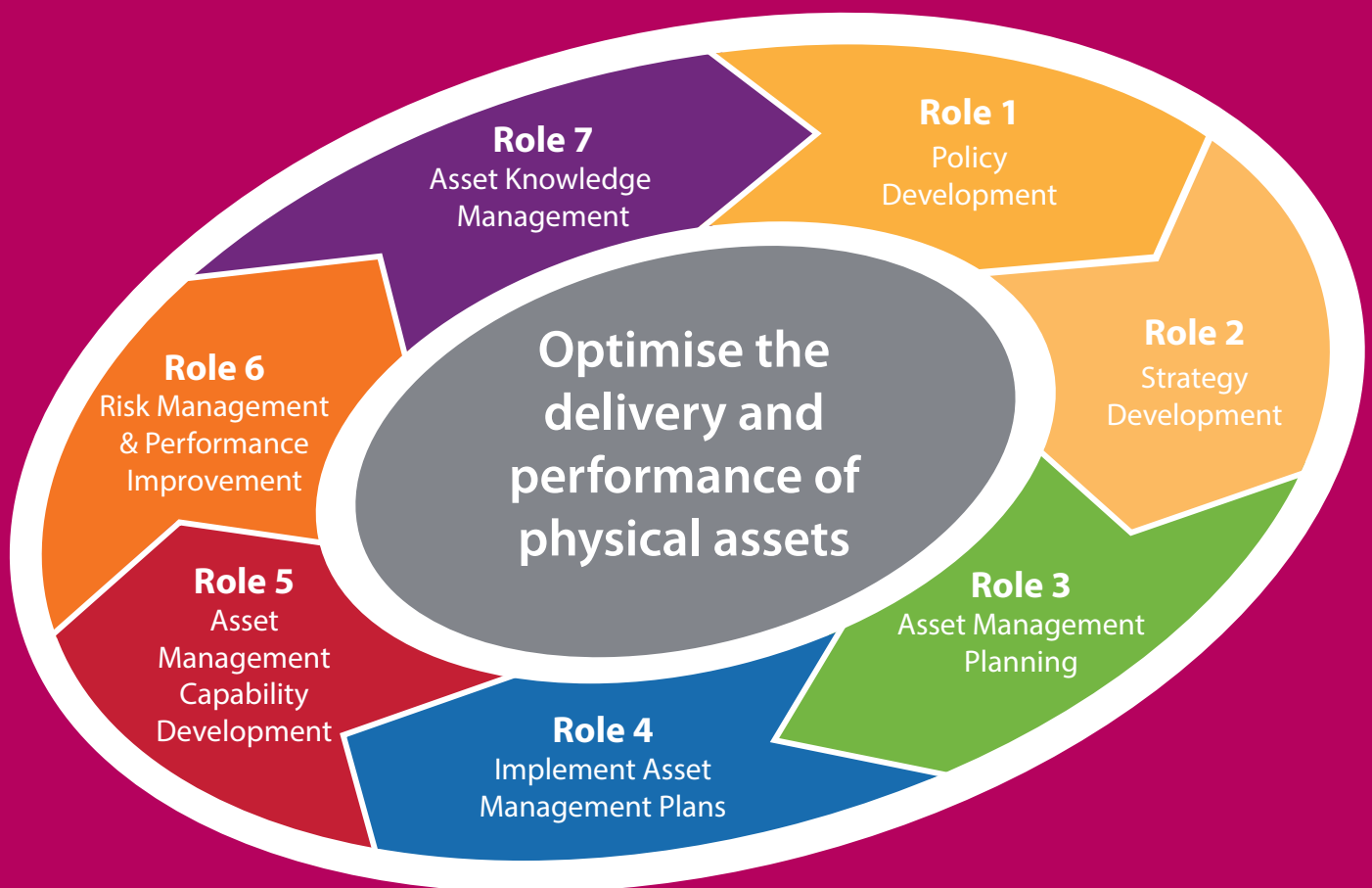


1 The IAM Competences Framework

The Requirements: Version 3.0

June 2014

The IAM Asset Management Competence Requirements Framework



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Version	Amendment Version	Date	Comment
2	3.1	May 2012	Mapped to 39 Subjects (www.theIAM.org/AMA)
2	3.2	November 2012	Finalising for print and correcting typographical errors
2	3.3	July 2013	Changes made to Figure 2, Page 20 - 21



1. Introduction

1.1 Evolution of the Framework

When the Institute of Asset Management (IAM) published its Competency Requirements Framework in June 2006, it was a world first. The Framework described what people involved in the management of physical assets should be able to do and the knowledge and understanding needed to underpin this.

A second version of the Framework was published in November 2008. Following user feedback and consultations, the first version was restructured to make it less prescriptive and better aligned with BSI: PAS 55: 2008 and other leading competence frameworks. Part 1 set out a set of generic competence requirements. Part 2 contained guidance on how to use the Framework to support recruitment, selection, training and development and tailor it to meet specific organisational needs.

This document contains the third version of the Framework, as updated in June 2014. The 2008 Framework has been revised and updated to reflect specific feedback from users and align it with the latest IAM and international thinking and developments, as follows:

- Various amendments and additions have been made. The biggest change is the division of Unit 3.3 *Create and Acquire Assets* into two Units, 3.3 *Produce business case for creating and acquiring assets* (which has to do with planning) and Unit 4.1 *Create and Acquire Assets* (which has to do with implementation). Otherwise, some Elements have been added and the underpinning knowledge and understanding requirements have been enhanced.
- The requirements set out in the Framework are still generic, applicable to people in asset management roles in any organisation or sector. Its format is consistent with that of other leading competence frameworks and its contents support the principles and requirements of BSI PAS 55: 2008 and those of the ISO 5500x standards which were published in January 2014.

- The 2012 Framework is mapped to the 39 subjects in the Global Forum for Maintenance and Asset Management (GFMAM) *Asset Management Landscape* (2nd Edition, March 2014) and the IAM's *Asset Management – An Anatomy* (2011).

The 2012 Framework has been used in the design of the professional qualifications launched by the IAM in June 2012, the IAM Certificate and the IAM Diploma.

1.2 Purposes of the Framework

Asset management requires a multidisciplinary approach. The ISO 5500x Standards, the AM Anatomy and the GFMAM Landscape confirm this. It spans a wide range of disciplines including engineering, finance, operations, information systems, management, contract and supplier management, human resources and organisational development. The precise mix of competences that people and organisations need depends on their objectives, the context and circumstances they are operating in.

By publishing the Framework, the IAM is seeking to help organisations plan and develop the competences they need to meet current and future needs, help individuals plan their training and professional development, and create a firm base for designing training and qualifications which have value in a global market. The Framework will also support the promotion of best practice assessment management as the IAM understands it.

1.3 Guidance and Feedback

Part 2 of the Framework, *Guidance on Using the 2012 Competence Requirements Framework*, contains advice on how to use the Framework. To comment on any aspect of the 2012 Framework, please use the Feedback section of the IAM website, www.theiam.org

2. Structure of the 2012 Framework

The 2012 Framework defines the following key purpose for people working in asset management:

Key Purpose:

To optimise the delivery and performance of physical assets

This key purpose has to be achieved in 7 key roles:

Key Roles	
1	Policy development
2	Strategy development
3	Asset management planning
4	Implement asset management plans
5	Asset management capability development
6	Risk management and performance improvement
7	Asset knowledge management

Each role is broken down into a small number of competence Units, such as 'Develop the asset management policy'. There are 27 Units in total.

Each unit is then subdivided into a small set of elements of competence such as 'Assess policy options using appropriate decision criteria' and 'Investigate root causes of asset or system failures or incidents'. This is the level at which assessment should take place.

The 2012 Framework sets out generic competence requirements for people working in asset management. Different selections of the Units and Elements of competence may be appropriate to senior experienced staff in managerial roles, to specialists with asset specific or technical responsibilities or to new entrants to asset management teams.

Underpinning the framework is an indicative list of the knowledge and understanding that might be needed to meet the competence requirements. Part of the task of specifying Performance Criteria is to define these requirements and how they should be met in more detail.

Figure 1 shows the 28 Units of Competence in the 2012 Framework and their distribution across the 7 Key Roles.

The 2012 Framework defines the following key purpose for people working in asset management:

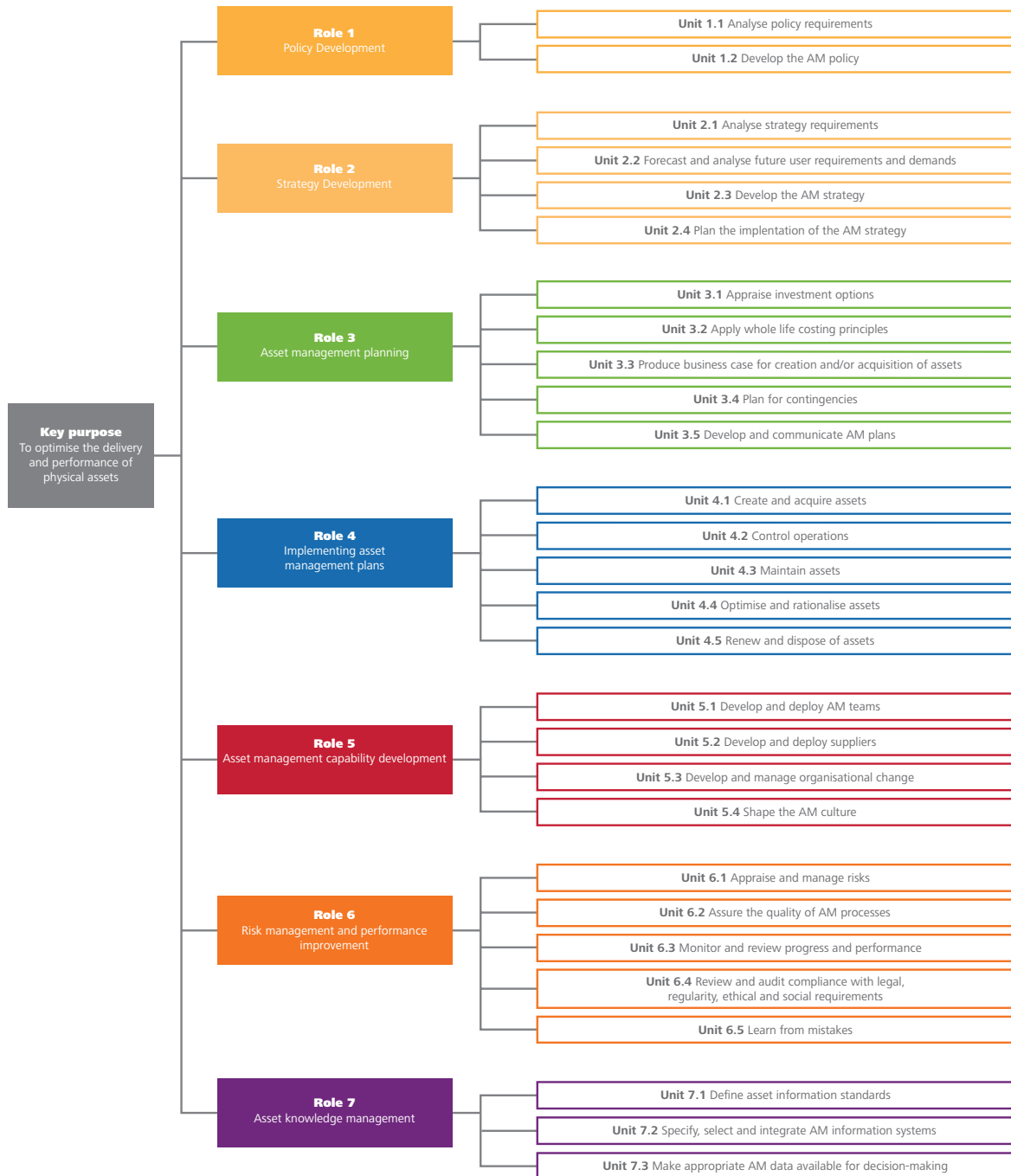


Figure 1: The Competences Framework: Key Purpose, Roles and Units.



3 Contents of the 2012 Framework

The following tables show the detailed contents of the Framework. Each Role is presented separately and is followed by a two stage breakdown of competence requirements into Units and Elements and a list of the underpinning knowledge and understanding that is considered most relevant to each Role.

Note that the acronym 'AM' is used in place of the phrase Asset Management throughout.

Role 1	POLICY DEVELOPMENT
Summary	These units ensure that AM activities are aligned with and achieve the organisational strategic plan. As defined in ISO 55 002: 2014, an AM policy is a 'statement that sets out the principles by which the organisation intends to apply asset management to achieve its organisational objectives. The policy should set out the organisation's commitments and expectations for decisions, activities and behaviour concerning asset management and should be aligned to and demonstrate support for the organisational objectives.' Policy-making involves deciding on a definitive course or method of action, selected from alternatives, to guide and, often, to determine present and future AM decisions.

Unit 1.1	Analyse policy requirements
E1.1.1	Define the corporate goals the AM policy must help achieve
E1.1.2	Define the stakeholder groups and socio-economic issues the AM policy must take into account
E1.1.3	Define the stakeholder requirements the AM policy must address
E1.1.4	Define the opportunities and constraints the AM policy must take into account

Unit 1.2	Develop the AM Policy
E1.2.1	Define the decision criteria for selecting amongst policy options
E1.2.2	Assess policy options using appropriate agreed criteria
E1.2.3	Define the AM policy goals and aspirations
E1.2.4	Define the implications of the AM policy for all stakeholders
E1.2.5	Make effective use of internal and external expertise in the development of AM policy
E1.2.6	Ensure stakeholders are engaged in AM policy development as appropriate

Generic knowledge and understanding requirements of Role 1
The organisation's strategic plan
The organisation's risk management framework
Relevant other organisational policies and strategies
Legislative and regulatory frameworks
How to develop Policy options and compare and assess their benefits and impacts
Policy decision criteria and development processes
Asset management decision-making: capital investment, operations and maintenance, lifecycle cost and value optimisation, resourcing strategy and optimisation, shutdowns and outage strategy and optimisation, ageing assets strategy
Relevant developments in the business environment and the changes these cause in stakeholder expectations
Processes for stakeholder management and consultation
The impact of changing economic and stakeholder expectations on the long term management of assets

Role 2	STRATEGY DEVELOPMENT
Summary	These units are concerned with the provision of strategic asset management direction and leadership and include identifying strategic requirements, demand analysis and forecasting, and strategy development. This role is essential to ensuring that asset management activities are focused on and achieve organisational objectives.

Unit 2.1	Analyse strategic requirements
E2.1.1	Define the AM policy aims and objectives the AM strategy must achieve and support
E2.1.2	Define all risks the AM strategy must take into account
E2.1.3	Define the constraints the AM strategy must take into account
E2.1.4	Define the implications of current and forecast asset condition for AM strategy development
E2.1.5	Analyse the current and future customer requirements the AM strategy must take into account
E2.1.6	Define the legal, social, environmental and economic factors and trends the AM strategy must take into account
E2.1.7	Define the stakeholder groups the AM strategy must take into account

Unit 2.2	Forecast and analyse future user requirements and demands
E2.2.1	Use effective tools and techniques to analyse current demands
E2.2.2	Use historical data to support forecasts of demand and costs and required levels of service
E2.2.3	Use effective tools and techniques to forecast costs and demands
E2.2.4	Forecast and assess relevant external products and technological developments and their likely impacts

Unit 2.3	Develop the AM strategy
E2.3.1	Define the aims and objectives of the AM strategy
E2.3.2	Develop key strategies for the overall system, asset portfolios and/or asset groups that support strategic aims and objectives
E2.3.3	Define the expected outcomes of all AM strategies
E2.3.4	Ensure stakeholders are engaged as appropriate in the strategy development process
E2.3.5	Make effective use of internal and external expertise in strategy development

Unit 2.4	Plan the implementation of the AM strategy
E2.4.1	Define, prioritise and optimise the AM strategy
E2.4.2	Prepare financial projections using suitable good practice models
E2.4.3	Prepare business plans using suitable good practice models
E2.4.4	Define requirements for market research, systems development and management team-building
E2.4.5	Define how effectiveness of the AM strategy will be measured and monitored

Generic knowledge and understanding requirements of Role 2
The organisation's strategic plan
Relevant other organisational policies and strategies
Legislative and regulatory frameworks
How organisational AM strategies support business goals
AM strategies and how these are reflected in AM objectives and plans
AM decision-making: capital investment, operations and maintenance, lifecycle cost and value optimisation, resourcing strategy and optimisation, shutdowns and outage strategy and optimisation, ageing assets strategy
The inter-relationship of business and AM processes
Content and applicability of relevant business excellence models
The strengths and weaknesses of relevant business process excellence models
Identification of appropriate metrics for analysis and interpretation of information to monitor the business benefits of AM strategies
Processes and procedures for developing strategic options and comparing and assessing their benefits and impacts
Methods and techniques for competitor analysis
Relevant developments in the business environment and their impact on stakeholder expectations
Market analysis techniques and econometric modelling
Managing working capital
Cash flow forecasting
Asset condition assessment and degradation modelling
Cost forecasting, budget preparation and financial management
Relevant accountancy terms and conventions
Benefit tracking and the selection and use of appropriate methods
Stakeholder management and consultation processes
The effect of stakeholder expectations on AM plans
The impact of changing economic/stakeholder expectations on day-to-day management of assets
The impact of changing economic/stakeholder expectations on the long term management of assets
Organisational stakeholders and how their requirements are reflected in the organisation's strategic plan and business goals
Environmental management standards and excellence models
Sustainability principles and the application of sustainable development excellence models
The implications of severe weather and climate change

Role 3	ASSET MANAGEMENT PLANNING
Summary	These units are concerned with the identification, appraisal, optimisation and prioritising of options and the development of effective asset management plans for implementing the AM strategy and delivering the AM objectives.
Unit 3.1	Appraise investment options
E3.1.1	Define criteria for identifying and evaluating investment options
E3.1.2	Identify investment options for achieving the AM Strategy and AM objectives
E3.1.3	Analyse the costs, risks and benefits of investment options
E3.1.4	Select and justify the most appropriate investment options
E3.1.5	Evaluate detailed investment plans
Unit 3.2	Apply whole life costing principles
E3.2.1	Identify how costs of AM activities and asset values should be determined
E3.2.2	Identify and evaluate appropriate whole life costing models
E3.2.3	Specify costs for all key stages of the AM lifecycle
E3.2.4	Develop business cases using unit cost data
E3.2.5	Ensure appropriate tools to support effective decision making are available
E3.2.6	Define the process for tracking, analysing and verifying unit cost data
E3.2.7	Update whole life cost calculations when unit costs change
E3.2.8	Identify improvement actions through periodic unit cost reviews
Unit 3.3	Produce business case for creation and/or acquisition of assets
E3.3.1	Analyse business needs for the creation and/or acquisition of assets based on the requirements of the AM Plan(s)
E3.3.2	Specify appropriate performance indicators for whole life assessment of asset creation and/or acquisition
E3.3.3	Assess the costs, risks and benefits of alternative asset creation and/or acquisition options
E3.3.4	Prioritise investment projects on the basis of their anticipated total business impact
E3.3.5	Prepare business cases which evaluate the costs, benefits and risks of proposed solutions based on the AM Plan(s)
E3.3.6	Identify risks in the commissioning process and assess their impact on current operations and AM activities
E3.3.7	Review and influence procurement policy to achieve optimum asset life-cycle performance
Unit 3.4	Plan for contingencies
E3.4.1	Identify asset related risks
E3.4.2	Identify potential disruptions to critical AM activities
E3.4.3	Plan the most appropriate responses to incidents and emergencies
E3.4.4	Make sure suitable resources are available to respond to incidents and emergencies as planned

Unit 3.5		Develop and communicate AM Plan(s)
E3.5.1	Specify the range, volume and quality of AM activities and projects needed to achieve the AM Strategy	
E3.5.2	Define objectives and performance indicators for all AM activities and projects which align with the AM Strategy	
E3.5.3	Define, monitor and review the effectiveness of planning and communication processes	
E3.5.4	Define and justify asset group strategies and specific asset policies	
E3.5.5	Develop an AM Plan which describes how AM activities and projects will be resourced, managed and evaluated	
E3.5.6	Define resources and services required to deliver the AM Plan(s)	

Generic knowledge and understanding requirements of Role 3
Asset management decision-making: capital investment, operations and maintenance, lifecycle cost and value optimisation, resourcing strategy and optimisation, shutdowns and outage strategy and optimisation, ageing assets strategy
Investment appraisal and optimisation techniques
Value-for-money criteria and financial evaluation methods
Tools, methods and techniques for reviewing options and their impact on integrated system effectiveness
The complexity, impacts and priorities of critical projects and multiple projects
Project management principles and the importance of operating to cost, quality and time obligations
Relevant internal and external communications process and procedures
Standards and procedures for incident and emergency response and recovery
Methods and techniques for cost and performance analysis
Management of materials, logistics and supply chains
Resource planning
Design and use of key performance indicators and balanced scorecard techniques
Principles and methods of strategic management and business planning
Communicating plans to people effectively
Techniques for monitoring and reviewing implementation and performance against the plan
The importance of identifying how future planning can be improved
Procurement strategies applicable to the acquisition/creation of assets
Design specifications: establishing client requirements
Ensuring accuracy and practicability of design specifications and that they are achievable
Relevant national and international legal and regulatory frameworks

Role 4		IMPLEMENTING ASSET MANAGEMENT PLANS	
Summary	These units are concerned with how the complete asset lifecycle is managed and planning and controlling the delivery of its main components. They cover operation, maintenance, optimisation and rationalisation of assets.		
Unit 4.1		Create and acquire assets	
E4.1.1	Develop design specifications to achieve optimum customer, business and life-cycle requirements		
E4.1.2	Develop specifications for acquisition and installation of assets, including requirements for necessary resources		
E4.1.3	Ensure assets are acquired or created according to specifications and budgetary and timetable constraints		
E4.1.4	Ensure correct installation of assets, in accordance with specifications		
E4.1.5	Undertake commissioning of assets as appropriate and, where required, transfer control of assets to others		
Unit 4.2		Control operations	
E4.2.1	Develop risk-based implementation plans and objectives in line with operations, maintenance and or refurbishment strategies		
E4.2.2	Review and update existing operations strategy		
E4.2.3	Develop operations work and resource plans		
E4.2.4	Develop and evaluate work management processes		
E4.2.5	Manage the delivery of workplans including managing changes and the impact of unplanned work		
E4.2.6	Manage change relating to assets and systems		
Unit 4.3		Maintain assets	
E4.3.1	Review and update existing maintenance and/or refurbishment strategies		
E4.3.2	Develop risk-based maintenance and/or refurbishment workplans		
E4.3.3	Specify spares management and inventory requirements		
E4.3.4	Plan the distribution of spares and supplies		
E4.3.5	Identify and appraise appropriate condition assessment techniques		
E4.3.6	Assess asset condition and performance and modify maintenance plans and regimes as required		
E4.3.7	Evaluate options for extending the life of assets		
Unit 4.4		Optimise and rationalise assets	
E4.4.1	Review asset performance and capacity against current requirements to identify potential for rationalisation		
E4.4.2	Evaluate asset rationalisation within a cost-risk optimisation framework		
E4.4.3	Ensure rationalisation projects are fully defined and assessed including their impact on other potential projects		
E4.4.4	Ensure rationalisation projects are implemented and are subject to detailed post-investment appraisal		
E4.4.5	Ensure spares management supports the AM strategy and plan(s)		

Unit 4.5 Renew or dispose of assets	
E4.5.1	Select and justify the optimal strategy for renewal or disposal based on AM strategy
E4.5.2	Identify and plan life-extending, decommissioning, disposal and risk control actions
E4.5.3	Manage the implementation of life-extending, decommissioning, disposal and risk control actions
E4.5.4	Evaluate the effectiveness of life-extending, decommissioning, disposal and risk control actions
E4.5.5	Ensure assets are disposed of responsibly and in accordance with environmental and related requirements and relevant legislation and regulations

Generic knowledge and understanding requirements of Role 4
Asset management decision-making: capital investment, operations and maintenance, lifecycle cost and value optimisation, resourcing strategy and optimisation, shutdowns and outage strategy and optimisation, ageing assets strategy
Project planning and management
Resource management
Management of materials, logistics and supply chains
Procurement strategies
Maintenance principles, techniques and processes
Maintenance regime options
Accident investigation principles and procedures
Decommissioning processes
Calculation and management of residual risk and liabilities
Health and safety legislation, regulations and working practices and procedures - including local, national and international requirements
Performance requirements of physical assets, including manufacturer and installer recommendations
Performance-monitoring methods and procedures such as trends analysis, researching historical data, analysis and review of outputs, investigating abnormal characteristics
Documentation and control procedures, including compliance with company and other policies and procedures

Role 5	ASSET MANAGEMENT CAPABILITY DEVELOPMENT
Summary	These units are appropriate for those who manage or influence processes that support effective delivery of AM strategy, objectives and plans. They cover how competence is developed and managed in the boardroom, the workplace and the supply chain, the management of organisational change and the development of a suitable organisational culture. They address how suppliers of products and services are managed and developed.
Unit 5.1	Develop and deploy AM people and teams
E5.1.1	Identify workload volumes required to meet AM Strategy, AM Objectives and AM Plans
E5.1.2	Specify competence requirements for AM work activities
E5.1.3	Ensure asset management staff receive relevant necessary training and development
E5.1.4	Assign appropriately competent people and teams to AM work activities
E5.1.5	Direct and coordinate the activities of AM teams
E5.1.6	Develop and support the AM performance of colleagues
E5.1.7	Challenge resource constraints and justify increases
Unit 5.2	Develop and deploy suppliers
E5.2.1	Identify the criticality of products and services to the AM Strategy, AM Objectives and Plan(s)
E5.2.2	Define which products and services should be supplied
E5.2.3	Identify and manage suppliers to support the achievement of AM Strategy, AM Objectives and Plan(s)
E5.2.4	Specify requirements for supplied products and services
E5.2.5	Identify and specify appropriate forms of contract, terms and conditions for achieving the AM strategy, AM objectives and plan(s)
E5.2.6	Develop and improve the capabilities of suppliers as required
Unit 5.3	Design and manage organisational change
E5.3.1	Determine the effectiveness of current organisational structures in supporting AM strategy, AM objectives and plan(s)
E5.3.2	Identify changes needed to individual roles and responsibilities to ensure effective support for the AM strategy, objectives and plan(s)
E5.3.3	Identify changes needed to asset management teams to ensure effective support for the AM strategy, objectives and plan(s)
E5.3.4	Implement changes to organisational structure, teams and individual roles and responsibilities to ensure effective support for the AM strategy, objectives and plan(s)
Unit 5.4	Shape the AM culture
E5.4.1	Promote the goals and benefits of AM
E5.4.2	Define the organisational culture needed to achieve AM strategy, AM objectives and plan(s)
E5.4.3	Plan and implement changes to organisational culture as required
E5.4.4	Monitor the effectiveness of the organisational culture in supporting the achievement of AM strategy, AM objectives and plan(s)

Generic knowledge and understanding requirements of Role 5

Continuing professional development processes

Resource management methodologies, techniques and tools

Project management principles and the importance of operating to cost, quality and time specifications

The complexity, impacts and priorities of critical projects and of multiple projects

Training needs analysis

Resource scheduling tools and techniques

The information required to undertake workforce planning

Service Level Agreements and contractual management including performance criteria and shared risk and reward mechanisms

Management of materials, logistics and supply chains

Financial evaluation methods and value-for-money criteria

Organisational procedures and systems

Continuous improvement principles and processes

Principal models and methods, and their strengths and weaknesses, for managing change effectively

Political, bureaucratic and resource barriers to change and techniques for managing them

Managing expectations of customers, staff, suppliers and other stakeholders during periods of change

The concept and importance of culture as applied to organisations

The importance of ethical, moral and other values in underpinning individual behaviour and organisational culture

The principles of and methods for managing culture change in organisations

Your organisation's vision and strategy and current organisational culture

Values, assumptions and behaviours that are consistent, and inconsistent, with your organisation's vision and strategy

Role 6	RISK MANAGEMENT AND PERFORMANCE IMPROVEMENT
Summary	These units are concerned with ensuring that your organisation acknowledges, understands and manages risk effectively and that performance is reviewed and improved over time. Risks include, but are not limited to, health and safety, security, environment (including climate change), reputation and finance.
Unit 6.1	Assess and manage risks
E6.1.1	Define and manage risk management processes and procedures
E6.1.2	Identify and assess risks arising from AM activities
E6.1.3	Specify measures and methods for controlling identified risks
E6.1.4	Identify improvements needed to working practices and procedures
E6.1.5	Monitor the progress and impact of improvement actions
E6.1.6	Integrate AM related risk management with organisational risk management systems
Unit 6.2	Assure the quality of AM processes
E6.2.1	Assure the quality of AM products or processes
E6.2.2	Identify the reasons for quality assurance problems
E6.2.3	Plan and implement improvements to the quality of AM processes
E6.2.4	Evaluate the effectiveness of process improvements
Unit 6.3	Monitor and review progress and performance
E6.3.1	Assess asset condition and performance against AM strategy and objectives
E6.3.2	Assess the performance of AM activities against AM strategy and objectives
E6.3.3	Identify and implement corrective actions
E6.3.4	Analyse the progress, impact and effectiveness of corrective actions
E6.3.5	Identify lessons learned and adjust AM Strategy, policies and procedures accordingly
Unit 6.4	Review and audit compliance with legal, regulatory, ethical and social requirements
E6.4.1	Identify and monitor relevant legal, regulatory, ethical and social requirements
E6.4.2	Develop effective policies and procedures to make sure requirements are met
E6.4.3	Assess how policies and procedures are put into practice and provide support
E6.4.4	Audit compliance with relevant legislation and standards
E6.4.5	Identify and correct any failures to meet requirements
E6.4.6	Identify reasons why requirements are not met and adjust policies and procedures accordingly
Unit 6.5	Learn from incidents
E6.5.1	Investigate root cause of asset or system failures or incidents
E6.5.2	Influence investigation of incidents
E6.5.3	Make effective use of 'lessons learned' information from incidents

Generic knowledge and understanding requirements of Role 6

Risk assessment processes and methods covering health and safety, security, asset availability, reputation, environmental and finance

Interrelationship of corporate, strategic and asset-specific risk management

Types of risk and the factors which drive different types of risk

Key stages in the risk management process

Identification of risks relating to current and planned activities, the nature of the risks, the probability of occurrence, and consequences arising

Risk management processes appropriate to the assets being managed

Impact of improvement actions on current operations and assessment of related risk

Quantification of probabilities and consequences and prioritisation of risks for appropriate analysis and control

The importance of communicating information on identified risks to relevant people across the organisation and other stakeholders as appropriate; and how to achieve effective communication

How to establish effective systems for monitoring risk management processes

Legislative and regulatory frameworks

Health, safety and environmental procedures and issues

Quality assurance principles and quality management systems

Patents, copyright and intellectual property issues

Stakeholder management and consultation processes

The effect of stakeholder expectations on asset management plans

The impact of changing economic or stakeholder expectations on the day-to-day and long term management of assets

Organisational stakeholders and how their requirements are reflected in the AM strategy

The importance of an ethical and value based approach to governance and how such an approach is put into practice

Current and emerging social attitudes to management and leadership practice and the importance of being sensitive to these

Current and emerging social concerns and expectations relevant to your sector

How other organisations deal with current and emerging social and environmental concerns and expectations

Role 7	ASSET KNOWLEDGE MANAGEMENT
Summary	These units are concerned with defining the asset information needed, how it is gathered and analysed, how it is then interpreted and managed and how the knowledge generated is applied.

Unit 7.1	Define asset information requirements
E7.1.1	Define asset information strategy
E7.1.2	Specify asset definition standards to provide a common definition of asset attributes
E7.1.3	Define asset condition standards and measures and specify how these should be used in condition assessment
E7.1.4	Specify standard definitions of asset defects and failures
E7.1.5	Specify asset performance management standards
E7.1.6	Specify standards which contain common definitions for capturing the utilisation of assets
E7.1.7	Specify functionality and service life requirements for all types of key asset
E7.1.8	Verify that asset knowledge standards are consistent with AM strategy and plan(s)

Unit 7.2	Specify, select and integrate AM information systems
E7.2.1	Specify and validate functional and technical requirements of Information Systems needed to support and integrate AM processes
E7.2.2	Identify human factor implications of functional, technical and business requirements
E7.2.3	Define and plan the integration of information systems and tools
E7.2.4	Demonstrate appropriate use of information systems in supporting the delivery of AM strategy and plan(s)
E7.2.5	Ensure AM information systems produce relevant usable data in a cost effective manner
E7.2.6	Monitor the implementation of information systems and tools

Unit 7.3	Make appropriate AM information available for decision making
E7.3.1	Develop criteria and effective and relevant and processes for AM data collection
E7.3.2	Plan and manage the collection, maintenance and updating, storage and dissemination of AM information
E7.3.3	Process and analyse AM data to provide effective business information as required
E7.3.4	Prepare reports as required and recognise anomalies in reported data
E7.3.5	Provide AM data and information needed to transfer assets to operational use

Generic knowledge and understanding requirements of Role 7

Asset information strategic requirements

Relevant industry standards and regulatory reporting requirements

The attributes and limitations of information systems and tools available to support AM processes: for example, asset registers, work and resource management, condition and performance monitoring and decision support tools

Basic concepts and relationships of an asset register, including the role of spatial, performance, condition and historical data

How the asset management strategy has been used to determine what asset knowledge is needed and what the linkages are

The processes required to manage collection of documentary information and its maintenance and updating, storage and dissemination

Tools and techniques for data collection and reporting

Methods of data analysis

Information requirements: what information is needed, by whom, why, how and when

Training needs analysis

Analysis and monitoring techniques, processes and performance indicators needed to provide management reports on operations and maintenance

The integration of asset and technical information

5. Importing units of competence from the 2012 Framework

The IAM Professional Development Committee is responsible for making decisions on what constitutes appropriate contextualisation and tailoring of the generic units by third parties.

The process is based on the good practice approach established by the Management Standards Centre which is promoted by the relevant regulatory authorities in the UK.

Enquiries about Third Party use of IAM Units should be directed in the first instance to:

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29 Great George Street
Bristol
BS1 5QT
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E-mail: enquiries@theIAM.org

6. Steering Group

The review and revision of the 2008 Framework was managed through the IAM Qualifications Design Group, which acted as the project Steering Group.

Chris Lloyd CAS (Chair)
Tim Feest Project Consultant

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John Woodhouse TWPL

This update to the 2012 Framework has been prepared for the IAM by Chris Lloyd and Tim Feest of CAS (www.casolutions.co.uk).

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- *IAM Knowledge Centre*, Institute of Asset Management, available from: http://theiam.org/wiki/Main_Page.

7.2 International publications

- *The Asset Management Landscape, 2nd Edition, March 2014*, Global Forum on Maintenance and Asset Management, ISBN 978-0-9871799-2-0, www.gfmam.org; also available from the IAM at www.theiam.org.

7.3 Standards publications

- *BSI PAS 55-1:2008, Specification for the optimized management of physical assets*, British Standards Institute, see: www.bsigroup.co.uk.
- ISO 55 001 (January 2014): *Asset Management: Overview, Principles and Terminology*; ISO 55 002: *Asset Management – Management Systems Requirements (January 2014)*; ISO 55 003: *Asset Management Systems – Guidelines for the Application of ISO 55 001 (January 2014)*, International Standards Institute, see: <http://www.iso.org>.

7.4 Competence frameworks

- *Asset Management Competency Requirements Framework, 1st Version (2006)*, Institute of Asset Management, www.theiam.org.
- *Asset Management Competency Requirements Framework, 2nd Version, (2008)*, Institute of Asset Management, www.theiam.org
- *National Occupational Standards for Management and Leadership*, Management Standards Council, London, 2002–2004.

- *OSCEng Engineering Competence Reference Standards*, available from Engineering Construction Industry Training Board, King's Langley, www.ecitb.org.uk.
- *UK-SPEC, Standard for Professional Engineering Competence*, 3rd Edition (2014), Engineering Council, London, 2014, see also: <http://www.engc.org.uk/professional-qualifications/standards/uk-spec>.

7.5 UK Regulatory Authorities

- *Council for Curriculum, Examinations and Assessment*, the regulatory body for public examinations and publicly funded qualifications in Northern Ireland: www.rewardinglearning.org.uk.
- *Ofqual*, the regulator of qualifications, examinations and assessments in England and vocational qualifications in Northern Ireland. Ofqual, together with its partner regulators in Wales (DCELLS) and Northern Ireland (CCEA), is also responsible for regulation of the Qualifications and Credit Framework (QCF): www.ofqual.gov.uk.
- *Scottish Qualifications Authority*, the regulatory body for public examinations and publicly funded qualifications in Scotland: www.sqa.org.uk.

8. Disclaimer

This document is for information only. The Institute of Asset Management accepts no responsibility for the usage or applicability of the 2012 Asset Management Competence Requirements Framework or for any consequences arising from its use by Third Parties.

9. About the IAM

The IAM is the professional body for those involved in acquisition, operation and care of physical assets, particularly critical infrastructure - and for professionals worldwide dedicated to furthering our knowledge and understanding of Asset Management.

Our objectives

- Advance for the public benefit the science and practice of Asset Management
- Promote and recognise high standards of practice and professional competence
- Generate widespread awareness and understanding of the discipline.

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Successful Asset Management requires a combination of skills, techniques and knowledge, and we welcome engagement and collaboration with other expert bodies and interested individuals.

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