GAPPS
Global Alliance for Project Performance Standards

**A Framework for
Performance Based Competency Standards for
Program Managers**

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Contents

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Foreword

As program management has become a more widely recognized management approach, governments, individuals, and both public and private sector organizations have become interested in frameworks and standards that describe levels of acceptable workplace performance for program personnel.

The *Global Alliance for Project Performance Standards* (GAPPS) is a volunteer organization working to create such frameworks and standards by providing a forum for stakeholders from differing systems, backgrounds, and operating contexts to work together to address the needs of the global project and program management community.

These frameworks are intended to support the development and recognition of local standards and to provide a sound basis for mutual recognition and transferability of project and program management qualifications.

The GAPPS frameworks are intended to be used by businesses, academic institutions, training providers, professional associations, and government standards and qualifications bodies globally. Frameworks may be used "as is" to speed the development of local standards, or they may be adapted to local needs.

This document is the second produced by the GAPPS. In 2006 the GAPPS released the first version of *A Framework for Performance Based Competency Standards for Global Level 1 and 2 Project Managers.* Future documents may address sponsors, team members, and other roles involved with projects and programs.

> *Note: Both* program *and* programme *are accepted ways of spelling this term. The GAPPS has adopted* program *as being the simpler and more widely used form.* Program *is used throughout this document except when referring to a document produced by an organization that uses the longer form.*

Version	Date	Summary of Changes
1.0	1 March 2011	Initial release
1.1	15 April 2011	Updated sections 4.3 and 4.4 to reflect final changes to ACDC Table; updated level ranges for role determination; added Appendix D
1.2	22 May 2011	Added missing names to list of contributors

A Framework for
Performance Based Competency Standards
for Program Managers

1. Scope

This document contains a framework for performance based competency standards for three levels and six types of program manager. The contents of this document may be used "as is" to expedite the process of standards development, may be tailored to reflect cultural differences or local practice, or may be mapped to other standards to facilitate transferability of qualifications.

The GAPPS Framework consists of:

- A detailed approach to differentiating three levels of program manager based upon program management complexity.

- Eight units of performance based competency standards for the role of program manager.

- A description of six types of program manager based on which of the eight units apply.

- Supporting material to aid in the application of the standards.

This framework is intended to be used to assess threshold competency — demonstration of the ability to do something at a standard considered acceptable in the workplace. It is applicable to program managers in all fields of endeavour including, but not limited to: architecture, automotive, biotechnology, construction, defence and aerospace, design, education, engineering, financial services, government, government contracting, information systems, not-for-profit operations, pharmaceuticals, software, and telecommunications.

2. Performance Based Competency Standards

2.1 Overview

This section provides a brief overview of the subject of performance based competency standards (PBCS) for potential users of this document who are not familiar with the topic.

Competent comes from the Latin root *competere* which means "to be suitable." In today's workplace, the term "competent" is generally used to describe someone who is sufficiently skilled to perform a specified task or to fill a defined position — a competent physician, a competent salesperson, a competent plumber. Increasingly, organizations are interested in assessing the competency of individuals in order to guide employment and development decisions.

Broadly speaking, there are two major approaches to defining and assessing competency:

- *Attribute based* wherein personal attributes such as knowledge, skills, values, attitudes, and other characteristics are identified and assessed. Competency is inferred based on the presence of the necessary attributes.

- *Performance based* wherein work outcomes and performance levels are identified and assessed. Competency is inferred based on the demonstrated ability to satisfy the performance criteria.

PBCS, also called occupational competency standards, are widely used throughout the world and have been developed within the context of government endorsed standards and qualifications frameworks in Australia (Department of Employment, Education and Workplace Relations: DEEWR), New Zealand (New Zealand Qualifications Authority: NZQA), South Africa (South African Qualifications Authority: SAQA), and the United Kingdom (Qualifications and Curriculum Development Agency: QCDA). Although all of these approaches are focused primarily on *performance based* competency assessment, some approaches do include aspects of *attribute based* competency assessment.

2.2   Design of the GAPPS Framework

PBCS typically address at least the following two questions:

- What is usual*ly* done in this occupation, profession, or role by competent performers?
- What standard of performance is usual*ly* considered acceptable to infer competency?

In the GAPPS standards, these questions are answered by defining:

- **Units of Competency**

  A Unit of Competency defines a broad area of professional or occupational performance that is meaningful to practitioners and which is demonstrated by individuals in the workplace. This GAPPS framework includes eight Units of Competency.

- **Elements of Competency**

  Elements of Competency describe the key components of work performance within a Unit. They describe *what* is done by individuals in the workplace but do not prescribe *how* the work is done. For example, program managers must "define risks and risk responses for the program," but they can do it themselves or delegate the work to others. In addition, there are many different tools and techniques that they could use. This GAPPS framework includes a total of 28 Elements of Competency.

- **Performance Criteria**

  Performance Criteria set out the type and/or level of performance required to demonstrate competency in each element. They describe observable results and/or actions in the workplace from which competent performance can be inferred. In the GAPPS framework, Performance Criteria can be satisfied in many different ways; there are no mandatory approaches, tools, or methodologies. This GAPPS framework includes a total of 105 Performance Criteria of which 75 are required for all roles.

- **Explanatory Statements**

  Explanatory Statements help to ensure consistent interpretation of the Elements and the Performance Criteria by expanding on critical or significant aspects of them to enable consistent application in different contexts. Where the Explanatory Statements contain lists, the lists are generally illustrative and not exhaustive.

Although some of the terms and definitions of the GAPPS framework described above differ in some respects from other PBCS, the overall approach is consistent and compatible with generally accepted practice within the field of competency development and assessment.

The Performance Criteria in this document focus on *threshold* performance — demonstration of the ability to do something at a standard considered acceptable in the workplace. They do not measure *superior* performance — what the best program managers do. Superior performers should, however, be able to satisfy the threshold criteria without difficulty.

The GAPPS standards include the minimum number of Performance Criteria needed to infer competency. As a result, a candidate must satisfy all of the Performance Criteria in the applicable Units in order to be viewed as competent. In addition, the Performance Criteria represent different levels of detail. The number of Performance Criteria in a Unit or Element is not proportional to the amount of time or effort that a program manager must spend in that area to be viewed as competent.

The material in this document can also be used to support learning and development when applied by qualified educators and trainers. In order to provide such support, the GAPPS Framework would need to be expanded to address questions such as:

- What skills and knowledge are needed to demonstrate this standard of performance?
- What are the parameters for collecting evidence and assessing performance?

3. Programs and Program Management

3.1 Definition of Program

The term *program* has been defined in many different ways. For example:

- "A temporary, flexible organisation structure created to coordinate, direct and oversee the implementation of a set of related projects and activities in order to deliver outcomes and benefits related to an organisation's strategic objectives; a programme is likely to have a life that spans several years." (*Managing Successful Programmes*, UK Office of Government Commerce, 2007)
- "A programme is a set of related projects and organisational changes put in place to achieve a strategic goal and to deliver the benefits that the organisation expects." (*IPMA Competence Baseline,* International Project Management Association, 2006)
- "A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs may include elements of related work outside the scope of the discrete projects in the program." (*The Standard for Program Management*, Project Management Institute, 2008; adapted from *The Handbook of Project-Based Management,* J. Rodney Turner, 1992)

Other definitions of program tend to be conceptually similar to these three: all recognize that a program is expected to actually deliver benefits (rather than just create the potential for benefits), and all recognize the existence of multiple, discrete projects within a program.

The definitions are all close enough in meaning that it is not necessary to choose one in order to understand what a program is.

3.2 Types of Programs

Programs and program management span a wide range of undertakings:

- Development or expansion of a major transportation system such as a subway or an urban highway
- Implementation of an Enterprise Resource Planning system and the supporting policies, processes, and procedures
- NASA's Mission to Mars
- Organizational change to implement a new corporate strategy
- Projects done for health care clients by an engineering consulting firm
- Regional activities of an oil and gas extraction company

- Major weapons system acquisition
- Crisis response
- Information Technology (IT) department support for a single line function such as sales or engineering

And some key characteristics of programs often vary considerably:

- Program manager's authority to originate or terminate projects
- Degree of integration with the sponsoring organization
- How the sponsoring organization will evaluate the program manager's performance
- Number of projects
- Interdependence of projects
- Similarity of technical disciplines
- How the program is initiated and the criteria for termination

To determine the impact of these differences, GAPPS developed a typology of programs based largely on the work of Sergio Pellegrinelli (IJPM, 2005) and Alan Stretton (unpublished review of program management literature, 2007). A portion of that analysis is included in Figure 1, below. The entire typology is available on the GAPPS website.

Program Characteristic	Type of Program			
	Strategic Program	Operational Program	Multi-project Program	Mega-project
General Purpose	Deliver assets and benefits that are directly linked to attaining the sponsoring organization's desired future state	Deliver assets and benefits that are critical to the sponsoring organization's day-to-day operations	Achieve synergies from projects with common traits such as shared resources, similar clients, or product technology	Deliver a specific asset to the sponsoring organization
Key Differentiating Feature	Link to a specific business goal or strategic initiative	Relative interdependence of constituent projects	Relative independence of constituent projects	Significantly larger than the sponsoring organization's typical projects
Reason for Grouping Projects	Early results influence decisions about later projects	Minimize negative impact on ongoing operations	Benefits expected from synergy	So much larger than the organization's typical projects

Figure 1: Extract from the GAPPS Program Typology

Further analysis and extensive discussion with program managers led to the following conclusions:

- The role of the program manager is fundamentally the same for strategic programs, operational programs, and multi-project programs: the type of program does not affect the role.
- Although a mega-project is often called a program, the role of the manager of a mega-project is substantially different from that of the managers of the other program types. As a result, the role of mega-project manager is *not* covered by this framework.

- Multi-project programs are often similar to project portfolios. However, the role of project portfolio manager is different enough that most project portfolio managers will not to be able to satisfy program manager performance criteria. As a result, there is no need for a rigorous distinction between the two.

4. Role Descriptions for Program Managers

4.1 Definition of Program Manager

Acceptance of the fundamental characteristics of a program (see section 3.1 above) led to agreement on a generalized definition of the role of the program manager:

> *The role of the program manager is integrated management of constituent projects and other resources to achieve specific organizational strategies and business benefits.*

As well, since a program may extend over many years, it could have more than one program manager. The role of a replacement program manager is essentially the same as that of the initial program manager. To reflect this, this standard uses phrases such as "shape and sustain" rather than "develop" or "create" to describe the program manager's responsibilities.

This framework and its detailed role descriptions are based on these concepts.

4.2 Differentiating Program Manager Roles: Breadth of Responsibility

GAPPS identified the following eight Units of Competency:

1. Provide Leadership for the Program
2. Facilitate Stakeholder Engagement
3. Craft the Program
4. Orchestrate the Attainment of Benefits
5. Sustain Program Progress
6. Manage Organizational Change
7. Direct the Management of Contracts
8. Engage in Collaborative Alliances

Units 1–5 apply to all program managers, while Units 6–8 apply only to some. GAPPS identified six combinations of these eight Units that are known to be common within the marketplace. These combinations produce six different categories of program manager. The different categories have been labelled A through F as illustrated in Figure 2:

Identifier	A	B	C	D	E	F
Core Units	1-5	1-5	1-5	1-5	1-5	1-5
Additional Units	6, 7, 8	7, 8	6, 7	6	7	None

Figure 2: Categories of Program Manager based on Breadth of Responsibilities

The labelling scheme is not judgemental. Category A program managers are not inherently "better" than Category B program managers: they simply have a broader range of responsibilities.

4.3 Differentiating Program Manager Roles: Management Complexity

As with any other field of endeavour, some programs are inherently harder to manage than others. A program manager who is competent to manage an easier, less complex program may not be competent to manage a harder, more complex program.

GAPPS has developed an approach to categorizing programs based on their management complexity. The GAPPS framework uses a tool called the Aitken-Carnegie-Duncan Complexity Table for Evaluating Roles: the ACDC for short (see Figure 4 below). The tool, named after three GAPPS contributors who played major roles in its development, is used to differentiate program manager roles based on the management complexity of the program.

The ACDC factors identify the causes of program management complexity. For example, detail factor 8 considers what percentage of the program staff are able to converse fluently in the program's main language. A program where everyone is fluent is likely to be easier to manage than one where only a small percentage is. The ACDC provides a mechanism for matching competency to need by identifying the factors that affect the program manager's challenge.

The ACDC includes 29 detail factors arranged into 5 groups. Each factor is rated from 1 to 4 using a qualitative point scale, and the factors are totalled to produce a management complexity rating for the program. Each of the factors is given equal weight when evaluating the management complexity of a program.

Ratings using the ACDC table may go from a low of 29 (one on every factor) to a high of 116 (four on every factor). GAPPS has divided this overall range into three subsidiary ranges that reflect increasing levels of program management complexity:

Level	ACDC Score	Percent of Programs
1	29-40	~20%
2	41-75	~70%
3	76-116	~10%

Figure 3: ACDC Levels

Aitken-Carnegie-Duncan Complexity Table for
Program Manager Role Definition

Program Management Complexity Factors	Criteria for a Rating of:			
	1	**2**	**3**	**4**
Governance Complexity				
1 **Sponsorship support.** This factor covers how well sponsors anticipate and respond to requests for assistance from the program. *Sponsors* may include both individuals and organizations.	Consistently strong	Usually strong	Occasionally strong	Seldom strong
2 **Program management structures.** This factor covers how information is shared among the program's stakeholders. It includes consideration of the number and variety of reporting formats, the clarity of reporting lines, and the number of independent entities involved. *Independence* requires a separate senior executive.	Mostly simple	A few complex	Some complex	Many complex
3 **Decision-making processes within the program.** This factor covers both who makes decisions and how those decisions are made. For example, if most decisions are made by the program manager, the decision-making processes would have "little to no variability."	Little to no variability	Variability in some areas	Variability in many areas	Variability in most areas
4 **Program manager's authority.** This factor covers the extent to which the program manager can implement decisions without approval from a sponsoring organization.	Total to almost total	Extensive	Moderate	Limited
Stakeholder Relationship Complexity				
5 **Stakeholder stability over time.** This factor covers changes in key stakeholders' level of interest or commitment; changes in assignments (e.g., a new sponsor); and identification or discovery of new or additional stakeholders during the program.	Very high	High	Moderate	Low or very low
6 **Degree of public interest in program.** This factor covers the potential for media or governmental actions that may affect the program.	Very low	Low	Moderate	High or very high
7 **Degree of cultural diversity.** This factor covers the potential for conflict and misunderstanding created when there are significant cultural differences among the people involved in the program. In particular, it includes consideration of differences in ethical standards and practices.	Very low	Low	Moderate	High or very high
8 **Percent of staff able to converse fluently in program's primary language.** This factor covers the issues that can be caused by weak language skills. *Conversing fluently* requires the ability to express oneself clearly and to understand others during both business and social discourse.	90-100%	50-89%	20-49%	Less than 20%
9 **Number of languages used in conducting program activities.** This factor covers the issues that may arise from the need to translate intra-program documents into different languages.	One	2-3	4-5	More than 5
10 **Number of active locations requiring overnight stay for meetings.** This factor covers the logistical challenges that are created when program staff are not collocated. Generally, a one-way, 2 hour trip would involve an overnight stay. *Active* means that these locations host frequent meetings.	1-3	4-5	6-7	More than 7
11 **Range of time zones with active stakeholders.** This factor covers the logistical challenges that are created when active stakeholder are in different time zones. *Active* means that these stakeholders are frequently participating in meetings, teleconferences, and videoconferences.	1-3 hours	4-6 hours	7-9 hours	More than 9 hours
continued next page				

Program Management Complexity Factors	Criteria for a Rating of:			
	1	2	3	4
Program Definition Complexity				
12 **Agreement regarding the desired future state.** This factor covers the extent to which stakeholders are in agreement about the characteristics of the desired future state.	High or very high	Moder-ate	Low	Very low
13 **Level of fluidity in desired future state.** This factor covers how much the description of the desired future state changed during the program.	Very low	Low	Moder-ate	High or very high
14 **Clarity of expected benefits.** This factor covers how well-defined the program's expected benefits were.	High or very high	Moder-ate	Low	Very low
15 **Stakeholder expectations regarding benefits.** This factor covers the challenges involved in delivering benefits when stakeholder expectations about those benefits are not stated.	Most clearly stated	Many clearly stated	Some clearly stated	Few clearly stated
16 **Interdependency of benefits.** This factor covers the need for coordination within the program, as well as with external programs and projects, in order to realize program benefits.	Very low	Low	Moder-ate	High to very high
17 **Degree of competing stakeholder interests.** This factor covers the challenges involved in dealing with competing stakeholder interests. *Interests* may be related to the desired future state, to expected benefits, or to how the activities of the program are conducted.	Very low	Low	Moder-ate	High to very high
Benefits Delivery Complexity				
18 **Assessment of benefits delivered.** This factor covers the challenges associated with agreeing on what to measure, how to measure, and when to measure. Quantifiable benefits are generally simpler to measure.	Simple for most	Simple for many	Simple for some	Simple for a few
19 **Amount of cultural and behavioural change required within the sponsoring organization.** This factor covers the degree of organizational change required to obtain the expected benefits. The development of individual skills in support of new tools or systems would not normally be considered behavioural change.	Very low to low	Moder-ate	High	Very high
20 **Impact on other work of the sponsoring organisation.** This factor covers the degree to which program activities interfere with or affect other work within the sponsoring organization. *Other work* may include other programs and projects or ongoing operations.	Very low	Low	Moder-ate	High to very high
21 **Demand for innovation in constituent projects.** This factor covers the degree of technical or product-oriented creativity required to deliver the results expected from constituent projects.	Very low	Low	Moder-ate	High to very high
22 **Management complexity of constituent projects.** This factor covers the difficulty of managing constituent projects. *Management complexity* is independent of technical complexity.	Very low	Low	Moder-ate	High to very high
23 **Stability of methods and approaches used in constituent projects.** This factor covers the degree to which technical and management methods, methodologies, and systems are known.	All or most are known	Many are known	Some are known	Only a few are known
24 **Magnitude of overall program risk.** This factor covers the extent to which program benefits may not be delivered as a result of risk events. It involves consideration of impacts, probabilities, the ease of response, and the need for a timely response.	Very low	Low	Moder-ate	High to very high
continued next page				

Program Management Complexity Factors		Criteria for a Rating of:			
		1	2	3	4
Resource Complexity					
25	**Availability of capable people.** This factor covers the program's ability to get individuals with the requisite skills assigned to and working on the program in a timely fashion. *Availability* includes both quantity and quality at all levels of the program.	Mostly assured	Usually assured	Occa-sionally assured	Seldom assured
26	**Availability of adequate funding.** This factor covers the program's ability to get monetary resources allocated to the program in a timely fashion. *Monetary resources* may be cash or spendable budgets.	Mostly assured	Usually assured	Occa-sionally assured	Seldom assured
27	**Availability of suitable equipment.** This factor covers the program's ability to get needed equipment allocated to the program in a timely fashion.	Mostly assured	Usually assured	Occa-sionally assured	Seldom assured
29	**Availability of suitable supplies and materials.** This factor covers the program's ability to get disposable items allocated to the program in a timely fashion.	Mostly assured	Usually assured	Occa-sionally assured	Seldom assured
29	**Number of independent funding sources.** This factor covers the challenges involved with reporting and coordinating the timing and amounts of funding from independent sources. *Independence* requires a separate senior executive.	1	2-5	6-10	More than 10

Figure 4: ACDC Table Factors

4.4 Integrating the Two Aspects of Role Definition

Combining the six categories of program manager with the three levels of management complexity produces eighteen assessable roles as illustrated in the table below:

ACDC Score	Identifier	A	B	C	D	E	F
	Core Units	1-5	1-5	1-5	1-5	1-5	1-5
	Additional Units	6, 7, 8	7, 8	6, 7	6	7	None
29-40	1	A1	B1	C1	D1	E1	F1
41-75	2	A2	B2	C2	D2	E2	F2
76-116	3	A3	B3	C3	D3	E3	F3

Figure 5: Integrated Role Definitions

5. Application

This GAPPS framework explicitly recognizes that there are many different approaches to the management of programs, that there are many different ways to achieve satisfactory results, that there are many different techniques for assessing competency, and that there are many different paths for program managers to follow to develop their competency.

5.1 Use in Assessment

This section provides an overview of the use of this GAPPS framework in assessment. Appendix C provides more detail.

When used for assessment, this GAPPS framework is intended to help an assessor infer whether an experienced, practicing program manager is *likely* to be able to perform competently on future programs. The assessment should include direct contact between the candidate and the assessor as well as examination of evidence supplied by the candidate and by other sources such as clients, supervisors, peers, and managers of constituent projects. Assessment may also include direct observation of the candidate in a workplace environment.

The assessor and the candidate must agree that the programs to be used as evidence meet the criteria for the level being assessed as defined by the ACDC table. Additional evidence criteria such as currency and authenticity are described in Appendix C.

If the candidate's responsibilities include one of the optional units, that unit must be included in the overall assessment. For example, if organizational change is required as part of the program, then PgM06 must be included as part of the assessment.

As with most other performance based competency standards, GAPPS assumes that 100% of the Performance Criteria must be satisfied for a candidate to be assessed as competent in the role. As a result, Performance Criteria have generally not been repeated in different Units. For example, since leadership is assessed in PgM01, there is no reference to leadership in the other units despite its importance. This interdependent nature of the Performance Criteria requires that assessment be done using a holistic approach.

A candidate that does not meet all of the performance criteria should be assessed as "unable to provide evidence of competency." To the extent possible, the assessment process should provide input to both successful and unsuccessful candidates about opportunities for improvement and professional growth.

The Units, Elements, and Performance Criteria are not linear or sequential: there is no requirement that the work be done in any particular sequence or that the Performance Criteria be satisfied in any particular order. In addition, some Performance Criteria can be satisfied with relatively little effort while others will require a substantial commitment from the program manager over the full length of the program.

5.2 Relationship to Existing Standards

This document is intended to complement existing competency standards, not to replace them. For example:

- Organizations that have performance based competency standards (e.g., the Services Sector Education and Training Authority in South Africa) may map their existing standards to the GAPPS framework in order to facilitate comparisons with other systems.

- Organizations that use attribute based competency assessments (e.g., IPMA, the International Project Management Association) may choose to supplement their assessments with performance based criteria.

In similar fashion, this document is not intended to replace guides and standards specific to program management such as *Managing Successful Programmes* (UK Office of Government Commerce, 2007), *The Standard for Program Management* (Project Management Institute, Inc., 2008), and *A Guidebook to Project and Program Management for Enterprise Innovation* (P2M) (Project Management Association of Japan, 2002). Documents such as these, as well as the numerous books about program management, serve to develop the underpinning knowledge and understanding that helps program managers learn how to produce the results from which competency is inferred.

5.3 Adoption as a Standard

GAPPS encourages other organizations to adopt this framework as their own. For example:
- Professional associations that do not currently have assessment standards can use it to expedite their ability to serve their members.
- Standards and qualifications bodies can use it to facilitate transferability and mutual recognition of qualifications.
- Public and private organizations can use it to facilitate staff development programs and to help ensure better program results.

Any entity that adopts the GAPPS framework should use the Units, Elements, and Performance Criteria for each role in order to help ensure consistency of application and reciprocity. Additions and modifications, as permitted under the license terms in this document, can be made as appropriate to suit local and regulatory requirements. For example:
- A standards or qualification body may need to modify the structure or terminology to conform to its own conventions or to local culture.
- A private sector organization may decide to add Elements or Performance Criteria, or to provide further detail in the Explanatory Statements, or specific Evidence Guides, in order to reflect aspects of performance specific to that organization or its program management approach.
- A professional association may wish to include a specific knowledge guide as the basis for developing knowledge and understanding.
- Any of the above entities may translate these materials to make them more accessible.

Any entity that adopts the GAPPS framework may apply it to one or more levels. However, the use of the ACDC Table to assess the level at which the program manager is operating is an integral part of the framework.

6.   Terms and Definitions

Key terms and definitions are included in the Explanatory Statements in the Units of Competency (section 8). Terms are explained the first time they occur within each Unit of Competency and are displayed in **bold type** in subsequent uses.

> *The Explanatory Statements are fundamental to understanding the standard as they provide context and clarification for terms and concepts that often lack consistent, accepted definitions.*

This section contains several Explanatory Statements that are (a) central to understanding the GAPPS Program Manager Framework, and (b) generally lack accepted definitions. Users of the GAPPS Framework should take care to use these definitions when trying to understand the Units, Elements, and Performance Criteria in Section 8.

Benefits. Benefits may be tangible (new revenue, increased revenue, cost reduction, etc.) or intangible benefits (market position, customer satisfaction, societal improvements, knowledge, etc.). Benefits can accrue to the sponsoring organization or to other stakeholders. They may be realized directly or indirectly. They may be defined in advance of the program (e.g., by the program funders or sponsors) or may emerge and be recognized during the program. Benefits are often called outcomes.

Business case. The business case will generally be based on a feasibility study or other analysis that pre-dates the program. The business case should include expected benefits and the associated financial considerations, risks, and costs. It may be contained in multiple documents. The business case should consider the potential for both positive and negative outcomes. Complex business cases may require independent reviews.

Desired future state. The description of the desired future state may be based on anything from a formal feasibility study to an inspired insight from a senior executive. It may be highly detailed or loosely formed. It may be created or validated by experts outside of the program or the sponsoring organization. It will typically have less detail early in the program and more later. It may also be called a blueprint, a target operating model, or a vision statement.

Governance. Governance includes roles and responsibilities, reporting relationships, ethics policies and practices, review and audit processes, and alignment with the governance practices of the sponsoring organization. Governance may be established by contractual arrangements or collaborative agreements.

Program execution approach. The program execution approach includes identification of constituent projects as well as program level activities such as adoption or establishment of a framework for project planning and delivery. The initial version may not include all projects that will eventually be done as part of the program. Options and alternatives should be developed with consideration for the overall program context, available resources, benefits, risks, stakeholder interests and expectations, and expected benefits. The program execution approach also be called a roadmap, framework, program plan, program outline, or other term. It is often structured into groups of constituent projects which may be called tranches, phases, or stages. Complex programs may require an independent review of the program execution approach. Changes to the program execution approach may require updates to the program business case or other aspects of program planning.

Program organization. The program organization will generally include a program board or steering committee, a description of key reporting relationships and decision making authority, and identification of relationships among constituent projects. It may also include a Program Management Office or Program Support Office.

Program vision. A program vision may also be called justification, goals, business impact, or outcomes. Vision is intended to answer "why" the program is being done. Vision is formulated in terms of how the desired benefits of the program align to the strategy of the sponsoring organization. Vision statements are generally short and are intended to be inspirational.

Sponsoring organization. The sponsoring organization may be a department, a business unit, a corporation, a government agency, a joint venture, or any other legal form. It may be comprised of a single entity, or it may include multiple entities. When there are multiple entities, they may be loosely linked by collaborative agreements or tightly bound through legally enforceable contracts; there may be a clear leader or a partnership of equals. The sponsoring organization includes any entity that is actively involved in funding the program.

Stakeholders. Stakeholders include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization.

7.   Overview of Units, Elements, and Performance Criteria

The table below provides a summary of the Units of Competency while the table on the following page provides an overview of the Units, Elements, and Performance Criteria. Details for all are provided in Section 8.

7.1   Summary of Units of Competency

Unit	Title	Description
Core Units		
PgM01	Provide Leadership for the Program	This unit defines the Elements required to provide leadership for the program. It includes the Performance Criteria required to demonstrate competency in motivating and inspiring individuals and organizations to work constructively toward attainment of program benefits.
PgM02	Facilitate Stakeholder Engagement	This unit defines the Elements required to facilitate stakeholder engagement in the program. It includes the Performance Criteria required to demonstrate competency in working with stakeholders to achieve desired program benefits.
PgM03	Craft the Program	This unit defines the Elements required to craft the program. It includes the Performance Criteria required to demonstrate competency in establishing both *what* the program will accomplish and *how* it will do so.
PgM04	Orchestrate the Attainment of Benefits	This unit defines the Elements required to orchestrate the attainment of benefits. It includes the Performance Criteria required to demonstrate competency in ensuring that benefits are realized when and as expected.
PgM05	Sustain Program Progress	This unit defines the Elements required to sustain program progress. It includes the Performance Criteria required to demonstrate competency in ensuring that the program is moving toward the accomplishment of its vision and the attainment of its expected benefits.
Additional Units		
PgM06	Manage Organizational Change	This unit defines the Elements required to manage organizational change. It includes the Performance Criteria required to demonstrate competency in implementing effective cultural and behavioural change.
PgM07	Direct the Management of Contracts	This unit defines the Elements required to direct the management of contracts. It includes the Performance Criteria required to demonstrate competency in obtaining value from products and services acquired from external sources.
PgM08	Engage in Collaborative Alliances	This unit defines the Elements required to engage in collaborative alliances. It includes the Performance Criteria required to demonstrate competency in forging alliances with other organizations to facilitate attainment of program benefits.

Figure 6: Summary of Units of Competency

7.2 Summary of Units, Elements, and Performance Criteria

Units	Elements	Performance Criteria	
PgM01 **Provide Leadership for the Program**	**1.1 Promote the program vision.**	1.1.1	Alignment of the program vision with the vision, mission, principles, and values of the sponsoring organization is maintained.
		1.1.2	Engagement with the program vision is stimulated through ongoing review, monitoring, communications, and negotiations with pertinent stakeholders.
		1.1.3	Commitment to the program vision is demonstrated by the program manager.
	1.2 Build an environment of confidence and trust within the program.	1.2.1	Stakeholders are treated fairly and equitably.
		1.2.2	Open discussion is encouraged and facilitated.
		1.2.3	Differences are managed constructively.
		1.2.4	Issues and concerns are attended to in a timely manner.
		1.2.5	Interpersonal and leadership styles are chosen and applied based on the circumstances.
		1.2.6	Personal commitments are realistic and honoured.
	1.3 Embed socially responsible practice into the program.	1.3.1	Expectations for socially responsible practice are made explicit and communicated to constituent projects and other pertinent stakeholders.
		1.3.2	Policies and procedures are designed to allow individuals to safely report breaches of socially responsible practice without fear of retaliation.
		1.3.3	Threats to socially responsible practice within the program are identified and addressed.
	1.4 Develop the potential of program staff.	1.4.1	Individual behavioural expectations for constituent project managers are established.
		1.4.2	Individual program roles are defined, documented, communicated, assigned, and agreed to.
		1.4.3	Desirable behaviours are encouraged, and undesirable behaviours are discouraged.
	1.5 Support a learning environment.	1.5.1	Program planning and program plan implementation are viewed as a learning process.
		1.5.2	Errors, mistakes, and expressed concerns are treated as learning opportunities.
		1.5.3	Plans for identifying, capturing, disseminating, and exchanging knowledge are developed and maintained.
		1.5.4	Program knowledge is identified, captured, disseminated, and exchanged as planned.
		1.5.5	Reflection on and review of practice is encouraged as a basis for learning.
PgM02 **Facilitate Stakeholder Engagement**	**2.1 Communicate effectively with stakeholders.**	2.1.1	Program stakeholders and their communication needs are identified and documented.
		2.1.2	Communication approaches are agreed to by pertinent stakeholders.
		2.1.3	Information is shared as planned, and variances are identified and addressed.
		2.1.4	Communication interfaces among constituent projects are monitored.
	2.2 Cultivate stakeholder commitment.	2.2.1	Interests and expectations of pertinent stakeholders are investigated, documented, and considered when making program decisions.
		2.2.2	Approaches to influence ongoing stakeholder commitment are developed and implemented.
		2.2.3	Actions are taken to accommodate differing stakeholder interests and expectations.
		2.2.4	Evolving stakeholder interests and expectations are shared across the program.

Figure 7. Summary of Units, Elements, and Performance Criteria (continued next page)

Units	Elements	Performance Criteria	
PgM03 **Craft the Program**	**3.1 Envision the desired future state.**	3.1.1	Description of the desired future state is defined and agreed to by pertinent stakeholders.
		3.1.2	Internal and external program contexts are monitored and evaluated for circumstances that may require changes to the desired future state.
		3.1.3	The description of the desired future state is reviewed periodically and confirmed or updated to maintain alignment with the expected benefits.
	3.2 Shape and sustain the program execution approach.	3.2.1	Gaps between the current state and the desired future state are defined and agreed to by pertinent stakeholders.
		3.2.2	Changes needed to move from the current state to the desired future state are defined and agreed to by pertinent stakeholders.
		3.2.3	A program execution approach based on changes needed is defined and agreed to by pertinent stakeholders.
		3.2.4	Internal and external program contexts are monitored and evaluated for circumstances that may require changes to the program execution approach.
		3.2.5	The program execution approach is reviewed periodically and confirmed or updated to maintain alignment with the expected benefits.
	3.3 Shape and sustain the program's business case.	3.3.1	A business case for both the desired future state and the program execution approach is defined, documented, and approved by pertinent stakeholders.
		3.3.2	Internal and external program contexts are monitored and evaluated for circumstances that may require changes to the program's business case.
		3.3.3	The program's business case is reviewed periodically and confirmed or updated to maintain alignment with the expected benefits.
	3.4 Shape and sustain program governance.	3.4.1	Program organization is defined, maintained, refreshed, and agreed by the sponsoring organization.
		3.4.2	Program boundaries and governance structures are designed to exploit synergies within the sponsoring organization.
		3.4.3	Policies, processes, and procedures to support the management of the program are identified/devised and communicated to pertinent stakeholders.
PgM04 **Orchestrate Attainment of Benefits**	**4.1 Identify benefits and trade-offs.**	4.1.1	Expected short- and long-term benefits and trade-offs are defined and communicated to pertinent stakeholders.
		4.1.2	Internal and external program contexts are monitored and evaluated for circumstances that may require changes to the expected benefits.
		4.1.3	Expected benefits and trade-offs are periodically reviewed and confirmed or updated.
	4.2 Shape and sustain benefits delivery approach.	4.2.1	Benefits measurement approach is defined and agreed to by pertinent stakeholders.
		4.2.2	Benefits delivery approach is devised and agreed to by pertinent stakeholders.
		4.2.3	Ownership of benefits delivery is assigned and accepted.
		4.2.4	Benefits measurement approach and benefits delivery approach are reviewed periodically and confirmed or updated.
	4.3 Evaluate attainment of expected benefits.	4.3.1	Deliverables from constituent projects are assessed in accordance with the benefits measurement approach.
		4.3.2	Progress toward delivery of expected benefits is measured and reported to pertinent stakeholders.
		4.3.3	Variances in delivery of expected benefits are addressed.

Figure 7. Summary of Units, Elements, and Performance Criteria (continued next page)

Units	Elements	Performance Criteria
PgM05 **Sustain Program Progress**	**5.1 Secure program funding.**	5.1.1 Ongoing funding requirements are determined, documented, and communicated to pertinent stakeholders.
		5.1.2 Funding commitments are secured as needed.
		5.1.3 Funding issues are addressed.
		5.1.4 Funder requirements are satisfied.
	5.2 Resource the program.	5.2.1 Program resource requirements are determined, documented, negotiated with, and communicated to pertinent stakeholders.
		5.2.2 Program resources are acquired and coordinated across the program and its constituent projects.
		5.2.3 Program resource requirements are confirmed or updated in response to program refinements or changes.
	5.3 Measure, evaluate, and coordinate program progress.	5.3.1 Monitoring and control systems are established and maintained.
		5.3.2 Monitoring and control systems are used to maintain momentum and support delivery of expected benefits.
		5.3.3 Performance of constituent projects and other program elements is reported to pertinent stakeholders.
		5.3.4 A sustainable pace is maintained.
	5.4 Ensure relevant legal and regulatory requirements are addressed.	5.4.1 Relevant legal and regulatory requirements are identified, documented, and communicated to pertinent stakeholders.
		5.4.2 Potential for conflicts caused by legal and regulatory requirements are identified and addressed.
		5.4.3 Compliance policies, processes, and procedures are implemented.
		5.4.4 Applicable legal and regulatory requirements are monitored for breaches and conflicts.
	5.5 Anticipate and respond to changes.	5.5.1 Internal and external program contexts are monitored and evaluated for circumstances that may require changes.
		5.5.2 Actual and potential changes are identified, documented, and evaluated.
		5.5.3 Approved changes are implemented.
		5.5.4 Changes and their implications are communicated to pertinent stakeholders.
	5.6 Manage program risks.	5.6.1 Risk management approach for the program and its constituent projects is documented, communicated, and agreed to by pertinent stakeholders.
		5.6.2 Program risks are identified in consultation with pertinent stakeholders.
		5.6.3 Program risks are analysed and prioritized, and risk responses are implemented as planned.
		5.6.4 Internal and external program contexts are monitored for circumstances that may affect program risks.
PgM06 **Manage Organizational Change**	**6.1 Shape and sustain organizational change implementation approach.**	6.1.1 The extent and nature of organizational change required in support of the program is evaluated and periodically re-evaluated.
		6.1.2 Potential organizational change implementation approaches are identified and evaluated for applicability.
		6.1.3 The organizational change implementation approach is reviewed periodically and confirmed or modified to ensure support for expected benefits.
		6.1.4 The organizational change implementation approach is coordinated with the program execution approach and accepted by pertinent stakeholders.
	6.2 Advocate for change with stakeholders.	6.2.1 Approaches for stakeholder engagement in organizational change are devised and deployed.
		6.2.2 Benefits of organizational change are articulated for pertinent stakeholders.
		6.2.3 An organizational change communications plan is documented, maintained, and agreed to by pertinent stakeholders.
		6.2.4 Organizational change communications plan is implemented and variances are addressed.
		6.2.5 Resistance to change is monitored, evaluated, and addressed.
	6.3 Evaluate the effectiveness of the organizational change.	6.3.1 Methods for evaluating the effectiveness of the organizational change initiatives are identified, documented and agreed to by pertinent stakeholders.
		6.3.2 Selected evaluation methods are applied on an ongoing basis.
		6.3.3 Feedback is provided to pertinent stakeholders regarding progress of organizational change.
		6.3.4 Variances in attainment of desired organizational change are addressed.

Figure 7. Summary of Units, Elements, and Performance Criteria (continued next page)

Units	Elements	Performance Criteria	
PgM07 **Direct the Management of Contracts**	**7.1 Shape and sustain contract management approach.**	7.1.1	Contract management approach is devised, documented, kept current, and agreed to by pertinent stakeholders.
		7.1.2	Policies, processes, and procedures to support the contract management approach are developed, approved, maintained, and communicated to pertinent stakeholders.
		7.1.3	Risk management related to contracts is integrated with overall program risk management.
	7.2 Oversee and verify contract performance.	7.2.1	Contracts are approved in accordance with the contract management approach.
		7.2.2	Alignment of contractor performance with contract requirements is verified.
		7.2.3	Resolution of contract variances is documented and verified.
		7.2.4	Mechanisms to support effective communications, coordination, synergies, and integration of contracts with constituent projects in the program are implemented.
		7.2.5	Compliance with policies, processes, and procedures is monitored.
PgM08 **Engage in Collaborative Alliances**	**8.1 Cultivate collaborative alliances.**	8.1.1	Opportunities for collaborative alliances are identified and evaluated.
		8.1.2	Potential collaborators are identified and evaluated.
		8.1.3	Relationships with potential collaborators are initiated, nuanced, and shaped.
	8.2 Devise and elaborate collaborative agreements.	8.2.1	A collaborative agreement approach is initiated, negotiated, documented, and accepted by the parties to each agreement.
		8.2.2	Each formal agreement is signed and regularly reviewed to ensure continuation of envisaged value and potential need for changes and additions.
		8.2.3	Collaboration plans are developed for each agreement to support implementation.
	8.3 Support the evolution of collaborative agreements.	8.3.1	Relationships with collaborators are monitored and nurtured to sustain commitment.
		8.3.2	Performance of all parties to an agreement is assessed against expected results and variances are addressed.
		8.3.3	Changes to agreements are made as required.

Figure 7. Summary of Units, Elements, and Performance Criteria

8. Detail of Units, Elements, and Performance Criteria

The following pages detail the Units, Elements, and Performance Criteria of this framework. They are presented using the format illustrated below in Figure 8. Figure 8 uses descriptive comments in place of actual content.

PgM0x	Unit Title
Unit Descriptor	A Unit of Competency defines a broad area of professional or occupational performance that is meaningful to practitioners and which is demonstrated by individuals in the workplace.

PgM0x	List of Elements in this Unit
x.1	Elements describe the key components of work performance within a Unit.
x.2	Elements describe *what* is done but do not prescribe *how* it is done.

PgM0x	Performance Criteria and Explanatory Statements	
x.1	Elements describe the key components of work performance within a Unit.	
Performance Criteria		**Explanatory Statements**
x.1.1 **Performance criteria** set out the type and/or level of performance required to demonstrate competency in each element. x.1.2 **Performance criteria** describe observable results and/or actions in the workplace from which competent performance can be inferred.		a. Explanations are provided for key words and phrases in the elements or the **performance criteria**. b. The explanatory statements provide guidance for both Assessors and for the individuals being assessed.

Figure 8. Illustration of presentation format for Units, Elements, and Performance Criteria

PgM01	Provide Leadership for the Program

Unit Descriptor	This unit defines the Elements required to provide leadership for the program. It includes the Performance Criteria required to demonstrate competency in motivating and inspiring individuals and organizations to work constructively toward attainment of program benefits.

PgM01   List of Elements

1.1   Promote the program vision.

1.2   Build an environment of confidence and trust within the program.

1.3   Embed socially responsible practice into the program.

1.4   Develop the potential of program staff.

1.5   Support a learning environment.

PgM01   Element 1

1.1   **Promote** the **program vision**.

Performance Criteria	Explanatory Statements
1.1.1 **Alignment** of the **program vision** with the vision, mission, principles, and values of the **sponsoring organization** is maintained. *(continued next page)*	a. **Promoting** may involve developing a vision or adopting or adapting an existing one. b. **Program vision** may also be called justification, goals, business impact, or outcomes. Vision is intended to answer "why" the program is being done. Vision is formulated in terms of how the desired benefits of the program align to the strategy of the sponsoring organization. Vision statements are generally short and are intended to be inspirational. c. **Alignment** does not always mean agreement, especially when the sponsoring organization(s) have differences. d. The **sponsoring organization** may be a department, a business unit, a corporation, a government agency, a joint venture, or any other legal form. It may be comprised of a single entity, or it may include multiple entities. When there are multiple entities, they may be loosely linked by collaborative agreements or tightly bound through legally enforceable contracts; there may be a clear leader or a partnership of equals. The sponsoring organization includes any entity that is actively involved in funding the program. e. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization.

PgM01   Element 1 (continued)

1.1   **Promote** the **program vision**. (continued)

Performance Criteria	Explanatory Statements
1.1.2 Engagement with the **program vision** is stimulated through ongoing review, monitoring, communications, and negotiations with **pertinent stakeholders**. 1.1.3 Commitment to the **program vision** is **demonstrated** by the program manager.	f. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. g. **Demonstration** may include visible actions such as posting the program vision in work areas or more subtle steps such as using the vision to guide important decisions.

PgM01   Element 2

1.2   **Build** an environment of confidence and trust within the program.

Performance Criteria	Explanatory Statements
1.2.1 **Stakeholders** are treated **fairly and equitably**. 1.2.2 Open discussion is encouraged and facilitated. 1.2.3 **Differences** are managed constructively. 1.2.4 **Issues and concerns** are **attended to** in a timely manner. 1.2.5 Interpersonal and leadership styles are chosen and applied based on the circumstances. 1.2.6 Personal commitments are **realistic and honoured**.	a. **Building** an environment of confidence and trust applies mainly to the behaviours of the program manager as a role model to encourage similar behaviours throughout the program. This may include demonstration of openness, trust, goodwill, integrity and appreciation for the contributions of others. b. **Fair and equitable** treatment includes recognition of multi-cultural and diversity concerns where relevant. c. **Differences** may be strong or weak, temporary or lasting, managerial or personal, intellectual or emotional. d. **Issues and concerns** may be brought to the attention of the program manager by constituent project managers, by program level staff, or by other stakeholders. e. **Attending to** issues and concerns means that they are resolved even if the resolution is not completely satisfactory to the individuals or organizations involved. f. **Interpersonal and leadership styles** are the manner in which direction and support is provided to groups and individuals. Styles include various combinations of verbal and non-verbal communication approaches, decision making practices, methods for dealing with emotions and stress, and other aspects of individual and group interaction. g. **Realistic** commitments are those which are practical and feasible for the situation. **Honoured** commitments are those which have been met by the Program Manager. In other words the Program Manager does what they say they will do.

PgM01   Element 3

1.3   Embed **socially responsible practice** into the program.

Performance Criteria	Explanatory Statements
1.3.1 **Expectations** for **socially responsible practice** are made explicit and communicated to constituent projects and other **pertinent stakeholders**. 1.3.2 Policies and procedures are designed to allow individuals to safely report breaches of **socially responsible practice** without fear of retaliation. 1.3.3 **Threats** to **socially responsible practice** within the program are identified and **addressed**.	a. **Socially responsible practice** includes behaviours that are ethical, equitable, and sustainable, and may vary based on organizational norms, culture, country, personal beliefs, or other factors. b. **Expectations** for socially responsible practice may be established by the sponsoring organization or by the program manager. c. **Threats** may include economic, social and environmental sustainability; management and accountability structures; employment and equity issues; political, legal, and cultural differences; or patterns and trends within the program. d. **Addressed** includes acceptance without action if the threat appears unlikely to be realised.

PgM01   Element 4

1.4   Develop the potential of program staff.

Performance Criteria	Explanatory Statements
1.4.1 Individual **behavioural expectations** for constituent project managers are established. 1.4.2 Individual program **roles** are defined, documented, communicated, assigned, and agreed to. 1.4.3 Desirable behaviours are **encouraged**, and undesirable behaviours are **discouraged**.	a. **Behavioural expectations** may include responding to conflict or dealing with differences in skill, background, culture, or other personal characteristics of individuals involved. b. **Roles** may encompass responsibilities, accountabilities, authorities, reporting arrangements, and other required aspects of work performance. c. Approaches to **encouraging** or **discouraging** certain behaviours will be influenced by the nature of the reporting relationship between the program manager and the individuals involved. In particular, options may be limited when constituent project managers or other program staff do not report directly to the program manager.

PgM01 Element 5

1.5	Support a learning environment.

Performance Criteria	Explanatory Statements
1.5.1 Program planning and program plan implementation are **viewed** as a learning process. 1.5.2 Errors, mistakes, and expressed concerns are **treated** as learning opportunities. 1.5.3 Plans for identifying, capturing, disseminating, and exchanging **knowledge** are developed and maintained. 1.5.4 Program knowledge is identified, captured, disseminated, and **exchanged** as planned. 1.5.5 Reflection on and review of practice is encouraged as a basis for learning.	a. **Viewing** program plans and implementation as a learning process means that plans are treated as guidance or hypotheses to be tested, and that changes to plans are treated as opportunities to learn. b. **Treating** errors and mistakes as learning opportunities may include consequences for the learner. c. **Knowledge** sources may include communities of practice, benchmarking, lessons learned databases, codifications of prior knowledge, learning-from-experience workshops, story telling, reflection, post-project reviews, or project health checks. Knowledge may be obtained from internal or external sources. d. **Exchanged** may include constituent projects as well as sponsoring organizations.

PgM02	Facilitate Stakeholder Engagement

Unit Descriptor	This unit defines the Elements required to facilitate stakeholder engagement in the program. It includes the Performance Criteria required to demonstrate competency in working with stakeholders to achieve desired program benefits.

PgM02 List of Elements

2.1	Communicate effectively with stakeholders.
2.2	Cultivate stakeholder commitment.

PgM02 Element 1

2.1 Communicate effectively with stakeholders.

Performance Criteria	Explanatory Statements
2.1.1 Program **stakeholders** and their c**ommunication needs** are **identified** and documented. 2.1.2 **Communication approaches** are agreed to by **pertinent stakeholders**. 2.1.3 Information is **shared** as planned, and **variances** are identified and **addressed**. 2.1.4 Communication interfaces among constituent projects are monitored.	a. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization. b. **Communication needs** may include content required, method used (e.g., electronic, phone, meeting), geographical dispersion, protocols, cultural differences, and confidentiality requirements. They may be documented formally or informally and may be included in other program documentation. c. **Identification** of stakeholders will usually be done on a regular basis. Executive stakeholders and negative stakeholders will generally need to be identified early in the program. d. **Communication approaches** may include method, content, and timing. e. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. f. **Sharing** includes to and from constituent projects as well as other stakeholders. g. **Variances** may include untimely or missing reports, incorrect or misleading content, undelivered correspondence, non-participation in meetings, and other unexpected actions. Communications that fail to satisfy the stakeholders' needs may also be considered variances. Minor variances may not require corrective action. h. **Addressing** variances includes acceptance as is, acceptance with modification, or rejection. It may involve the need to reconcile attainment of desired benefits relative to adverse impacts.

PgM02   Element 2

2.2	Cultivate stakeholder commitment.

Performance Criteria	Explanatory Statements
2.2.1 **Interests** and **expectations** of **pertinent stakeholders** are investigated, documented, and considered when making program decisions.	a. **Interests** may include needs, wants, or requirements. They may be stated or implied. Interests may be related to the benefits and impacts of the program or to how the work of the program is conducted.
2.2.2 **Approaches** to influence ongoing **stakeholder** commitment are developed and implemented.	b. **Expectations** are beliefs about the future. They may be stated or implied. They may or may not be based on facts. Expectations may be related to the benefits and impacts of the program or to how the work of the program is conducted.
2.2.3 Actions are taken to **accommodate** differing **stakeholder interests** and **expectations**.	c. **Approaches** may include problem solving, negotiating, accommodating, compromising, collaborating, cooperating, co-creating, co-developing, and networking.
2.2.4 Evolving **stakeholder interests** and **expectations** are **shared** across the program.	d. **Actions** may include sense-making to identify differing worldviews, mediation, reconciliation, arbitration, facilitation, or collaboration.
	e. **Accommodation** includes acceptance as is, acceptance with modification, or rejection. It may involve the need to reconcile attainment of desired benefits relative to adverse impacts.

PgM03	Craft the Program
Unit Descriptor	This unit defines the Elements required to craft the program. It includes the Performance Criteria required to demonstrate competency in establishing both *what* the program will accomplish and *how* it will do so.

PgM03   List of Elements

3.1   Envision the desired future state.

3.2   Shape and sustain the program execution approach.

3.3   Shape and sustain the program's business case.

3.4   Shape and sustain program governance.

PgM03   Element 1

3.1   Envision the desired future state.

Performance Criteria	Explanatory Statements
3.1.1 Description of the **desired future state** is defined and agreed to by **pertinent stakeholders**. 3.1.2 **Internal** and **external program contexts** are monitored and evaluated for circumstances that may require changes to the **desired future state**. 3.1.3 The description of the **desired future state** is reviewed periodically and confirmed or updated to maintain alignment with the expected **benefits**.	a. The description of the **desired future state** may be based on anything from a formal feasibility study to an inspired insight from a senior executive. It may be highly detailed or loosely formed. It may be created or validated by experts outside of the program or the sponsoring organization. It will typically have less detail early in the program and more later. It may also be called a blueprint, a target operating model, or a vision statement. b. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization. c. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. d. The **internal program context** includes events within the program itself as well as within the sponsoring organizations. The **external program context** includes markets, technology, society, culture, the environment, and government regulation. e. **Benefits** may be tangible (new revenue, increased revenue, cost reduction, etc.) or intangible benefits (market position, customer satisfaction, societal improvements, knowledge, etc.). Benefits can accrue to the sponsoring organization or to other stakeholders. They may be realized directly or indirectly. They may be defined in advance of the program (e.g., by the program funders or sponsors) or may emerge and be recognized during the program. Benefits are often called outcomes.

PgM03　Element 2	

3.2　**Shape** and sustain the **program execution approach**.

Performance Criteria	Explanatory Statements
3.2.1　**Gaps** between the current state and the **desired future state** are defined and agreed to by **pertinent stakeholders**. 3.2.2　Changes needed to move from the current state to the **desired future state** are defined and agreed to by **pertinent stakeholders**. 3.2.3　A **program execution approach** based on changes needed is defined and agreed to by **pertinent stakeholders**. 3.2.4　**Internal** and **external program contexts** are monitored and evaluated for circumstances that may require changes to the **program execution approach**. 3.2.5　The **program execution approach** is reviewed periodically and confirmed or updated to maintain alignment with the expected **benefits**.	a.　**Shaping** may include initial development, refinement, or substantial revision. b.　The **program execution approach** includes identification of constituent projects as well as program level activities such as adoption or establishment of a framework for project planning and delivery. The initial version may not include all projects that will eventually be done as part of the program. Options and alternatives should be developed with consideration for the overall program context, available resources, benefits, risks, stakeholder interests and expectations, and expected benefits. The program execution approach also be called a roadmap, framework, program plan, program outline, or other term. It is often structured into groups of constituent projects which may be called tranches, phases, or stages. Complex programs may require an independent review of the program execution approach. Changes to the program execution approach may require updates to the program business case or other aspects of program planning. c.　**Gaps** may be obvious or may require research and analysis to define clearly. Gaps should be elaborated to the level of detail need to support development of the program execution approach.

PgM03　Element 3	

3.3　Shape and sustain the program's **business case**.

Performance Criteria	Explanatory Statements
3.3.1　A **business case** for both the **desired future state** and the **program execution approach** is defined, documented, and approved by **pertinent stakeholders**. 3.3.2　**Internal** and **external program contexts** are monitored and evaluated for circumstances that may require changes to the program's **business case.** 3.3.3　The **program's business case** is reviewed periodically and confirmed or updated to maintain alignment with the expected **benefits**.	a.　The **business case** will generally be based on a feasibility study or other analysis that pre-dates the program. The business case should include expected benefits and the associated financial considerations, risks, and costs. It may be contained in multiple documents. The business case should consider the potential for both positive and negative outcomes. Complex business cases may require independent reviews.

PgM03　Element 4

3.4	**Shape** and sustain program **governance**.

Performance Criteria	Explanatory Statements
3.4.1 **Program organization** is defined, maintained, refreshed, and agreed by the **sponsoring organization**. 3.4.2 Program boundaries and governance structures are designed to **exploit synergies** within the **sponsoring organization**. 3.4.3 **Policies, processes, and procedures** to support the management of the program are identified/devised and communicated to **pertinent stakeholders**.	a. **Governance** includes roles and responsibilities, reporting relationships, ethics policies and practices, review and audit processes, and alignment with the governance practices of the sponsoring organization. Governance may be established by contractual arrangements or collaborative agreements. b. The **program organization** will generally include a program board or steering committee, a description of key reporting relationships and decision making authority, and identification of relationships among constituent projects. It may also include a Program Management Office or Program Support Office. c. The **sponsoring organization** may be a department, a business unit, a corporation, a government agency, a joint venture, or any other legal form. It may be comprised of a single entity, or it may include multiple entities. When there are multiple entities, they may be loosely linked by collaborative agreements or tightly bound through legally enforceable contracts; there may be a clear leader or a partnership of equals. The sponsoring organization includes any entity that is actively involved in funding the program. d. **Exploitation of synergies** with the sponsoring organization requires understanding and sensitivity and may be strategic, technical, political, historical or personal. e. **Policies, processes, and procedures** may be taken from the sponsoring organization or may be developed specifically for the program. They may need to be added to or modified during the program. They may be defined by legal agreements. They may be formal or informal, manual or automated. They will generally address at least the following concerns: • Management of constituent projects • Quality assurance and quality control • Risk management • Project approval and assessment

PgM04	Orchestrate the Attainment of Benefits
Unit Descriptor	This unit defines the Elements required to orchestrate the attainment of benefits. It includes the Performance Criteria required to demonstrate competency in ensuring that benefits are realized when and as expected.

PgM04   List of Elements

4.1   Identify benefits and trade-offs.

4.2   Shape and sustain benefits delivery approach.

4.3   Evaluate attainment of expected benefits.

PgM04   Element 01

4.1   Identify benefits and trade-offs.

Performance Criteria	Explanatory Statements
4.1.1 Expected short- and long-term **benefits** and **trade-offs** are defined and communicated to **pertinent stakeholders**. 4.1.2 **Internal** and **external program contexts** are monitored and evaluated for circumstances that may require changes to the expected **benefits**. 4.1.3 Expected **benefits** and **trade-offs** are periodically reviewed and confirmed or updated.	a. **Benefits** may be tangible (new revenue, increased revenue, cost reduction, etc.) or intangible benefits (market position, customer satisfaction, societal improvements, knowledge, etc.). Benefits can accrue to the sponsoring organization or to other stakeholders. They may be realized directly or indirectly. They may be defined in advance of the program (e.g., by the program funders or sponsors) or may emerge and be recognized during the program. Benefits are often called outcomes. b. **Trade-offs** involve judgements concerning the timing and relative value of benefits. They may involve delaying one benefit in order to obtain another, sacrificing one benefit in order to obtain a greater one, or accepting an adverse impact for some stakeholders in order to obtain significant benefits for others. c. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization. d. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. e. The **internal program context** includes events within the program itself as well as within the sponsoring organizations. The **external program context** includes markets, technology, society, culture, the environment, and government regulation.

PgM04   Element 2

4.2   **Shape** and sustain benefits delivery approach.

Performance Criteria	Explanatory Statements
4.2.1 **Benefits measurement approach** is defined and agreed to by **pertinent stakeholders**. 4.2.2 **Benefits delivery approach** is devised and agreed to by **pertinent stakeholders**. 4.2.3 Ownership of **benefits** delivery is assigned and **accepted**. 4.2.4 **Benefits measurement approach** and **benefits delivery approach** are reviewed periodically and confirmed or updated.	a. **Shaping** may include initial development, refinement, or substantial revision. b. A **benefits measurement approach** defines how data will be collected and analyzed to determine the extent to which expected benefits are being realized. c. A **benefits delivery approach** should describe how constituent project outputs and other program activities will be coordinated to maximize effectiveness. The approach may involve delivery of benefits gradually or incrementally. The approach will typically become more detailed and specific as the program progresses. d. **Accepted** means that the individual or organization has agreed to be accountable.

PgM04   Element 3

4.3   Evaluate attainment of expected benefits.

Performance Criteria	Explanatory Statements
4.3.1 Deliverables from constituent projects are **assessed** in accordance with the **benefits measurement approach**. 4.3.2 Progress toward delivery of expected **benefits** is measured and reported to **pertinent stakeholders.** 4.3.3 Variances in delivery of expected benefits are **addressed**.	a. Deliverables should be **assessed** in a timely manner. b. **Addressed** includes acceptance as is, acceptance with modification, or rejection. Variances may be addressed without being eliminated.

PgM05	Sustain Program Progress

Unit Descriptor	This unit defines the Elements required to sustain program progress. It includes the Performance Criteria required to demonstrate competency in ensuring that the program is moving toward the accomplishment of its vision and the attainment of its expected benefits.

PgM05   List of Elements

5.1   Secure program funding.

5.2   Resource the program.

5.3   Measure, evaluate, and coordinate program progress.

5.4   Ensure relevant legal and regulatory requirements are addressed.

5.5   Anticipate and respond to changes.

5.6   Manage program risks.

PgM05   Element 1

5.1   Secure program **funding**.

Performance Criteria	Explanatory Statements
5.1.1 Ongoing **funding requirements** are **determined**, documented, and communicated to **pertinent stakeholders**. 5.1.2 Funding commitments are **secured** as needed. 5.1.3 Funding **issues** are **addressed**. 5.1.4 Funder requirements are satisfied.	a. **Funding** may be provided through internal or external sources. Funding may involve monetary or in-kind services. Some funding may be provided directly to constituent projects. b. **Funding requirements** include needs or expectations that are stated, obligatory, or reasonably implied. c. **Determined** includes forecasts of money in and out periodically throughout the program. d. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization. e. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. f. **Funds** may be actual cash or budget approvals. g. **Securing** program funding may include obtaining initial commitments as well as additional amounts when needed. It may also include "selling" the program to prospective funders. h. **Issues** would generally involve shortfalls but could include overages as well. i. **Addressed** could involve securing additional funding, adjusting budgets and related scopes, delivering fewer benefits, modified approaches, delaying delivery of benefits, or allocating reserves and contingencies.

PgM05   Element 2

5.2   Resource the program.

Performance Criteria	Explanatory Statements
5.2.1 Program **resource** requirements are **determined**, documented, negotiated with, and communicated to **pertinent stakeholders**. 5.2.2 Program resources are **acquired** and **coordinated** across the program and its constituent projects. 5.2.3 Program **resource** requirements are confirmed or updated in response to program refinements or changes.	a. **Resources** may include part- or full-time staff, supplies, equipment, infrastructure, materials, and other items. Money as a resource is covered in Element 1 above. b. Resources may be **acquired** internally through negotiation, informal agreements, or pseudo-contracts. They may also be acquired through commercial contracting or collaborative agreements. Resources may be acquired directly by the program or by constituent projects. c. **Coordination** may include allocation, release, or redeployment.

PgM05   Element 3

5.3   **Measure**, **evaluate**, and coordinate program progress.

Performance Criteria	Explanatory Statements
5.3.1 **Monitoring and control systems** are established and maintained. 5.3.2 **Monitoring and control systems** are used to maintain momentum and support delivery of expected **benefits**. 5.3.3 Performance of constituent projects and **other program elements** is reported to **pertinent stakeholders**. 5.3.4 A **sustainable pace** is maintained.	a. **Monitoring and control systems** should be appropriate to the nature of the program and are used as a basis for taking action in response to both positive and negative variances to sustain program progress. Monitoring and control systems include tools for measurement and evaluation. Measurement tools may include: progress reports, feedback obtained from stakeholders, identification of variances from plans, changes in stakeholder interests, and changes in assumptions and constraints. b. **Evaluation** tools may rely on information gained from trend analysis, forecasting, strategic alignment reviews, and monitoring the internal and external program contexts. c. To maintain a **sustainable pace**, it may be necessary to go more slowly or to accelerate program components to respond to opportunities and threats from internal and external environments. d. **Benefits** may be tangible (new revenue, increased revenue, cost reduction, etc.) or intangible benefits (market position, customer satisfaction, societal improvements, knowledge, etc.). Benefits can accrue to the sponsoring organization or to other stakeholders. They may be realized directly or indirectly. They may be defined in advance of the program (e.g., by the program funders or sponsors) or may emerge and be recognized during the program. Benefits are often called outcomes. e. **Other program elements** could include collaborative agreements, commercial contracts, or operational tasks that are within the program scope.

PgM05 Element 4

5.4 Ensure relevant **legal and regulatory requirements** are addressed.

Performance Criteria	Explanatory Statements
5.4.1 Relevant **legal and regulatory requirements** are identified, documented, and communicated to **pertinent stakeholders**. 5.4.2 Potential for conflicts caused by **legal and regulatory requirements** are identified and **addressed**. 5.4.3 **Compliance policies, processes, and procedures** are implemented. 5.4.4 Applicable **legal and regulatory requirements** are monitored for breaches and conflicts.	a. **Legal and regulatory requirements** may include legislation and regulations; authority approvals; contract and sub-contract provisions; operational health and safety; discrimination; industrial relations; fair trade; internal business controls; and environmental issues. Contractual provisions may need to be addressed from both the buyer's and the seller's perspectives. b. **Addressed** includes acceptance as is, acceptance with modification, or rejection. Conflicts may be addressed without being eliminated. c. **Compliance policies, processes, and procedures** may be taken from the sponsoring organization or may be developed specifically for the program. They may need to be added to or modified during the program. They may be defined by legal agreements. They may be formal or informal, manual or automated.

PgM05 Element 5

5.5 Anticipate and respond to changes.

Performance Criteria	Explanatory Statements
5.5.1 **Internal** and **external program contexts** are monitored and evaluated for circumstances that may require **changes**. 5.5.2 Actual and potential **changes** are identified, documented, and evaluated. 5.5.3 Approved **changes** are implemented. 5.5.4 **Changes** and their implications are communicated to **pertinent stakeholders**.	a. The **internal program context** includes events within the program itself as well as within the sponsoring organizations. The **external program context** includes markets, technology, society, culture, the environment, and government regulation. b. **Changes** may include recommendations for program expansion, contraction, or cancellation. They may also involve product requirements, business justification, resourcing, funding, cost, scope, stakeholder support, design concepts, schedules, or other factors.

PgM05   Element 6

5.6   Manage program **risks**.

Performance Criteria	Explanatory Statements
5.6.1 **Risk management approach** for the program and its constituent projects is documented, communicated, and agreed to by **pertinent stakeholders.** 5.6.2 **Program risks** are identified in consultation with **pertinent stakeholders**. 5.6.3 **Program risks** are analysed and prioritized, and risk responses are implemented as planned. 5.6.4 **Internal** and **external program contexts** are monitored for circumstances that may affect **program risks**.	a. A **risk** is a possible future event or condition that, if it occurs, would have a negative or positive effect on the program. Negative effects may be called threats and may include generic items such as employee turnover or application-area specific items such as health, safety, and environmental issues. Positive effects may be called opportunities and may include internal changes such as better than expected progress or external changes such as an improved market situation. b. **Risk management approach** should consider both program risks and risk management within constituent projects. It should reflect an understanding of stakeholder risk tolerances, allocation of risk among stakeholders, risk mitigation strategies, timing and costs of risk responses, and contingency planning. It may include consideration of opportunities as well as threats. Contingency and reserve funds may be maintained at the program level, allocated to constituent projects, or both. c. **Program risks** are risks that cannot be dealt with effectively at the project level.

PgM06   Manage Organizational Change

Unit Descriptor	This unit defines the Elements required to manage organizational change. It includes the Performance Criteria required to demonstrate competency in implementing effective cultural and behavioural change.

This is an additional unit for program managers whose programs include organizational change as part of the desired future state. The program manger may have overall responsibility for the organizational change; may report to another individual who has overall responsibility; or may have a peer-to-peer relationship with the individual who has overall responsibility.

Note: PgM01, Provide Leadership for the Program, and PgM02, Facilitate Stakeholder Engagement, are fundamental aspects of managing organizational change. When this Unit is part of an assessment, particular attention should be paid to the interplay among these three Units.

PgM06   List of Elements

6.1   Shape and sustain organizational change implementation approach.

6.2   Advocate for change with stakeholders.

6.3   Evaluate the effectiveness of the organizational change.

PgM06   Element 1

6.1   **Shape** and sustain organizational change implementation approach.

Performance Criteria	Explanatory Statements
6.1.1 The extent and nature of **organizational change required** in support of the program is evaluated and periodically re-evaluated. 6.1.2 Potential **organizational change implementation approaches** are identified and evaluated for applicability. 6.1.3 The **organizational change implementation approach** is reviewed periodically and confirmed or modified to ensure support for expected **benefits**. *(continued next page)*	a. **Shaping** may include initial development, refinement, or substantial revision. b. **Organizational change required** may be determined by the program manager or by others. Changes may be required in structure, roles and responsibilities, processes, operations, behaviours, culture, infrastructure, or other areas. c. **Organizational change implementation approach** will generally consider how much change can be absorbed by the organization, who will be affected, who needs to be involved, the current organizational culture, potential sources of resistance, and training or preparation of those affected. The organizational change may be the main focus of the program, or it may be a requirement for realization of certain benefits. The organizational change implementation approach may need to be coordinated with other organizational change initiatives.. d. **Benefits** may be tangible (new revenue, increased revenue, cost reduction, etc.) or intangible benefits (market position, customer satisfaction, societal improvements, knowledge, etc.). Benefits can accrue to the sponsoring organization or to other stakeholders. They may be realized directly or indirectly. They may be defined in advance of the program (e.g., by the program funders or sponsors) or may emerge and be recognized during the program. Benefits are often called outcomes.

6.1   Shape and sustain organizational change implementation approach. (continued)

Performance Criteria	Explanatory Statements
6.1.4 The **organizational change implementation approach** is **coordinated** with the **program execution approach** and accepted by **pertinent stakeholders**.	e. **Coordination** of the organizational change management and the program execution approaches may require changes to either or both. f. The **program execution approach** includes identification of constituent projects as well as program level activities. The initial version may not include all projects that will eventually be done as part of the program. Options and alternatives should be developed with consideration for the overall program context, available resources, benefits, risks, stakeholder interests and expectations, and expected benefits. The program execution approach also be called a roadmap, framework, program plan, program outline, or other term. It is often structured into groups of constituent projects which may be called tranches, phases, or stages. Complex programs may require an independent review of the program execution approach. Changes to the program execution approach may require updates to the program business case or other aspects of program planning. g. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization. h. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations.

PgM06   Element 2

6.2	Advocate for change with stakeholders.

Performance Criteria	Explanatory Statements
6.2.1 **Approaches** for **stakeholder** engagement in **organizational change** are devised and deployed. 6.2.2 **Benefits** of **organizational change** are articulated for **pertinent stakeholders**. 6.2.3 An **organizational change communications plan** is documented, maintained, and agreed to by **pertinent stakeholders**. 6.2.4 **Organizational change communications plan** is implemented and variances are **addressed**. 6.2.5 **Resistance** to change is monitored, evaluated, and **addressed**.	a. **Approaches** to stakeholder engagement may include use of champions, cultivation of potential champions, establishment of a guiding coalition of influential stakeholders, and co-option of potential opponents. b. **Organizational change communications plan** will generally include content, form, timing, and channels of communication. It may include identification of sensitive topics and policies for dealing with them as well as consideration of risks involved in providing too much or too little information too late or too soon. c. **Resistance** may be overt or covert. d. **Addressed** includes both direct action to overcome resistance as well as indirect actions to circumvent it.

PgM06   Element 3

6.3	Evaluate the effectiveness of the organizational change.

Performance Criteria	Explanatory Statements
6.3.1 Methods for evaluating the effectiveness of the **organizational change** initiatives are identified, documented and agreed to by **pertinent stakeholders**. 6.3.2 Selected evaluation methods are applied on an ongoing basis. 6.3.3 **Feedback** is provided to **pertinent stakeholders** regarding progress of **organizational change**. 6.3.4 Variances in attainment of desired **organizational change** are **addressed**.	a. **Methods** may include both qualitative and quantitative tools and techniques. b. **Feedback** may be provided formally or informally. c. **Addressed** may involve securing additional funding, modified approaches, or delaying attainment of the organizational change.

PgM07	Direct the Management of Contracts

Unit Descriptor	This unit defines the Elements required to direct the management of contracts. It includes the Performance Criteria required to demonstrate competency in obtaining value from products and services acquired from external sources.

This is an additional unit for program managers whose programs involve the use of contracts at the program level, the project level, or both. Unit PgM08 addresses collaborative alliances.

Note: This unit is written from the perspective of the buyer in a buyer-seller relationship. If the program itself is being done under contract, then this unit applies only to the program manager's relationship with subcontractors.

PgM07 List of Elements

7.1 Shape and sustain contract management approach.

7.2 Oversee and verify contract performance.

PgM07 Element 1

7.1 **Shape** and sustain contract management approach.

Performance Criteria	Explanatory Statements
7.1.1 **Contract management approach** is devised, documented, kept current, and agreed to by **pertinent stakeholders**. 7.1.2 **Contractual policies, processes, and procedures** to support the **contract management approach** are developed, approved, maintained, and communicated to **pertinent stakeholders**. *(continued next page)*	a. **Shaping** may include initial development, refinement, or substantial revision. b. A **contract management approach** encompasses the strategic and organizational aspects to be addressed throughout the program including: • What goods and services need to be bought externally and why. • How prospective suppliers/contractors (sellers) will be identified and selected (through public tender, limited tender, or direct negotiation). • Contract management structure — how contract documents will be prepared; what types of contracts will be used; how risks will be allocated; contract specifications and how specific terms will be negotiated and by whom; compliance and dispute resolution processes; contract administration. • The mechanisms to support effective communications, coordination, synergies, and integration of contracts with constituent projects in the program. • Quality management systems. c. **Stakeholders** include individuals and organizations whose interests may be affected by the program, or whose actions may have an effect on some aspect of the program. Stakeholders may include program proponents, sponsors, clients, customers, collaborators, contributors, champions, constituent project managers, project team members, program support staff, subcontractors, suppliers, media representatives, and the general public. Stakeholders may be internal to or external from the sponsoring organization.

PgM07   Element 1 (continued)

7.1   Shape and sustain contract management approach. (continued)

Performance Criteria	Explanatory Statements
7.1.3 Risk management related to contracts is integrated with overall program risk management.	d. The **pertinence** of a stakeholder may be affected by the impact of the program on the stakeholder, by the impact of the stakeholder on the program, and by cultural or ethical considerations. Different stakeholders are pertinent in different situations. e. **Contractual policies, processes, and procedures** may be taken from the sponsoring organization or may be developed specifically for the program. They may need to be added to or modified during the program. They would generally address at a more detailed level how to implement the components of the contract management approach. The program manager ensures approved policies are in place.

PgM07   Element 2

7.2   Oversee and verify contract performance.

Performance Criteria	Explanatory Statements
7.2.1 Contracts are approved in accordance with the **contract management approach**. 7.2.2 Alignment of contractor performance with contract requirements is verified. 7.2.3 Resolution of contract **variances** is documented and verified. 7.2.4 Mechanisms to support effective communications, coordination, synergies, and integration of contracts with constituent projects in the program are implemented. 7.2.5 Compliance with **policies, processes, and procedures** is **monitored.**	a. Tracking and **Monitoring** may be done by the program manager, the managers of constituent projects, or other staff involved in contract management. b. **Variances** may include significant compliance issues, contract non-performance, contract changes, disputes, claims, or complaints. Variances may be negotiated by others or the program manager and are generally agreed by the program manager.

PgM08   Engage in Collaborative Alliances

Unit Descriptor	This unit defines the Elements required to engage in collaborative alliances. It includes the Performance Criteria required to demonstrate competency in forging alliances with other organizations to facilitate attainment of program benefits.

This is an additional unit for program managers whose programs involve collaborative alliances.

Note: Collaborative alliances are significantly different in focus and content from commercial contracts in that the parties operate as partners with shared interests and a higher degree of joint decision-making. However, collaborative alliances are often formalized with the use of a legally binding contract. Collaborative agreements often involve organizations that are part of the same legal entity: business units of the same corporation or departments of the same government.

PgM08   List of Elements

8.1   Cultivate collaborative alliances.

8.2   Devise and elaborate collaborative agreements.

8.3   Support the evolution of collaborative agreements.

PgM08   Element 1

8.1   Cultivate collaborative alliances.

Performance Criteria	Explanatory Statements
8.1.1 **Opportunities** for collaborative alliances are identified and evaluated. 8.1.2 **Potential collaborators** are identified and evaluated. 8.1.3 Relationships with **potential collaborators** are **initiated, nuanced, and shaped.**	a. **Opportunities** may arise from prior positive experiences, known weaknesses in the program organization, or identification of potential synergistic relationships. They may be critical and central to program delivery or they may be incidental or localised to one or a few constituent projects. b. **Potential collaborators** are external organizations, agencies, and governments that have, or are likely to have, a shared interest in the program benefits. They will also typically have shared values and prior collaboration experience. c. **Initiated, nuanced, and shaped** refers to the process of progressive engagement with potential collaborators through careful communications that lead to common understandings, gaining of trust, progressive building and acceptance of intertwined interests.

PgM08   Element 2

8.2	Devise and elaborate collaborative agreements.	

Performance Criteria	Explanatory Statements
8.2.1 A **collaborative agreement approach** is initiated, negotiated, documented, and accepted by the parties to each agreement. 8.2.2 Each formal agreement is signed and regularly reviewed to ensure continuation of envisaged value and potential need for changes and additions. 8.2.3 **Collaboration plans** are developed for each agreement to support implementation.	a. **Collaborative agreement approach** would generally address: • The shared vision and desired mutual outcomes from the agreement. • Alignment to the program benefits and the interests of the parties. • The nature, scope and boundaries of the collaboration. • The form of an agreement, often expressed initially as a Memorandum of Understanding (MoU). • How to coordinate collaborative agreements across constituent projects. b. **Collaboration plans** will include identification of responsibilities and expected results. They may also include policies, processes, and procedures to support the collaborative agreement; communication strategies; risk allocation, risk responses, and risk management plans.

PgM08   Element 3

8.3	Support the evolution of collaborative agreements.	

Performance Criteria	Explanatory Statements
8.3.1 Relationships with collaborators are **monitored and nurtured** to sustain commitment. 8.3.2 Performance of all parties to an agreement is **assessed** against expected results and **variances** are **addressed**. 8.3.3 **Changes** to agreements are made as required.	a. **Monitoring and nurturing** may include coaxing good performance in the absence of direct authority, gauging strains on and strengths of the relationship, recognizing and alleviating tensions, managing implicit and explicit expectations, and dealing with the constraints of working together. It may be done by the program manager, the managers of constituent projects, or others. b. **Assessment** of performance requires consideration of the results delivered by each party to each other. This will require the reporting of the performance of the program to the collaborator and the performance of the collaborator to the program. c. **Changes** may include disengagement or termination.

Appendices

Appendix A
Development of this Document

(informative)

A.1 Creation of the GAPPS Organization

Starting in the mid 1990s, people interested in the development of global project management standards began meeting formally and informally during various project management conferences. In 1998, the International Project Management Association initiated a series of Global Working Parties, including one focused on Standards. This Working Party met on a number of occasions, usually associated with project management conferences, and interested people from many countries were involved. A number of initiatives were identified or formulated and tracked. One of these was the opportunity for development of global performance based standards for project personnel that would complement existing knowledge based standards (such as PMI's *A Guide to the Project Management Body of Knowledge*, APM's *Body of Knowledge*, IPMA's *International Competence Baseline*, and Japan's *Project and Program Management for Enterprise Innovation*) and provide a basis for transferability and mutual recognition of project management qualifications.

The development of global performance based standards for project managers, as a joint initiative of governments, professional associations, and corporations, provides an opportunity to:

- Respond directly to the expressed needs of industry.
- Enhance the profile and effectiveness of project management throughout the project management community, both globally and locally.
- Increase support for project management as a field of practice and as an emerging profession.
- Enhance the value and recognition of the performance based standards approach.

The initiative was progressed by development and signing of Memoranda of Understanding (MOUs) to guide cooperation among interested parties. A Global Steering Committee meeting was held in London in August 2002. The meeting was attended by representatives of signatories to the MOUs plus industry representatives and was hosted by the Services SETA (Sector Education and Training Authority) of South Africa. The initiative initially functioned under the name Global Performance Based Standards for Project Management Personnel.

The Global Steering Committee decided to fund the initiative by asking each organization supporting it (professional associations, standards/qualifications organizations, educational institutions, and corporations) to become a financial subscriber to cover research, preparation of materials, maintenance of the global standards website, and administrative support. In addition, the Global Steering Committee decided that the initial focus should be in the development of performance based competency standards for project managers. It was agreed that the initiative would be progressed through Working Sessions attended by representatives of subscribing organizations.

A.2 Working Sessions

The first Working Session was held in Lille, France in February 2003. A further eighteen Working Sessions have been held:

Working Session No 1: February 2003, Lille France

Working Session No 2: October 2003, Sydney

Working Session No 3: May 2004, Cape Town

Working Session No 4: November 2004, Lille France

Working Session No 5: February 2005, Melbourne

Working Session No 6: May 2005, St Petersburg

Working Session No 7: September 2005, London

Working Session No 8: January 2006, Singapore

Working Session No 9: June 2006, Boston

Working Session No 10: October 2006, Shanghai, China

Working Session No 11: May 2007, The Hague

Working Session No 12: August 2007, Gold Coast

Working Session No 13: March 2008, Japan

Working Session No 14: August 2008, Lille, France

Working Session No 15: February 2009, Pretoria, South Africa

Working Session No 16: May 2009, Cranfield, UK

Working Session No 17: October 2009, Washington DC, USA

Working Session No 18: February 2010, Bali, Indonesia

Working Session No 19: May 2010, High Wycombe, United Kingdom

A.3   Products of the GAPPS

All products of the GAPPS are available from the GAPPS website: www.globalpmstandards.org. The are provided free of charge, to any person to use, copy, modify, merge, publish, distribute, translate in accordance with the copyright provisions laid out at the start of this document.

Currently available GAPPS products are:

> ***A Framework for Performance Based Competency Standard for Global Level 1 and 2 Project Managers*** *(2007)*

> ***Mappings to other standards****:* to promote transportability & mutual recognition, the GAPPS Project Manager standards have been used as a basis for mapping of various global standards. Mapping of the following standards, to the GAPPS Project Manager standards are available: ANCSPM, ICB V.3, P2M, PRINCE2 2009.

The development of the GAPPS Project Manager standards began in February 2003 at Working Session No. 1. An Exposure Draft was released in August 2005 and two levels of Project Manager standards, Global Level 1 and Global Level, were published in 2006 with a minor technical revision in 2007 as *A Framework for Performance Based Competency Standard for Global Level 1 and 2 Project Managers.*

Mapping to other standards was commenced at Working Session No 12 in September 2007. This is an ongoing stream of work with AACEI TCM, AIPM, PMBOK®Guide 2008 and SAQA NQF Level 5 standards currently in the process of mapping.

A.4   Development of GAPPS Program Manager Standards

Development of the GAPPS Program Manager standards began at Working Session No 7 in London in September 2005, hosted by Middlesex University.

Extensive research was conducted in advance of that session to review existing standards and literature relevant to program management. Professor Alan Stretton conducted an ongoing literature review and produced a series of Working Papers on program management that were made available to the GAPPS.

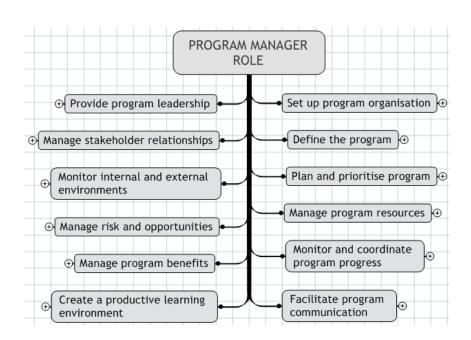Specific documents reviewed as input to the development of the GAPPS Program Manager standards were:

Managing Successful Programme (UK Office of Government Commerce, 2007)

The Standard for Program Management (Project Management Institute, 2008)

A Guidebook to Project and Program Management for Enterprise Innovation (P2M) (Japan, Project Management Association of Japan, 2002)

At Working Session No 7, Professor Ralph Levene of Cranfield University, Professor Darren Dalcher of Middlesex University and Erik Van den broecke of Vlerick Leuven Gent Management School provided input based on their knowledge and experience of program management. Erik Van den broecke provided input from research in a document titled: *Realizing Strategic Objectives in Turbulent Environments: a Role for Programme Management, The VPMRC Programme Management Framework, Research Track 1 - January 2005*, Vlerick Leuven Gent Management School, Vlerick Programme Management Research Center (2010). Masayuki Ishikura (PMCC, Japan) gave a presentation on the treatment of program management in the P2M.

Results of a Functional Analysis session held with 17 people from 9 organisations on 6th September 2005 provided further input to this session and Functional Analysis session was held at the Working Session with 7 people from 7 different organizations. The results of these two sessions, which aimed to identify what *most* Program Managers in *most* contexts need to be able to do can be summarised as follows:

The working definition of a Program Manager role was agreed at this Working Session:

The role of the Program Manager is integrated management of constituent projects and other resources to achieve specific organisational strategies and business benefits.

Work on the Program Manager standards continued at Working Sessions Nos. 8, 9 and 10 during 2006. Clear and accepted definition of the program manager role proved challenging and it was evident that the role is in early stages of formation and there is not yet an accepted and shared language and understanding relating to the management of programs.

At Working Session No 10 in Shanghai, China, the group developed a draft typology of programs, drawing on the work of both Sergio Pellegrinelli and Alan Stretton. This typology proved useful in identifying a continuum with project management, and offering a shared language for discussion of a diversity of program types (Table 1).

Very large project	Multi-project program	Strategic program	Operational program
With multiple sub-projects	Grouping of projects to achieve synergies eg according to resource pool; client; geographic area; product; technology	Delivering assets and benefits that are unique to the organization and beneficiaries and directly linked to the organization's desired future state	Delivering assets and benefits on which the organization and beneficiaries are critically dependent for performance of their day-to-day operations

Table 1: Program Typology

Further Functional Analysis sessions with Program Managers from a range of organisations were held in Sydney in March 2007 and at Working Session No 11 in The Hague in May 2007.

Development of the program manager standards progressed through Working Sessions 12 to 15. Working Session No 16 was held at the International Centre for Programme Management at Cranfield School of Management in May 2009 and provided an opportunity for input to the standards from an active and engaged program management community.

Development of program manager standards proved challenging. The program manager role has received significantly less attention than the project manager role so there was less shared understanding around the definition of the role and what it entails. The Standard for Program Management (PMI, 2007) was released after the GAPPS began work on performance based standards for the role and a revised version of Managing Successful Programmes (OGC) was released in 2007. There were no existing performance based standards for the program manager role available at the start of the GAPPS initiative.

Throughout the development of the standards the issue of levels of program manager and differences in role according to program type formed an ongoing stream of discussion. As development progressed it became evident that there were core competences for the program manager role that would apply in management of all types of program and at all levels. The program typology was useful as a basis for discussion but did not provide a simple answer to differences in roles and competencies required which emerged as being more closely related to the specific context of application.

Standards development progressed and a draft was released to a panel of expert reviewers following Working Session No. 18. Feedback from this review was examined and addressed at Working Session No. 19 leading to issuance of an exposure draft for public review.

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Appendix B
GAPPS Subscribers

Organizations that have subscribed to the initiative include:

Standards and Qualification Organizations	
Innovation and Business Skills Australia	Australia
New Zealand Qualifications Authority	New Zealand
Services SETA	South Africa
Project Management Professional Associations	
AACE International	USA
American Society for the Advancement of Project Management (*asapm*)	USA
Association for Project Management (APM)	United Kingdom
Australian Institute of Project Management (AIPM)	Australia
Greater-China Project Management Association (GPMA)	China
International Project Management Association (IPMA)	Europe
Project Management Association of Japan	Japan
Project Management Institute (PMI)	USA
Project Management South Africa (PMSA)	South Africa
Society for Project Managers (SPM)	Singapore
Academic/Training Institutions	
Athabasca University	Canada
Bond University	Australia
Cambridge International Examinations	United Kingdom
International Centre for Programme Management, Cranfield University	United Kingdom
Middlesex University	United Kingdom
SKEMA Business School (formerly ESC Lille)	France
University of Technology, Sydney	Australia
Industry	
American Express	UK
APMGroup	United Kingdom
Fujitsu Services	United Kingdom
Interlink Technology	Australia
LivingPlanit	Australia
Motorola	Australia
Project Performance Group	Australia
Project Services, Queensland	Australia
PSM Consulting	Russia
PTMC/APMX	Indonesia
Shell International BV	The Netherlands

Appendix C
Assessment Guidelines

(informative)

This appendix is included in order to provide some basic information for organizations that may wish to develop an assessment process using this standard.

C.1   The Assessment Process

Assessment against performance based standards is the process of collecting evidence and making judgments about whether an individual can perform to the level expected in the workplace as expressed in the relevant standard. All persons involved in the assessment should be given access to a copy of the relevant standard.

The assessment process should include activities to ensure the reliability of the results. In particular, there should be activities to ensure that assessment results are consistent across assessors and over time.

Any GAPPS compliant assessment must use the CIFTER to determine the level at which the candidate project manager is being assessed. The candidate should identify the applicable level by applying the CIFTER to the projects to be used in providing evidence. The candidate's results should be verified by the assessor. Where there is a difference of opinion, an agreed third party should be invited to make a separate determination with the majority position establishing the outcome.

Assessment should be broad enough to include evidence of the achievement of all the performance criteria. Assessment must confirm the inference that competency is (a) able to be satisfied under the particular circumstances assessed and (b) able to be transferred to other circumstances. In order to meet these tests, a GAPPS compliant assessment will normally include:

- A written assessment guide with an evidence guide and suggested questions to verify that the evidence is satisfactory (see section D.3).
- Face-to-face contact in the form of an interview or observation in the workplace.
- Contact with third parties such as the project manager's supervisor, the project client or sponsor, and project team members.

A GAPPS compliant assessment should also be fair. This means that:

- The assessment process is defined, understood, and agreed by all affected parties.
- There is an opportunity for appeal.
- The assessment schedule allows the candidate enough time to prepare.
- Adjustments can be made when candidates have particular needs.

Assessment methods should reflect basic workplace demands such as literacy and the needs of particular groups, including but not limited to:

- People with disabilities
- People from culturally and linguistically diverse backgrounds
- People from economically disadvantaged groups
- People of different ages

- People in rural and remote locations

C.2 Assessor Requirements

Generally, an assessor will need to demonstrate:

- Prior competency as a project manager at or above the level of the candidate being assessed.
- Evidence of currency in the field of project management (e.g., managing projects, consulting on project management, providing training in project management).
- Competency in conducting performance based competency assessments.
- Familiarity with the content and structure of the standard being used in the assessment.

C.3 Evidence Requirements

A GAPPS compliant assessment will include both documentary evidence and process evidence. Documentary evidence may be provided on paper or in electronic form. Most performance criteria will require more than a single piece of documentary evidence. Process evidence will normally be provided in the form of the candidate's answers to an assessor's questions. Process evidence is collected to verify the existence of underpinning knowledge and understanding.

Typically, a GAPPS compliant assessment will evaluate evidence from more than one project.

While the assessor must review and validate the evidence in order to infer that the candidate meets the requirements of the relevant standard, the onus is on the candidate to demonstrate that the evidence provided is:

- Authentic — that it reflects the candidate's own work as a project manager.
- Valid — that the evidence relates to the current, relevant version of the standard, and that it was obtained from a project that meets the requirements for the role assessed.
- Reliable — that the candidate consistently meets requirements in the standards.
- Current — that the bulk of the work of the projects being used to provide evidence was done during the period required by the relevant standard.
- Sufficient — that it addresses all of the performance criteria in enough detail to provide assurance that the candidate's performance is likely to be repeatable on a future project.

Appendix D
Detail on ACDC Ratings

(informative)

In order to illustrate the use of the Aitken-Carnegie-Duncan Complexity Table for Program Manager Role Definition (ACDC Table), this appendix contains sample ratings for six programs from different application areas. These programs are illustrative but not comprehensive.

The six programs are as follows:

A. Replace five core IT application systems along with their user interfaces.
B. Outsource and integrate cheque clearing processes for four banks.
C. Business Process Reengineering of corporate purchasing practices.
D. Develop a new technology for creating computer chip masks.
E. Economic stimulus through construction of low income housing,
F. Decommission nuclear weapons delivery systems.

The table on the next page contains a summary of the ratings for all six programs while the tables on the following pages contain explanations for each of the ratings.

Section 4.3 includes the full ACDC Table with descriptions for both the factors and the ratings.

D.1 Summary of ACDC Table Ratings for Sample Programs

Factor	Level 2 A	Level 2 B	Level 2 C	Level 2 D	Level 3 E	Level 3 F
Total	49	51	63	68	82	88
1	1	1	3	2	2	2
2	2	3	1	2	4	2
3	1	1	1	2	4	4
4	2	4	1	3	3	4
5	2	2	4	3	3	3
6	1	1	1	1	4	4
7	1	1	3	1	1	3
8	1	1	1	1	1	1
9	2	1	2	2	1	2
10	3	2	2	2	2	3
11	4	1	2	3	1	3
12	2	3	2	2	4	3
13	2	1	3	3	3	3
14	1	1	2	2	4	2
15	1	1	2	2	4	2
16	3	4	2	3	4	4
17	1	2	3	2	4	2
18	3	2	3	1	2	4
19	3	3	3	1	4	4
20	2	3	3	2	4	4
21	1	2	2	4	2	4
22	1	2	2	3	3	3
23	1	1	3	3	3	4
24	1	2	2	4	4	4
25	2	1	3	4	4	3
26	1	1	2	3	2	4
27	1	1	2	3	2	3
28	2	1	2	2	2	3
29	1	2	1	2	1	1

D.1 Summary of ACDC Table Ratings for Sample Programs

D.2 Explanations of Ratings

A. Replace five core IT application systems along with their user and systems interfaces.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	1	Consistently strong — high priority for all sponsors
2	Program management structures	2	A few complex — many departments affected
3	Decision-making processes	1	Little to no variability
4	Program manager's authority	2	Extensive
5	Stakeholder stability over time	2	High
6	Degree of public interest	1	Very low — internal project
7	Degree of cultural diversity	1	Very low — corporate culture very powerful
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	2	2-3 — some locations work in local languages
10	No. of locations requiring overnight stay	3	6-7
11	Range of time zones with active stakeholders	4	More than nine hours
12	Agreement regarding the desired future state	2	Moderate — only a few differences
13	Level of fluidity in desired future state	2	Low
14	Clarity of expected benefits	1	Very high — major gains in efficiency
15	Stakeholder expectations regarding benefits	1	Most clearly stated
16	Interdependency of benefits	3	Moderate — many dependencies among applications
17	Degree of competing stakeholder interests	1	Very low
18	Assessment of benefits delivered	3	Simple for some — difficult to measure some savings
19	Amount of cultural and behavioural change	3	High — new flows, new responsibilities
20	Impact on other work	2	Low — mostly normal competition for resources
21	Demand for innovation	1	Very low
22	Mgmt. complexity of constituent projects	1	Very low
23	Stability of methods and approaches	1	All or most are known
24	Magnitude of overall program risk	1	Very low
25	Availability of capable people	2	Usually assured — some shortages for some skills
26	Availability of adequate funding	1	Mostly assured
27	Availability of suitable equipment	1	Mostly assured
28	Availability of suitable supplies and materials	2	Usually assured — some specialized purchases
29	Number of independent funding sources	1	One

* Some factor titles have been shortened to conserve space

B. Outsource and integrate cheque clearing processes for four banks.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	1	Consistently strong — priority for all sponsors
2	Program management structures	3	Some complex — essentially a joint venture
3	Decision-making processes	1	Little to no variability
4	Program manager's authority	4	Limited — consensus decision-making
5	Stakeholder stability over time	2	High
6	Degree of public interest	1	Very low
7	Degree of cultural diversity	1	Very low
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	1	One
10	No. of locations requiring overnight stay	2	4-5
11	Range of time zones with active stakeholders	1	1-3 hours
12	Agreement regarding the desired future state	3	Low — many options to be considered
13	Level of fluidity in desired future state	1	Very low
14	Clarity of expected benefits	1	Very high
15	Stakeholder expectations regarding benefits	1	Most clearly stated
16	Interdependency of benefits	4	Very high — need all projects for any benefits
17	Degree of competing stakeholder interests	2	Low
18	Assessment of benefits delivered	2	Simple for many — clear cost savings
19	Amount of cultural and behavioural change	3	High — learning to deal with outsourcer
20	Impact on other work	3	Moderate — many shared resources
21	Demand for innovation	2	Low
22	Mgmt. complexity of constituent projects	2	Low
23	Stability of methods and approaches	1	All are known
24	Magnitude of overall program risk	2	Low
25	Availability of capable people	1	Mostly assured
26	Availability of adequate funding	1	Mostly assured
27	Availability of suitable equipment	1	Mostly assured
28	Availability of suitable supplies and materials	1	Mostly assured
29	Number of independent funding sources	2	2-5 — four banks

Some factor titles have been shortened to conserve space

C. Business Process Reengineering of corporate purchasing practices.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	3	Occasionally strong — stronger during annual budgeting process when need for new practices was most clear
2	Program management structures	1	Mostly simple
3	Decision-making processes	1	Little to no variability
4	Program manager's authority	1	Almost total
5	Stakeholder stability over time	4	Low — turnover in both purchasing and IT
6	Degree of public interest	1	Very low
7	Degree of cultural diversity	3	Moderate — international organization with many aspects of purchasing driven by local norms
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	2	2-3
10	No. of locations requiring overnight stay	2	4-5
11	Range of time zones with active stakeholders	2	4-6 hours — Europe and US East Coast
12	Agreement regarding the desired future state	2	Moderate
13	Level of fluidity in desired future state	3	Low — part of the learning process
14	Clarity of expected benefits	2	Moderate
15	Stakeholder expectations regarding benefits	2	Many clearly stated
16	Interdependency of benefits	2	Low
17	Degree of competing stakeholder interests	3	Moderate — some preferred the status quo
18	Assessment of benefits delivered	3	Simple for some — most involve cost avoidance
19	Amount of cultural and behavioural change	3	High — new organization as well as new practices
20	Impact on other work	3	Moderate — mostly shared resources
21	Demand for innovation	2	Low
22	Mgmt. complexity of constituent projects	2	Low
23	Stability of methods and approaches	3	Some are known — most technical methods were known; organizational development less so
24	Magnitude of overall program risk	2	Low
25	Availability of capable people	3	Occasionally assured — lots of competition for staff
26	Availability of adequate funding	2	Usually assured
27	Availability of suitable equipment	2	Usually assured
28	Availability of suitable supplies and materials	2	Usually assured
29	Number of independent funding sources	1	One

Some factor titles have been shortened to conserve space

D. Develop a new technology for creating computer chip masks.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	2	Usually strong
2	Program management structures	2	A few complex — multiple organizations
3	Decision-making processes	2	Variability in some areas
4	Program manager's authority	3	Moderate — multiple organizations
5	Stakeholder stability over time	3	Moderate — high in some areas, low in others
6	Degree of public interest	1	Very low — internal project
7	Degree of cultural diversity	1	Very low
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	2	2-3
10	No. of locations requiring overnight stay	2	4-5
11	Range of time zones with active stakeholders	3	7-9 hours — Europe to Asia
12	Agreement regarding the desired future state	2	Moderate
13	Level of fluidity in desired future state	3	Moderate — learning process
14	Clarity of expected benefits	2	Moderate
15	Stakeholder expectations regarding benefits	2	Most clearly stated
16	Interdependency of benefits	3	Moderate — needed all parts of the new design
17	Degree of competing stakeholder interests	2	Low
18	Assessment of benefits delivered	1	Simple for most — revenue and profit
19	Amount of cultural and behavioural change	1	Very low
20	Impact on other work	2	Low
21	Demand for innovation	4	Very high
22	Mgmt. complexity of constituent projects	3	Moderate
23	Stability of methods and approaches	3	Some are known
24	Magnitude of overall program risk	4	Very high — failure could have meant bankruptcy
25	Availability of capable people	4	Seldom assured — specialized skills in short supply
26	Availability of adequate funding	3	Occasionally assured — competition from other programs
27	Availability of suitable equipment	3	Occasionally assured — competition from other programs
28	Availability of suitable supplies and materials	2	Usually assured
29	Number of independent funding sources	2	2-5

Some factor titles have been shortened to conserve space

E. Economic stimulus through construction of low income housing.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	2	Usually strong — some sponsors are spread thin
2	Program management structures	4	Many complex — federal, state, and local governments; contractors and developers; citizen advisory groups
3	Decision-making processes	4	Variability in most areas — each initiative is reasonably independent
4	Program manager's authority	3	Moderate — mostly through control of funding
5	Stakeholder stability over time	3	Moderate
6	Degree of public interest	4	Very high — front page of the local papers every day
7	Degree of cultural diversity	1	Very low
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	1	One
10	No. of locations requiring overnight stay	2	4-5
11	Range of time zones with active stakeholders	1	1-3 hours
12	Agreement regarding the desired future state	4	Very low — most stakeholders had different views
13	Level of fluidity in desired future state	3	Moderate — adjusting to economic environment
14	Clarity of expected benefits	4	Very low — most stakeholders had different views
15	Stakeholder expectations regarding benefits	4	Few clearly stated
16	Interdependency of benefits	4	Very high
17	Degree of competing stakeholder interests	4	High
18	Assessment of benefits delivered	2	Simple for many — economic indicators
19	Amount of cultural and behavioural change	4	Very high — state coordinating agency had to be completely reorganized
20	Impact on other work	4	High
21	Demand for innovation	2	Low
22	Mgmt. complexity of constituent projects	3	Moderate
23	Stability of methods and approaches	3	Some are known — technical approaches known; organizational approaches needed to be developed
24	Magnitude of overall program risk	4	High
25	Availability of capable people	4	Seldom assured — capable individuals in demand
26	Availability of adequate funding	2	Usually assured
27	Availability of suitable equipment	2	Usually assured
28	Availability of suitable supplies and materials	2	Usually assured
29	Number of independent funding sources	1	One

Some factor titles have been shortened to conserve space

F. Decommission nuclear weapons delivery systems.

#	Factor Title*	Rating	Discussion
1	Sponsorship support	2	Usually strong — some lapses from some sponsors
2	Program management structures	2	A few complex — complicated contracting
3	Decision-making processes	4	Variability in most areas
4	Program manager's authority	4	Limited — by contracts and structures
5	Stakeholder stability over time	3	Moderate
6	Degree of public interest	4	Very high — potential for nuclear disaster
7	Degree of cultural diversity	3	Moderate — national and corporate differences
8	% of staff fluent in primary language	1	90-100%
9	No. of languages used	2	2-3
10	No. of locations requiring overnight stay	3	6-7
11	Range of time zones with active stakeholders	3	7-9
12	Agreement regarding the desired future state	3	Low — especially regarding details
13	Level of fluidity in desired future state	3	Moderate
14	Clarity of expected benefits	2	Moderate
15	Stakeholder expectations regarding benefits	2	Many clearly stated
16	Interdependency of benefits	4	High
17	Degree of competing stakeholder interests	2	Low
18	Assessment of benefits delivered	4	Simple for a few — mostly risk avoidance
19	Amount of cultural and behavioural change	4	Very high — dealing with disarmament
20	Impact on other work	4	Very high — due to limited resources
21	Demand for innovation	4	High — most projects "never been done before"
22	Mgmt. complexity of constituent projects	3	Moderate
23	Stability of methods and approaches	4	Only a few are known
24	Magnitude of overall program risk	4	Very high — especially if not successful
25	Availability of capable people	3	Occasionally assured
26	Availability of adequate funding	4	Seldom assured — many political issues
27	Availability of suitable equipment	3	Occasionally assured
28	Availability of suitable supplies and materials	3	Occasionally assured
29	Number of independent funding sources	1	One

Some factor titles have been shortened to conserve space