apmKNOWLEDGE

APM COMPETENCE FRAMEWORK

Structure of competence elements

Competence element code

Definition from the *APM BoK* (5th edition)

Indicators – used to help in understanding an assessment of how the competence element can be applied in a project

Competence domain

Competence element name

Self-assessment scoring for knowledge and experience against each indicator

Total of scores for knowledge and experience, divided by number of indicators (and rounded down) to give overall knowledge and experience ratings and Competence Level

Derived APM Competence Level based on overall knowledge and experience ratings

Technical competence domain		K	E
TC 11	**SCOPE MANAGEMENT**		
Definition			
Scope management is the process by which the deliverables and work to produce them are identified and defined. Indentification and definition of the scope must describe what the project will include and what it will not include, i.e. what is in and out of scope.			
Indicators		**K**	**E**
1	Identifies and defines interested parties' requirements and objectives.	7	2
2	Agrees appropriate deliverables with relevant stakeholders using product breakdown structure and work breakdown structure.	5	3
3	Documents and agrees the project scope, and places it under configuration control.	4	2
4	Updates project scope document as changes are agreed via the change control process.	5	2
Total score for knowledge and experience		21	9
		÷4	÷4
Overall knowledge and experience ratings		**5**	**2**
Competence Level		**D**	

Level of knowledge (K) and experience (E) required to achieve corresponding APM Competence Levels

Description of the APM Competence Levels

Scoring for APM Levels		
K: 8 – 10 E: 7 – 10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.	
K: 7 E: 5 – 6	Level B: Has successfully executed most of the indicators by managing a complex project.	
K: 6 E: 4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.	
K: 5 E: 0 – 3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.	

Competence indicator scoring matrix

Score	KNOWLEDGE	Score	EXPERIENCE
0	None	0	None
Low – Limited knowledge/experience In knowledge terms: the candidate knows the element and is able to present and explain known criteria for this element. In experience terms: the candidate has some experience obtained from a project management role in a few projects in one sector of the economy or unit of an organisation during one or several phases of these projects.			
1	Has an awareness of the competence element.	1	Has participated in a single project which involved the competence element.
2	Knows about the competence element.	2	Has participated in a number of projects which have involved the competence element.
3	Can describe the competence element.	3	Has practised the competence element with others in a number of projects.
Medium – Significant knowledge/experience In knowledge terms: the candidate has a solid level of knowledge and is able to recognise and to apply the relevant criteria, as well as check the results. In experience terms: the candidate has experience and a track record obtained from applying many project management competences across several projects in at least one sector of the economy during most phases of these projects.			
4	Has an understanding of how the competence element could be practised within a single project.	4	Has independently practised the competence element in a number of projects.
5	Has an understanding of how the competence element could be practised within a number of projects and can evaluate the value to the projects.	5	Has managed others practising the competence element in a number of projects.
6	Has a good understanding of how the competence element could be practised within a complex project and can evaluate and adapt as required.	6	Has managed others practising the competence element in a complex project.
High – Extensive knowledge/experience In knowledge terms: the candidate understands the role in detail and is able to evaluate, to create and to integrate the relevant criteria and can interpret and evaluate the results. In experience terms: the candidate has a broad range of experience and a good track record gained from responsible project management roles in many different kinds of projects across one or more industry sectors, during most or all phases of these projects.			
7	Has a detailed understanding of how the competence element is practised within complex projects and can critically evaluate and optimise as required.	7	Has managed others practising the competence element in a number of complex projects.
8	Has a detailed understanding of how the competence element is practised within complex projects and can critically evaluate and develop further as required.	8	Has managed others practising the competence element in many complex projects.
9	Has a deep knowledge of how the competence element is practised within very complex projects and can educate others.	9	Has guided and facilitated others in practising the competence element in very complex projects.
10	Has a deep knowledge of all aspects of the competence element in very complex projects and is a recognised industry expert (written papers and presentations).	10	Has guided and facilitated others in all aspects of the competence element in very complex projects and is a recognised industry expert.

Uses for the
APM Competence Framework

This competence framework has been developed by the Association for Project Management (APM) using the knowledge and experience of project management practitioners from across UK industry, coupled with thorough research of a variety of competence frameworks worldwide in the area of project management. It has been designed to support the project management community by giving access to the technical, behavioural and contextual competence elements needed for effective project management. It is used by the APM, along with the *APM Body of Knowledge* (5th edition), to support its membership, professional development and knowledge services.

■ The *APM Competence Framework* provides a robust, holistic and clear set of standards for use by the project management community. It offers a number of strong benefits to both individuals and employing organisations.

■ The *APM Competence Framework* is divided into three domains (technical, behavioural and contextual), which together contain 47 individual competences.

■ Assessing against the full set of competences enables an individual to align with the APM range of qualifications and certifications (Levels D to A).

■ Each competence is accompanied by:

a) a number of 'competence indicators' that support an assessment by showing how the competence may be applied on a project;

b) a table showing how Competence Level scores relate to the corresponding APM and IPMA certification levels.

■ Scoring of each competence indicator is carried out using a comprehensive scoring matrix, included in this edition.

■ A project complexity matrix is also provided. This is to be used to assess the boundary between projects of limited complexity suitable for APM level C and complex projects suitable for APM level B.

■ A self-assessment summary sheet has also been included to:

a) record assessment date and scores against each competence;

b) support identification of professional development requirements.

■ The *APM Competence Framework* contains a comprehensive glossary of project management terms used by practising project managers which are referred to throughout the text.

■ A list of acronyms associated with the technical terminology of project management is also provided.

APM Competence Framework

APM Competence Framework

Association for Project Management

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FOREWORD

As Chairman of the Association for Project Management, recognised as a leading, world-class organisation furthering the development of the project management profession, I welcome you to this first edition of its project management competence framework.

Linked to the *APM Body of Knowledge* (5th edition) and the *ICB-International Project Management Association Competence Baseline* (3rd edition), this document provides a clear and simple guide to the range of individual competences in project management. It represents an essential part of the toolkit for all professional project managers, allowing them to assess and develop their competences and those of their teams.

Based on wide consultation among leading practitioners, this is a valuable tool for assessing current knowledge and experience, identifying training and development needs, and evaluating an individual's readiness to obtain the appropriate internationally recognised professional qualifications. Designed to be extremely user-friendly, the *APM Competence Framework* provides specific measures for the knowledge and experience which need to be maintained and nurtured through continuing professional development.

Many UK organisations have developed, or are in the process of developing, their own project management competence frameworks to meet their specific organisational needs. This APM document provides an ideal means of benchmarking organisation-specific frameworks to the international standards and qualifications of a much broader global community.

I commend to you the *APM Competence Framework*, as I am confident it will benefit you, your organisation and indeed all sectors of the economy in the crucial quest to enhance project management capability.

Mike Nichols
Chairman of the APM

INTRODUCTION

1.1 OVERVIEW

This competence framework has been developed by the Association for Project Management (APM) using the knowledge and experience of project management practitioners from across UK industry and academia, coupled with thorough research of a variety of competence frameworks worldwide in the area of project management. It has been designed to support the project management community by defining the competence elements needed for effective project management across three domains: technical, behavioural and contextual. It is used by the APM, along with the *APM Body of Knowledge* (5th edition, 2006), to support its membership, professional development and knowledge services.

The *APM Body of Knowledge* and the *ICB-International Project Management Association [IPMA] Competence Baseline* (version 3.0) provided the foundation for the *APM Competence Framework*. The framework, represented by a 'wheel of competence', has also greatly benefited from the feedback and contributions provided by practising project managers at all levels.

The *APM Competence Framework* defines the work of project management personnel, and allows for the identification and classification of the different competence elements needed for effective project management by project managers at all levels. The competence framework sets out the 30 technical, nine behavioural and eight contextual competence elements required of an effective project manager.

The APM has defined four Levels of Competence (Levels D to A) which are aligned to the IPMA four-level structure. The same competence elements apply at all Levels, but knowledge and experience should grow deeper and broader from APM Level D to Level A.

The *APM Competence Framework* is useful for the identification of appropriate qualifications and for the benefit of those interested in project management skills and personal development.

1.1.1 Competence

A competence articulates the expected outcome or performance standard that is achieved as a result of applying a combination of knowledge, personal attitude, and skills and experience in a certain function. It can be understood to represent the language of performance in an organisation, articulating both the expected outcomes of an individual's efforts and the manner in which these activities are carried out.

1.2 BENEFITS OF A COMPETENCE FRAMEWORK

Significant benefits can be derived from using an approved competence framework, both for the professional and for the organisations that employ them. From the perspective of the individual project manager, the primary benefits of using the *APM Competence Framework* are that it ensures a common understanding of the competences required of them; that it enables them to assess their competence levels against a framework aligned with an agreed international standard; and that it helps them to identify areas for development and judge their readiness for attainment of professional qualifications and certifications.

From the employers' perspective, the framework enables them to come to a judgement about the PM competence of employees at all levels, assessed against an internationally agreed standard; to analyse overall strengths and weaknesses; and to identify corporate training and developmental needs. It can relieve organisations of the need to develop and maintain their own PM competence framework or, alternatively, it can provide the core for a more tailored solution, if required.

Many individuals and organisations will recognise the very significant benefits they can derive from exploiting aspects of the competence framework, but for them using it in its entirety may not be practical or appropriate. In designing the framework the APM has been mindful of this, and guidance on how it can be adapted to meet differing needs is set out in Appendix 2.

1.3 THE APM WHEEL OF COMPETENCE

1.3.1 Defining the wheel of competence

The wheel of competence (as shown in Figure 1.1 overleaf) represents the integration of all the competence elements required of an effective project manager. The competence elements are grouped into the relevant competence domains, of which there are three: technical, behavioural and contextual. Additionally, at the centre of the wheel lie the five key concepts which refer to the environment within which a project is undertaken. The wheel signifies that projects are managed in a dynamic, fast-changing environment, and hence the need for ongoing self-assessment and continuous professional development.

1.4 KEY CONCEPTS

There are five key concepts (KC) which form the foundation for the *APM Competence Framework*. These concepts refer to the environment within which a project is undertaken: projects do not exist in a vacuum. A project will be managed differently according to a wide range of factors, both internal and external to the organisation – for example, organisational capability and maturity or legal and technical factors (for more detail refer to the *APM Body of Knowledge*, 5th edn).
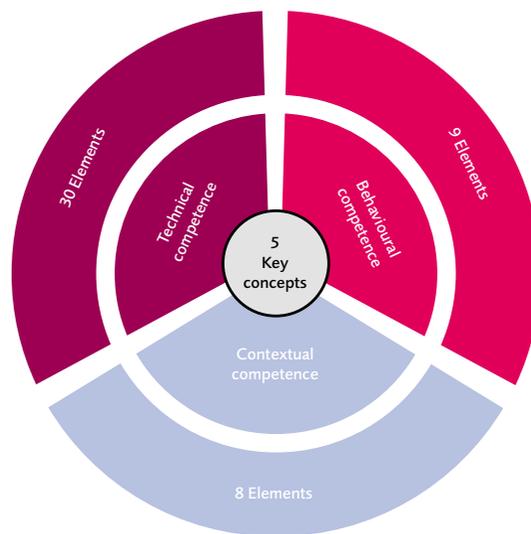
Figure 1.1 *The wheel of competence*

KC01 Project management. Project management is the process by which projects are defined, planned, monitored, controlled and delivered such that agreed benefits are realised. Projects are unique, transient endeavours undertaken to achieve a desired outcome. Projects bring about change, and project management is recognised as the most efficient way of managing such change.

KC02 Programme management. Programme management is the coordinated management of related projects, which may include related business-as-usual activities that together achieve a beneficial change of a strategic nature for an organisation. What constitutes a programme will vary across industries and business sectors, but there are core programme management processes.

KC03 Portfolio management. Portfolio management is the selection and management of all of an organisation's projects, programmes and related business-as-usual activities, taking into account resource constraints. A portfolio is a group of projects and programmes carried out under the sponsorship of an organisation. Portfolios can be managed at an organisational, programme or functional level.

KC04 Project context. Project context refers to the environment within which a project is undertaken. Projects do not exist in a vacuum, and an appreciation of the context within which the project is being performed will assist those involved in project management to deliver a project.

KC05 Project office. A project office serves the organisation's project management needs. A project office can range from simple support functions for the project manager to responsibility for linking corporate strategy to project execution.

1.5 THE THREE DOMAINS

The technical, behavioural and contextual competences are outlined in Table 1.1. on page 5.

1.5.1 Technical competence elements

The **technical competence domain** contains the functional project management competence elements. The scope of **technical competences** includes the elements relating to:

- the delivery of projects, programmes and portfolios;
- the integration of work in any temporary project, programme and portfolio organisation;
- the production of project deliverables in the project organisation;
- the progress through all phases of the project, all stages of a programme and all periods of the portfolio considered.

The *APM Competence Framework* contains 30 technical competence elements.

1.5.2 Behavioural competence elements

The **behavioural competence domain** contains the personal project management competence elements, covering attitudes and skills. The scope of **behavioural competences** includes the elements relating to:

- the project manager specifically;
- the project manager's relationship with direct contacts in and around the project;
- the project manager's interaction with the whole project and parties involved;
- the project manager's interaction with the broader environment, such as the political, economical, sociological, cultural and historical context.

The *APM Competence Framework* contains nine behavioural competence elements.

1.5.3 Contextual competence elements

The **contextual competence domain** contains the organisational competence elements. The scope of **contextual competences** includes elements relating to:

- the role of project management in permanent organisations;
- the interrelationship between project management and the organisation's business functions and administration.

The *APM Competence Framework* contains eight contextual competence elements.

Table 1.1 *Overview of the competence elements*

Technical competence (TC)		Behavioural competence (BC)		Contextual competence (CC)	
TC01	Concept	BC01	Communication	CC01	Project sponsorship
TC02	Project success and benefits management	BC02	Teamwork	CC02	Health, safety and environmental management
TC03	Stakeholder management	BC03	Leadership	CC03	Project life cycles
TC04	Requirements management	BC04	Conflict management	CC04	Project finance and funding
TC05	Project risk management	BC05	Negotiation	CC05	Legal awareness
TC06	Estimating	BC06	Human resource management	CC06	Organisational roles
TC07	Business case	BC07	Behavioural characteristics	CC07	Organisation structure
TC08	Marketing and sales	BC08	Learning and development	CC08	Governance of project management
TC09	Project reviews	BC09	Professionalism and ethics		
TC10	Definition				
TC11	Scope management				
TC12	Modelling and testing				
TC13	Methods and procedures				
TC14	Project quality management				
TC15	Scheduling				
TC16	Resource management				
TC17	Information management and reporting				
TC18	Project management plan				
TC19	Configuration management				
TC20	Change control				
TC21	Implementation				
TC22	Technology management				
TC23	Budgeting and cost management				
TC24	Procurement				
TC25	Issue management				
TC26	Development				
TC27	Value management				
TC28	Earned value management				
TC29	Value engineering				
TC30	Handover and closeout				

1.6 APM LEVELS OF COMPETENCE

Each competence element takes its definition from the *APM Body of Knowledge* (5th edn), and has a number of indicators to facilitate the assessment of competence against the element. The knowledge and experience required at each APM Level is described in key Competence Level statements.

In this *APM Competence Framework*, the following four Levels of Competence are specified:

- projects director (APM Level A)
- senior project manager (APM Level B)
- project manager (APM Level C)
- project management associate (APM Level D)

The Level of Competence required at each APM Level increases as the requisite knowledge and experience of the individual broadens and deepens.

1.6.1 APM Level A

The projects director will have at least five years of experience in portfolio management, programme management or multi-project management, of which three years were in responsible leadership functions in the portfolio management of a company/organisation or a business unit, or in the management of important programmes.

The project director:

- shall be able to manage portfolios or programmes;
- is responsible for the management of an important portfolio of a company/organisation or a branch thereof, or for the management of one or more important programmes;
- contributes to strategic management and makes proposals to senior management;
- develops project management personnel and coaches project managers;
- develops and implements project management requirements, processes, methods, techniques, tools, handbooks and guidelines.

1.6.2 APM Level B

The senior project manager will have at least five years of project management experience, of which three years were in responsible leadership functions of complex projects.

The senior project manager:

- shall be able to manage complex projects;
- is responsible for all project management competence elements of a complex project;

- has a general management role as manager of a large project management team;
- uses appropriate project management processes, methods, techniques and tools.

1.6.3 APM Level C

The project manager will have at least three years of project management experience and is responsible for leadership functions of projects with limited complexity.

The project manager:

- shall be able to manage projects with limited complexity, and/or to manage the sub-project of a complex project in all competence elements of project management;
- is responsible for managing a project with limited complexity in all its aspects, or for managing a sub-project of a complex project;
- applies common project management processes, methods, techniques and tools.

1.6.4 APM Level D

It is not compulsory for a project management associate to have experience in the project management competence elements, but it is an advantage if the candidate has already applied their project management knowledge to some extent already.

A project management associate:

- shall have project management knowledge in all required competence elements;
- can practise in any project management competence element;
- may work in some fields as a specialist;
- works as a project team member or a member of the project personnel;
- has broad project management knowledge and the ability to apply it.

The APM Levels give a useful indication as to which APM qualification is the most relevant (i.e. APM Level D – APMP, APM Level C – Practitioner Qualification, APM Level B – Certificated Project Manager). However, please note the *APM Competence Framework* covers more areas than the qualification syllabuses and assessment criteria. For more information on the individual qualifications, please see the APM website.

1.7 DEGREES OF COMPETENCE

The **degree of competence** is defined by general descriptions of knowledge and experience, and evaluated on a scale from 0 to 10 as shown in Table 1.2 (the extreme values of the scale are rarely used in real assessments). Defined scores for each competence (based on the assessment of knowledge and experience against the above scale) for each APM Level (D to A) have been determined.

Table 1.2 *Competence indicator scoring matrix*

Score	KNOWLEDGE	Score	EXPERIENCE
0	None	0	None
Low – Limited knowledge/experience In knowledge terms: the candidate knows the element and is able to present and explain known criteria for this element. In experience terms: the candidate has some experience obtained from a project management role in a few projects in one sector of the economy or unit of an organisation during one or several phases of these projects.			
1	Has an awareness of the competence element.	1	Has participated in a single project which involved the competence element.
2	Knows about the competence element.	2	Has participated in a number of projects which have involved the competence element.
3	Can describe the competence element.	3	Has practised the competence element with others in a number of projects.
Medium – Significant knowledge/experience In knowledge terms: the candidate has a solid level of knowledge and is able to recognise and to apply the relevant criteria, as well as check the results. In experience terms: the candidate has experience and a track record obtained from applying many project management competences across several projects in at least one sector of the economy during most phases of these projects.			
4	Has an understanding of how the competence element could be practised within a single project.	4	Has independently practised the competence element in a number of projects.
5	Has an understanding of how the competence element could be practised within a number of projects and can evaluate the value to the projects.	5	Has managed others practising the competence element in a number of projects.
6	Has a good understanding of how the competence element could be practised within a complex project and can evaluate and adapt as required.	6	Has managed others practising the competence element in a complex project.
High – Extensive knowledge/experience In knowledge terms: the candidate understands the role in detail and is able to evaluate, to create and to integrate the relevant criteria and can interpret and evaluate the results. In experience terms: the candidate has a broad range of experience and a good track record gained from responsible project management roles in many different kinds of projects across one or more industry sectors, during most or all phases of these projects.			
7	Has a detailed understanding of how the competence element is practised within complex projects and can critically evaluate and optimise as required.	7	Has managed others practising the competence element in a number of complex projects.
8	Has a detailed understanding of how the competence element is practised within complex projects and can critically evaluate and develop further as required.	8	Has managed others practising the competence element in many complex projects.
9	Has a deep knowledge of how the competence element is practised within very complex projects and can educate others.	9	Has guided and facilitated others in practising the competence element in very complex projects.
10	Has a deep knowledge of all aspects of the competence element in very complex projects and is a recognised industry expert (written papers and presentations).	10	Has guided and facilitated others in all aspects of the competence element in very complex projects and is a recognised industry expert.

Although the scores vary from competence to competence, the average scores for knowledge and experience are as shown in Table 1.3. The knowledge and experience requirements become deeper (from knowing the facts to developing the ability to apply and evaluate methods, and so on) and broader (from one to several different kinds of projects, methods, and so on) from Level D to Level A.

Table 1.3 *Knowledge and experience average scores required at each APM Level of Competence*

Level of Competence	APM Level D	APM Level C	APM Level B	APM Level A
Knowledge	4	5	6	7
Experience	0/Optional	4	6	7
Average	4	4.5	6	7

Overall competence is based on a number of competences, so individuals will have a range of scores. The overlapping ranges for each APM Level are as shown in Figure 1.2. Note: there is a minimum score (for each competence) required for each APM Level. So, even though an individual may have a score equivalent to a Level B in one or more competences, if the average across the group of competences is 4.5 the person is classed at being at APM Level C.
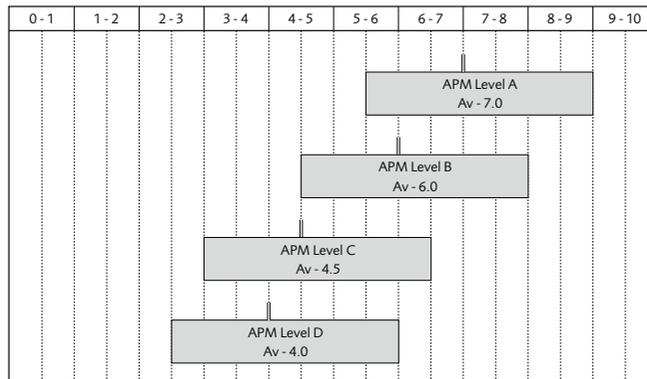
Figure 1.2 *Usual range and average scores for each APM Competence Level*

Appendix 6 shows the relationship between the scores required for each competency and the APM Levels.

1.8 COMPLEXITY OF PROJECTS

In order to determine Levels of Competence of project managers, the complexity of the challenges to which they have had exposure must be considered. In the previous section, the higher Competence Levels are characterised by involvement in 'complex projects'. For these Levels of Competence to have meaning, it is important that the concept of project complexity is clearly understood. The APM considers that for a project to be considered 'complex' it would need to score highly against the following indicators/criteria (not in priority order):

- objectives, assessment of results;
- interested parties, integration;
- cultural and social context;
- degree of innovation, general conditions;
- project structure, demand for coordination;
- project organisation;
- leadership, teamwork, decisions;
- resources, including finance;
- risks (threats and opportunities);
- project management methods, tools and techniques.

In a complex project environment, the project manager will need to take account of many interrelated subsystems/sub-projects and other elements, both within the structures of the project and in the wider organisation. A complex project is likely to involve interaction with several organisations and/or different units in the same organisation – these either benefiting from or providing resources to such a project. A complex project will typically comprise several different, sometimes overlapping, phases, and its effective management will require the coordination of the work of several different disciplines, as well as the use of a wide range of project management methods, tools and techniques.

An individual's experience of complexity may have been gained on more than one project, but the currency of any such experience obtained more than five years ago will be limited and should, in most circumstances, be discounted. Appendix 3 contains a tool used in the APM Level B certification process, which may be helpful in determining the level of complexity of any given project.

1.9 COMPLETING THE SELF-ASSESSMENT

1.9.1 Considerations

When undertaking self-assessment, it is understood that you may not wish to undertake assessment against all competence elements each time you use the competence framework. You may want to focus on only a selection of relevant competence elements at any particular time; however, over time the professional project manager will need to assess against all elements. Guidance on tailoring the framework can be found in Appendix 2.

In planning your assessment you will need to allow up to five minutes for completion of each competence element. The complexity of the projects you have worked on should be taken into account. You should refer to the complexity matrix in Appendix 3 to assess the complexity level of your specific projects.

1.9.2 Structure of competence elements

An example of a completed self-assessment summary for the technical competence domain is shown in Figure 1.3.

Competence element code

Competence domain

Competence element name

Definition from the *APM BoK* (5th edition)

Indicators – used to help in understanding an assessment of how the competence element can be applied in a project

Self-assessment scoring for knowledge and experience against each indicator

Total of scores for knowledge and experience, divided by number of indicators (and rounded down) to give overall knowledge and experience ratings and Competence Level

Derived APM Competence Level based on overall knowledge and experience ratings

Technical competence domain		
TC 11	**SCOPE MANAGEMENT**	
Definition		
Scope management is the process by which the deliverables and work to produce them are identified and defined. Indentification and definition of the scope must describe what the project will include and what it will not include, i.e. what is in and out of scope.		
Indicators	**K**	**E**
1 Identifies and defines interested parties' requirements and objectives.	7	2
2 Agrees appropriate deliverables with relevant stakeholders using product breakdown structure and work breakdown structure.	5	3
3 Documents and agrees the project scope, and places it under configuration control.	4	2
4 Updates project scope document as changes are agreed via the change control process.	5	2
Total score for knowledge and experience	21	9
	÷4	÷4
Overall knowledge and experience ratings	**5**	**2**
Competence Level	**D**	

Level of knowledge (K) and experience (E) required to achieve corresponding APM Competence Levels

Description of the APM Competence Levels

| Scoring for APM Levels	
K: 8 – 10 E: 7 – 10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 5 – 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0 – 3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

Figure 1.3 *Self-assessment example*

1.9.3 Instructions for completing self-assessment

Step 1. Unfold front cover to reveal competence indicator scoring matrix and familiarise yourself with the scoring criteria. Unfold the back cover to reveal the self-assessment summary sheet.

Step 2. The competence indicator scoring matrix refers to complex projects. Go to the project complexity matrix (Appendix 3) and rate the complexity of your project(s) prior to beginning the assessment.

Figure 1.4 *Competence indicator scoring matrix*

Technical competence

Step 3. Go to the first **technical competence** (Chapter 2) to be assessed.

Step 4. For each indicator, assess yourself for both knowledge and experience on a scale of 1–10, using the competence indicator scoring matrix. Record your scores against each indicator for knowledge and experience in the appropriate column (K and E).

Step 5. When all indicators have been assessed for a competence, add up the scores in each column and enter the totals for the two columns (K and E).

Step 6. Calculate your 'overall knowledge and experience ratings' by dividing the totals by the number of indicators, and enter these figures in the appropriate boxes. Anything that is not a whole number should be rounded down – e.g. 3.9 rounded down to 3.

Step 7. Referring to the 'Scoring for APM Levels' guidance, determine the APM Level to which your score equates (A, B, C or D) and enter this in the 'Competence Level' box. Where your competence ranges across more than one APM Level, the lowest APM Level applies.

Step 8. Transfer your APM Competence Level (A, B, C or D) to the relevant line on the assessment summary sheet.

Repeat steps 3 to 8 for each of the remaining technical competences to be assessed.

Behavioural competence

Step 9. Repeat steps 3 to 8 for each **behavioural competence** (Chapter 3).

Figure 1.5 *Self-assessment summary sheet*

Contextual competence

Step 10. Repeat steps 3 to 8 for each **contextual competence** (Chapter 4).

1.9.4 Calculating your overall rating

Once the assessment is complete, you will have a clear picture of your score (in terms of knowledge and experience), and your overall competence rating for each competence in terms of APM Levels D to A.

For an overall rating, it is necessary to have a score against a significant grouping of competences: for example, all those associated with a specific organisational role – your organisation may decide to group specific competences and map them to job role definitions. The job role will define what you are required to score against these competences, such as Level B on 15 competences, in order to be a senior project manager in that organisation.

To work out your overall rating, review the range of scores and the average score across all the competences measured. The overall APM Level can be determined from Figure 1.2. Further guidance is given in section 1.7.

1.9.5 Identifying further development opportunities

In order to identify where further development is required, you will be able to drill down into the detail for each competence, looking at your competence score for each separate indicator, thus making it possible to identify the gaps in your knowledge and experience, for each competence, at your APM Level. This will provide useful information for discussion at personal development reviews and a road map for future training requirements and for your continuing professional development.

THE TECHNICAL COMPETENCE DOMAIN

The technical competence elements described here are needed through the full life cycle of concept, definition, implementation, and handover and closeout (Figure 2.1). However, the order in which a project manager may apply the competences can differ depending on the project type, size and complexity and other influencing factors. The importance or weight of a competence is completely dependent upon the specific project situation.
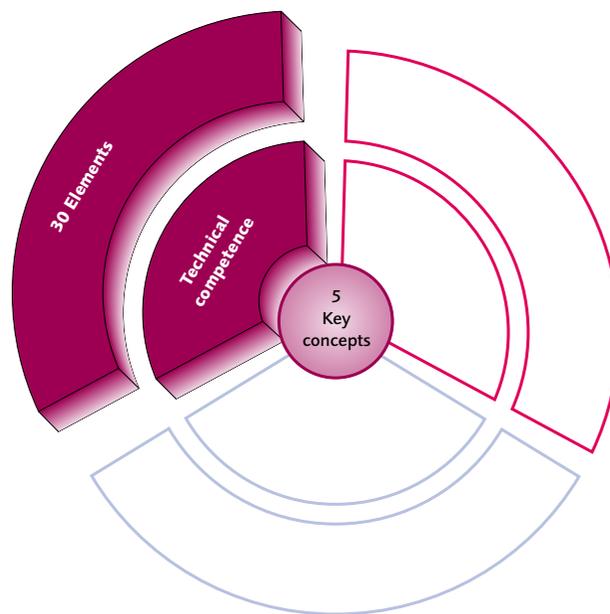
TC01	Concept	TC11	Scope management	TC20	Change control
TC02	Project success and benefits management	TC12	Modelling and testing	TC21	Implementation
		TC13	Methods and procedures	TC22	Technology management
TC03	Stakeholder management	TC14	Project quality management	TC23	Budgeting and cost management
TC04	Requirements management	TC15	Scheduling	TC24	Procurement
		TC16	Resource management	TC25	Issue management
TC05	Project risk management	TC17	Information management and reporting	TC26	Development
TC06	Estimating			TC27	Value management
TC07	Business case	TC18	Project management plan	TC28	Earned value management
TC08	Marketing and sales				
TC09	Project reviews	TC19	Configuration management	TC29	Value engineering
TC10	Definition			TC30	Handover and closeout

Figure 2.1 *The technical competence domain*

2.1 CONCEPT

Technical competence domain		K	E
TC01	**CONCEPT**		
Definition			
Concept is the first phase in the project life cycle. During this phase the need, opportunity or problem is confirmed, the overall feasibility of the project is considered and a preferred solution identified. The business case for the project will be produced in this phase.			
Indicators		**K**	**E**
1	Gathers, documents and gets agreement on project requirements with key stakeholders.		
2	Validates and/or develops a business case and project strategies, and places them under change control.		
3	Defines project objectives, appraises the project (including financial appraisal), carries out a feasibility study and establishes an outline project plan.		
4	Identifies, assesses, documents and communicates the potential impact of high-level risks.		
5	Validates requirements at key points during the concept phase.		
6	Assesses compliance with project objectives and requirements and seeks authorisation for the project.		
7	Gains approval either to progress to definition phase, refine concept phase or cancel project.		
8	Sets up project review process and associated schedule.		
Total score for knowledge and experience		÷8	÷8
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.2 PROJECT SUCCESS AND BENEFITS MANAGEMENT

Technical competence domain		K	E
TC02	**PROJECT SUCCESS AND BENEFITS MANAGEMENT**		
Definition			
Project success is the satisfaction of stakeholder needs and is measured by the success criteria as identified and agreed at the start of the project. Benefits management is the identification of the benefits at an organisational level and the monitoring and realisation of those benefits.			
Indicators		**K**	**E**
1	Analyses and understands the project and its context within the proposed business change and how these can enable the expected benefits (indirect, direct, financial and non-financial).		
2	Agrees success criteria for the project with the sponsor, ensuring they are measurable.		
3	Identifies critical success factors for the project with stakeholders.		
4	Agrees KPIs, ensuring these are quantitative by using traditional time, cost and quality techniques.		
5	Understands the relationship between the timing of deliverables and the realisation of benefits.		
6	Discusses and agrees the project success criteria and benefits realisation responsibilities with all relevant stakeholders as part of the project management contract with the customer.		
7	Executes and controls PM plans and changes, and reports on project performance.		
8	Ensures that the impacts of any deviations from plan are considered against the business case and the benefits realisation plan, and are escalated to the responsible stakeholders.		
9	Collects results and prepares project performance reports against the agreed KPIs and anticipated benefits, and communicates to relevant stakeholders.		
10	Ensures that benchmark data is captured against which benefit realisation can be measured.		
Total score for knowledge and experience		÷10	÷10
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 8–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 7	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 5–6	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4–5 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.3 STAKEHOLDER MANAGEMENT

Technical competence domain			
TC03	**STAKEHOLDER MANAGEMENT**		
Definition			
Stakeholder management is the systematic identification, analysis and planning of actions to communicate with, negotiate with and influence stakeholders. Stakeholders are all those who have an interest or role in the project or are impacted by the project.			
Indicators		**K**	**E**
1	Identifies and prioritises stakeholder interests.		
2	Analyses their interests, requirements and level of influence.		
3	Develops a strategy/plan to manage and communicates effectively with all stakeholders. Includes stakeholder interests and expectations in the requirements, objectives, scope, deliverables, time schedule and costs of the project plan.		
4	Implements and monitors the effectiveness of the stakeholder management plan.		
5	Communicates to stakeholders which of their requirements will be fulfilled or not fulfilled by the project.		
6	Ensures the threats and opportunities represented by stakeholders are captured and proactively managed as risks.		
7	Executes, communicates and manages changes in the stakeholder management plan throughout the life cycle.		
8	Gains the commitment of all stakeholders, including the most challenging.		
Total score for knowledge and experience		÷8	÷8
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 8–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 7	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5–6 E: 5–6	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.4 REQUIREMENTS MANAGEMENT

Technical competence domain			
TC04	**REQUIREMENTS MANAGEMENT**		
Definition			
Requirements management is the process of capturing, analysing and testing the documented statement of stakeholder and user wants and needs. Requirements are a statement of the need that a project has to satisfy, and should be comprehensive, clear, well structured, traceable and testable.			
Indicators		**K**	**E**
1	Gathers, documents and gets agreement on project requirements and related acceptance criteria.		
2	Analyses and prioritises requirements, taking into consideration business benefits and priorities.		
3	Evaluates prioritised requirements to ensure they still meet the project objectives and will deliver the required benefits.		
4	Ensures documented requirements are subject to the project configuration management processes.		
5	Establishes a common understanding of the requirements across the project team and all stakeholders.		
Total score for knowledge and experience		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.5 PROJECT RISK MANAGEMENT

Technical competence domain		K	E
TC05	**PROJECT RISK MANAGEMENT**		
Definition			
Project risk management is a structured process that allows individual risk events and overall project risk to be understood and managed proactively, optimising project success by minimising threats and maximising opportunities.			
Indicators		**K**	**E**
1	Identifies and assesses risks (threats and opportunities) (using qualitative and quantitative techniques), including any assumptions and prepares a risk log.		
2	Develops a risk (threat and opportunity) response plan, assigns ownership, and has it approved by the relevant body and communicated.		
3	Identifies and undertakes response actions and formulates contingency plans as appropriate.		
4	Assesses the probability of achieving time, cost and quality objectives throughout the project.		
5	Continuously identifies new risks, reassesses risks, plans responses, modifies the project plan and updates the risk log.		
6	Facilitates risk workshops.		
Total score for knowledge and experience		÷6	÷6
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.6 ESTIMATING

Technical competence domain			
TC06	**ESTIMATING**		
Definition			
Estimating uses a range of tools and techniques to produce estimates. An estimate approximates project time and cost targets and is refined throughout the project life cycle.			
Indicators		**K**	**E**
1	Is aware of and understands the degrees of uncertainty that apply to estimates as they are developed throughout the project life cycle. Uses this knowledge to identify assumptions and risks to develop contingency proposals for the project.		
2	Depending on the type and needs of the project, ensures one or more of the three main estimating techniques (bottom-up, comparative and parametric) are used to prepare estimates.		
3	Ensures a suitable number of relevant experts are used to prepare estimates and that the resulting ranges of estimates are used to prepare an overall estimate, together with optimistic and pessimistic targets for each activity.		
4	When using the bottom-up technique, develops product breakdown/work breakdown structures to identify the deliverables (products) and associated development activities needed.		
5	Ensures, whenever possible, that comparative techniques are used, e.g. estimates are based on previous experience and usage statistics.		
6	Uses the parametric technique where bottom-up is not feasible and/or comparative data is not available.		
7	Throughout the project ensures that estimates are continually reviewed and revised as and when new information becomes available and more is known about the project.		
Total score for knowledge and experience			
		÷7	÷7
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.7 BUSINESS CASE

Technical competence domain			
TC07	**BUSINESS CASE**		
Definition			
The business case provides justification for undertaking a project, in terms of evaluating the benefit, cost and risk of alternative options and rationale for the preferred solution. Its purpose is to obtain management commitment and approval for investment in the project. The business case is owned by the sponsor.			
Indicators		**K**	**E**
1	Understands the content and is prepared to write a business case on behalf of the sponsor according to the agreed standards and accounting norms.		
2	Is aware of the internal (i.e. project changes) and external (legislative, market forces) factors that could impact the business case.		
3	Articulates the balance between the benefits sought and the costs and risks of delivering these benefits for each of the options identified.		
4	Ensures the project team is made aware of the business case and the potential impact to the business case arising from any changes to the programme and/or associated project plans.		
5	Throughout the project and at closure, evaluates against the business case to ensure the continued viability of the project; reports and escalates any variations to appropriate management levels for decisions.		
Total score for knowledge and experience		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.8 MARKETING AND SALES

Technical competence domain			
TC08	**MARKETING AND SALES**		
Definition			
Marketing involves anticipating the demands of users and identifying and satisfying their needs by providing the right project at the right time, cost and quality. Sales is a marketing technique used to promote a project. Marketing and sales needs to be undertaken internally and possibly externally to an organisation.			
Indicators		**K**	**E**
1	Develops marketing and sales strategy for the project.		
2	Ensures external and internal environment is understood in terms of project context in effective marketing strategy.		
3	Is aware of various selling techniques to achieve buy-in from stakeholders, the project team and users for the project's approach.		
4	Demonstrates appropriate negotiation and influencing skills in marketing and sales.		
5	Investigates and analyses customer dynamics and uses research to inform marketing plans.		
6	Is aware of the impact of marketing and sales in assisting and securing appropriate resources.		
7	Is aware of the need to draw on marketing expertise available within the project or organisation or externally for effective marketing and sales.		
8	Ensures conformance to any copyright, Intellectual Property Rights or any other legal framework that applies to the project deliverables.		
9	Monitors and evaluates marketing and sales activities.		
Total score for knowledge and experience		÷9	÷9
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6–7 E: 5–6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.9 PROJECT REVIEWS

Technical competence domain			
TC09	**PROJECT REVIEWS**		
Definition			
Project reviews take place throughout the project life cycle to check the likely or actual achievement of the objectives specified in the project management plan (PMP) and the benefits detailed in the business case. Additional reviews will take place following handover and closeout to ensure that the benefits are being realised by the organisation.			
Indicators		**K**	**E**
1	Establishes an effective project review system to be used during and after the project is complete (post-project review).		
2	Schedules project evaluation reviews at key milestones during the project.		
3	During each evaluation: • evaluates the project management processes used • reviews the likely technical success of the project • reviews the likely commercial success of the project (e.g. does it still meet the business case?) • validates overall progress to time, cost and quality • considers stakeholder relationships and perceptions • develops and applies corrective actions.		
4	Reports project status and performance to interested parties and agrees resulting actions.		
5	At post-project review, prepares a lessons-learned report and applies to future projects.		
Total score for knowledge and experience		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 8–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6–7	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5–6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.10 DEFINITION

Technical competence domain		K	E
TC10	**DEFINITION**		
Definition			
Definition is the second phase of the project life cycle. During this phase the preferred solution is further evaluated and optimised. Often an iterative process, definition can affect requirements and the project's scope, time, cost and quality objectives. As part of this phase the project management plan (PMP) is produced and the resources required during the implementation phase will be identified.			
Indicators		**K**	**E**
1	Considers alternative designs, using modelling and what-if techniques to meet the preferred solution.		
2	Agrees a design and the preferred solution with the sponsor and stakeholders, ensuring that they can meet the conditions (especially the supply of resources) necessitated by the solution.		
3	Prepares a detailed PMP, including, for example: • risk management plan • quality plan • communication plan • health and safety plan (as required) • benefits management plan (or the project's contribution to it).		
4	Revalidates the estimates based on the design and risk mitigation.		
5	Communicates and updates the business with any changes from the concept phase.		
6	Finalises and agrees the PMP with the sponsor and stakeholders.		
7	Gains approval from the business to move the project to the implementation phase, refine the definition phase or cancel the project.		
Total score for knowledge and experience		÷7	÷7
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 5–6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–5 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.11 SCOPE MANAGEMENT

Technical competence domain			
TC11	**SCOPE MANAGEMENT**		
Definition			
Scope management is the process by which the deliverables and work to produce them are identified and defined. Identification and definition of the scope must describe what the project will include and what it will not include, i.e. what is in and out of scope.			
Indicators		**K**	**E**
1	Identifies and defines interested parties' requirements and objectives.		
2	Agrees appropriate deliverables with relevant stakeholders using product breakdown structure and work breakdown structure.		
3	Documents and agrees the project scope, and places it under configuration control.		
4	Updates project scope document as changes are agreed via the change control process.		
Total score for knowledge and experience		÷4	÷4
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 5–6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.12 MODELLING AND TESTING

Technical competence domain			
TC12	**MODELLING AND TESTING**		
Definition			
Modelling and testing are used to provide a representation and assurance of whether the project objectives can be achieved. Modelling is the process of creating and using a device that duplicates the physical or operational aspects of a deliverable. Testing is the process of determining how aspects of a deliverable perform when subjected to specified conditions.			
Indicators		**K**	**E**
1	Identifies project deliverables that require prototyping, modelling and/or testing.		
2	Develops an appropriate testing strategy and schedule, agrees them with the sponsor and stakeholders, and ensures incorporation in project schedule.		
3	Ensures that project plans take account of areas of uncertainty, identifying responsibilities and allowing adequate budget and time for resolution.		
4	Ensures that the design decisions taken at one stage are based on information discovered in earlier stages.		
5	Ensures that a robust and logical approach is adopted and applied in generating and managing technical, cost and schedule risk associated with modelling and testing.		
6	Ensures that modelling and testing are an integral part of quality assurance and quality control.		
Total score for knowledge and experience		÷6	÷6
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 6–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 5–6 E: 4–5	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 4 E: 3	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–3 E: 0–2	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.13 METHODS AND PROCEDURES

Technical competence domain			
TC13	**METHODS AND PROCEDURES**		
Definition			
Methods and procedures detail the standard practices to be used for managing projects throughout a life cycle. Methods provide a consistent framework within which project management is performed. Procedures cover individual aspects of project management practice and form an integral part of a method.			
Indicators		**K**	**E**
1	Understands the organisation's project management methods, processes and supporting systems, including appropriate delivery life cycles available for use by the project.		
2	Complements the organisation's methods and procedures through the use of recognised project management techniques, tools and experience, and scales these appropriately to the complexity and risk requirements of the project.		
3	Ensures the methods and procedures adopted integrate into the organisation's reporting structure and schedule.		
4	Ensures all members of the project team understand the methods and procedures to be employed, using training and/or coaching as necessary.		
5	Ensures improvements developed on the project are communicated and offered as general improvements to the organisation's methods and procedures.		
Total score for knowledge and experience		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 5–6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 3–4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–2	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.14 PROJECT QUALITY MANAGEMENT

Technical competence domain			
TC14	**PROJECT QUALITY MANAGEMENT**		
Definition			
Project quality management is the discipline that is applied to ensure that both the outputs of the project and the processes by which the outputs are delivered meet the required needs of stakeholders. Quality is broadly defined as fitness for purpose or more narrowly as the degree of conformance of the outputs and processes.			
Indicators		**K**	**E**
1	Discusses and agrees the quality expectations and quality criteria with the stakeholders.		
2	Develops a quality approach for the project, including key activities and the application of required quality systems.		
3	Develops the project quality plan, taking into consideration the customer's quality assurance and quality control procedures as appropriate, wherever possible including quantitative criteria against which deliverables can be measured. Agrees the quality plan with the customer.		
4	Executes the project quality plan, carrying out quality assurance and control, and maintains a quality log containing all assurance activities and results.		
5	Recommends and applies continuous improvements and preventative and corrective actions, and reports on impact on quality.		
Total score for knowledge and experience		÷ 5	÷ 5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.15 SCHEDULING

Technical competence domain			
TC15	**SCHEDULING**		
Definition			
Scheduling is the process used to determine the overall project duration and when activities and events are planned to happen. This includes identification of activities and their logical dependencies, and estimation of activity durations, taking into account requirements and availability of resources.			
Indicators		**K**	**E**
Using an appropriate project management planning tool:			
1	Defines and sequences the activities and/or work packages taking into account any dependencies.		
2	Applies estimates of effort and duration considering resource constraints.		
3	Identifies major phases, milestones and appropriate review points, and schedules the project to determine the critical path as appropriate. Considers any risks, updating the risk log as appropriate.		
4	Compares target, planned and actual dates, and takes corrective actions or updates forecast as necessary.		
5	Regularly updates the schedule with actuals and estimates to complete and reschedule to determine whether target date and costs remain viable, and checks for any changes to the critical path.		
6	Raises scheduling issues and escalates for sponsor decision.		
7	Maintains the schedule with respect to changes.		
Total score for knowledge and experience		÷7	÷7
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.16 RESOURCE MANAGEMENT

Technical competence domain		K	E
TC16	**RESOURCE MANAGEMENT**		
Definition			
Resource management identifies and assigns resources to activities so that the project is undertaken using appropriate levels of resources and within an acceptable duration. Resource allocation, smoothing, levelling and scheduling are techniques used to determine and manage appropriate levels of resources.			
Indicators		K	E
1	Identifies what resources are required, including the specific project management effort. The competence required of the personnel in the project team should also be made explicit.		
2	Schedules the resources and applies appropriate smoothing and levelling until an optimised plan is achieved.		
3	Obtains agreement with line management/resource owners for resource assignments to the project.		
4	Places the schedule and resource allocation plan under change control.		
5	Controls the resources with respect to changes to project scope and resource availability.		
6	Manages introduction and release of project resources throughout the project.		
Total score for knowledge and experience			
		÷6	÷6
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.17 INFORMATION MANAGEMENT AND REPORTING

Technical competence domain		K	E
TC17	**INFORMATION MANAGEMENT AND REPORTING**		
Definition			
Information management is the collection, storage, dissemination, archiving and appropriate destruction of project information. Information reporting takes information and presents it in an appropriate format which includes the formal communication of project information to stakeholders.			
Indicators		**K**	**E**
1	Plans the information management system for the project and agrees it with stakeholders, ensuring all of their information needs are met.		
2	Ensures compliance with the organisation's data and information policies and any regulatory requirements.		
3	Implements the project information management and reporting system.		
4	Implements procedures for processing documents, including incoming and outgoing information, filing and archiving.		
5	Audits the use of the project information management and reporting system.		
6	Communicates the project information to stakeholders.		
Total score for knowledge and experience		÷6	÷6
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.18 PROJECT MANAGEMENT PLAN

Technical competence domain			
TC18	**PROJECT MANAGEMENT PLAN**		
Definition			
The project management plan (PMP) brings together all the plans for a project. The purpose of the PMP is to document the outcomes of the planning process and to provide the reference document for managing the project. The PMP is owned by the project manager.			
Indicators		**K**	**E**
1	Defines the structure and format of the PMP, recognising that it could comprise one or more documents depending on the size, need and complexity of the project.		
2	Works with the project team and stakeholders to ensure that the PMP answers the why, what, how, how much, who, when and where questions for the project.		
3	Documents and confirms the high-level background and rationale for the project, referencing any other relevant detailed documentation (why).		
4	Documents and confirms the overall objectives, scope, high-level deliverables/products (including acceptance criteria) and success criteria (project KPIs) for the project. Ensures constraints, assumptions and dependencies are documented and understood (what).		
5	Documents and confirms the governance for the project, including the life cycle/approach, management controls (reporting and handover mechanisms), relevant tools and techniques (how).		
6	Documents and confirms the project estimates, overall budget and cost management processes (how much).		
7	Documents and confirms the project organisational breakdown structure (OBS), defining key roles and responsibilities, and confirms the resources to be used, including third-party responsibilities (who).		
8	Documents and confirms the project schedule, critical path, including milestones (when).		
9	Documents and confirms where the work will be performed, including geographical locations and time zone working arrangements as required for all participants (where).		
10	Obtains formal acceptance of the key elements of the project management plan as they are produced or updated, and places them under configuration management.		
Total score for knowledge and experience		÷10	÷10
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 8–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6–7	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5–6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 1–4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.19 CONFIGURATION MANAGEMENT

Technical competence domain			
TC19	**CONFIGURATION MANAGEMENT**		
Definition			
Configuration management comprises the technical and administrative activities concerned with the creation, maintenance and controlled change of the configuration throughout the project life cycle.			
Indicators		**K**	**E**
1	Prepares and executes a configuration management plan in line with project and organisation requirements.		
2	Identifies, documents and communicates all components of project deliverables and allocates an appropriate configuration numbering system to each which will enable their status and history to be determined.		
3	Identifies the agreed baseline of each deliverable (or deliverable component) and places them under configuration control such that subsequent changes may be made only via the agreed change control procedure.		
4	Documents/records and reports on all current and theoretical data concerned with each configuration item (project deliverables/products).		
5	Carries out reviews and audits to ensure that there is conformity between all configuration items (project deliverables/products).		
Total score for knowledge and experience		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5–6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.20 CHANGE CONTROL

Technical competence domain		K	E
TC20	**CHANGE CONTROL**		
Definition			
Change control is the process that ensures that all changes made to a project's baselined scope, time, cost and quality objectives or agreed benefits are identified, evaluated, approved, rejected or deferred.			
Indicators		**K**	**E**

1	Decides upon, agrees and implements a change control policy for the project that provides a formal mechanism for:
	• recording any proposed changes
	• assessing their likely impact
	• Obtaining the relevant stakeholders' decision on:
	  • rejecting the change
	  • deferring until later
	  • accepting change along with corresponding changes to cost and timescale.		

2	Captures and logs all proposed changes to the agreed scope and objectives of the project, e.g. a change to accommodate a need not originally defined to be part of the project.		
3	Conducts an impact analysis on the consequences of proposed changes to the project (in terms of time, cost and quality), the business case and benefits management plan.		
4	Defines various responsibilities and authority levels so that routine changes can be dealt with efficiently, but significant changes receive due management attention.		
5	Gets changes accepted or rejected and maintains the change log.		
6	Plans, executes, controls and closes approved changes.		
7	Reports the status of changes throughout the project.		
Total score for knowledge and experience		÷7	÷7
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5–6 E: 4–5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–3	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.21 IMPLEMENTATION

Technical competence domain			
TC21	**IMPLEMENTATION**		
Definition			
Implementation is the third phase of the project life cycle, during which the project management plan is executed, monitored and controlled. In this phase the design is finalised and used to build the deliverables.			
Indicators		**K**	**E**
1	Reviews and revises where necessary the design and build stages of the project management plan.		
2	Executes the design and build stages of the project as defined in the project management plan.		
3	Procures resources, and develops and assigns work packages.		
4	Monitors progress against plan and prepares regular progress reports.		
5	Reviews progress with the sponsor and agrees any remedial actions against project scope and business case, ensuring benefits are still valid.		
6	Assesses risks (threats and opportunities) and maintains the risk log and any response plans.		
7	Assesses issues and ensures follow-up actions are completed.		
8	Manages changes in accordance with the agreed change control policy.		
9	Ensures the quality plan is adhered to and delivers the desired quality of deliverable.		
Total score for knowledge and experience		÷9	÷9
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 6 E: 5–6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 5 E: 3–4	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 4 E: 0–2	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.22 TECHNOLOGY MANAGEMENT

Technical competence domain			
TC22	**TECHNOLOGY MANAGEMENT**		
Definition			
Technology management is the management of the relationship between available and emerging technologies, the organisation and the project. It also includes management of the enabling technologies used to deliver the project, technologies used to manage the project and the technology of the project deliverables.			
Indicators		**K**	**E**
1	Discusses, defines and agrees the technology management strategy for the project, ensuring buy-in from stakeholders and alignment with their overall technology management strategy.		
2	Ensures the risks (threats and opportunities) of adopting any new or emerging technologies are fully understood by, communicated to and agreed with relevant stakeholders.		
3	Ensures that the deployment of new technologies is compatible/interfaces with existing technologies and related products, and those which will form the environment into which the project will deliver.		
4	Calculates the cost of the technology management strategy and incorporates corresponding risk premiums into the estimates and resource requirements (skills and competences) for the project.		
5	Monitors the adoption and implementation of the technology management strategy, identifies and escalates issues and highlights risks (threats and opportunities) as soon as these are relevant.		
Total score for knowledge and experience			
		÷5	÷5
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 7–10 E: 6–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 5–6 E: 4–5	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 4 E: 3	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 3 E: 0–2	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.

2.23 BUDGETING AND COST MANAGEMENT

Technical competence domain			
TC23	BUDGETING AND COST MANAGEMENT		
Definition			
Budgeting and cost management is the estimating of costs and the setting of an agreed budget, and the management of actual and forecast costs against that budget.			
Indicators		K	E
1	Estimates and evaluates costs of each work package, including overhead costs using work breakdown structure/product breakdown structure.		
2	Establishes and agrees overall budget, including tolerances, risk premium, assumptions and exclusions based on the business case and investment appraisal.		
3	Identifies when expenditure will take place and develops a cash flow forecast, ensuring funds will be available when required.		
4	Establishes cost monitoring and controlling elements, as well as inflation and currency management if necessary.		
5	Reports on financial performance to stakeholders in line with project and organisation requirements.		
6	Monitors forecast vs. actual resource usage and costs or expenses incurred, taking into account any approved changes.		
7	Captures key project metrics for actuals versus estimates, and ensures these are fed back into the estimating process/systems.		
8	Forecasts cost trends and final costs, noting variations, and develops and applies corrective actions as necessary.		
9	Completes all financial transactions and updates the final costs as per the project and organisation requirements.		
Total score for knowledge and experience		÷9	÷9
Overall knowledge and experience ratings			
Competence Level			

Scoring for APM Levels	
K: 8–10 E: 7–10	Level A: Can successfully execute all the indicators by directing the management of complex projects and/or programmes for an organisation or a functional unit.
K: 7 E: 6	Level B: Has successfully executed most of the indicators by managing a complex project.
K: 6 E: 5	Level C: Has successfully executed at least some of the indicators by management of a project with limited complexity.
K: 5 E: 0–4	Level D: Has the knowledge required and may execute some of the indicators in supporting a project manager and/or project team.