867 when the first public tours were offered.

Shape The sewers are egg shaped with pointy end at the bottom, so that in low flow times there is still movement of the water and the greater space at the top helps air flow.

Sewer Workers Sewer workers are lowly paid and die early (17 years earlier than white collar workers, 8 years earlier than other blue collar workers) but they get earlier retirement too. They retire ten years earlier. In the 1850s there were not the helmets and face masks that we have today, the only protection against water and rats was a wool hat and a moustache. Facial hair was mandatory!

Manholes are spaced every 50 metres and when workers are down the sewers there are always two adjoining manholes open, both to provide airflow and an exit if needed in times

of sudden high flows. Chains are provided at the side for safety and are marked out in 2 metre sections so that you can count your way to the next manhole.

Sewer Rats Rats help clean up the sewer, digesting the waste, the number of rats is a measure of the health of the sewer. Rats are good swimmers. If there are too many, Paris gets rid of them by drowning them! It blocks off sections of the sewer and fills it to the very top so that there is no air.

Depth Sewers are only 3m to 5m deep, about the same as the Seine, so to avoid pollution, where they cross the sewers go under the Seine. The sewers run above the Metro. There are sewers under all the streets and the sewer tunnel labelling system is the same as the streets above.

Renewal The concrete lining lasts only about 10 to 20 years, acidic quality of the water corrodes the concrete linings.

Maintenance Cleaning out the mud is one of the biggest maintenance jobs. Wooden balls are used which are about 9/10 the diameter of the sewer, they float to the top forcing water to go underneath and thus scouring the bottom of the sewer. The wooden balls are hand made of oak and expensive so trials were done for balls made of iron, but they damaged the linings so much that they are not used nowadays.

Uses The sewers are also used for the transport of potable war, electricity and telephone cables and there are five stations across Paris where oxygen can be fed back into the Seine when the oxygen levels fall to dangerous levels and as a result of this, there are now 30 species of fish as compared with only 6 before this was done.

Smell Many visitors complain about the smell but really it wasn't too bad, you can get used to it pretty quickly. More surprising to me was the noise! I don't recall noise being a problem for me with the Vienna Sewer.

What is your 'favourite' asset?

Is it open for public tourism?

Could it be?

What about your current asset responsibility? Is there potential here to win hearts and minds