Guidance on using the 2012 Asset Management Competence Requirements Framework
Contents

1 Introduction 3
2 Customising the Framework 4
   2.1 Structure and content of the Framework 5
   2.2 Getting the right people involved recommendations 5
   2.3 Adding Performance Criteria 6
   2.4 Adding Knowledge and Understanding requirements 6
   2.5 Defining assessment evidence and methods 6
3 Ten Ways of using the 2012 Framework 7
   3.1 Developing a Competence Management System 7
   3.2 Writing job descriptions 8
   3.3 Planning recruitment and selection 8
   3.4 Identifying learning and development needs 8
   3.5 Developing role profiles 9
   3.6 Developing team profiles 9
   3.7 Managing performance 10
   3.8 Planning training activities 10
   3.9 Career Planning 10
   3.10 Planning Continuing Professional Development (CPD) 10
4 Links with other competence framework 11
5 Personal Skills and Attributes 12
6 IAM Asset Management Competence Profiles 14
   6.1 Purpose of the profiles 14
   6.2 The profiles 15
   6.3 Using the profiles 16
7 Steering Group 17
8 Bibliography 17
9 Disclaimer 18
10 About the IAM 18
11 Our Objectives 18
12 Contact us 18

Publishing and copyright information
This document is published by the Institute of Asset Management www.theIAM.org
The IAM copyright notice displayed in this document indicates the date of last revision and issue

<table>
<thead>
<tr>
<th>Version</th>
<th>Amendment Version</th>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.1</td>
<td>May 2012</td>
<td>Mapped to 39 Subjects (<a href="http://www.theIAM.org/AMA">www.theIAM.org/AMA</a>)</td>
</tr>
<tr>
<td>2</td>
<td>3.2</td>
<td>November 2012</td>
<td>Finalising for print and correcting typographical errors</td>
</tr>
</tbody>
</table>
1. Introduction

The 2012 Asset Management Competence Requirements Framework is the revised version of the Framework published in 2008 by the Institute of Asset Management (IAM). The requirements of the Framework remain largely unchanged.

The 2012 Framework describes what people involved in the management of physical assets should be able to do and the knowledge and understanding needed to underpin this. It contains a set of generic competence requirements applicable to all organisations and sectors where business performance relies on the availability, maintenance and renewal of physical assets.


This guidance document explains how the 2012 Framework can be customised to meet specific sector, organisational and individual needs and describes some of the ways in which it can be used. It also presents a number of competence profiles based on the Framework which may be used as reference points in professional and career development.

Customising the Framework

2.1 Structure and content of the Framework

The structure of the 2012 Framework is compatible with other leading competence frameworks and its contents support the principles and scope of BSI PAS 55: 2008 and ISO 55 000 (published in January 2014). In addition, the 2012 Framework is mapped to the content of the GFMAM Asset Management Landscape, 2nd Edition, published in March 2014 and the IAM document Asset Management – An Anatomy which was published in December 2011.

- A Key Purpose statement for people working in asset management;
- The Key Roles needed to achieve this purpose;
- The Units of Competence needed to deliver these roles;
- The Elements of Competence which define what individuals should be able to do; and
- Generic lists of Knowledge and Understanding pertinent to each Key Role.

The 2012 Framework is generic. It describes what people working in asset management should be able to do and indicates what they ought to know and understand but it does not define how well they should be able to perform or how this should be judged.

To adapt the Framework to your or your organisation’s specific needs you will need to decide which of the Units are applicable, and to what depth, to your job role or various roles in your business. In addition, Performance Criteria will need to be developed for each Element, and the Knowledge and Understanding Requirements will need to be tailored (‘contextualised’). The aim should be to address the competence implications of your organisation’s asset management strategy and objectives.
2.2 Getting the right people involved in customising the Framework: recommendations

As a first step in customising the Framework it is recommended that you should form a small Working Group which has first-hand knowledge of the different levels of asset management responsibilities within your organisation. This group should include at least one person who has a good working knowledge of BSI PAS 55: 2008, ISO 55 000 and the IAM publication, Asset Management – An Anatomy; a human resources representative; and, two or three relevant line managers involved with asset management functions.

To ensure that the Framework is used correctly and consistently as appropriate throughout your organisation, it is advisable that a peer review group is also formed to ensure that the Working Group’s outputs are relevant to all parts of the organisation.

The Working Group will have three main tasks:

- Adding Performance Criteria to the Framework
  Performance Criteria describe how well you expect people to perform the activities and tasks defined in the Elements of Competence.

- Adding specific Knowledge and Understanding requirements to the Framework
  Sector or organisational specific Knowledge and Understanding requirements should identify what people need to know and understand in order to satisfy the Performance Criteria in a safe and efficient manner.

- Defining assessment evidence requirements and methods
  The key question in the assessment of competence against performance criteria and knowledge and understanding requirements is how much evidence is enough?

2.3 Adding Performance Criteria

The main activity of the Working Group should be to review each Element of Competence in the Framework and define the minimum outcomes that need to be achieved. These outcomes are the Performance Criteria which can be used to assess and develop individuals.

Performance Criteria should:
- Not overlap each other;
- Be unambiguous; and
- Describe an action which has an outcome that can be assessed.

The Roles, Units and Elements of Competence contained in the 2012 Framework are relatively stable descriptions of what people should be able to do. Performance Criteria and Knowledge and Understanding requirements should be reviewed on a more regular basis, particularly in the light of any significant changes to asset management strategy or objectives, market conditions, organisational structure or working practices.
2.4 Adding Knowledge and Understanding Requirements

The Working Group should identify what people need to know and understand in order to meet each of the Performance Criteria it has developed. This should include, for instance, all relevant industry regulations, company standards, guidelines, codes of practice and equipment or process specific information. It may also be useful to review job descriptions and training courses to ensure knowledge and understanding requirements are consistent.

2.5 Defining assessment evidence and methods

Assessment decisions based on too little evidence will be unreliable. Equally, collecting too much evidence may render the assessment process wasteful and too intrusive.

For each Performance Criterion and Knowledge and Understanding requirement the Working Group should identify what type of evidence is needed, how much is sufficient to confirm that the criterion has been met, or otherwise, how this evidence should be collected and by whom.

A good rule of thumb is always to base assessment decisions on more than one type of evidence gathered from more than one source. Where the competences are most critical to the safety or performance of the business, more evidence might be required: where the consequences of poor performance are less crucial, it might be acceptable to gather less.

Wherever possible you should endeavour to make use of evidence that is naturally occurring rather than seek evidence from a new source; and reuse evidence where it is relevant to more than one Performance Criterion.
3. Ten Ways of Using the 2012 framework

The 2012 Framework provides a basis for selecting, assessing, training and developing people working in asset management in an efficient, traceable and consistent manner: it describes what people working in asset management should be able to do.

As described in the previous section, if the 2012 Framework is customised to meet the specific requirements of your organisation (by adding Performance Criteria and Knowledge and Understanding requirements) it will also describe how well people are expected to do things and what they need to know and understand. The 2012 Framework has numerous uses.

A list of ten examples follows.

3.1 Developing a Competence Management System

Once it has been customised to meet the requirements of your organisation, the 2012 Framework can underpin a systematic approach to gaining assurance that people working in asset management are competent to fulfil their roles and responsibilities.

Figure 1 shows how the Framework can be used to ensure that people working in asset management are developed in accordance with an organisation’s asset management strategy and objectives.

Figure 1: A systematic approach to managing asset management competence.
3.2 Writing job descriptions

Job descriptions can be improved or updated by linking them to either the generic or a customised version of the 2012 Framework.

In the case of an existing job description, one approach is to indicate which Units or Elements of competence are applicable by adding a list of the relevant titles. In the case of a new job description, the Units of competence can serve as a useful prompt in deciding the nature and scope of responsibilities.

Linking Unit titles to job descriptions can:

- Help ensure job descriptions for asset management staff are complementary and line up with asset management strategy and objectives;
- Facilitate the process of developing new job descriptions and revising existing job descriptions; and
- Enable the management and development needs of the job holder to be defined and planned with some precision.

3.3 Planning recruitment and selection

The starting point for effective recruitment and selection is ensuring that the requirements of the job to be filled are explicit and up to date.

As described above, the Framework provides a useful tool to support the development and review of job descriptions. In particular, when job descriptions are linked to the relevant Units, these Units will contain a description of the skills, behaviours, knowledge and understanding required for competent performance.

This provides a useful indication of the attributes of the ideal candidate for the job (that is, the basis of a person specification). In this way, the Framework can be used to support the development of accurate and up to date job descriptions and person specifications, which are the foundation of effective recruitment and selection.

3.4 Identifying learning and development needs

When job descriptions have been linked to the Framework, job holders or their employers can review the Units relevant to their job, to assess where they are currently competent and where they may require further learning and development.

This process of identifying learning and development needs may take place in a variety of contexts, from informal (for example, self-assessment) through to more formal processes (for example, supervision and appraisal).

A job holder and their line manager may agree to review the required skills, knowledge and understanding from selected Units. This provides an objective standard against which to judge the job holder’s existing skills, knowledge and understanding and to identify and prioritise training and development needs.

In this way, the Framework can be used to identify and prioritise learning and development needs and recognise existing competences, knowledge and understanding.
3.5 Developing role profiles

Role profiles differ from job descriptions in that they describe what the organisation should expect from everyone with a particular level of responsibility or experience: for example, Asset Head or Asset Management Planner. Job descriptions focus on what is expected of individuals with different levels of responsibility within a role.

Role profiles are a useful tool for ensuring that the structure or roles and responsibilities within an organisation are consistent with what the organisation is trying to achieve.

In developing the five asset management role profiles which appear in Section 6, IAM Asset Management Competence Profiles, of this document, the IAM has used the following breakdown of levels of responsibility:

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can direct</td>
<td>Direct and plan the work of others and teams.</td>
</tr>
<tr>
<td>Can guide and show</td>
<td>Lead the work of others.</td>
</tr>
<tr>
<td>Can do independently</td>
<td>Undertake the work independently (though may receive contributions from others).</td>
</tr>
<tr>
<td>Can contribute</td>
<td>Contribute to the work of others but don’t undertake it independently.</td>
</tr>
</tbody>
</table>

In developing role profiles for an asset management organisation, the first task is to define the structure of roles and responsibilities necessary to deliver the asset management strategy and objectives. The Key Roles and Unit titles in the 2012 Framework can help you think this through. The second task is to define the levels of competence and responsibility needed to fulfil these roles and ensure there are healthy development paths between them.

3.6 Developing team profiles

The process of role profiling described in Section 3.5, Developing role profiles, can be applied to teams as well as to individuals.

For teams, the process involves reviewing the Units to select those that are relevant to the team as a whole.

It may then be useful to identify which team members are involved in each activity and to what level of responsibility. In this way, the roles and responsibilities of the team members can be profiled and the contributions of the job holders within the team can be defined. Such a profile could be used in the design and development of new teams or to review existing teams.

Team profiles clarify expectations of the team and help ensure that the combined competences and responsibilities of team members are able to deliver the required outcomes. Bringing team members together to discuss this profile and reflect on the overall scope and interconnections of its work is a useful exercise, particularly for asset management teams which tend to draw on people with a wide range of backgrounds and experience.
3.7 Managing performance

The process of a job holder and line manager reviewing Units or Elements of competence within a job description is particularly effective as part of a development meeting or appraisal.

For example, during an appraisal discussion a job holder and line manager may agree to review what constitutes effective performance of selected Units or Elements. This provides an agreed, objective standard against which to assess or appraise the job holder’s performance. This might also lead to:

- Recognising a job holder’s achievements e.g. outcomes achieved or competences developed.
- Identifying existing skills, knowledge and experience.
- Identifying development needs.

3.8 Planning training activities

Whether in their generic form or customised, the knowledge and understanding requirements can be used in designing and planning education programmes, training courses and other development activities.

In planning or designing a learning programme, it is useful to sub-divide the relevant knowledge and understanding into the following categories:

- General knowledge and understanding.
- Industry or sector specific knowledge and understanding.
- Organisation/context specific knowledge and understanding.

The Framework provides a good basis for discussing and agreeing personal learning objectives and the evidence that is needed to demonstrate achievement of these.

Learning and development programmes linked to the 2012 Framework will have greater credibility within the asset management community.

The Framework also provides an objective benchmark against which to evaluate the impact of organisational learning and development activities.

3.9 Career Planning

For those seeking to develop a career in asset management, the Framework provides a basis for planning and demonstrating achievement. This is particularly relevant to people who want to move into new work areas which require new competences, knowledge and understanding. For organisations, the Framework enables career paths to be defined in ways that support the asset management strategy.

3.10 Planning Continuing Professional Development (CPD)

Most professional bodies require their members to demonstrate a commitment to maintaining and updating their professional competence. CPD is known to be most effective when individuals take responsibility for their own learning and development. This requires them to assess their current skills, knowledge and understanding and to set objectives for their personal development, both to keep up to date and to meet future needs.

The CPD process can be supported by self-assessment against the relevant Units and planning and prioritising learning and development according to the contents of those Units.
4. Links with other competence frameworks

The table below identifies a number of Units in the 2012 Framework which have been derived from other competence frameworks and national occupational standards.

In the case of national occupational standards, these specify performance criteria and knowledge and understanding requirements which could provide a basis for organisations wishing to tailor the 2012 Framework.

Development of more formal links to these and other Frameworks is likely to feature as part of the IAM’s strategy to submit some or all of its Units of Competence to the QCF for England, Wales and Northern Ireland.

<table>
<thead>
<tr>
<th>IAM 2012 Framework</th>
<th>Other Competence Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 2.4 - Plan the implementation of the AM strategy</td>
<td>OSCEng Engineering Competence Reference Standards (ECRS) 3 - Planning</td>
</tr>
<tr>
<td>Unit 3.6 - Develop and communicate AM Plan(s)</td>
<td>ECRS 3 – Planning</td>
</tr>
<tr>
<td>Unit 5.1 - Develop and deploy AM people and teams</td>
<td>Large sections of ENTO Human Resources Standards Management Standards Council (MSC) Role D – Working with people.</td>
</tr>
<tr>
<td>Unit 5.4 - Shape the AM Culture</td>
<td>ENTO P13 – Design, deliver and evaluation changes to the organisational structure</td>
</tr>
<tr>
<td>Unit 6.1 - Assess and manage risks</td>
<td>ECRS 10 – Risk Management</td>
</tr>
<tr>
<td>Unit 6.2 - Assure the quality of AM processes</td>
<td>ECRS 8 – Quality and Compliance</td>
</tr>
<tr>
<td>Unit 6.4 - Audit and review compliance with legal, regulatory, ethical and social requirements</td>
<td>MSC B8 – Ensure compliance with legal, regulatory, ethical and social requirements</td>
</tr>
</tbody>
</table>
5. Personal skills and attributes

There are three broad approaches to defining competence dependent on whether the focus is concerned with input measures, output measures or behavioural measures.

1. Frameworks focusing on input measures are concerned with what is done to individuals to make them competent. They tend to define competence in terms of the possession of particular qualifications or attendance on particular training courses but other approaches can emphasise inputs such as secondments, action learning, personal development, and so on.

2. Frameworks focusing on output measures are concerned with performance and delivery. A competent individual is someone who can perform activities consistently to the required standard. Assessment is central to this approach which underpins the design of the 2012 Framework.

3. Frameworks focusing on behavioural measures are concerned with the way things are done. They usually also identify the personal attributes which individuals need to possess in order to perform effectively. According to this approach, a competent individual is expected to possess all the relevant personal attributes.

As is the case with most output-based frameworks, the 2012 Framework defines the knowledge and understanding that underpin performance but is not explicit about the personal skills and attributes that are required, nor the attitudes and beliefs.

Personal skills and attributes are regarded as underpinning competent performance but as not sufficient in their own right to ensure competent performance. Differences in personal skills and attributes can help to explain why people with the same asset management competences can produce different levels of performance and why some people perform to their full potential while others do not.

Three broad categories of skills and attributes have been identified: cognitive and intellectual skills; interpersonal skills; and intrapersonal attributes (such as personality characteristics, attitudes, motivations). Many different specific skills and attributes have been identified as important over the years but the one constant is that you need to take all three categories into account. Some examples of specific skills and attributes which might be relevant to asset management and which address the above three categories are as follows.

- **Commitment to Diversity and Integrity**: understands and respects diversity and adopts a fair and ethical approach to others.
- **Openness to change**: is open to change and actively seeks to support it.
- **Working with Others**: works effectively with others within their own organisation and in the community.
- **Effective Communication**: communicates clearly and effectively both orally and in writing with a wide variety of people.
- **Commitment to Development**: committed to and able to develop self and others.
- **Problem Solving**: understands, recalls, applies and adapts relevant information in an organised, safe and systematic way.
- **Commitment to Excellence**: adopts a conscientious and proactive approach to work to achieve and maintain excellent standards.
- **Shares information**: shares information with appropriate individuals as required.

The Chartered Institute of Personnel and Development is a useful source of good practice advice and guidance on how to identify personal skills and attributes: [www.cipd.co.uk](http://www.cipd.co.uk)
6. IAM Asset Management competence profiles

6.1 Purpose of the profiles

Competence profiles have been developed for the following five roles.

1. Business Leader
2. Head of Asset Management
3. Asset Management Planner
4. Asset Management Team Leader
5. Asset Management new entrant (typically a graduate with 2 years’ experience)

These profiles represent the IAM’s view of the essential asset management competences needed to execute these roles effectively. They are based on the 2012 Framework and designed to be tailored to the needs of different sectors and organisations. They reflect the requirements and guidance provided in BSI PAS 55 Parts 1 and 2 and ISO 55 001 and are derived from consultations with a panel of IAM Members.

6.2 The profiles

Business Leader

The Business Leader in an Asset Management environment should be:

- Able to direct the work of others in all Roles with particular emphasis on Policy Development (Key Role 1), the analysis of Strategic Requirements (Unit 2.1), Asset Management Capability Development (Role 5) and Risk Management and Performance Improvement (Role 6).
- Proactive in shaping the Asset Management culture and championing Asset Management principles and best practices (Unit 5.4).

The business leader does not need to be able to independently undertake specific activities or guide or show others how to undertake them but must have sufficient understanding of Asset Management principles and practice to evaluate the quality of the work being done.

Head of Asset Management

The Head of Asset Management should be able to:

- Direct others in Asset Management Planning (Role 3), the Implementation of Asset Management Plans (Role 4), Risk Management and Performance Improvement (Role 6) and Asset Information Management (Role 7).
- Guide and show others how to undertake the full range of Asset Management activities with particular emphasis on Strategy Development (Role 2), Asset Management Planning (Role 3), Asset Management Capability Development (Role 5) and Risk Management and Performance Improvement (Role 6).
- Undertake independently the analysis and development of asset policies (Units 1.1 and 1.2) and the investigation of incidents and communication of lessons learned (Unit 6.5).
- Lead and evaluate compliance reviews and audits (Unit 6.4).
- Contribute to the specification, selection and integration of Asset Management information systems.
Asset Management Planner

The Asset Management Planner should be able to:
- Undertake independently the activities covered by Asset Management Planning (Role 3), Implementation of Asset Management Plans (Role 4), Risk Management and Performance Improvement (Role 6) and Asset Information Management (Role 7).
- Contribute to all the activities covered in the 2012 Framework, particularly Policy Development (Role 1), Strategy Development (Role 2), Asset Management Capability Development (Role 5) and Risk Management and Performance Improvement (Role 7).
- Play a leading role in Making Appropriate Asset Management Information Available for Decision Making (Unit 7.3).

Asset Management Team Leader

The Asset Management Team Leader should be able to:
- Guide and show team members how to undertake most of the activities covered in Roles 3-7, with particular emphasis on Implementing Asset Management Plans (Role 4), Asset Management Capability Development, Monitoring and Reviewing Progress and Performance (Unit 6.3) and Asset Information Management (Role 7).
- Undertake Asset Management Planning (Role 3), Asset Management Capability Development (Role 5), Risk Management and Performance Improvement (Role 6).
- Contribute to Asset Information Management (Role 7), in particular Making Appropriate Asset Management Information Available for Decision Making (Unit 7.3).

Asset Management new entrant (Graduate with 2 years experience)

After two years, the Asset Management new entrant should be able to:
- Contribute to all Asset Management activities within the scope of the 2012 Framework in particular Roles 1-3 and 5-7.
- Understand the contribution each role makes to the achievement of the Asset Management strategy and objectives.
- Understand the interdependencies between the Asset Management Roles.
- Forecast and analyse future user requirements and demands (Unit 2.2).
- Undertake activities involved in the Implementation of Asset Management Plans (Role 4) and Risk Management and Performance Improvement (Role 6).
6.3 Using the profiles

These profiles embody the following principles:

- The breadth and depth of competence requirements and performance criteria change with the requirements and circumstances of the role.

- Non technical specialists and technical specialists alike can become competent asset managers providing they acquire the correct competencies and knowledge.

- The competences required of each of the five roles are not sequential i.e. someone in a more senior role does not have to be competent in all the aspects of less senior roles.

For example:

- An Asset Management Team member may need to be competent in the detail of system modelling and be able to assess alternative systems technically and advise on their appropriateness.

- An Asset Management Planner needs to know when modelling techniques are appropriate, their limitations and how to interpret the results. He or she may need to help select appropriate modelling systems for the organisation.

- The business leader needs to understand the limitations of modelling and the interpretation of results and be able to apply the output to strategy development. He or she also needs to know when it might be appropriate for the business to invest in additional modelling capability.

To customise the profiles you should review their contents in the context of the strategy or objectives you are pursuing. One approach is to produce a more detailed profile by focusing on relevant Units or Elements of Competence. Another is to keep the profiles broad and add specific knowledge and understanding requirements.

These profiles are baseline descriptions which you can use for comparison purposes, promote as benchmarks, use as discussion points in training courses, or review in performance meetings and appraisals.
7. Steering Group

The development of the 2012 Framework was managed through the IAM Qualifications Design Group, which acted as the project Steering Group. Its members, and their employer organisations at that time, were:

- Chris Lloyd: CAS (Chair)
- Tim Feest: Project Consultant
- Paul Blezard: EA Technology
- Tim Gadd: NATS
- Doug Marsh: OA Risk Ltd
- Brian McCarthy: Scottish Water
- David McLeish: AMCL
- Matt Skinner: Network Rail
- Georgia Smart: Consult Smart Ltd
- Andrew Spencer: CE-Electric
- Karen Whitehall: Scottish Water
- John Woodhouse: TWPL

Thanks are also due to Dr Charles Johnson of CAS for his expert advice on the section ‘Personal Skills and Attributes’.

8. Bibliography (Selected)

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

2. Standards publications
   - BSI PAS 55-1:2008, **Specification for the optimized management of physical assets**, British Standards Institute, see: www.bsigroup.co.uk.

3. International publications

4. Competence frameworks

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.

9. Disclaimer
This document is for information only. The Institute of Asset Management takes no responsibility for the usage or applicability of the guidance it offers.

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.

Please contact us
Successful asset management requires a combination of skills, techniques and knowledge, and we welcome engagement and collaboration with other expert bodies and interested individuals. Please visit us at www.theIAM.org