Sustainable Communities
Sharing Knowledge

Engineering Management

Peter Way PSM
Chair – NAMS.AU - IPWEA

Implementing ISO 55000 to Enhance Management of Assets

MANAGEMENT
ASSET
IT
PROCESS
COST
FINANCIAL
PROPERTY
INTELLECTUAL
MONITORING
SERVICE
PROVIDING
DISPOSING
ENTITY
LIFE CYCLE
FIXED
UPGRADING
MAINTAINING
FACILITIES
INFRASTRUCTURE
GOODWILL
OBJECTIVE
PHYSICAL
OPERATING
EQUIPMENT
GROUP
EFFECTIVELY
SYSTEM
DIGITAL
ENTERPRISE

Implementing ISO 55000 to enhance Management of Assets

Sustainable Communities Sharing Knowledge

Can these new ISO Standards help you better manage your assets?

- **ISO 55000 Asset management – Overview, principles and terminology**
- **ISO 55001 Asset management – Management System - Requirements**
- **ISO 55002 Asset management – Management systems - Guidelines on the application of ISO 55001**

Some Key Questions

Sustainable Communities Sharing Knowledge

- What benefits will the standards deliver?
- How will they integrate with other management systems?
- How difficult might they be to implement? How costly?
- Will they create a stimulus for new guidance and practice?
- What are the implications for your organization?

Some Key Issues

Sustainable Communities Sharing Knowledge

- The Standards are about a **MANAGEMENT SYSTEM** for asset management
- "**What** to do" **NOT** "**How** to do it"
- Can be applied to **ANY** assets – not just Physical assets
- Each organization determines **scope** - which assets involved
- Asset **Lifecycle** approach- Life Stages to suit each organization
- Strong focus on **risk** management

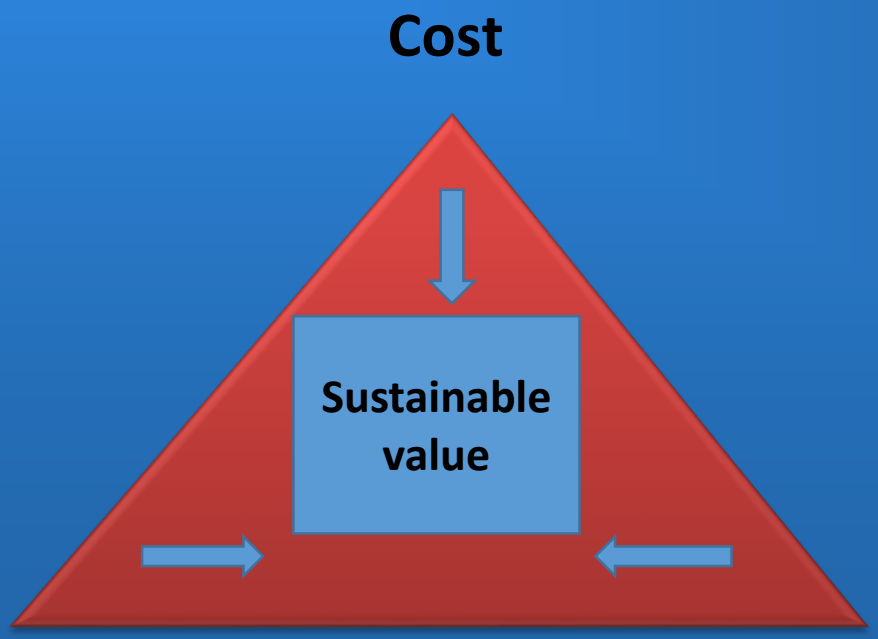
AM System – What is it?

Sustainable Communities Sharing Knowledge

- NOT a Software System
- NOT an Information Management System
- It IS a framework or set of tools, including;
  - policies,
  - plans,
  - business processes and
  - information systems, which are integrated to deliver the asset management activities
- The am system coordinates contributions from and interaction between the many functional units within an organization impacting on asset management

Assets are only there for the VALUE they can provide!

- We realize VALUE
  - Through managing risk and opportunity
- To achieve BALANCE of cost, risk & performance
- AM uses risk based approach to translate organizational objectives into asset related decisions, plans/activities



Balancing the Cost versus Performance

Sustainable Communities Sharing Knowledge

Affordable costs

Desired Level of Service

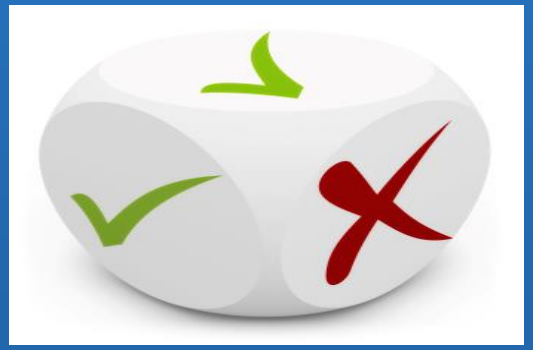
Risk management

Benefits of an AM System

Sustainable Communities Sharing Knowledge

During Creating the AM System

- Identify risk reductions, process improvements
- Improve knowledge, decision making
- New ideas on value creation
- Stimulate cross functional improvement



For Top Management

- Better understanding of assets and their role
- Improve communication and interaction across functions
- Longer term and sustainable decision making
- Better understanding and integration of the many factors affecting AM implementation

Benefits of an AM System (Cont'd)

Sustainable Communities Sharing Knowledge

Financial functions

- Better integration between am information and financial information - long term financial planning
- Improved assessment of financial position and funding
- Common taxonomy possible

Other Parts of Organization

- Human resources for competencies needed
- Better data integration and new sources
- Improved quality of asset information
- Better involvement of internal and external stakeholders
- Stimulate creativity and innovation

What will the Standards deliver?

Sustainable Communities Sharing Knowledge

- A Framework for a consistent Management System approach to AM
- Greater commitment at Senior Management level
- Better integration of asset management and financial management
- More effective asset management process.
- Greater assurance to stakeholders that we are following good practice.

The ISO 55001 Requirements

- Context of the Organisation
- Leadership and Commitment
- Planning – for both the AM System and AM
- Support – for both the AM System and AM
- Operation and Control
- Performance Evaluation
- Improvement

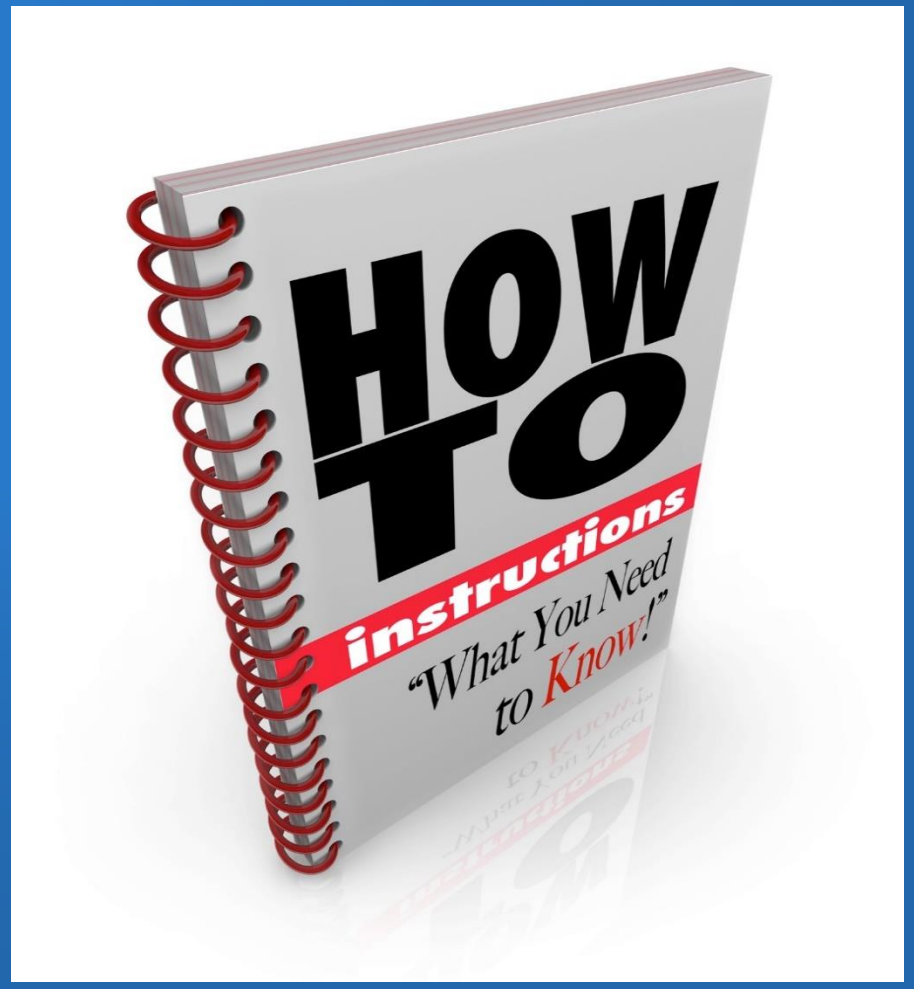
IPWEA
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

Meeting all these Standards requirements seems daunting!

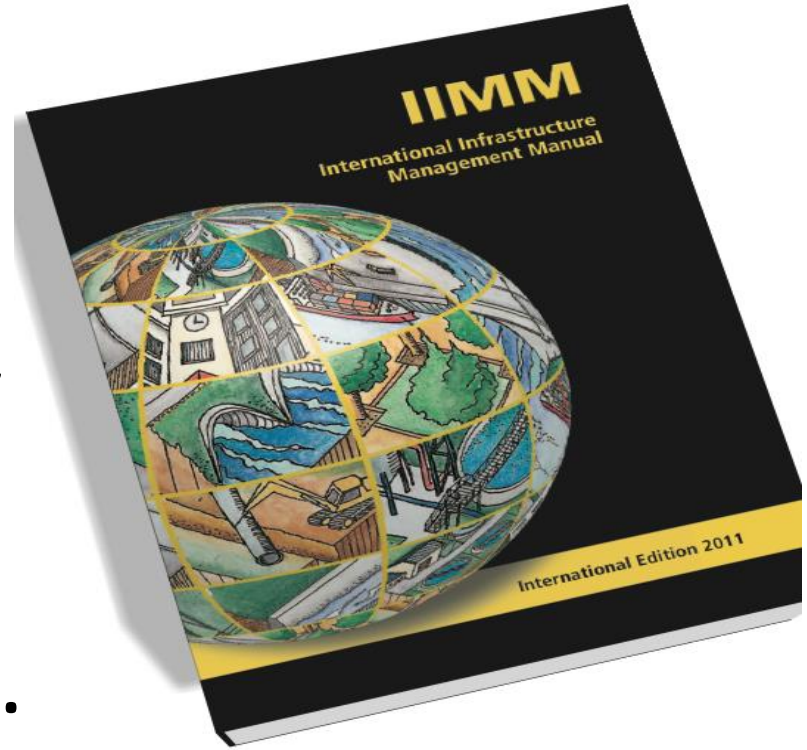
ISO 55000: The W hat

IPWEA: The How

Sustainable Communities Sharing Knowledge



The IIMM

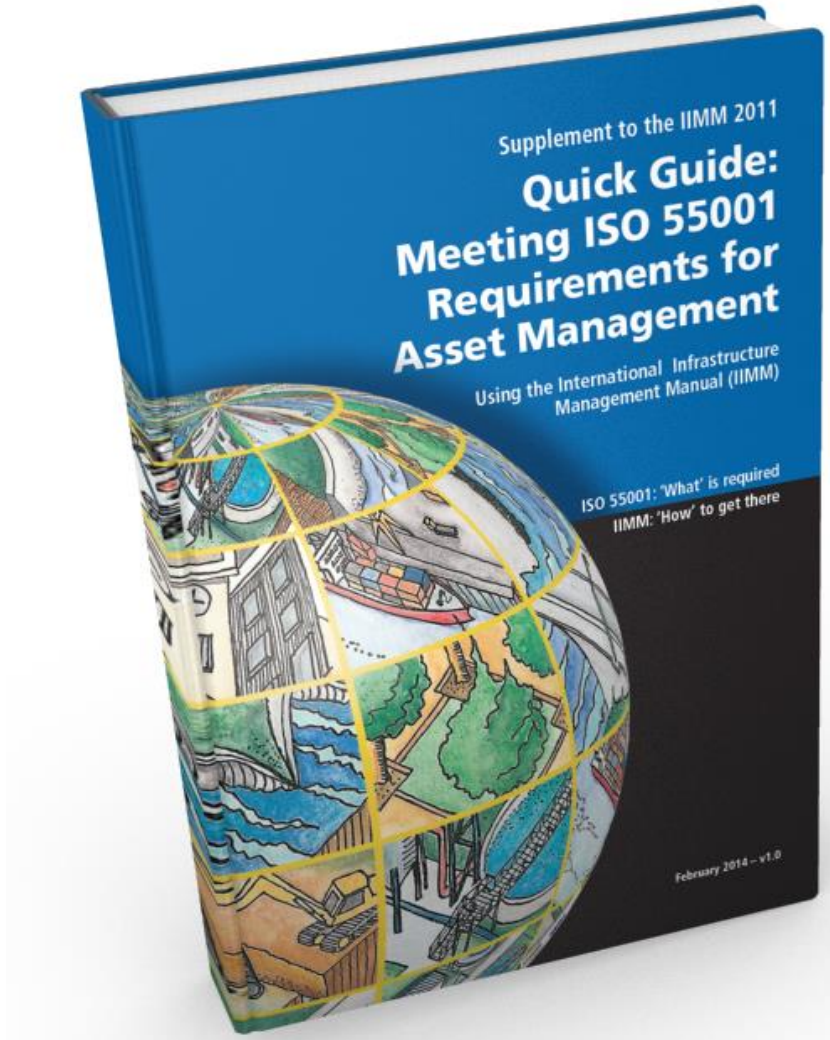


- The International Infrastructure Management Manual (IIMM) (fourth edition), has evolved over many years. New Edition coming!
- Widely accepted as the international leading document on infrastructure AM.
- The IIMM provides valuable guidance to organizations on *'how'* to implement good AM practice for infrastructure assets.
- Includes over 100 case studies demonstrating good practice across a wide range of assets and countries.

www.ipwea.org/bookshop/iimm

IPWEA
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

Free ISO Quick Guide



Matches the ISO
"What to do"
with the
"How To Get There"
of the IIMM

Download at
www.ipwea.org/IIMMSupplement

Conformance Issues

Sustainable Communities Sharing Knowledge

To Certify or Not for Conformance?

- What will your stakeholders expect?
- What are the costs/benefits?
- Concern regarding the competence of Auditors in the AM MS field
- IPWEA involved in establishing a technical evaluation process for AM Auditors
- JAS-ANZ about to approve first CABs in Australia.

Conformance Certification Considerations

- As with other ISO standards, many organizations may choose not to seek formal certification
- Certification can be an expensive and time consuming process

- As a minimum –
  - be aware of these new standards
  - look at opportunities to align with and embed the principles of the standards within the organization
- Helps bring structure and consistency to the practice of asset management
- Makes the processes stronger over time.

IPWEA Policy on the ISO Standards

Sustainable Communities Sharing Knowledge

- All infrastructure orgs should consider for benefits from applying a MS approach
- Governments to promote at level appropriate to business/community needs
- Not prescriptive – apply to those assets and at level appropriate to stakeholder needs
- Not just for compliance – part of overall management approach
- Orgs to decide on appropriate level of certifying compliance
  - www.ipwea.nams.au

IPWEA ISO 55001 Maturity Assessment

Sustainable Communities Sharing Knowledge

- On line tools to allow an assessment of how well aligned your organisation is to the ISO 55001 Standard
- Guidelines for accessing and utilizing the tools
- Self assess or with independent support for greater transparency
- Annually but can be reviewed/updated.

ISO AM Standards Maturity Assessment Webinars

Sustainable Communities Sharing Knowledge

ISO AM 55000 Series Standards Implementation Webinar Series

A two-part webinar series on the steps involved in implementing the ISO 55000 AM Standards into organisations Asset Management processes.

The webinars will provide 12 months access to IPWEA self-assessment tools to assist in monitoring alignment and progress on such implementation.

2 x 60 minute webinar package

- Live & interactive webinars so you can ask questions
- Have access to the IPWEA Maturity Assessment Framework against ISO 55001
- Attend live and/or recorded sessions
- Certificate of attendance issued on completion

Webinar Series Objectives

To promote:

- Appropriate use of the Standards based on organisational requirements and possible conformity assessments
- How best to pursue the 'How To' of implementing the 'What to do' that is inherent in the Standards (by using the many IPWEA tools and resources)
- Application of the IPWEA Maturity Assessment Framework to test alignment for the organisation against ISO 55001.

Course Outcomes

- Why it might be beneficial to apply the ISO AM Standards (or not)
- If so, how best to go about implementation (e.g., using the IIMM)
- How does the organisation currently align with the Standards requirements - using the IPWEA online maturity assessment tools
- How to use the maturity assessment and risk management to drive continuous improvement.

Webinar Registration

Register your interest today for access to the recorded version of the two-part ISO webinar series.

Registration includes:

- Link to 2 x 60 min webinar recordings
- 12 months access to ISO 55000 Maturity Model

Register your Interest today

Cost

Australia:
AU$385 per participant (inc GST)

International:
AU$350 per participant (GST does not apply)

Course Resources

International Infra Mgt Manual (IIMM)

IIMM Quick Guide to ISO 55001 (free)

ISO 55000, ISO 55001, ISO 55002 (beneficial)

- **Two 60 minute webinar sessions**
- **Register to access recorded copy of webinars**
- **Provides access to the maturity assessment tools**
- **www.ipwea.org/asset/Home/**

IPWEA ISO 55001 AM Maturity Assessment

Home

ISO 55001

---- New

---- View/Edit

---- Charts & Reports

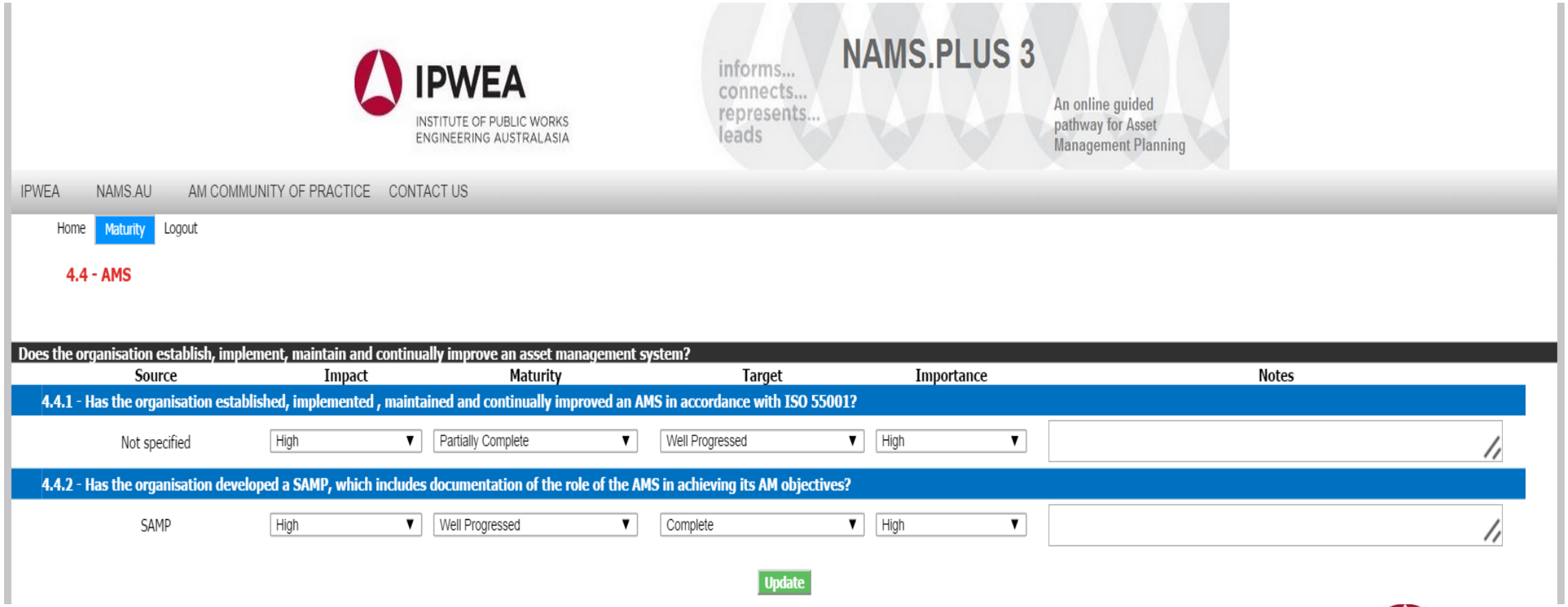
Logout

ISO 55001 Maturity Summary for assessment Id. 80

Section	Completed	View/Edit	Maturity
4 Organisational Context			
4.1 - Understanding the organisation and its context			83%
4.2 - Understanding the needs and expectations of stakeholders			58%
4.3 - Determining the scope of the asset management system			0%
4.4 - Asset management system			50%
5 Leadership			
5.1 - Leadership and Commitment			43%
5.2 - Policy			0%
5.3 - Organisational roles, responsibilities and authorities			0%
6 Planning			
6.1 - Actions to address risks and opportunities for the AM system			0%
6.2.1 - Asset management objectives			0%
6.2.2 - Planning to achieve asset management objectives			0%
7 Support			
7.1 - Resources			0%
7.2 - Competence			0%
7.3 - Awareness			0%
7.4 - Communication			0%
7.5 - Information Requirements			0%
7.6.1 - Documented Information: General			0%
7.6.2 - Documented Information: Creating and updating			0%
7.6.3 - Documented Information: Control of documented information			0%
8 Operation			
8.1 - Operational planning and control			0%
8.2 - Management of change			0%
8.3 - Outsourcing			0%
9 Performance evaluation			
9.1 - Monitoring, measurement, analysis and evaluation			0%
9.2 - Internal audit			0%
9.3 - Management review			0%
10 Improvement			
10.1 - Nonconformity and corrective action			0%
10.2 - Preventive action			0%
10.3 - Continual improvement			0%

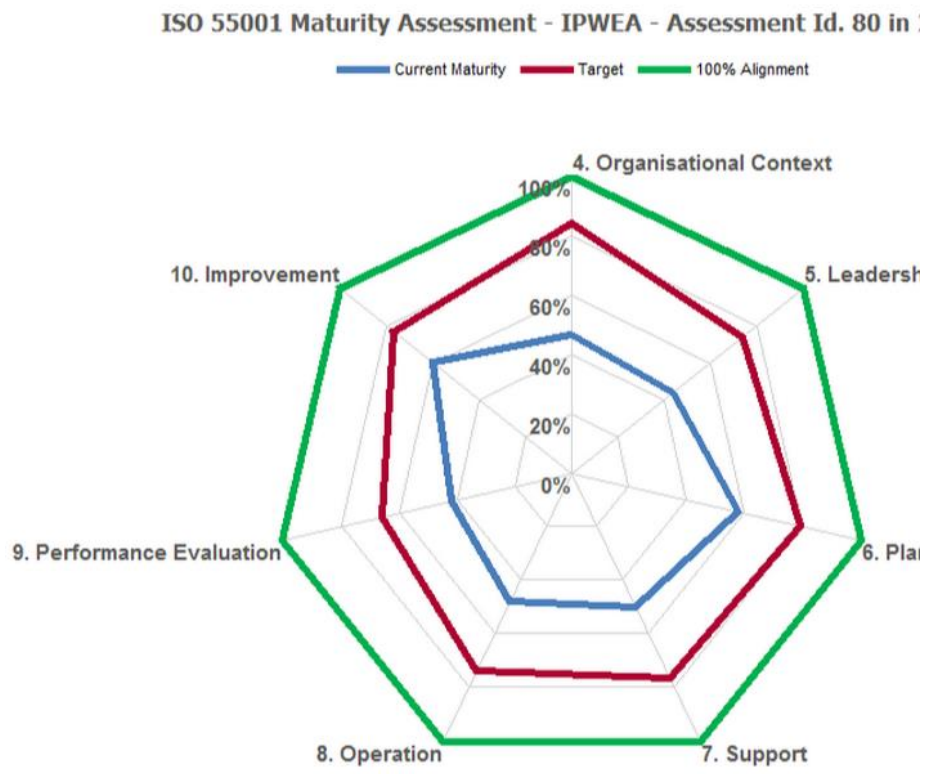
Example of Questions

- Source, Impact, Maturity, Target, Importance, Notes.

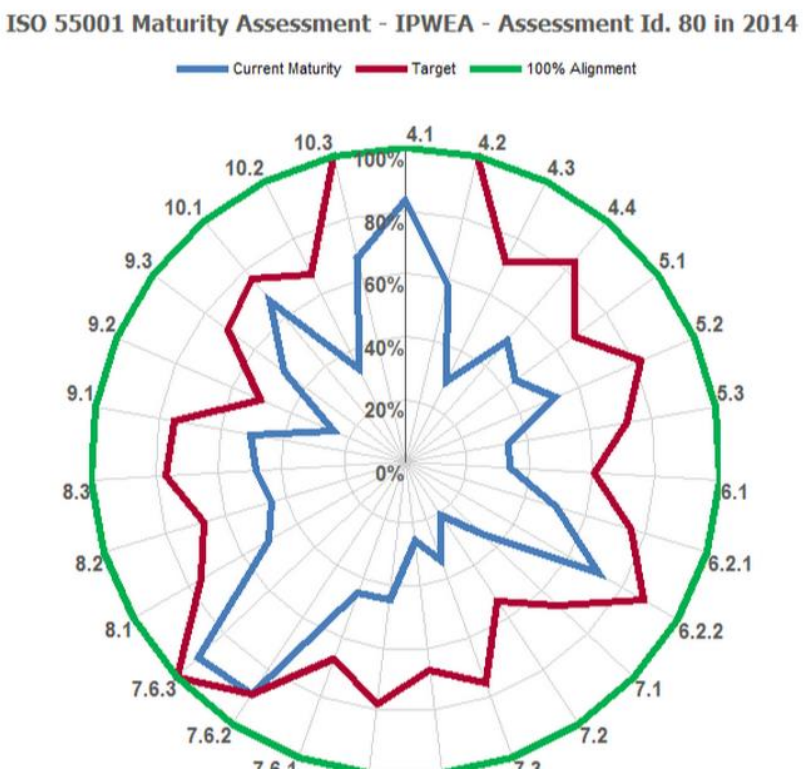


Maturity Reporting Charts

ISO 55001 Maturity Assessment Summary



AS ISO 55001 Maturity Assessment Detail



IPWEA
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

Other Report Formats

Sustainable Communities Sharing Knowledge

- As well as the radar charts, other report formats include;
  - bar charts (Summary and detailed)
  - Maturity Gap Priorities (Summary and detailed)
  - Comparison (Summary and detail)
  - A Maturity Report (Can be cut and pasted into an external document)

Continual Improvement is the Goal

Sustainable Communities Sharing Knowledge

Audit and Monitor

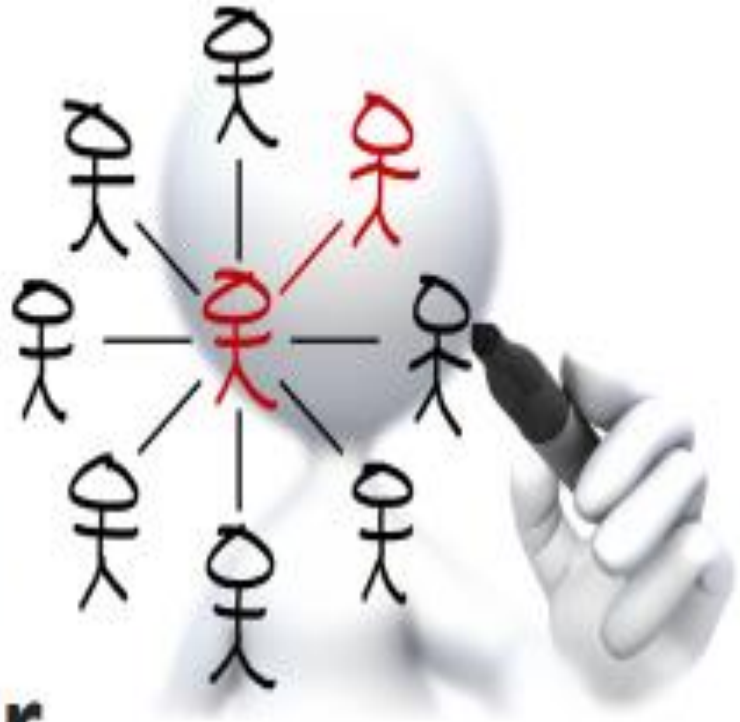
IPWEA
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

Conclusions

Sustainable Communities Sharing Knowledge

- Aim to maximise value from your AM by following a management systems approach.
- Use ISO 55001 to test how well you align.
- Use the many tools and resources available to assist you in that process..

IPWEA
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA



Our greatest strength is our networks and Tools & Resources

Questions?

Sustainable Communities Sharing Knowledge

Peter Way PSM

peter.way@ipwea.org

www.nams.au.com

www.ipwea.org