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**How to do an AM policy
in 30 Minutes**

by

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This is Part One of two articles by Ruth Wallsgrove on aligning our asset actions in the field with corporate objectives (which in the UK PAS 55 standard terminology is referred to as 'line of sight').

In Part One, Ruth explains how you can develop a meaningful and useful AM Policy that will give direction to your strategies.

In Part Two, Ruth will focus her attention on the strategies themselves and how to ensure that they achieve the targets you are aiming at.

I am asking a number of leading local government asset managers to review this issue to identify what may need to change to suit the rather more complex task of constructing an Asset Management Policy for local government. Comments are all welcome!

Enjoy!

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Recently I have been working with a range of organisations in different countries around the world on the UK asset management standard PAS 55 (strictly speaking a 'Publicly Available Specification', or fast track standard equivalent). In particular, I have been helping them think about the more strategic questions raised by what PAS 55 calls 'Line of Sight'.

PAS 55 is a fairly straightforward document. It recommends that your organisation has a (documented) view on maintenance, risk, asset information, and other unsurprising asset topics, and anyone who knows ISO 9001 would expect that it's also keen on performance reporting and audits. There are a couple of things you might not expect so much, like a section on contingency planning. But I think 'Line of Sight' is the single most useful section in it.

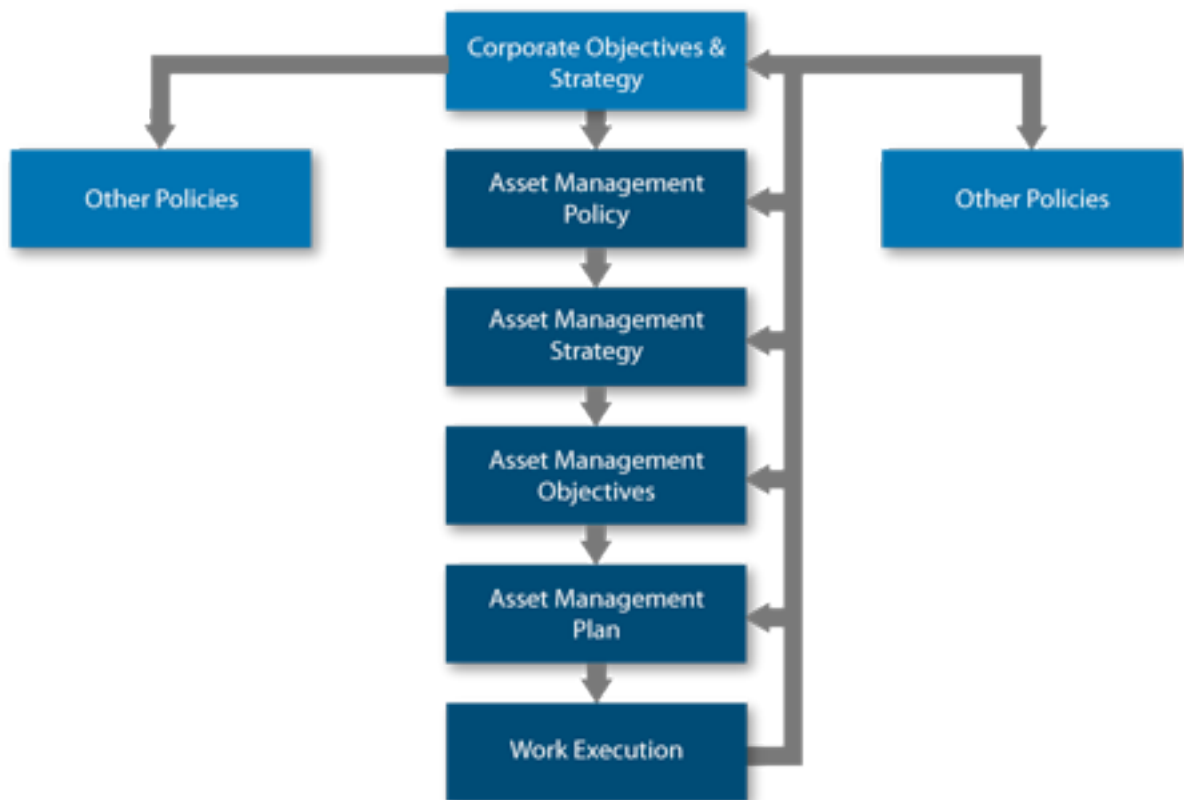
PAS 55 defines asset management as:

The systematic and coordinated activities and practices through which an organisation optimally manages its assets and their associated performance, risks and expenditures over their lifecycle for the purpose of achieving its organisational strategic plan

So it is fitting that it requires you to demonstrate that your asset strategies and plans actually do line up with your corporate strategy.

This is the basic idea of line of sight from PAS 55. (The diagram on the following page comes from AMCL, a PAS 55 assessor and endorsed trainer of the Institute of Asset Management's PAS 55 based syllabus, with many thanks.)

How PAS 55 describes the elements in this chain from corporate objectives to work done on the assets is a little idiosyncratic. In everyday speech, the words policy, strategy and plan can be used almost interchangeably. I will explain the meaning that they have here. Also some people question why the AM objectives comes after the strategy, and I will deal with that when I come back to this issue in the second article. At this stage, I would ask you to simply take on trust that each of the elements does do something useful and not to get too hung up over terminology.



Let's start with the overall challenge:

How do we go about ensuring that all our many and various existing asset strategies and policies and standards and plans align with corporate direction?

Ed: A note for AM readers who work in Local, State or Federal Government.

Ruth will illustrate the development of an AM Policy with utilities, because this is the area in which she has been working. We admit, straight off, that it is almost certainly easier to do an AM Policy for asset-based organisations like water and electricity, where the relationship between what we do with the assets and the services or products we provide is relatively straightforward.

Where physical assets are a support to your main services, such as schools or prisons, or where a large number of different services are provided, as with local government, the task is more difficult. This article will explain the basic principles and Penny will provide specific public sector examples in SAM 350.

First, get your corporate strategy

The first problem is that many organisational strategies are fairly vague, if they exist at all. (I worked for one large state asset organisation that was on version 63 of its unpublished draft corporate strategy when I joined and version 64 when I left two and a half years later). The published documents can read like extended PR – we want to be the best, we want to be safe, we want to be efficient – and even if they cheer us by including that they want to be very good at asset management, it doesn't necessarily help. What do they want to be good at AM *for*?

A useful strategy for a private company would tell us what really matters to the board and shareholders, beyond generally being profitable, of course: what is the board's judgement on how best to be profitable and build value? A useful strategy for a public enterprise would give us direction, not just for the coming year but beyond. A good test of usefulness would be whether they are clear on what we should not do, as well as what we should.

However, even when not explicitly included in the publicly available strategy, many of our organisations have targets. The clearer these targets are, the better, for asset managers. That's what has made some heavily regulated industries, or at least some organisations within them, so good at asset management: they know exactly what they have to deliver.

A clear example of a useful measure for a target is customer minutes lost (electricity), or supply interruptions for more than a certain number of hours (water), or customer minutes delayed (trains and buses) – we may even be able to model these availability measures to system reliability, and that's very helpful.



Another kind of very useful corporate statement is 'risk appetite', especially if it's got numbers attached to it – a target with a bit of longevity about it. This is an idea I first came across at Scottish Water: the Board explicitly defining a set of statements about the risks it was, and was not, prepared to take.

These were approached in terms of 'Do not' (it is beyond our risk appetite ever to do this), 'Avoid', and 'Do less of' (as well as Do more of). Such statements were meant to have a much longer shelf life than this year's targets – to capture what's important to the organisation over a much longer time scale.

Although in that case there was no immediate quantification of what 'do not do' or 'do less of' meant, it was not hard to put probability ranges on them. In the UK water industry some drought & flood related risks such as hosepipe bans are already quantified in conventional terms such as 'less than once in a hundred years', and you could use those to calibrate. For example, causing a major public health incident – is our risk appetite for that more or less than a hosepipe ban? (Certainly much less, so it must be much less probable than once in a hundred years.) In my experience asset people generally aren't at all bad at this type of quantification. But that's another topic.

But where the board isn't so clear, we'll have to do some work ourselves to understand likely future demand from the demand analysts, the attitude of our regulators, changes in the market, and customer perceptions over time.

It's the Board's job to understand and decide organisational direction - the AM challenge is to anticipate its decisions.

PAS 55 strongly suggests organisational direction is not our business – it's the board's job to understand and decide its response to all such external drivers, and give us their decisions, for which they are normally paid plenty, and certainly more than we are. Nevertheless, if we are going to deliver good long term asset plans, the very definition of AM suggests we have to at least to recognise what our organisation has to deliver overall over time. It may be what the board is paid to decide, but it's our challenge whether they do or not.

Policy PAS 55 wise - What is an AM Policy for?

PAS 55 has 'Asset Management Policy' as the top level response to the corporate strategy. As far as we can tell, what was meant by this was a statement of our overall AM approach: a very high level and very short document that captures our current philosophy as asset managers. This often puzzles people – a plan they can imagine, strategies they already have, but what on earth does an AM Policy say? Well,

**Here's how to do a
good AM policy in half an hour.**

First, where's the pain? What are the main concerns *now*?



What is your organisation's strategy really, regardless of what it might say for PR purposes? Explicitly or implicitly, what matters most at this point to your board and executive management team, or their equivalent, and to the key stakeholders? If you are currently failing to meet any asset-based performance targets, that's pretty easy; if you are failing to make a profit and the shares are below sector average, or you are spending more money than your budget, that's fairly simple to guess too.

Let's look at a monopoly utility, state or privately owned, where sales aren't really the issue. I think most corporate statements relevant to assets would fall into one of just five categories:

- Performance (improve, maintain)
- Costs (opex, capex or both)
- Growth (expansion, maybe diversification)
- Safety
- Environment

If sales are critical, you'd expect something on income as well. Ideally all of these are accompanied by quantitative targets. As an asset manager you should already know which one/s of these gives the board and management most pain, or I suppose pleasure if everything is going very well.

Next, what do we need to do to accomplish these objectives?

The idea of the Asset Management Policy is that it summarises what we are going to do *as Asset Managers* about the most important issues facing the organisation *at the present time*. There will be many other things the organisation has to do – respond better to customers, for example, or carry out the work on the assets more efficiently – but that is not our job *as asset managers*. Our job is to decide what needs to be done to the assets.

So the Asset Management Policy has to be about how we make good asset decisions, and for most of us this means how we're going to make better decisions in future.

Now, as asset managers, responsible for deciding what assets to propose we spend money on, we have certain things we can do, or 'tools' in our kitbag. There are certain approaches we can take, separately or together, to bring about particular kinds of results with our assets.

A warning: Here I strongly suggest we do not get sidetracked by questions of the efficient delivery of work – ie actually doing the maintenance or procuring or constructing new assets - which is a different, if related, set of challenges, and has quite different tools; tools, indeed, mostly not covered by PAS 55. So I am not going to talk about better project management, for example, or how to incentivise or skill up maintenance teams.

Choosing our Tools

All we have to do is decide which combination of good asset management tools we need to apply to achieve the particular current organisational priorities.

For example, what is a good AM tool to deliver operating cost reductions while maintaining asset performance? What are good AM tools to deploy if there is a large programme of capital projects? How do we address performance deficiencies?

We know we have a useful toolbag, but it's not got so many tools in it at the moment that we can't answer this fairly easily. The main tools are:

- maintenance optimisation (risk-based maintenance)
- repair/ replace or renewals optimisation (risk-based capital maintenance)
- systems engineering and value management of new assets
- RAMS analysis in design (ensuring a design meets the requirements for asset reliability, availability, maintainability as well as safety)
- asset rationalisation, or the reverse process to deciding to build new assets
- whole life cost modelling (for everything)

Other things, like an asset information strategy based on decisions, or an asset-focused risk management system, are powerful enablers, but they don't deliver in themselves.

What might be the questions we need to answer?

So if you are (say) in an electricity distribution company that needs to reduce opex and maintain current levels of service, what's a good AM approach to meet corporate need ¹ ? What if you are expanding the network in response to population growth ² ? What if some asset classes are generally nearing their expected end of life ³ ?

Possible answers to the questions above

1. Maintenance optimisation is a very effective way to reduce operating (on-going) costs while keeping or even improving performance of the assets
2. Expansion usually requires the procurement or construction of new assets, and so

- we need the tools to manage our requirements and ensure cost-effective solutions – that is, whole life cost modelling, systems engineering, value engineering, and RAMS analysis to ensure designs actually meet operating requirements
3. For older assets, we need a good risk-based approach to repair/ replacement decisions, in other words whether to keep maintaining them or to build or buy new ones]

The Asset Management Policy is your intelligent high level response to the corporate strategy.

That's it. We say “If those are your corporate requirements, then here are the smart AM tools we will apply.”

More Warnings: Once we have decided what AM approaches we are going to use, there are (probably) a few more things to take into account in the actual writing and communication of the Asset Management Policy. It's not just deciding what we should do, but ensuring it's communicated so that everyone understands and buys into it that matters.

1. Don't repeat the organisational strategy itself, unless as a useful reminder in the preamble. Just repeating what's already stated adds nothing, and suggests you're dumber at AM than your board.
2. Don't major on the enablers, even if you can show they are required in order to implement the real tools – put the real tools first and relate anything else to them. No board or council should be excited to see that you mostly want to spend money on training, IT or management systems.
3. You may want to top and tail your top level policy with some explanation, so people can read it and understand why it's the right policy for the current corporate strategy, but it's a good discipline to keep the real meat in under one page.

Criticality

There is one other thing you probably want to include, if it isn't already ingrained in every decision you make: **criticality**. Effort should be expended in all dimensions in proportion to the criticality of an asset, where criticality is basically how much grief (cost plus risk) it gives you at the moment. An asset can cost you little to buy or maintain, but cause terrible outages if it fails, for example: it's the risk costs that make it critical. Criticality is not fixed – an asset that was humming along fine can become a headache, and vice versa – but it needs to be the number one principle when we look to implement our AM tools through our strategies and plans. I'd probably start the policy statement there.

If criticality essentially means what gives us the most trouble – the overall greatest combinations of direct costs and indirect costs through risks – it, too, must align with corporate strategy. To put it bluntly: if the corporate strategy doesn't care about something, sets no statement or target on improving it, why should we? If it doesn't give the board any grief, why should it pain us?

That can be harder to implement than it sounds, of course, if we think the board is failing to see a looming risk. But there is no prize in corporate life for achieving what the board and stakeholders don't care about. All you can do, if you feel they are missing something, is to keep educating them about a more realistic assessment of costs and risks. However boards are rarely completely stupid about what matters to the organisation.

Using the corporate assessment of what we have to achieve, we should really already know which are our critical assets and systems.

Example of a PAS 55 type Asset Management Policy for a utility

Typical corporate strategy & targets

- Be in the top quartile in the sector for levels of service
- Be perceived as sustainable
- Improve response times to customer complaints
- Reduce operating costs by 5%
- Improve customers minutes lost by 10%
- Reduce lost time incidents by 20%
- Reduce our carbon footprint by 5% over the next two years

The Responsive Asset Management Policy

Based on our best current understanding of asset criticality, we will:

- Implement risk-based maintenance for our most critical assets
- Continue to improve our serviceability-based replacement process to target assets at highest risk of causing service interruptions
- Explicitly include CO₂ in our whole life cost based decisions for new assets
- Target retrofitting existing assets with more energy efficient components on a whole-life cost base (taking into account embodied CO₂ from manufacturing and construction)
- Continue to work with the Board on putting values on other key sustainability measures so that they can also be included in our modelling of whole life costs

You may wish to briefly amplify your policy to make it easy to understand or mention enabling factors that you feel will still be required - but the whole policy is designed to be high level and should not exceed one page. Here is an example of some supporting text:

Optimising our current fairly suboptimal maintenance regimes is aimed at reducing operating costs significantly over two years while also reducing outages due to asset failure, by focusing maintenance on prevention of service failures and cutting the need for expensive reactive maintenance after failure.

Our approach on sustainability is to look at the appropriate costs, risks and benefits to explicitly include in our understanding of costs over the whole life of assets. This is a major part of our continuing progress towards a full appreciation of the total cost of ownership as the basis for all our decisions on maintaining, replacing and enhancing our asset base.

This will be supported by a continuing AM competency strategy to ensure we have appropriate reliability and planning skills in the right places, and an approach to information improvements based on the information that is most critical to asset decisions. In particular, the organisation is still relatively weak in analysis skills and tools to support our understanding of total cost of ownership, especially the benefits of good performance and the costs of failure, and this will be a key area of business improvement.

(Note that the AM Policy does not attempt to say anything about responding to customers or health & safety incidents, not because they are not important, but because neither of them are Asset Management issues.)

Important! What would not be such a good response:

Our Asset Management Policy is to be in the top quartile in the sector for levels of service and to be perceived as sustainable and responsive to customers. In support of this, we will:

- Replace our current Enterprise Asset Management System
- Focus on Safety Culture
- Invest in Decision Support Tools
- Aim for PAS 55 compliance within the next 12 months.... 😊

What would be the equivalent Good and Bad Responses for Local Government and the Public Sector more generally? Suggestions welcome.