SAM+: Measuring the journey to excellence in Asset Management

Mike Beck

For every organization the starting point on the journey to Asset Management is an individual one. Looking at the list of 39 subjects that have been defined as the scope of Asset Management by the Global Forum on Maintenance and Asset Management (GFMAM) it becomes clear, that excellence in Asset Management can only be achieved, when all activities over the assets life cycle are aligned with the organizational objectives. Considering the huge amount of "puzzle pieces" that need to fit together an assessment of where the organisation is already doing well and where there is still potential for improvement becomes valuable. Since the Institute of Asset Management (IAM) first introduced the PAS 55 Assessment Methodology (PAM) in 2008 countless organizations world-wide have relied on this tool to determine their very own starting point and track every part of their journey towards PAS 55.

With ISO 55000 superseding PAS 55, it became necessary to allow for evaluation against ISO 55001. At the same time the ability to assess against PAS 55 needed to be retained for those organizations which have not yet made the switch. Requirements for a revision of the PAM tool continued to be that it needed to be free of any commercial bias and usable for organizations across a wide range of industries.
This article shows how PAM was refined to what is now SAM+ - the self-assessment methodology available for free for paying members of the IAM at http://www.theiam.org/sam and how this potent tool can be used.

SAM+ - the new generation of the Assessment Methodology now allows for evaluating against PAS 55 and ISO 55000. Furthermore, evaluating against the complete scope of Asset Management as defined by the 39 subjects is possible. This allows for organizations to decide whether to use the tool in preparation or as part of a certification against PAS 55 or ISO 55000 or, in case certification is not the goal, to evaluate against the scope of AM.
SAM+'s scoring system only goes as far as compliance (Maturity Level 3 – Competent), as ISO 55001 does not indicate how the levels beyond compliance are defined. The

Figure 1: ISO 55000 Assessment Form

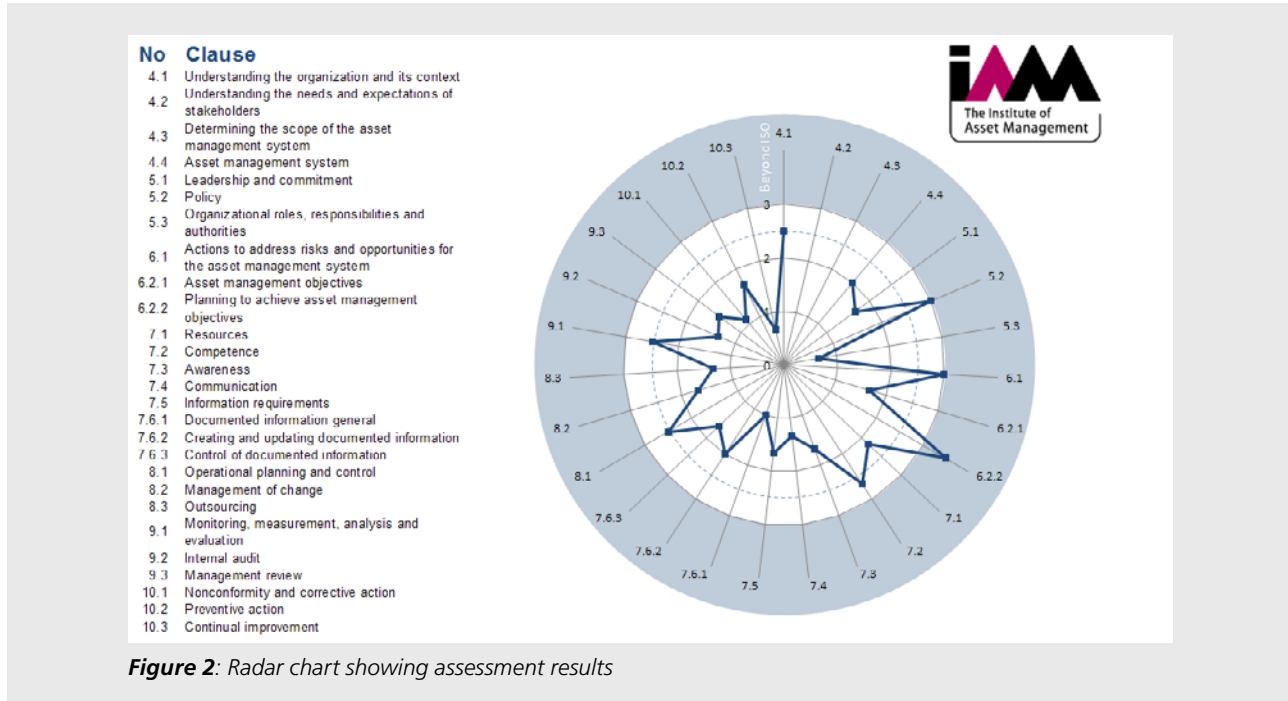| No	Clause
4.1	Understanding the organization and its context
4.2	Understanding the needs and expectations of stakeholders
4.3	Determining the scope of the asset management system
4.4	Asset management system
5.1	Leadership and commitment
5.2	Policy
5.3	Organizational roles, responsibilities and authorities
6.1	Actions to address risks and opportunities for the asset management system
6.2.1	Asset management objectives
6.2.2	Planning to achieve asset management objectives
7.1	Resources
7.2	Competence
7.3	Awareness
7.4	Communication
7.5	Information requirements
7.6.1	Documented information general
7.6.2	Creating and updating documented information
7.6.3	Control of documented information
8.1	Operational planning and control
8.2	Management of change
8.3	Outsourcing
9.1	Monitoring, measurement, analysis and evaluation
9.2	Internal audit
9.3	Management review
10.1	Nonconformity and corrective action
10.2	Preventive action
10.3	Continual improvement

Figure 2: Radar chart showing assessment results

IAM Maturity Group has introduced a scale that indicates some characteristics organisations are likely to exhibit after surpassing compliance, referred to as Optimising (Maturity Level 4) and Excellent (Maturity Level 5). This work is represented in SAM+ – combined into a single category, "Beyond ISO". For PAS 55, SAM+ incorporates a maturity scale based on the International Infrastructure Management Manual (IIMM).

Work on the update of SAM began in October 2013

As with PAM, the process has involved a dedicated team of IAM volunteers from the UK and overseas, and from asset owner, consultant and service provider perspectives: a healthy mix of global cross sector experience and solid, in-depth asset management knowledge.

The development process began with reflections on the lessons learned from PAM, analysis of user feedback, and improvements recommended through PAM's online feedback facility. The next six months were an intensive and rigorous programme of development workshops. In these workshops e. g. the system architecture was discussed. After team reviews and independent peer reviews the IAM Faculty approved and signed-off the final results.

The guidelines to develop the new SAM+ were:

» Alignment with the GFMAM definition (and scope) of the Subject;
» Consistent with the IAM's generic definition of L3 Maturity;
» Incorporate applicable ISO 55001 requirements for the Subject with explicit requirements highlighted;
» Phrased in the form of "statements" in present tense without using words such as 'shall', 'should' 'will', 'may' or any other 'qualitative' terms, such that it can be verifiable through objective evidence;
» Uniquely numbered within each Subject using the subject number as the prefix;

» Mutually exclusive and collectively exhaustive to ensure that the purpose and core characteristics of Subjects are fully addressed;
» Phrased clearly and concisely.

SAM+ comprises structured question sets and maturity level responses for each element of PAS 55 and each clause and sub-clause of ISO 55001, along with targeted advice, guidance and information for each question.

It incorporates new guidelines to define a consistent approach to its application, and how to use it in the context of the corporate journey. A comprehensive user guidance document is included with the tool.

Please be advised that it's still essential to refer to the BSI PAS 55:2008 and ISO 55000/1/2 documents during assessments. SAM+ complements these standards – it is not intended to replace them. A rigorous assessment should still:

» be based on the documented asset management system and actual evidence of its implementation
» assess inputs from an adequately-sized sample of representative areas of the organisation
» include a documentary review and audit of the implemented activities, together with a record of demonstrable evidence.

How to use SAM+

The Assessment Form, like the ISO 55000 Assessment Form shown in *Figure 1*, allows for picking the interviewee using the tabs on top. Interviewees can be defined with the + - Tab or deleted with the button on the bottom. Contrary to PAM, SAM now allows for adding an unlimited number of interviewees. The Question Picker allows for pre-configuring which questions to ask each interviewee based on his or her role. Each question is shown on the top right, together with information on the (in this case) ISO clause it refers to. Where it is necessary sub questions are presented. The Sub Questions
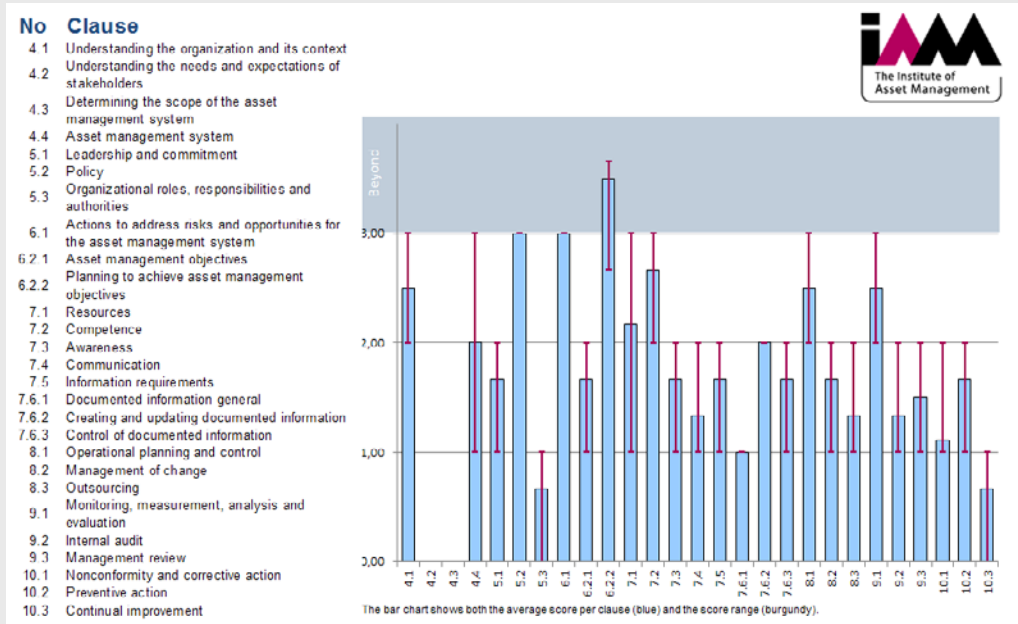
***Figure 3**: Bar-chart showing assessment results*

represent the bullet point references in ISO 55001, and are presented as checkboxes on the Score ISO tab. This enables the assessor to document which sub questions have been answered. The score is nevertheless chosen by question. In order to remain true to the standards themselves, and to avoid any ambiguity when assessing an organisation's maturity, the questions remain strictly aligned to ISO 55001's wording. The Why and Question Guidance fields refer to and signpost ISO 55000 and ISO 55002 respectively.

Many of PAM's duplicated evidence recording fields have been consolidated into a single Evidence / Records / Documentation / Information field. This has freed up a lot of space and vastly improved the layout on-screen. Where the quantity of text exceeds the visible area, users can either scroll sideways or mouse-over the relevant box to see the rest in a pop-up. Contents of the evidence field can later be output in aggregated form in a report. This enables the assessor to list documents used as evidence but also to document where differing scores for different interviewees are based on different procedures. Scoring is guided by the explanations of maturity levels based on the work of the IAM maturity group.

Results

Aggregated results of the assessment are displayed in the radar chart allowing for a quick view on challenges and strong points to build upon (***Figure 2***).

The ISO Radar Chart includes:
» a dotted line at a score of 2.5, for when the assessor wants to use their discretion as to compliance (for instance, if the average score is between 2.5 and 3.0)
» a shaded area to reflect the Beyond ISO status (see Score) where applicable
» a gap that is activated when clauses have not yet been fully addressed, and as such remain without a score. This acts as an aide-mémoire for the assessor that there are

still gaps in the assessment.

The bar-chart allows for not only displaying average results but also checking how wide the range of answers for each single clause is. This can give additional hints as to where procedures are not aligned between different departments within the same organization.

Summary

Carrying out an asset management assessment using SAM+ will provide an organisation with the empirical, quantitative evidence necessary to gauge and score its current asset management capability and maturity. The assessment provides a benchmark for setting up action plans and business improvement roadmaps to address key gaps and shortfalls. Used by the organization itself or with assistance by an experienced consultant, it allows for measuring the journey to excellence in asset management and identifying road-blocks.

AUTHOR

MIKE BECK
MIAM
Fichtner Water & Transportation GmbH,
Berlin, Germany
Phone: +49 30 609 765-41
mike.beck@fwt.fichtner.de, fwt.fichtner.de

Based on work of
JERRY HOLDSWORTH
Project Director SAM+ on behalf of the IAM
AMCL Europe Ltd., London, UK
jerry.holdsworth@amcl.com, www.amcl.com