

Competence development

With many organisations still struggling to train people in asset management concepts and practices, TWPL's **John Woodhouse** highlights practical ways of developing appropriate competencies.

For nearly 10 years, the IAM has been providing guidance in the skills and understanding needed to manage assets optimally.

The first IAM Competency Requirements Framework was published in 2006 for an audience of business managers and engineers. Since then, in a maturity process similar to the migration from PAS55 to ISO55000, it has been generalised in language and restructured to integrate better with other competency frameworks and resource management systems.

And, as with ISO55000, this has resulted in a need for interpretation, adaption and customisation to the context and requirements of each organisation. Furthermore, the clarity in what education is really needed, for whom and in which circumstances, remains a challenge.

However, to those of us involved in training and education in a wide variety of industry sectors, cultures and contexts, there are some clear patterns emerging. For example, at an organisation level, those embarking on the asset management journey are clearly finding it valuable to use a combination of BSI PAS55 (as a guidance tool for what is needed) and ISO55001 (as a validation tool to check/demonstrate adequacy).

But such organisations are still struggling with personnel education, culture change and competency development. And this need has still not been adequately addressed by the academic community or professional bodies, despite the efforts of the IAM and other members of the GFMAM¹. So it is timely to stand back and observe some of the practical ways of targeting and developing asset management competencies.

The basics

There are some underlying principles and concepts that have to be introduced and understood by all. Existing educational

curricula, from school onwards, tend to develop and reinforce specialisms, which achieve targeted skills and knowledge, but in ever-narrower subject areas and often at the expense of the understanding the wider context. We train people in how to perform specific tasks, but often fail to explain or teach the 'why'. But it's understanding the reason for things that often makes the biggest difference to personal motivation, productivity and creativity.

Some basic asset management concepts are simply missing from the normal schooling curricula. Engineering education is still dominated by topics suited to designing and building systems – and woefully light on operations, maintenance, reliability and risk management subjects. And technical staff get little help in understanding business, finance

“Organisations are still struggling with personnel education, culture change and competency development”

or developing communications skills.

So we need better development of understanding in such areas as asset management language, asset lifecycles and lifecycle costs, risk and reliability concepts, value-for-money decision criteria, cross-disciplinary working processes and the benefits of optimal asset management.

These subjects need to be packaged differently for different audiences, but a

Competency Targets and Current Assessment

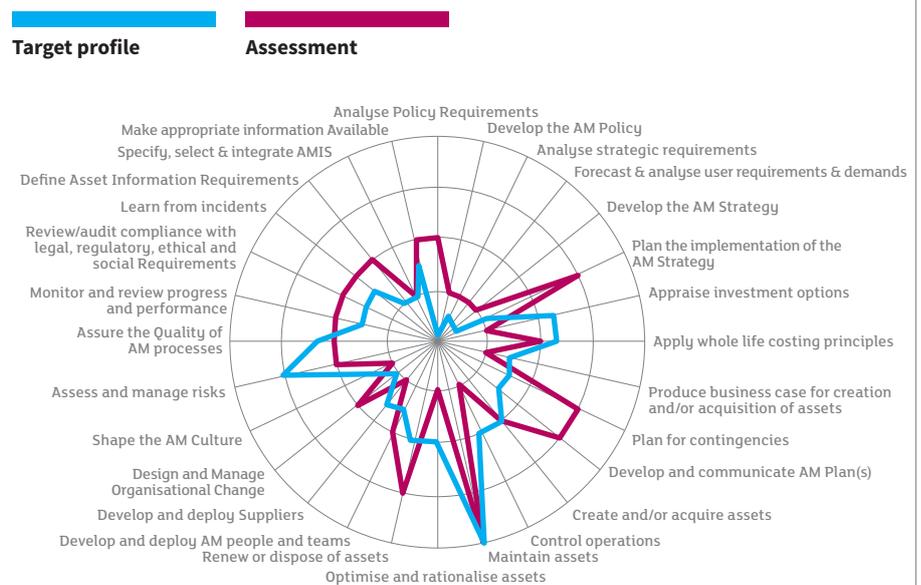


Figure 2: Example profile: target versus actual, showing some gaps and underexploited strengths

basic induction can usually be achieved by roadshows, workshop sessions, online learning materials, coaching and more formal training courses. To cope with the volume of staff, however, a ‘sheep dip’ approach is sometimes necessary, such as putting everyone through a standard induction course, e-learning package or briefing programme. TWPL has had great success with a Blended Learning method for such initial alignment of understanding. This combines generic learning material with bespoke illustrations and case studies, delivered through a mix of e-learning, classroom and workplace methods. It is most effective if customised for different audiences (Figure 1) in terms of scope/depth, language and delivery technique.

Systematic education and competency development

Once the basics are mapped out, we need a more thorough system for identifying and prioritising further requirements. This is where a Competence Requirements Framework comes in, but there is a big task involved to customise and calibrate the requirements to local circumstances. Every organisation will have different dependencies on skills and capabilities.

The IAM Framework² identifies seven generic ‘roles’ and 28 primary ‘units’ of competence needed for asset management. But people often have multiple responsibilities and partial involvement in many roles and activities, so it is difficult to map which subjects, to what level of skill or knowledge, will be most useful for each individual.

To address this challenge in a practical way, we have evolved a five-step process:

1. Define target competencies profiles:

This involves defining responsibility/involvement/contribution to each asset management role and then assigning a criticality of relevant competency areas to the resulting profile.

2. Assess actual competencies profiles:

Interviews and evidence methods, with procedural disciplines, confidentiality and validation steps.

3. Analysis of gaps and existing strengths (Figure 2):

Not just a simple listing of required improvement areas but also a criticality-weighting of the gaps, to ensure training plans

	Where are we going, why?	What should we do, when?	How should we do it?
Senior management	Vision, stakeholders, values, decision criteria, risk appetite, communications	Asset management system, assets and resources: needs and capabilities	AMS performance, change and risk management
Asset managers and function heads	Context, policy, strategy, objectives, risk and prioritisation criteria	Optimal decision-making, planning, communications	Asset and activity performance, costs, risks, intervention options
Function specialists, operators and technicians	Context and line of sight: policy, strategy, objectives	Asset management plans	Asset lifecycle activities: methods, efficiency and effectiveness

Figure 1: An example of typical primary learning needs and valuable supplementary understanding, tailored to three levels of roles and responsibilities

are prioritised and justified according to value obtainable. The TWPL process also actively seeks and highlights underexploited strengths, that is, where the actual profile exceeds the capabilities needed for the various roles.

4. Planning and delivering the programme:

Identifying patterns of needs (natural groupings) and discrete needs; prioritising and blending the most cost-effective methods.

5. Stabilising internal capabilities for periodic review:

Links to review and reward mechanisms and ‘new faces’ induction processes.

The professional ‘asset manager’

‘Asset manager’ is unlikely to become a common job title – and this is a good thing. Like the creation of an ‘Asset Management Department’, it can send out the wrong message and give others the excuse to say their roles are not part of asset management. However, professional skills in asset management can be developed a long way and are highly transferable, so they are excellent for career building.

Every organisation needs subject matter specialists – but they also need expert ‘generalists’, with the ability to see and optimise the whole picture and to bridge the gaps between technical (asset-centric) folk and financial, customer and other business-centric groups.

That is why academic programmes are

being developed (such as the new Cranfield University Asset Management MSc³) and why the IAM is pressing ahead with Professional Development guidance and a route to professional Chartered status.

It is also why, after two decades of widespread practical involvement and teaching, my TWPL colleagues and I are still learning every day on every project – it’s an addictive and seemingly boundless subject!

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References

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Author’s biography

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