

THE ASSET JOURNAL

March 2014

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01

Volume 8



ASSET MANAGEMENT COUNCIL

ISO 5500X IS HERE

Gearing Up for ISO 55000

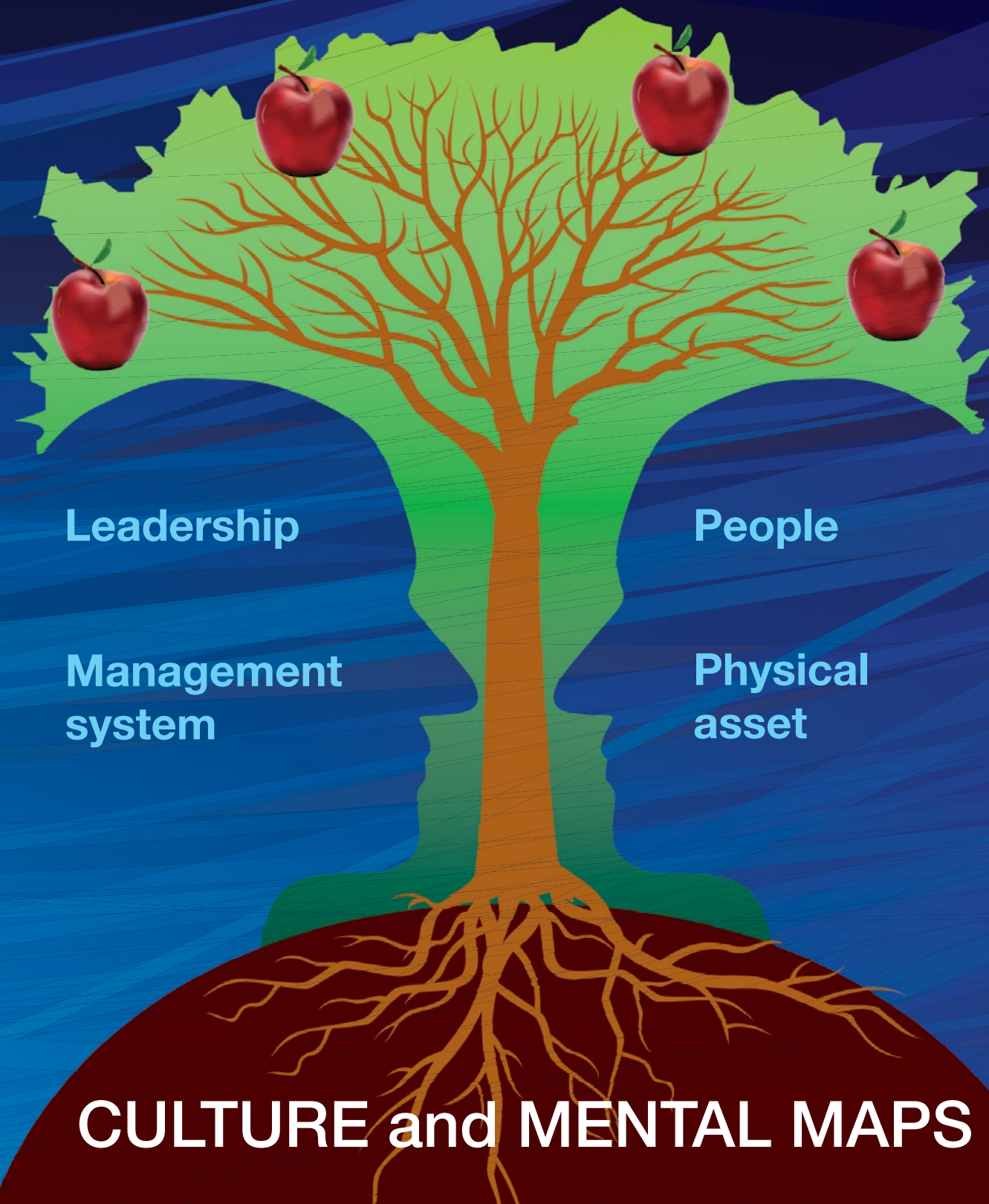
Asset Management
Certification Against ISO 55001

AMBoK Publication 001:
Companion Guide to ISO 55001

GFAMAM Certification Project

AMPEAK Preliminary Program

LIVING ASSET MANAGEMENT



CULTURE and MENTAL MAPS

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JR Lafraia and J Hardwick

Ernst Krauss Editor in Chief



Is the new ISO 5500X, and the associated suite of landscape and competencies, the new "Big Bang" in business and industry? Asset management could well be the stimulus to think differently about business and, in turn, productivity.

There is a clear desire to learn more about asset management and its requirements for successful implementation in an organisation.

The direction of the AM Council includes the continued education and awareness raising of this important topic as well as providing the assistance that may be required to successfully implement asset management systems. In this issue of The Asset Journal we present a number of articles dealing with the new Standard that you may find of interest. In the coming issues, The Asset Journal will feature more about the impact and developments associated with the ISO Standards.

Finally, we are looking forward to another great conference: AMPEAK, from 2-5 June 2014 in Perth. It is shaping up to be a significant event, with a record number of papers received. The preliminary program, featured in this issue of The Asset Journal, is indicative of the papers and speakers covering a wide range of topics, including ISO 55001 implementation; maturity and case studies; research and many more topics for all industries, public utilities and other institutions. We hope you enjoy this issue of the Asset Journal and as always, your opinions, views and questions are important and welcome. I encourage you to get involved and have your say.

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From the Chief Executive Officer



With the demands of ISO 5500X and rapid expansion of Asset Management Council stakeholder interest, we have established a new leadership role. To sustain our current industry position as well as our continuing growth we have decided to further invest in training office bearers and core product deliverers – our future leaders – in a range of personal and technical skills. This process, which informs new participants of existing organisational intent, values beliefs and processes, is essential so that their involvement in productive growth and change is encouraged from an informed base.

Jim Kennedy, a member of the Asset Management Council since its inception, has accepted this new leadership role, and we are thrilled to have him on board. The role will be responsible for defining, enabling and, in part, conducting training and mentoring of Asset Management Council volunteers as agreed with the Board.

Other senior member volunteers with similar leadership roles are Ernst Krauss, editor of the Asset Journal, Martin Kerr, AMBoK Facilitator, and Greg Williams, Conference Chair.

A big thank you to everyone for their continued efforts. I look forward to an exciting and productive 2014.

Happy 2014!

I would like to take this opportunity to welcome Andrew Morgan as our new Accreditation Commissioner. Andrew has been an active member of the Asset Management Council for a number of years, and as Accreditation Commissioner he will oversee the policy, standards and complaints process for Asset Management Council assessment schemes including certification, trainers and award reviewers.

Andrew joins Peter Kohler, our AMBoK Commissioner, and Kieran Skelton, our Chapter Commissioner. As AMBoK Commissioner, Peter assures the technical integrity of the Asset Management Body of Knowledge (AMBoK), and all related materials. Kieran, as Chapter Commissioner, determines strategies to support and develop the Asset Management Council Chapter Network.

Asset Management Council Commissioners are an integral part of the organisation. Their roles in general are to assure the integrity of the Asset Management Council and, in conjunction with the Chief Executive Officer, develop strategic goals and priorities consistent with the direction and vision set by the Board. Implementation of these goals and priorities are carried out by the AMBoK Team, Chapters and staff.

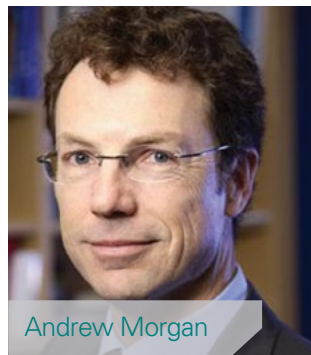
This year is a very exciting year for asset management, and the Asset Management Council, with the advent of the ISO 5500X Suite of Standards for asset management. With the publication of this standard, the importance of asset management has not only been fortified, but there is now a clear and broadly accepted definition of assets, their business context and the requirements of an asset management system.



Peter Kohler



Martin Kerr



Andrew Morgan



Kieran Skelton



Greg Williams



Jim Kennedy

From my desk: Chairman's Letter



Asset management's importance has not only been reinforced with the creation of this standard, but there is now a clear and broadly accepted definition of assets, their business context and the requirements of an asset management system, as ISO 55001 identifies the requirements of a management system (for the management of assets) but also clearly positions asset management as a key element of the broader business management system.

The Asset Management Council strives to be in the forefront of assisting members and the broader industry in the implementation of these ISO standards, including the development of tools such as the Companion Guide to ISO 55001, and the Aligning Your Organisation with ISO 55001 Seminars being conducted around Australia.

There is a feature in this issue of the Asset Journal on the Companion Guide to ISO 55001, which has been hugely popular. I would like to say thank you to the entire AMBoK Team and Sally Nugent for their efforts in creating this key document for assisting those implementing an asset management system.

The Asset Management Council has always been committed to the promotion and education of asset management and maintenance practices in industrial, commercial, academic and government sectors. We provide a platform for technical knowledge to be learnt and shared. As a national not for profit organisation we provide independent information and guidance on asset management across the multitude of industry sectors and professional roles in asset management, both in Australia and globally.

An important part of the Asset Management Council's work over 2012/2013 has been our active participation in the ISO committee (ISO PC 251). This committee drafted the ISO 5500X Suite of Standards for asset management, which is already having significant implications for our members and industry in general, both in Australia and overseas.

The importance of asset management has been resoundingly reinforced with the release of International Standards Organisation (ISO) 5500X Asset Management Suite.

The Asset Management Council is able to bring a different perspective to ISO 55001 via a framework in which asset management can be understood and implemented, namely:

- Asset Management Concept Model;
- Asset Management System Model;
- Organisational Systems Model; and
- Capability Delivery Model.

These models combine to form a comprehensive asset management framework as a reference for asset management professionals and organisations.

Congratulations and thank you to all of our senior volunteers who are helping us implement changes at the Asset Management Council.

Gearing Up For ISO 55000

MAKING OPTIMAL DECISIONS FOR YOUR ASSETS



BOUDEWIJN NEIJENS,
CMRP, Copperleaf
Technologies, Canada

Boudewijn holds a degree in Mechanical Engineering from the University of Brussels, an MBA from INSEAD in France, and CMRP certification. He has been involved with high-technology startups for the last 20 years, currently in the fields of asset investment planning and environmental data processing. Most of his spare time is devoted to the Royal Canadian Marine Search & Rescue organisation, where he is Vessel and Equipment Manager and crews on fast rescue vessels.

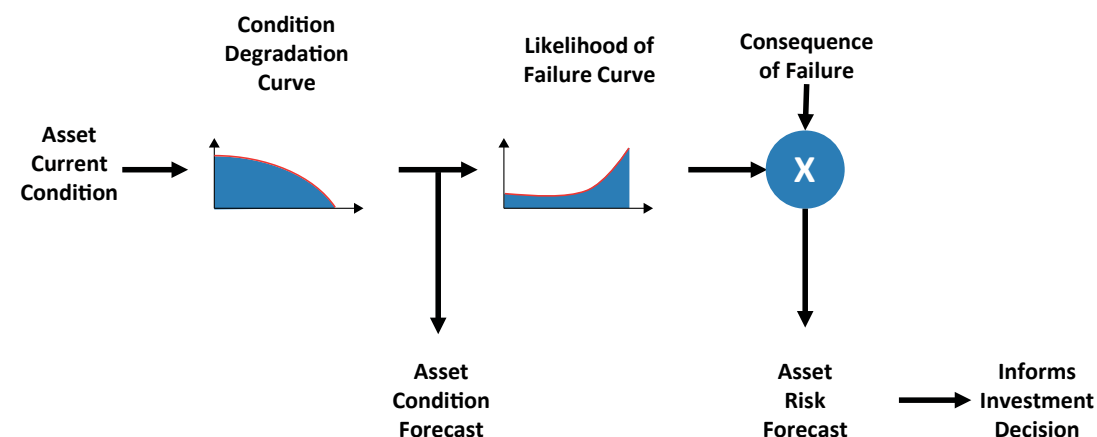
In a world of aging assets and limited financial and human resources, companies often struggle to decide which asset-related capital projects should get the most attention. Managers are required to compare vastly diverging project justifications, and must somehow decide which projects bring most value to the company. The new ISO 55000 standard clarifies some of the principles, but doesn't help you select or apply a methodology. This article explores how combining asset failure risk evaluations with a well-defined corporate value function can lead to optimal decision making, and how the resulting decisions should be tracked and adjusted over the lifetime of the underlying projects to maximise the execution rate and return on investment.

Asset Investment Planning & Management

Making decisions around asset investments, replacements, refurbishments and retirements is a complex process. Many factors need to be considered, and significant financial and resource constraints often limit the leeway of decision-makers.

ISO 55000 stresses the importance of asset-related risks as a key factor in decision-making, complementing the more traditional life-cycle cost analysis. As an asset condition degrades, its probability of failure increases, as do the associated risks. Such risks should typically be mitigated before they become unacceptable to the corporation (Figure 1). Assuming the asset is already subject to the most appropriate maintenance regime, this effectively means the asset needs investment. The term "investment" is used here in the generic sense: it could be an asset replacement, a redesign, a partial change or refurbishment, a swap of assets, or even "soft" investments such as retraining staff to operate the asset differently.

Figure 1



Investment projects generally require approvals that involve a wide group of internal stakeholders such as finance, operations, engineering, planning, etc. These various stakeholders look at asset management through their own needs, with their own data and their own processes and systems. In this context, asset risk and project value can be used as "common denominators" to allow all stakeholders to evaluate the merits of a project.

In addition to functional alignment, we need to consider integrating all the IT systems which each hold some part of the necessary data. Effective decision support solutions draw upon the data of multiple existing departmental and enterprise IT systems to present a full picture of all assets, and of the challenges and the consequences of each decision (Figure 2).

Figure 2



Solutions based on these principles are increasingly referred to as Asset Investment Planning solutions, or if also including an ongoing performance management component, Asset Investment Planning and Management solutions.

Investment Decision Optimisation

Capital investments typically require fully documented business cases to gain project funding and resourcing. Best practices recommend that each business case present a few alternative solutions, both to ensure that due diligence has been adequately performed, and to allow decision-makers to consider various options when evaluating portfolios of investment candidates. This is especially important when competing for limited resources (financial, labour, tools, inventory, etc.).

The process of selecting the optimal blend of investments requires the evaluation of the potential contribution of each candidate investment by using value functions. These functions include and weigh all the investments' benefits that the corporation is trying to maximise (e.g. safety, uptime, ROI, reputation). Investment portfolio optimisation seeks to

maximise value, while respecting all financial, resource and timing constraints, and while ensuring unacceptable risks are avoided. Such optimisations can happen at the departmental level, across multiple departments or even across multiple lines of business, depending on how the corporation is organised and how budgets are allocated. Optimisations can become quite complex, especially if each investment draws upon many classes of resources and has timing constraints. This calls for advanced computational techniques such as Mixed Integer Linear Programming to swiftly optimise portfolios of investments and allow users to test various scenarios, perform sensitivity analysis, etc.

Performance Management

The outcome portfolio optimisation is a list of approved, funded projects. Once these projects enter the execution phase they might slip or accelerate, and over- or under-spend. Such variances should be made visible to the organisation during the execution phase as quickly as possible to allow the corporation to adjust its plans and redeploy resources accordingly. By combining and analysing all the variances in a specific portfolio, it is often possible to reallocate resources and improve on the overall execution rate of projects in near real-time. Users of advanced Asset Investment Planning and Management (AIPM) tools discovered that their project execution rate typically increases from 50-70% to over 90%.

Finally, when an investment is fully executed, it is important to understand what really happened during the project execution, versus what had originally been planned and promised. This is true at the level of an individual investment, and across full portfolios. Regulators, investors and other stakeholders want to know if resources were optimally applied and if results are in line with what had been "sold" to them. One must therefore track all decisions and changes, allowing the corporation to perform full audits, and therefore build stronger internal and external credibility and apply the lessons learned to the next budgetary cycle.

Conclusion

The result of applying the AIPM methodology is a holistic and dynamic asset investment plan covering all time horizons: from projects already under way, to investments planned in the coming years, to growth investments, and finally to suggested reinvestments necessary to ensure a sustainable long term future for the existing asset base. AIPM allows the corporation to develop and maintain a defensible, well documented asset investment plan built around actual asset, risk and financial data that can be used confidently with internal and external stakeholders.

If well executed, such a solution offers the corporation a perfect line of sight between the strategic objectives and imperatives (top-down) and the actual condition of its assets, the risks attached to each asset and the investments planned to mitigate risks and asset degradation (bottom-up). It helps the corporation extract maximum value of its assets over all time horizons, and align itself with leading asset management standards such as ISO 55000.

This article is a summary. To read the full paper, log on to the Member Zone at amcouncil.com.au

Asset Management Certification Against ISO55001

© Tom Carpenter, CEO, IQ-AM Pty Ltd



Tom is the CEO and Director of the Institute of Quality Asset Management Pty Ltd (IQ-AM), a working group member of PC251, the ISO Technical Committee who developed the ISO 55000/1/2 suite of International Asset Management Standards, and Australia's representative on ISO/CASCO WG39, who developed ISO/IEC 17021-Part 5 (competence requirements for auditing and certification of asset management systems).

The release of the ISO5500X Asset Management System (AMS) Standards in January 2014, introduces the opportunity for organisations to obtain Certification against ISO55001 – Asset management — Management systems — Requirements Standard. There are many issues that require addressing:

- Integration of ISO Auditing and Certification practice in to the Asset Management operating environment.
- Certification requirements by stakeholders (governments, regulators, risk managers, insurers and lawyers).
- Understanding of the ISO Certification processes and practices by the Asset Management profession.
- Understanding of Asset Management by the ISO Certification organisations.
- Competency, capability and resourcing of Asset Management and the Certification organisations.
- Why an organisation would wish to be Certified.
- Scalability and maturity of the organisation.

Stakeholder for Auditing

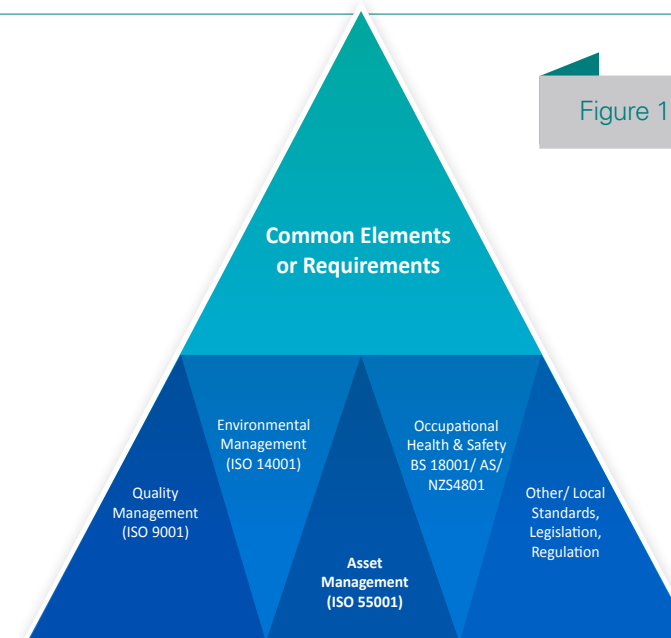
While some stakeholders will require Certification or Auditing to ISO 55001 within an achievable timeframe, it can be anticipated that others may specify an unrealistic period from launch the of the Standard. Of more concern, is the issue of who can obtain Certification?

Many ISO55001 requirements require decision-making responsibility, and some service provision arrangements preclude service providers from obtaining Certification. Historically, the Asset Management profession has utilised gap analysis methodologies for audit and continuous improvement. Assessors who are not necessarily ISO Conformity Assessment Bodies (CAB), have carried out these activities. Certification to ISO55001 can only be provided by a CAB.

In Australia and New Zealand, the 106 existing CAB's operate under a rigorous Accreditation system administered, under government mandate, by JAS-ANZ (<http://www.jas-anz.com.au/>). JAS-ANZ is a signatory to a number of bilateral, regional and international agreements providing international recognition of JAS-ANZ accredited certificates and inspection reports.

Estimated time and effort for Certification Audits may be guided by IAF MD 5:2013 Duration of QMS and EMS Audits⁸. While not yet addressing ISO55001 audits, it can be anticipated that something similar will be needed.

Figure 1 Representation of an IMS - Audit Skills Pyramid



Auditor competencies

ISO55001 auditors will require two knowledge and skill sets: firstly, as an auditor, and secondly, sufficient technical knowledge and skill in Asset Management. Challenges include:

- How many people have both these skill sets?
- How many auditors are actually required?
- How fast will they be required?
- How will sufficient numbers be made available?
- Who will provide training and competency assessment and register competent auditors?
- Is the need for auditors likely to require compromises in quality?
- What tensions exist in the need for financial/ accounting, management and engineering technical skill sets.

Audit Knowledge and Skills

Audit competencies are addressed in ISO IEC 17021⁶. Further information on required skills and knowledge and training, assessment and registration options can be found on the RABQSA website at http://www.exemplarglobal.org/cp_com.html

Technical Knowledge and Skills

Technical knowledge and skills are specified in ISO/IEC 17021-5⁷. This Technical Specification describes the capability of the audit team, rather than the capability of any particular auditor.

There will be significant tension between the Asset Management and ISO Certification communities on technical competency of auditors, the yet to be published specification for technical competency of auditors being prepared by the Global Forum for Maintenance and Asset Management (www.gfmam.org) will no doubt further stimulate this debate.

Integrated Management System (IMS) Auditing

Many organisations operate multiple management systems, such as for Quality, Occupational Health and Safety, and Environmental Management. Others include Food Safety, Water Quality and Training (not all ISO systems).

It is wasteful to have multiple auditors/audits of a common requirement, such as the control of documentation. Many organisations have adopted Integrated Management System (IMS) Auditing under PAS99:2012² and/or IAF MD 11:2013⁹ (Figure 1).

The common requirements require generic management system competency, but the unique elements of each system require specialist competency, for example, the requirements in ISO55001 for continuous improvement for asset management apply not only to the management system, but also to specific asset management activities and processes for identifying and addressing potential failures in asset performance.

Conclusions

This article raises several issues around implementation and ongoing Certification against ISO55001 that need addressing by the Asset Management community; they will no doubt be resolved over time.

The Future Relevance of PAS55 Certification

PAS55 Certification would seem to have little future, particularly if BSI withdraw PAS55 as a Technical Specification – something they normally do, following publication of a corresponding Standard. No transitional arrangements have been announced, nor if PAS55 Certification will be recognised under equivalency processes. Most current PAS55 Certifiers are not CABs.

References

1. British Standards Association, *Publicly Available Specification (PAS) 55-2:2008 Asset Management, Part 2: Guidelines for the application of PAS 55-1*, London 2008, ISBN-978-0-580-50976-6
2. British Standards Association, *Publicly Available Specification (PAS) PAS 99:2012 Specification of common management system requirements as a framework for integration* ISBN 978 0 580 76869 9 (Draft)
3. ISO PC251 2013-05-03 Draft ISO FDIS 55000 final WG1 1210.docx (unpublished)
4. ISO PC251 2013-05-03 FINAL FDIS 55002(v5).docx (unpublished)
5. ISO PC251 ISO55001 clean 20130502.docx (unpublished)
6. ISO IEC 17021:2011 *Conformity assessment — Requirements for bodies providing audit and certification of management systems*
7. ISO/IEC CASCO ISO/IEC PDTS 17021-5 *Conformity assessment — Requirements for bodies providing audit and certification of management systems — Part 5: Competence requirements for the certification of asset management systems 2012(draft)*
8. IAF MD 5:2013 *Duration of QMS and EMS Audits*
9. IAF MD 11:2013 *Application of ISO/IEC 17021 for Audits of Integrated Management Systems (IMS)*

This is a summary. To read the full paper, log on to the Member Zone at amcouncil.com.au

The New Asset Management Council Models

ISO 55001 uses and defines the term Asset Management System. As a result, the Asset Management Council models now include the Asset Management System Model, as well as the Organisational Management Systems Model, which demonstrates how management systems link together.

The purpose of these models is to explain:

- The relationship between the Asset Management System Model and Organisational Management Systems Model for a typical business organisation.
- The relationship between Asset Management System Model and Organisational Management Systems Model to the Asset Management Concept Model and the Capability Delivery Model.
- The role of Leadership and Culture within a management system.

These models illustrate the relationship between:

- The stakeholders involved with the organisation.
- The stakeholders involved with the management of assets (if different).
- The relationship between an Asset Management Policy and other policies required by other ISO standards (such as safety, environmental, financial, HR. etc.).
- The relationship between organisational objectives and the enabling strategic plan (for asset management this is the Strategic Asset Management Plan), where the organisational strategic plan may be made up of the collection of the strategic plans from all the business management systems (using ISO language).
- The relationship between the organisational objectives and the requirements of the Asset Management System.

Asset Management System Model



Tech
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The Asset Management Council is excited to announce the Second Edition of the Framework for Asset Management.

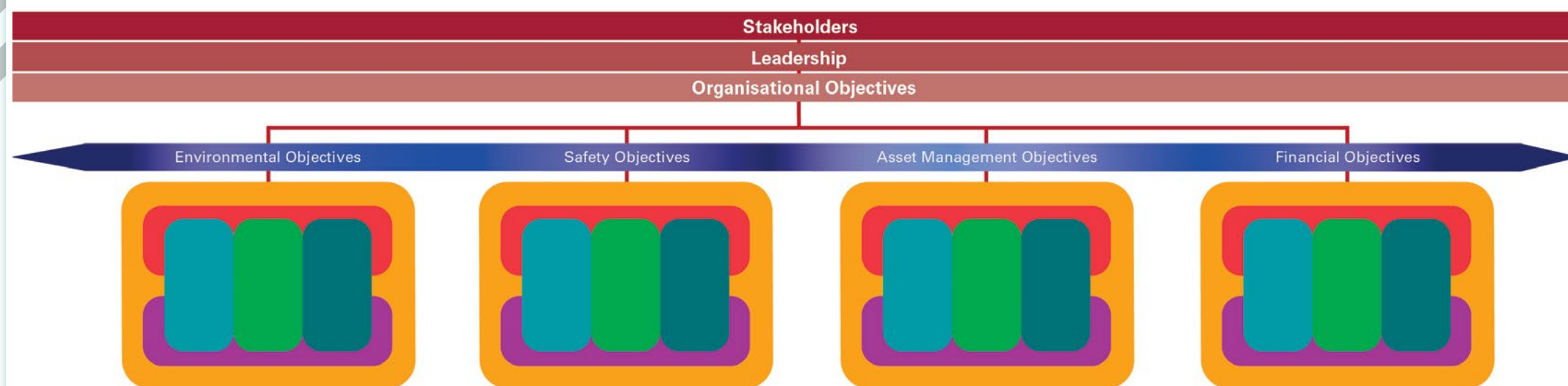
This updated AMBoK Publication provides a common asset management language for better communication within organisations and across industries, and is the foundation of the Asset Management Council's Asset Management Body of Knowledge. "Our publication aims to provide the asset management community with a concise picture of the principles, concepts and processes of physical asset management," explains John Hardwick, Chairman for the Asset Management Council.

AMBoK Publication 000: Framework for Asset Management now comprises five strategic components:

- Definition of Asset Management: Defines the boundaries of asset management and differentiates it from other key management processes.
- Concept Model: Presents the basis of successful asset management.
- Capability Delivery Model: Schematically presents processes, within a number of disciplines, that may be used in part or entirety, to deliver successful asset management.
- Asset Management Systems Models: including the Asset Management System Model and the Organisational Systems models as presented and explained here.
- Maturity Model: conveys the extent to which leadership, culture, human performance and the asset management systems are integrated into the whole organisation while contributing to its success.



Organisational Systems Model



AMBoK Publication 001:

Companion Guide to

ISO 55001

AMBoK Publication 001: Companion Guide to ISO 55001 has been published by the Asset Management Council to assist asset management practitioners in understanding the implications of ISO 55000 and specifically ISO 55001, and how they might be implemented.

This publication is designed to:

- provide clarity on the scope of the ISO 5500X Suite of Standards;
- assist with the interpretation of requirements of the standards;
- provide guidance to organisations on typical criteria evidence to meet the requirements of ISO 55000 and 55001; and
- act as a record of the current status of requirements for the purpose of collecting broader stakeholder input.

About the Publication

An important part of the Asset Management Council's work over 2012/13 has been its active participation in the ISO committee (ISO PC 251) to create ISO 5500X. These standards will have significant implications for AM Council members and industry in general, both in Australia and overseas. The Asset Management Council intends to be at the forefront of assisting members and the broader industry in the implementation of these ISO standards, including the development of tools such as the Companion Guide to ISO 55001. We recommend this practical guide to you as a key source of advice on applying the ISO standards in your organisation.

The Asset Management Council is also able to bring a different perspective to ISO 55001 via a framework in which asset management can be understood and implemented, namely:

- Asset Management Concept Model;
- Asset Management System Model;
- Organisational Systems Model; and
- Capability Delivery Model.



These four models combine to form a comprehensive asset management framework as a reference for asset management professionals and organisations. For more information on the Framework for Asset Management refer to the AMBoK Publication 000: Framework for Asset Management Body (Second Edition).

This guide is not intended to provide specific industry sector applications or audit criteria.

Introduction to the ISO 5500X Suite of Standards

The ISO 5500X Suite of Standards describes the requirements for a 'management system for asset management'. This term is abbreviated to 'asset management system' within the standard and this AMBoK Publication.

The ISO 55000X suite consists of three standards:

- ISO 55000 - Overview, principles and terminology;
- ISO 55001 - Asset management — Management systems — Requirements; and
- ISO 55002 - Management systems — Guidelines for the Application of 55001.

ISO 55000 — Overview, principles and terminology

ISO 55000 documents the fundamentals upon which asset management is based and provides an overview of asset management and asset management systems. It also provides context for ISO 55001 and ISO 55002.

ISO 5500 is covered in the opening pages of the Companion Guide to ISO 55001.



ISO 55001 – Asset management — Management systems — Requirements

This Standard specifies the requirements for the establishment, implementation, maintenance and improvement of an “asset management system.” This Standard can be used by any organisation. The organisation determines to which of its assets this International Standard applies.

This portion of ISO 5500X is detailed in the tabled section of the Companion Guide to ISO 55001.

ISO 55002 — Management systems — Guidelines for the Application of 55001

The Companion Guide to ISO55001 does not cover this standard.

How to use AMBoK Publication 001: Companion Guide to ISO 55001

This publication is designed to be read and used side-by-side with the ISO 55001:2013 standard itself. ISO 55001 contains over 70 ‘shall statements’ that, for certification purposes, will require supporting evidence. The Companion Guide to ISO 55001 identifies each such ‘shall statement’ in part, provides notes and example evidence relevant to the statement, and then a typical artefact (document etc.) in which such evidence might be found. There is then room for the reader to list artefacts relevant to their organisation, as well as what successful implementation of the shall statement would look like in their organisation.

Purchasing AMBoK Publication 001: Companion Guide to ISO 55001

Softcover booklet, size A4, 132 pages

Member price: AU\$55.00 incl. GST
Non-member price: AU\$88.00 incl. GST
Postage and handling: included within Australia, international shipping + AU\$15.50

PDF format

Member price: AU\$27.50 incl. GST
Non-member price: AU\$49.50 incl. GST
Delivery upon payment

To order online at the Asset Management Council store, go to amcouncil.com.au/store.aspx

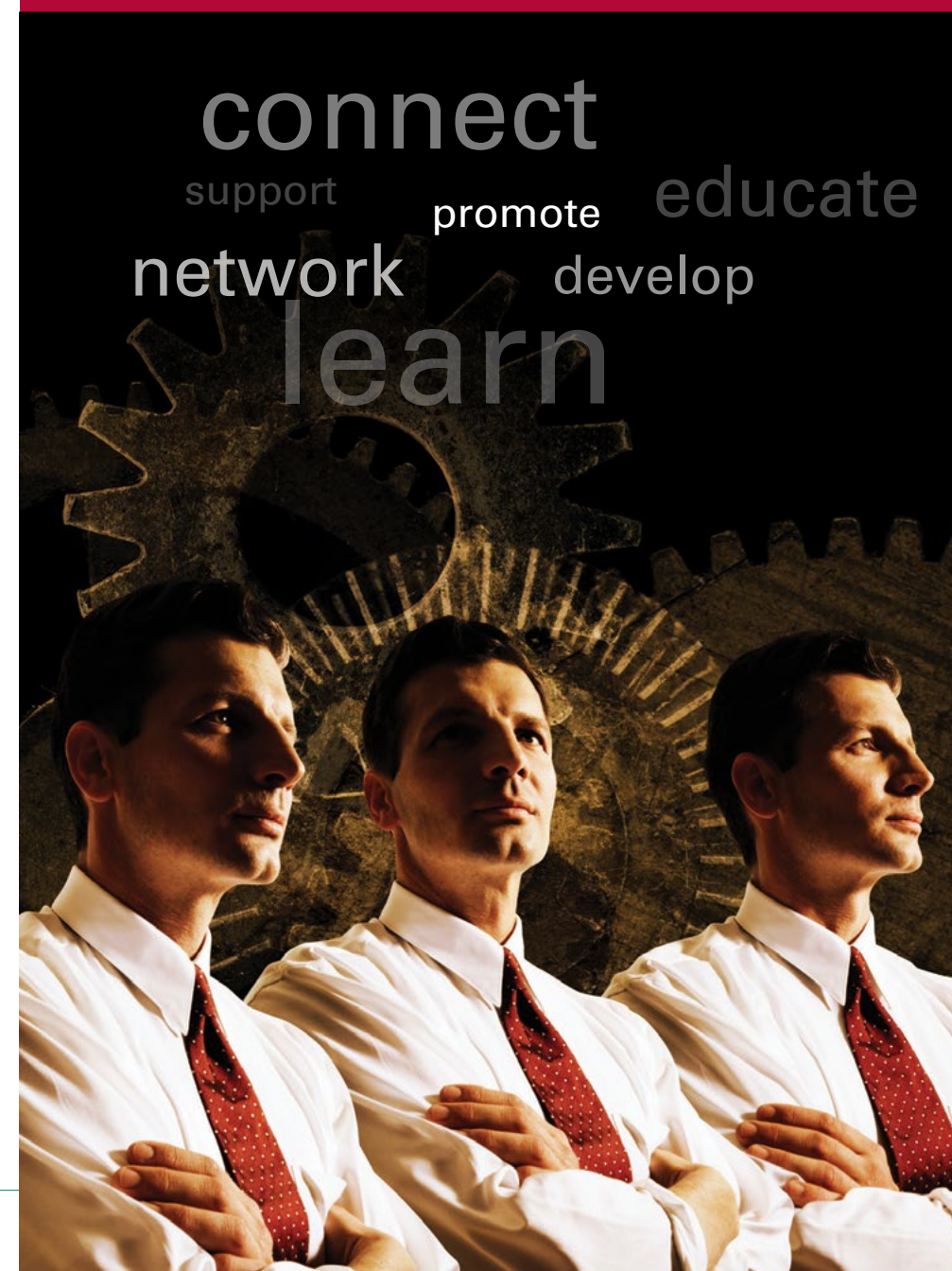
The Companion Guide to ISO 55001 is laid out like the example table below:

Example ISO Section Header (X Parts)	
0.0	Example part ISO shall statement
Part X of X	
Note	Further explanation or description of the above shall statement
Evidence Example	Evidence or proof of satisfying the shall statements
ISO artefact	Specific typical document in which the shall statement is evidenced
Your organisation artefact	Blank space for the reader to name document/s relevant to their organisation, in which the shall statement is evidenced
If this shall was implemented, what would success look like in your organisation?	Blank space for the reader to describe what successful implementation of the shall statement would look like in their organisation

Asset Management Conference

Crown Convention Centre,
Perth, Australia,
2-5 June 2014

► PRELIMINARY PROGRAM AND REGISTRATION



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from effective use of assets
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ACCEPTED ABSTRACTS

Your professional pathway to asset management excellence.

This leading national conference is brought to you by the Asset Management Council, a Technical Society of Engineers Australia and a founding member of the Global Forum on Maintenance and Asset Management (GFMAM).

As an independent, not for profit, professional body, the Asset Management Council unites professionals, organisations and global leaders from asset intensive industries. Their annual conference facilitates the exchange of ideas, experiences and knowledge between these individuals, challenging and changing attitudes going into the future and enhancing Australia's international competitiveness.

Why participate in AMPEAK 2014?

Over four days, AMPEAK gives you access to the most up-to-date asset management information across a broad range of industries. Our audience of 300-plus is comprised of individuals from organisations that manage assets across the planning, acquisition, operate & maintain and disposal phases of the asset lifecycle, whether in infrastructure, finance, mining, oil & gas, defence, water, risk & reliability or Occupational Health & Safety (to name but a few).

At AMPEAK you can:

- ◆ Connect with over 300 key asset management and maintenance professionals from across Australia and around the globe.
- ◆ Learn from industry thought leaders presenting the latest research, advancements and practical case studies in asset management via presentations, tutorials and workshops.
- ◆ Network with key asset management and maintenance practitioners supporting your need to share and engage.
- ◆ Broaden your knowledge, engagement and capability within the asset management field.

Your Local Hosts

Asset Management Council Perth Chapter

Andrew Morgan, Chapter Chair, and the members of the Perth Chapter Committee, look forward to welcoming you to AMPEAK 2014.

Keynote Speakers

The first Keynotes we're proud to announce for AMPEAK 2014 are:



Thomas W. Smith MS,
Program Director in the Department of Engineering Professional Development, University of Wisconsin-Madison.

Mr. Smith served as a U.S. Delegate and Task Group Leader for the International Standards Organization (ISO) Program Committee on Asset Management and for AMPEAK 2014 will lead the presentations on ISO Implementation. Mr. Smith has published a number of papers and articles on asset management and is the author of the summary chapter on ISO 55000 for the Handbook of Asset Management.



Danny Elia,
Investment Director, IFM Investors.

Danny drives the asset management strategy of the Australian and global infrastructure funds. Danny has wide industry and senior management experience across a range of infrastructure sectors. He previously worked as the Director of the SA Health Partnership, the single purpose vehicle established by Leighton Contractors, Spotless and Hansen Yuncken to deliver the New Royal Adelaide Hospital PPP. Prior to this, Danny held a number of senior management roles including General Manager, CityLink and Victoria for Transurban Group; CFO, COO and Company Secretary for Axiom Energy Limited; Finance Director of Logistics for Linfox Asia Pacific; and Finance Director and Company Secretary for General Mills.

Earn
CPD
Points

Attendance at the conference earns CPD points for certified Asset Management Practitioners.

For more information on becoming certified please visit amcouncil.com.au/conference

These accepted Abstracts bring you a preview of some of the topics to be explored in the conference program, subject to the review of final papers.

Robust Risk Management is Essential in Asset Management: Why a Spreadsheet will Not Cut it!
Andrew Ferguson, Wayne Rudland

Asset Management in Design – what is needed?
Anselm Boehl

MTMs 'Fast Track' to Asset Management Improvement and PAS 55 Certification.
Benjamin Staples, Ralph Godau

Transitioning Rollingstock Maintenance Contracts – Problems & Pitfalls.
Brett Wilson

Maintenance of Water and Hydrocarbons Assets: Are You Using Your Instinct More Often Than Your Intellect?
Dr Carla Boehl

Integration of RCA and RCM Techniques to Develop Maintenance Strategies.
Chris Traianou

Condition Monitoring Programs Defined as a Process With Performance Measures of Each Step Leads to Precision Maintenance Initiatives Which Eliminate Systemic Problems.
Chris Purkiss, Dr Michael Dickenson

Build Level of Services and Customer Value into the Decision Making – Sydney Water's Water Main Asset Management Strategy.
David Zhang

Improving Project Delivery – Will the New Asset Management System Standards Series ISO 55000 Make a Difference?
Ernst Krauss

Maintenance Evaluation Case Study.
Geoffrey Fox

Designing Modern Maintenance Programs for Heritage Rail Vehicles using Heritage Maintenance Analysis Methods.
James Kennedy, Jennifer Edwards, Peter Kohler

A Tool to Investigate the Status of Engineering Asset Management in Organizations.
Khaled El-Akruti, Richard Dwight, Tieling Zhang

Evaluation of Risks for Asset Management and Support Services Improvement Projects.
John Mo

Integrating Reliability Models into Asset Performance Models For Prioritising Strategic Asset Management Decisions at Rio Tinto Iron Ore.
Alexandre Cesa, Kecheng Shen

Use of Multi-Folds Asset Operational Performance Data to Prioritise Business Improvement Actions at Rio Tinto Iron Ore - Challenges and Opportunities.
Alexandre Cesa, Kecheng Shen

Preparing for ISO 55000 – Developing a Global Facility Asset Management Framework – including a case study at Olympic Dam.
Ken Robertson

Effectiveness of the Performance and Reliability Optimisation Model in Electricity Generation.
Krige Visser, Wilson Kudiwa

Maintainers of the Future.
Professor Melinda Hodkiewicz

The Path to Less Paper.
By Steve O'Keeffe

Case Study – Balancing Capital Efficiency with Optimising Operational Performance.
John Doran

Extent of Use of Continuous Improvement Process in Engineering Asset Management Practices in Oil and Gas Service Industry in Nigeria.
Olatunji Illori

Train Unloading Facility Defect Elimination Program.
Cristiano da Costa Cunha, Indra Gunawan

A Reliability Based Maintenance Plan for a New Cement Plant in Peru – South America.
Jaime Collantes

Using Physical Asset Management as a Technical and Cultural Transformation Strategy of the Department of Public Works and Highways, Through The Bureau of the Equipment.
Toribio Noel Ilao

Asset Health Management – A Strategic Perspective.
Yvonne Power

Are Your Decisions Truly Optimal?
Boudewijn Neijens

Gaining Productivity and Cost Effectiveness Through Better Processing and Understanding of Asset Data.
Edwin Karema

Asset Performance Information System in TNB Distribution.
Syed Ahmad Fuad Syed Abdul Hamid

Asset Management Stewardship and Best Practice in Toll Road O&M.
George Vasiliadis, David Evans, Heinz Volma, Les Hill, Mike Mundy

Promoting AM Accountability via Bipartisan Governance Arrangements within an Integrated Business Management System.
Matt Henson

Flexible Development of Asset Category Specific AM Plans.
Matt Henson

Western Power's Wood Pole Asset Management Challenge.
Raphael Ozsvath, Richard Tatnall

Network Rebuild Investment Optimisation.
Victoria Hogg

Risk Based Zonal Planning Approach for Distribution Overhead Assets.
Victoria Hogg

Defining Organisational Performance: An asset management Perspective.
Dr Monique Beedles

Production Reliability Analysis to Improve Asset Management.
Matt Wilson

Proactive Maintenance Strategies Used to Improve Reliability and Demonstrable Economic Savings.
Jerome Pabbuwe, Kristian Crews

Development and Implementation of an Asset Configuration Management System.
Vera Rajanovic

Financial Return of the Performance Culture.
Mark Broussard

A Review of Data Visualisation for Asset Management Key Process Indicators and its Potential Impact on Quantitative Information Communication.
David Caro

Integrating Asset Management across Fremantle Ports.
Alessandra Mendes, Rouzbeh Pourazim, Steve Marley, Dario Vallini, Hessam Mohseni, Frédéric Blin

Get Value from Asset Management.
Alessandro Neri, Angelo Neri

Managing Complexity and Growth - where there's a will...
Graham Constable, Brian Munro

Asset Integrity Management – A structured Approach.
Martin Brown

The Role of Asset Maintenance Organisations in Improving Return on Assets.
Ankur Barua

How Change Management can Improve Business Processes.
Ayesha Alam, Sana Khan

Risk – The Common Language of Asset Management Decision Optimisation.
Paul Blackmore

Quantifying the Economic Benefits of Online Monitoring.
Neil Davies, Ying Wang, Paul Blackmore,

Managing Maintenance Resources for Efficient Asset Utilization.
Winda Nur Cahyo, Khaled El-Akruti, Richard Dwight, Tieling Zhang
Integration of Risk Management with Asset Management Systems.
Kevin Creagh

Can Shared Coal Industry Knowledge be Adapted to Improve Risk Management Outcomes in Other High-Risk Domains?
Philipp Kirsch, Darren Sprott, Meng Shi

A Two-Phased Approach for Risk-Based Inspection (RBI) Programme Implementation.
Steve Matthews

Management Commitment to the Success of the PAS 55 Certification Journey.
Paul Catton

6 Critical Steps for Facilitating a Successful Root Cause Analysis.
Jack Jager

Increasing Asset Management Maturity in a Complex, Multi-site Organisation,
David Wiley

The Role of Condition Benchmarking in Asset Management, Case Study for Pavement Asset in Abu Dhabi – UAE.
Alan Roland, Daniel Ludemann

Asset Management Today, the Continuous Journey.
Alan Roland, Prof. John Yeaman

Delivery Reliable Customer Outcome Through Performance Based Maintenance Service.
Alan Roland, Adel Ali

Establishing Optimal Long Term Funding Allocation Systematic Approach based on Network Needs & Availability of Funds.

Alan Roland, Prof. John Yeaman, Prof. Mark Porter

The 'Perfect Storm for AM' – data gaps & generational change.
Shane Oldham

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Predicting Reliability of Heavy Mining Equipment Using Computational Intelligence Dynamic Models.
Gonzalo Acuna

The Uncertain Future: Planning for Alternate Realities.
Anna Robak

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Rebecca Taylor, Simon Ayres

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Azam Khan, Ehsan Khan

Construction Materials Condition Input to Asset Management – Health Checks to Extend Asset Life.
Rodney Paull

Improving Woodside's Asset Management Capability Using an Integrated Risk Based Inspection System.
Matthew Turnbull

Exploring the Effect of Political Risks in Large Infrastructure Projects in Politically Unstable Countries.
Saad Khan, Dr. Azam Khan, Daniyal Mian

Benchmarking Reliability in Power Utilities.
Chris Cunningham, Seyed Safi

Tutorials

Tutorials are a valuable part the conference program, enhancing and diversifying the learning opportunities available at AMPEAK.

1. Measuring Reliability; Tips and Tricks for a Reliability Practitioner

Mark Mackenzie, Strategic Consulting Manager

2. Asset Management Plans

Nick Hastings, Consultant

More details on the Tutorials can be found at amcouncil.com.au/conference

Young Asset Management Practitioners (YAMPs) Session

(off-site)

As part of the Asset Management Council's ongoing commitment to encourage 'the next generation' to begin their asset management journey, this year's conference program will again feature a YAMP-focused session. With direction from Blake Hunton, Facilities and Environmental Services, a tour of Perth Zoo will detail the infrastructure of the zoo and address the challenges that are faced to upgrade the facilities and incorporate renewable energy for a more sustainable future.

For further details about this off-site visit, please see the website amcouncil.com.au/conference

Friday Workshops & Site Visits

Friday 6 June, 8.30am - 4.30pm.

You can choose to book one of the three workshops or the Day of Site Visits.

W1. Creative Technique to Evolve Condition Based Maintenance Strategies, SAP

W2. Asset Management Fundamentals

Ernst Krauss, AM Council

W3. Results Oriented Reliability & Maintenance

Andrew Pringle, Managing Director and Senior Consultant, IDCON Australasia

SV. Day of Site Visits

This one-day tour will take in the following industry sites:

- ◆ 11.00–12.30 Perth Desalination Plant. Completed in late 2006 the plant produces 45 billion litres of fresh drinking water a year – around 17% of Perth's water supply.
- ◆ 13.00–15.00 Australian Marine Complex Common User Facility (AMC CUF), taking in WA's first floating dock.

For more details on the Program Overview including the Tutorials and Workshops, please visit amcouncil.com.au/conference

Conference Chair and Technical Team

The Conference Chair and Technical Team ensure the relevance and quality of the conference technical content. Please visit amcouncil.com.au/conference for details on the team members and conference.

Partner Program

Partners accompanying delegates can enjoy a three-day program, taking in some of the highlights of Perth and its surrounds. Please visit amcouncil.com.au/conference for full details.

Accommodation

With the help of OzAccom we are able to offer you a variety of accommodation both onsite at Crown as well as hotels closer to Perth CBD. Block bookings and delegate discounts have been arranged with each hotel listed. For prices and proximity to the AMPEAK venue visit: <http://conferences.ozaccom.com.au/2014/amc14/index.aspx> or call OzAccom on 1800 814 611 (Toll Free within Australia) or +61 (0) 7 3854 1611.

- ◆ Crown Promenade Perth
- ◆ Crown Metropol Perth
- ◆ Fraser Suites Perth
- ◆ The Ibis Perth
- ◆ The Mercure Perth

Perth – Make the Most of the Destination

Whilst the conference social program is a great way to relax and enjoy good food and a drink whilst you network and share ideas, Western Australia (WA) is an extraordinary destination awaiting exploration. For those delegates travelling with their partners, why not take time-out pre or post conference to discover WA's awe-inspiring beauty, coveted the world over.

www.perthtourism.com.au



ASSET MANAGEMENT COUNCIL



Registration Prices

Super Early-Bird Offer:

Members & Presenters for Full Conference Registration

Member: \$1850 Payment must be received
Presenter: \$1330 by **14th March 2014** to qualify.

Principal Sponsor:

Transfield Services



2014 Sponsors

Writing Pad & Pen – Assetivity

USB of Proceedings - K2 Technology

Welcome Function - Institute of Quality Asset Management

Water Bottles - Lycopodium Asset Management

Afternoon Tea, Tuesday - I&E Systems

Morning Tea, Wednesday - Teak Yew

2014 Exhibitors

ARMS Reliability

Assetivity

Bombardier

Geomatic Technologies

I&E Systems

INTELFUSE

K2 Technology

Landgate

Logsys Power Services

Lycopodium Asset Management

OMCS International

PWC The Asset Partnership

Teak Yew

The Online Workshop

Vitech Reliability

VIZIYA

Looking to Participate as a Sponsor or Exhibitor?

Opportunities are still available; please download the current Sponsor and Exhibitor Brochure from our website amcouncil.com.au/conference or contact Zoë Fitzpatrick on AMPEAK@amcouncil.com.au or call + 61 (0)3 9819 2515.

Who to Contact

If you require further information about any aspect of AMPEAK 2014, please contact Zoë Fitzpatrick, Asset Management Council Event Coordinator:

Email:
AMPEAK@amcouncil.com.au
Phone:
+61 (0)3 9819 2515



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		Non-member	Member	Student*
Full Conference Attendance Includes attendance at all sessions on Tuesday, Wednesday & Thursday, lunches and refreshments, Practitioner Forum Monday, a USB of proceedings, Welcome Function, entrance to the Exhibition, YAMP Networking Evening, Annual Dinner and Farewell Drinks.	Full Conference	<input type="checkbox"/> \$2560	<input type="checkbox"/> \$2310	<input type="checkbox"/> \$900 (NM) <input type="checkbox"/> \$770 (M)
	Payment before April 30th	<input type="checkbox"/> \$2410	<input type="checkbox"/> \$2150	
	Presenter	<input type="checkbox"/> \$2050	<input type="checkbox"/> \$1800	
	Presenter with payment before April 30th	<input type="checkbox"/> \$1900	<input type="checkbox"/> \$1640	
Day Registration Includes attendance at all sessions, lunch and refreshment breaks on the day of registration and entrance to the Exhibition. <i>Please specify which day/s in the payment summary overleaf.</i>	One day only	<input type="checkbox"/> \$900	<input type="checkbox"/> \$770	<input type="checkbox"/> \$300
	Two days	<input type="checkbox"/> \$1800	<input type="checkbox"/> \$1540	<input type="checkbox"/> \$600
	Three days	<input type="checkbox"/> \$2690	<input type="checkbox"/> \$2310	<input type="checkbox"/> \$900
Workshops <i>Please indicate which workshop you will be attending in the payment summary overleaf.</i>	<input type="checkbox"/> W1. Creative Technique to Evolve Condition Based Maintenance Strategies	<input type="checkbox"/> \$850	<input type="checkbox"/> \$720	
	<input type="checkbox"/> W2. Asset Management Fundamentals			
	<input type="checkbox"/> W3. Results Oriented Reliability & Maintenance			
Site Visits (SV) Perth Desalination Plant and Australian Marine Complex Common User Facility		<input type="checkbox"/> \$80	<input type="checkbox"/> \$60	
Three-day Partner Program Three-day tour includes Welcome Function, YAMP Networking Evening, Annual Dinner and Farewell Drinks. <i>Individual days can be bought (See below)</i>		<input type="checkbox"/> \$570	<input type="checkbox"/> \$460	
Partner name for registration badge:				
Additional Tickets Social function tickets are included in the Full Conference Registration fee and the three-day Partner Program fee, as detailed above. Please Note: <i>Individual days for the Partner Program do not include the social functions but can be bought separately.</i>	Welcome Function (Mon)	<input type="checkbox"/> \$80 per ticket		
	YAMP Networking (Tue)	<input type="checkbox"/> \$35 per ticket		
	Annual Dinner & Awards (Wed)	<input type="checkbox"/> \$190 per ticket		
	Farewell Function (Thu)	<input type="checkbox"/> \$50 per ticket		
	Partner Program (per day)	<input type="checkbox"/> \$200 per ticket		
Additional USB		<input type="checkbox"/> \$88 each		

Please summarise your choices and payments overleaf.

* proof of student identity will be required upon registration

Please return your completed form via:

Email: AMPEAK@amcouncil.com.au

Fax: +61 (0)3 98192615

Mail: Asset Management Council,
PO Box 2249, Hawthorn VIC 3122 Australia

AM Council News

New Asset Management Council Members

The Asset Management Council Team would like to welcome our new members!

Murali Krishnan	Daniel Naismith
Sanja Bila	David Le Dieu
Sam Banzi	Stephen Engwicht
Peter Stewart	Himalee Padmakar
Kevin Rad	Anthony Roe
Scott Bloxsom	Ashish Anand
Angelo Nanos	Stuart Cornell
Laurian Hrinco	Sanja Bila
Joshua Bailey	Geoff Barnett
Michael Van Der Plaat	Karna Vyas
Bala Aluru	Pren Dodaj
Abhishek Amarachelvam	Gayana Abey
Tony Croagh	Karl Edwards
Ian McLeod	Mehdi Shayestehfar
Peter Jensen	David Nolen
Kelvin O'Keefe	Lachlan Thomson
Pieter Weissel	Edward King
David Eccleston	Ali Hassan
Eric Caesar	David Ellis
Joanna Demler	Stephen Pascall
Rhys Donoghue	Adrian Shambler
Sean Reeves	Paul McClean
Peter Statmann	Liam Cummins
Thapelo Oageng	Bill Heron
Michael Ahern	Michael Robertson

Officer Profile



Heavily involved the Asset Management Council for many years, Danny Azavedo is the current Overseas Chapter Chair. In 1994 Danny joined, and was one of the founding members of, the Asset Management Council (then known as MESA). In 1998 he became the Treasurer for the Sydney Chapter and was elected to the position of Chapter Chair and Deputy National Chair in 2001. In 2007 he relinquished the Sydney Chairman position, and continues as Treasurer.

Danny brings with him 40 years of experience in Asset Management and Maintenance and is also able to speak over six languages. He is a Senior Manager at Sydney Water.

Membership Application



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Thank you for joining the Asset Management Council. Please complete all sections. Phone or email with any queries.

PERSONAL DETAILS (Please print in BLOCK CAPITALS)

Title (Please circle) Dr Mr Mrs Ms Miss Other (Please specify) Sex (Please circle) F M

Family Name Given Names (in full)

Date of Birth Engineers Australia Membership No

CONTACT DETAILS (Please print in BLOCK CAPITALS)

Preferred Address: ☐ Private Address or ☐ Business Address

Position

Organisation

Postal Address

City

State

Country

Postcode

Phone

Fax

Mobile

E-mail

AREAS OF INTEREST (Please tick)

Technical Topics

- ☐ Reliability
- ☐ Availability
- ☐ Maintainability
- ☐ Performance
- ☐ Spares Planning
- ☐ Maintenance Planning and Scheduling
- ☐ Maintenance Plan development and implementation
- ☐ Maintenance Policy/Strategy development
- ☐ Logistics
- ☐ Shutdown planning and the maintenance interface
- ☐ Asset Management
- ☐ Other:

Issues

☐ Skills development

☐ Training

☐ Other:

Industries

☐ Facility Management

☐ Consulting

☐ Power

☐ Transport

☐ Defence

☐ Oil and Gas

☐ Mining and Industry

☐ Water and Utilities

☐ Infrastructure

☐ Other:

AM Council News



The Australia-based Asset Management Council Board and Commissioners link up via video conference with Achim Küger, Germany-based Asset Management Council Board Member.

Board and Commissioners Strategic Planning Meeting

The Asset Management Council Board and Commissioners met recently to talk about strategic planning for the Asset Management Council, including the results of the Stakeholder Survey. The Asset Management Council would very much like to thank one of our partnering organisations, SAP Australia, for the use of their Melbourne facilities for the meeting. Their facilities allowed a video conference with Germany-based Board member, Achim Küger.

The results of this planning session will be announced soon.

Stakeholder Survey Prize Winner

Congratulation to Craig Atkins, who was the winner of the \$200 JBHiFi Voucher for the Stakeholder Survey.

Thank you to all those who took the time to fill out the Asset Management Council Stakeholder Survey. The opinion of our members and the asset management community at large is hugely valuable to us. We really appreciate your participation. A summary of the Stakeholder Survey results will be published on our website.

Be sure to participate in the next Asset Management Council Survey to go in the draw to win!

GROUP AFFILIATION

☐ Young Asset Management Practitioners (18-35 year olds)

CHAPTER AFFILIATION (Please tick one)

☐ Newcastle ☐ Canberra ☐ Sydney ☐ Illawarra ☐ Mackay
☐ Melbourne ☐ Adelaide ☐ Brisbane ☐ Hobart
☐ Darwin ☐ Overseas ☐ Gippsland ☐ Perth

MEMBERSHIP FEES Effective 1 Jan 2014-30 Jun 2014 (Please tick one membership type only)

Individual Annual Fee (including GST) Pro-Rata Corporate Annual Fee (including GST) Pro-Rata
☐ Member \$74.25 ☐ Platinum \$4,620.00 ☐ Gold \$1,760.00
☐ Student \$16.50 ☐ Silver \$880.00 ☐ Bronze \$453.75

GST (10%) does not apply to overseas memberships.

CORPORATE MEMBER NOMINEES

Platinum – 30 nominees, Gold – 10 nominees, Silver – 10 nominees, Bronze – 5 nominees

Name	Email	Date of Birth (Mandatory)	AM Council Chapter
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Contact Asset Management Council to provide more corporate nominee details.

PAYMENT

Method of Payment (please tick one and enclose payment)

☐ Cash
☐ Money Order or Cheque (drawn in AUD on an Australian bank payable to **Engineers Australia**)
☐ International Money Order
☐ Credit Card
(Australian or New Zealand Bankcard only acceptable)

Credit Card Details Please charge my card (tick one card type)

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The Global Forum on Maintenance and Asset Management (GFMAM) member societies share an interest in ensuring systems and programs are in place in our regions to assist our member base to define, develop, assess and recognise competence in Maintenance and Asset Management practices. This Certification Project is a part of GFMAM Enduring Objective 'C': "To facilitate the exchange and alignment of maintenance and asset management knowledge and practices."

Terminology

Our collective understanding of the following terms continues to evolve. In the various jurisdictions this terminology and legal frameworks may be different and there is no project underway (including this one) to attempt to align them. For the purpose of this document the definitions of terms is as follows:

Qualification vs. Certification

In very general terms we have come to discuss qualification as a confirmation of knowledge and certification as a confirmation of competence (both knowledge and skills).

Qualification (as used in this document)

Though they differ somewhat in how they are organised, accredited and delivered around the world, there is general consistency between what is expected from a given level of qualification (regardless of the subject) in terms of breadth, depth and period of study. For example a 'diploma' is typically a two-year program that enables a person to function at an operational role in an organisation.

Certification

In some regions and in some fields, professional bodies may encourage practitioners to meet standards of

competence (both knowledge and skills) for a particular area of practice. This recognition of competence is certification. A certification is generally rescinded if not renewed or maintained. If a person changes careers they usually stop taking action to maintain their certification and let it lapse.

The GFMAM has identified qualification and certification schemes with the following steps

Qualification

Step 1 "Learning Outcomes" – Learned body establishes requirements, usually stated as learning outcomes.

Step 2 "Education and Training" – Delivering agent designs and delivers a program of study to meet the learning outcomes that includes formative and summative assessment processes to ensure the requirements are met.

Step 3 "Recognition of Learning" – Delivering body issues a qualification on successful program completion.

Certification

Step 1 "Competency Statements" – Learned body establishes requirements – statements about what an individual must be able to do to be deemed competent.

Step 2 "Proof of Skills" – Learned body establishes an assessment mechanism and defines, based on rate of change of information in the field or expected 'shelf life' of a particular skill, what the recertification requirements ought to be to remain competent.

Step 3 "Assessment" – Learned body operates the assessment mechanism and maintains a register of certified individuals accessible to those who may need to confirm an individual's competence.

For more information, please contact your local society.

Meeting Point: Dates for Your Diary

Training Courses

Asset Management Plans

This one-day training intensive assists participants in developing an Asset Management Plan for their enterprise. Participants will learn to identify the content of a typical Asset Management Plan and the benefits of a properly constructed plan.

Asset Management Fundamentals

This one day course provides participants with an understanding of the fundamentals of good asset management, covers the knowledge and skills required, and illustrates how business can benefit from effective asset management capability.

Should you pass the accompanying online exam, you will receive a Certificate of Achievement. This contributes to 50% of the required points to become a Certified Associate in Asset Management (CAAM) and is evidence to current and future employees of your deeper understanding of asset management related topics and issues.

2014

March

Thursday 13 Canberra
Asset Management Fundamentals
Thursday 20 Adelaide
Asset Management Fundamentals

April

Thursday 3 Newcastle
Asset Management Fundamentals
Thursday 17 Sydney
Asset Management Fundamentals
Thursday 17 Brisbane
Asset Management Fundamentals

May

Thursday 1 Tasmania
Asset Management Fundamentals

June

Friday 6 Perth
Asset Management Fundamentals



2-5 June 2014 Perth

For more information on Asset Management Council events, contact Zoë Fitzpatrick, Event Coordinator at training@amcouncil.com.au

Partners, Corporate Members & Contacts

Partnering Organisations



SAP Australia
www.sap.com



Transfield Services
www.transfieldservices.com



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Wesfarmers CSBP Limited www.csbp.com.au

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