

Quality Management

Guidelines for Projects



Quality Management: **Guidelines for Projects**

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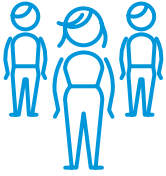
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CONTACT

This publication will be updated based on the cycle defined in the Implementation Standards Management Framework to ensure that it remains relevant to UNOPS activities and requirements and up to date with best practices. If you have comments or suggestions for improvement, please contact the Infrastructure and Project Management Group, UNOPS HQ, through email: ipmg.publications@unops.org.



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List of abbreviations

HSSE	Health, safety, social and environmental
IAIG	Internal Audit and Investigations Group
ISMF	Implementation Standards Management Framework
ISO	International Organization for Standardization
PID	Project Initiation Documentation
PMM	Project Management Manual
PMO	Project/Programme Management Office
PQMS	Process and Quality Management System
QMS	Quality Management System
RACI matrix	Responsibility assignment matrix
SDGs	Sustainable Development Goals



How to use this publication

This publication is part of the UNOPS Infrastructure and Project Management Group (IPMG) Implementation Standards Management Framework (ISMF) and should not be applied in isolation, but with consideration for related normative and informative publications in the ISMF. The ISMF provides an organizing structure for content covering a broad range of topics that can be applied throughout the lifespan of a project. The present guidance resides in Level 2 of the ISMF.

In particular, this publication requires an understanding of the *Project Management Manual (PMM)*, as well as the Operational Directive (OD) on the *Management of UNOPS Partners and Resulting Agreements*, along with the relevant accompanying Operational Instructions (OIs) and processes in the Process and Quality Management System (PQMS).

This publication is available on the UNOPS intranet intra.unops.org. Once this publication has been published, it might refer to out-of-date policies or practices and must only be used for reference purposes. The most recent version will always be the version available on the UNOPS intranet.

TARGET AUDIENCE

This guidance is intended to help UNOPS personnel to understand and apply quality management in all UNOPS projects. The primary audience for the Management Perspectives series includes project executives, project managers, business developers, closure managers, heads of programme, programme managers and UNOPS quality assurance and quality control personnel. The secondary audience consists of Project/ Programme Management Offices, project and programme support teams, regional advisors and country and regional directors.

REFERENCES AND CROSS-REFERENCES

References and cross-references appear as follows:

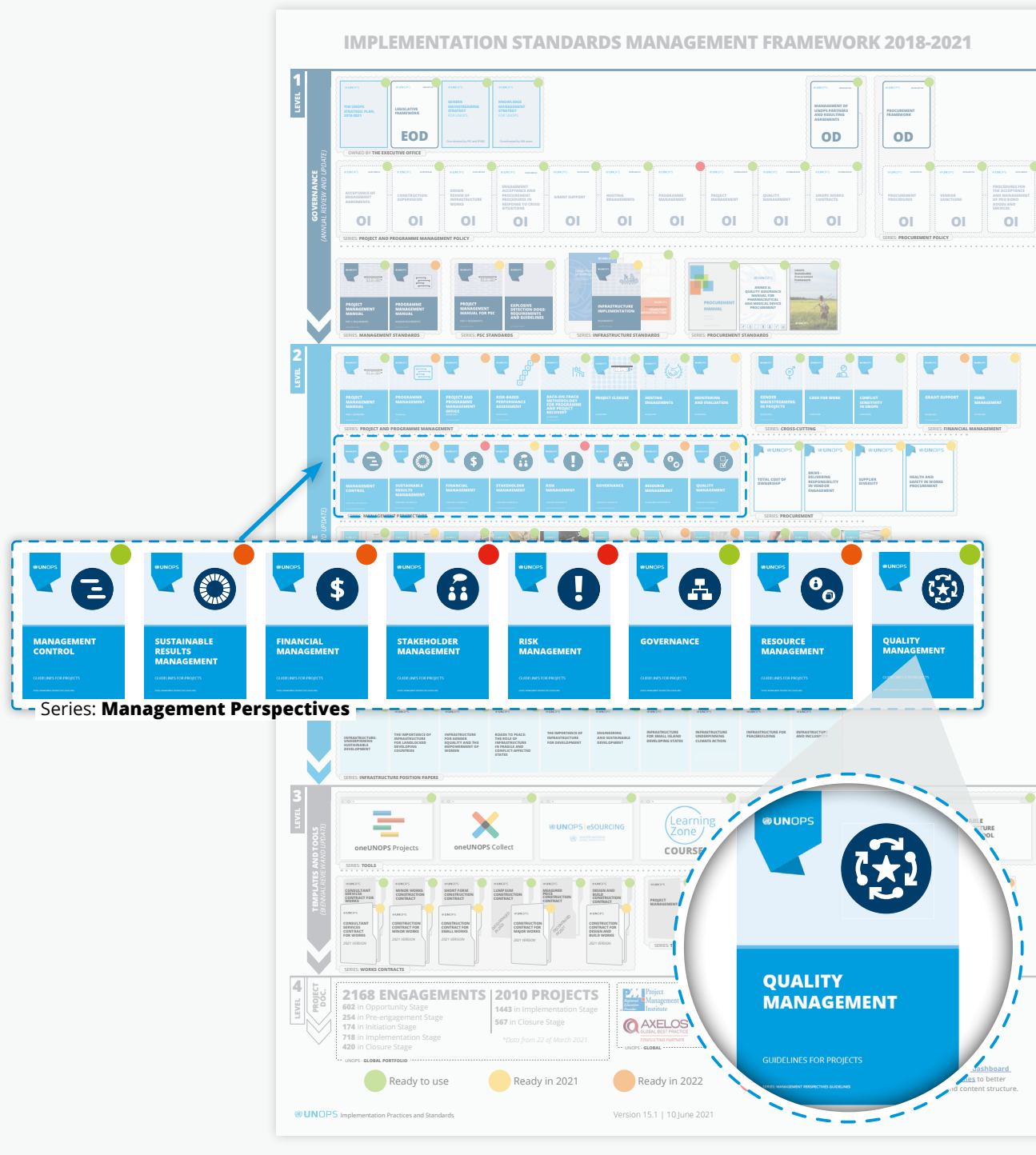
- Cross-references within this document are formatted as follows, e.g., (see [Section 4.1.1](#)).
- References to UNOPS intranet pages are formatted as follows, e.g., [Quality management](#).
- References to UNOPS policies and publications, as well as external publications, are in italics, e.g., *Project Management Manual*, and included within the [References](#) section at the end of this document.
- References to external sources and directly referenced content are cited in footnotes.

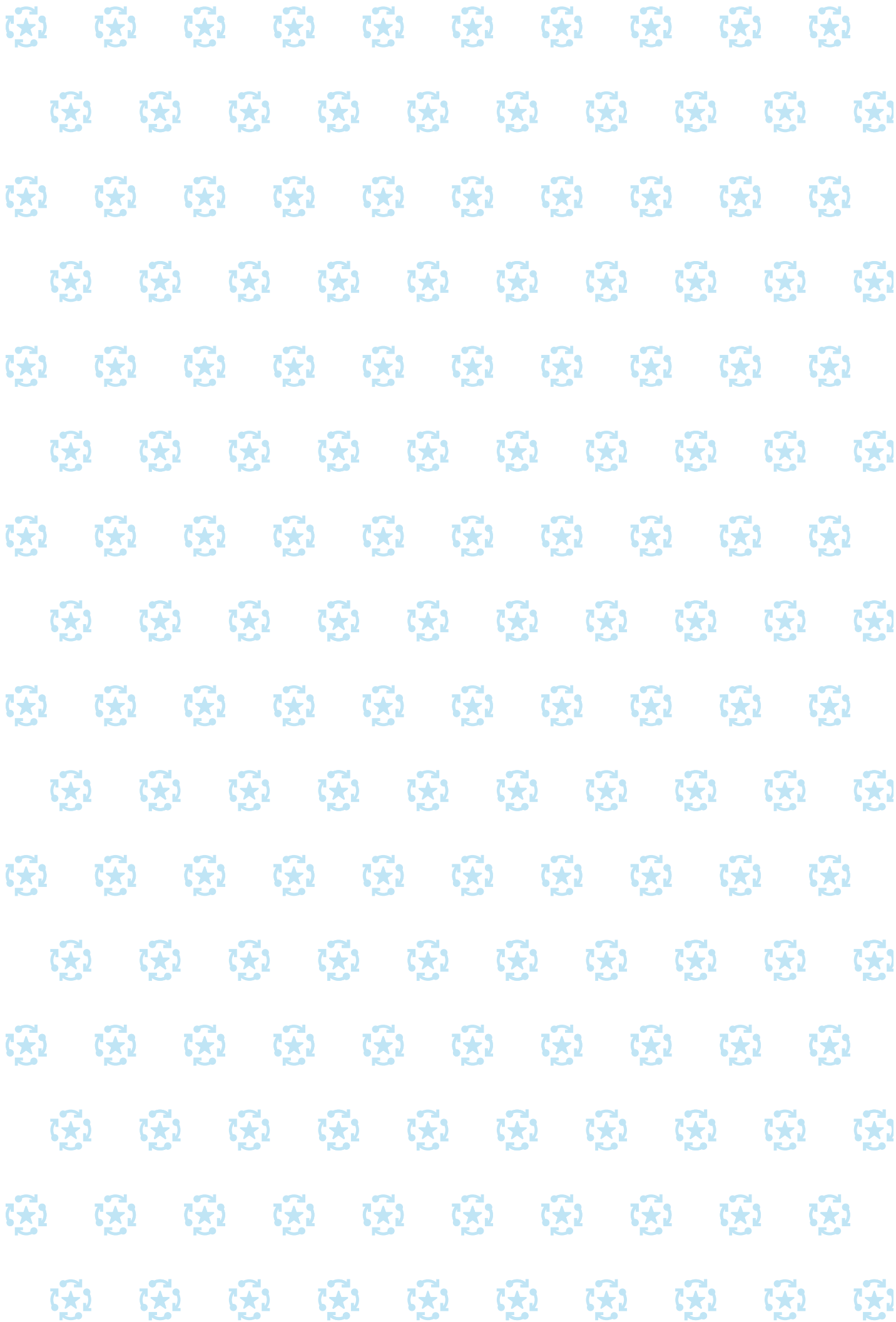
References to activities in the *PMM* appear highlighted as below:

- Mandatory activities appear in a dark blue highlight, e.g., (0.3)
- Optional and recommended activities appear in a grey highlight, e.g., (0.5.1).

Companion publications

FIGURE 1 UNOPS Implementation Standards Management Framework





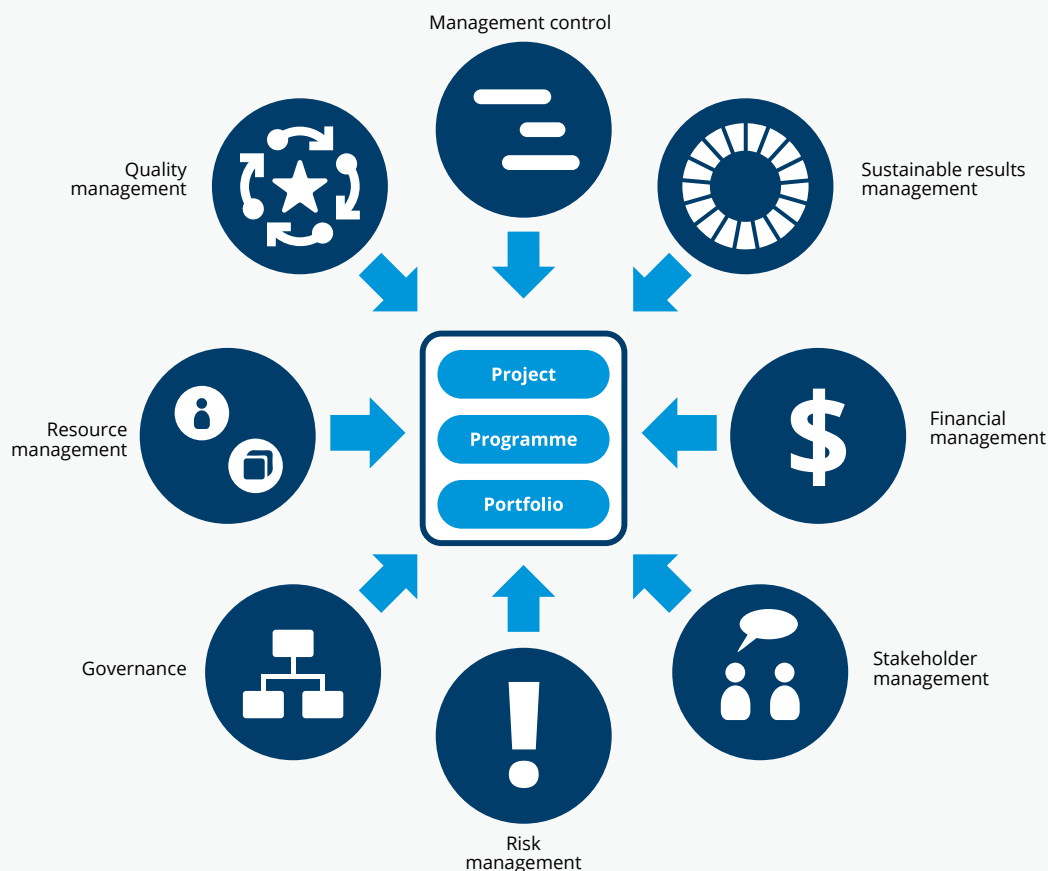
1. Introduction to the Management Perspectives Series

The Management Perspectives series is the result of efforts to distil project management processes, techniques, competencies and available tools and information into separate, but interdependent, management disciplines.

KEY MESSAGE

The Management Perspectives provide guidance to support the successful delivery of projects and programmes.



**FIGURE 2** The Management Perspectives**DEFINITION 1 Management Perspectives**

The Management Perspectives are eight interdependent, thematic areas of project, programme and portfolio management activities.

CONSIDERATION

UNOPS projects do not exist in isolation, they form a part of the portfolio of a UNOPS geographical entity. The maturity of a geographical entity depends on the aggregated performance of all of its projects across all eight Management Perspectives. While the present guidelines are only designed for application at the project-level, additional guidance at the programme-level will be provided in connection with the forthcoming programme management guidelines.

The Management Perspectives series expands on the content contained in the *Project Management Manual (PMM)* to assist project teams in facilitating successful project delivery according to scope, time, cost, benefits and other key quality objectives. The *PMM* is a normative publication developed by the UNOPS Infrastructure and Project Management Group (IPMG) to mandate the requirements for directing and managing all UNOPS projects, regardless of their size, location, budget or complexity.

CONSIDERATION

In UNOPS context, the term 'benefit' is used interchangeably with 'positive impact'.



The requirements in the *PMM* reflect international standards and good practice and are adapted to the development context in which UNOPS operates. The objective of the *PMM* is to contribute to the UNOPS mission to help people build better lives and to help countries achieve sustainable development. This is accomplished by providing UNOPS personnel with the necessary information to effectively and efficiently manage projects.

MANAGEMENT PERSPECTIVES: QUALITY MANAGEMENT

Quality management is one of the thematic areas in the Management Perspectives. This guidance explains why quality management is critical to the successful management of projects, it provides an overview of key concepts relevant to the quality management theme and it examines the alignment between the perspectives and international standards.

Specific techniques – along with the associated processes, tools and competencies – to assist readers in identifying methods to manage quality in projects throughout the project lifespan are included throughout the guidance. The use of expert judgement is critical when employing the management techniques identified in this guidance.

This guidance is structured according to key focus areas within the quality management theme as follows:

- ➔ UNOPS quality management system (QMS);
- ➔ Quality management approach;
- ➔ Quality management procedure; and
- ➔ Records, reporting and roles and responsibilities.

The linkages between this guidance and the requirements in the *PMM* facilitate an understanding of how to efficiently implement these requirements.

There are innumerable publications that examine tools and techniques to successfully manage projects. The present guidance does not cover this information exhaustively but outlines the basic tools and techniques that are capable of driving project success, based on best practice and international standards and with consideration for the context in which UNOPS personnel deliver projects.



1.1 What is Quality Management and why is it important?

Quality management ensures that project activities and outputs meet or exceed the agreed expectations of partners, beneficiaries and other key stakeholders, both internal and external.

Quality management in UNOPS projects focuses on the fitness for purpose of project outputs, at a minimum. In practical terms, this means that both project activities and outputs meet or exceed the agreed expectations of funding sources, partners and other project stakeholders. However, to be a truly successful project, a project must not only deliver on time, on scope and within budget, it must also meet a number of additional project success criteria (see [Section 4.1.2](#)), which provide a more holistic definition of quality.

The failure to properly manage quality within a project results in increased risks to successful project delivery according to time, cost, scope and quality requirements. This may also lead to a significant reputational risk to the organization and its partners.

DEFINITION 2 Quality

Quality is defined as the “degree to which a set of inherent characteristics of a product, service, process, person, organization, system or resource fulfills requirements.”¹

In the challenging environments in which UNOPS operates, managing quality can be difficult. However, with the appropriate quality management processes and procedures embedded throughout the project lifespan, UNOPS personnel can ensure the successful delivery of projects that meet the expectations of partners, beneficiaries and other key stakeholders. This simultaneously improves the maturity of UNOPS entities and contributes to the continuous improvement of the UNOPS Quality Management System (QMS) (see [Section 2](#)).

1.2 Key concepts

This section provides a brief overview of concepts that are critical to the understanding and application of this guidance. These concepts should be considered throughout the project lifespan.

Fragmented vs. integrated approach

The Management Perspectives must be considered as a whole because of the interdependencies between each thematic area. The successful delivery of projects depends on the integration of each of these perspectives throughout the project lifespan.

FRAGMENTED APPROACH

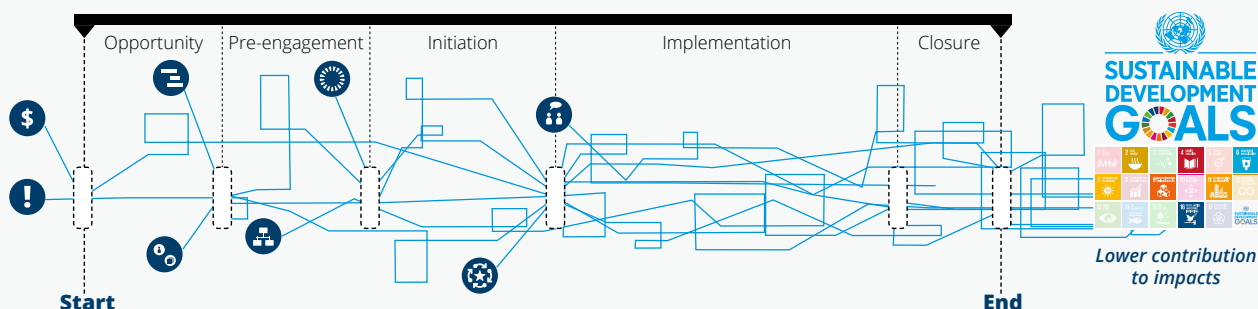
A project that considers the Management Perspectives only when the need arises has a higher probability of experiencing difficulties during implementation, which may include time delays, increased costs and the need for amendments to the Legal Agreement. This may also lead to project outputs that are not entirely fit for purpose or fail to consider the requirements of key stakeholders.

¹ Axelos, *Managing Successful Projects with PRINCE2*, 6th ed., TSO, Norwich, 2017, p. 382.



FIGURE 3 illustrates a project that only considered cost and risks without considering how quality management, stakeholder management or governance would influence those costs and risks. This fragmented approach may negatively affect how project outputs are used, the resulting outcomes and long-term impacts.

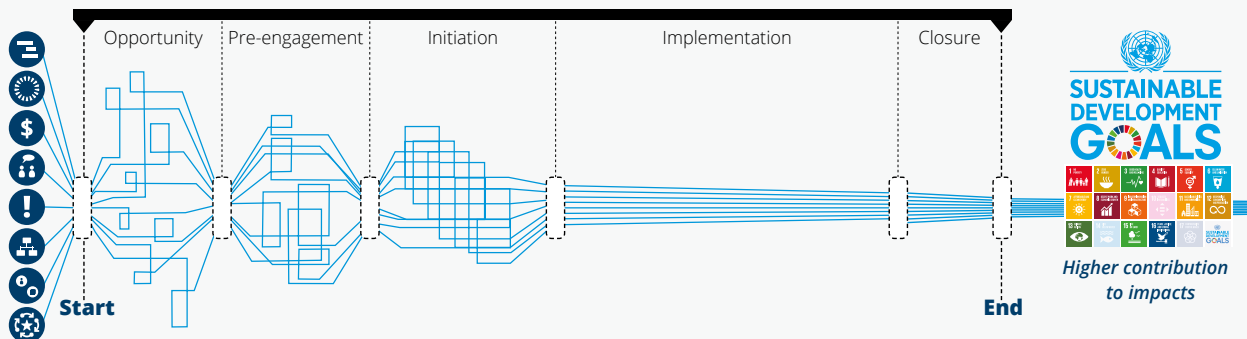
FIGURE 3 Fragmented approach



INTEGRATED APPROACH

By contrast, FIGURE 4 demonstrates how a project that considers all of the Management Perspectives from the Opportunity Stage has a higher probability of experiencing smooth project implementation and of creating project outputs that are fit for purpose. This positively affects how project outputs are utilized, the resulting outcomes and long-term impacts.

FIGURE 4 Integrated approach



Risk-based approach

A critical prerequisite to successful quality management is the consideration and incorporation of a risk-based approach to all project management activities. Some examples of incorporating a risk-based approach to quality management include preventative action to avoid nonconformities, analyzing nonconformities that occur and taking appropriate action to prevent the recurrence of nonconformities.²

DEFINITION 3 Risk

UNOPS defines risk as “events or circumstances that imply uncertainty about deviation from expected objectives or outcomes.”³

PRINCE2 defines risk as an “uncertain event or set of events that, should it occur, will have an effect on the achievement of objectives.”⁴

² International Organization for Standardization, *Quality management systems Requirements*, ISO 9001:2015, European Committee for Standardization, Brussels, 2015, para. 0.3.3.

³ UNOPS, ‘Risk Management’, OD.FG.2018.03, 15 March 2018, para. 1.1.

⁴ PRINCE2, p. 384.



The inclusion of a risk-based approach is necessary throughout the project lifespan. For example, the engagement acceptance process systematically identifies and assesses engagement risks before the signing of an agreement. The risk profile contained in the risk register in oneUNOPS Projects (oUP) – including a description of risks encountered and exposure to those risks – is reviewed and updated regularly in all stages of a project. The register is reviewed and updated on a quarterly basis, at a minimum, during the Implementation Stage.

EXAMPLE 1 The relationship between quality management and a risk-based approach in infrastructure projects

UNOPS implements infrastructure projects in complex environments that require extensive technical expertise and engineering skills. Recently, there has been a substantial increase – along with a corresponding increase in risk exposure – in the value and complexity of infrastructure engagements at UNOPS.

As of February 2022, the top ten engagements in the Category 3 portfolio are worth more than 44% of the current UNOPS Category 3 portfolio of \$3.73 billion. The most critical risks identified for the delivery of works are: 1) unidentified risks in Legal Agreements related to the scope of services, UNOPS responsibilities and governance structures; 2) inadequate time allowed for the completion of the works due to a poor understanding of the required time for delivery and the Defects Notification Period (DNP); 3) inadequate team size and skill sets to deliver works (this risk may also lead to the infrastructure failure); and 4) Insufficient budget to complete the works, which when combined with above risks, results in budget overruns and write-offs.

Due to the size of the top ten Category 3 engagements, the realization of these risks may have significant financial and reputational consequences for UNOPS. Ensuring an effective quality management procedure – quality planning, quality assurance and quality control – in these projects can reduce and mitigate these risks.











1.3 Alignment with international standards

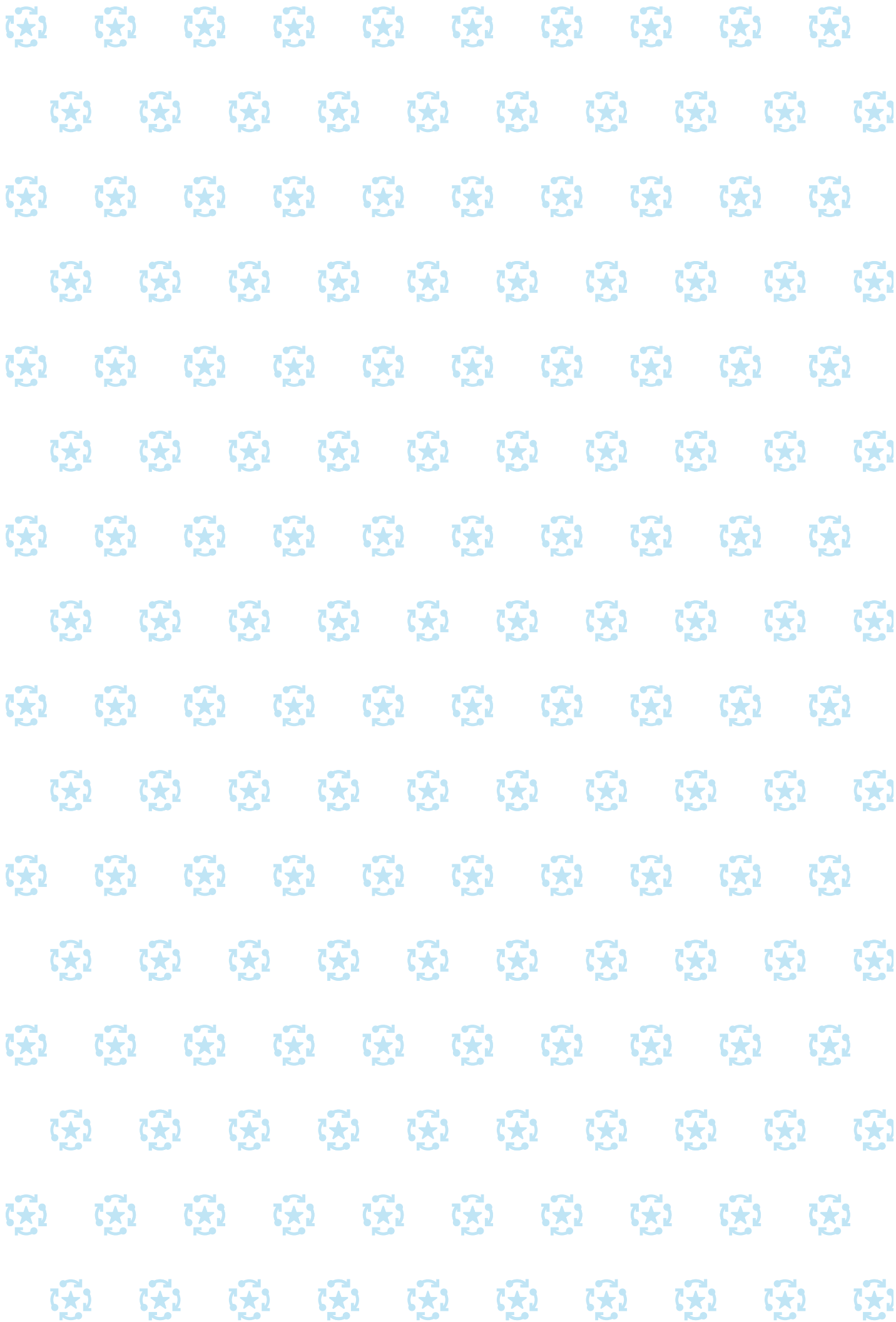
The thematic areas covered in the Management Perspectives series are not new. They are a reflection of international best practice and standards, such as PRINCE2®, P3M3®, *PMBOK® Guide* and ISO®.

By aligning the Management Perspectives with existing expertise, this guidance can contribute to the ability of project teams to successfully manage and deliver projects that meet or exceed the expectations of Partners and beneficiaries.

TABLE 1 illustrates the alignment between each Management Perspective and relevant international standards.

TABLE 1 Alignment of the Management Perspectives with international standards

MANAGEMENT PERSPECTIVES	P3M3 PERSPECTIVES	PMBOK® Guide KNOWLEDGE AREAS	ISO 21500: 2012 SUBJECT GROUPS	PRINCE2 THEMES
 Management control	Management control	Scope management, Schedule management, Cost management, Integration management	Scope, Time, Cost, Integration	Business case, Change, Progress, Plans
 Sustainable results management	Benefits management	Scope management	Scope	Business case, Quality
 Financial management	Finance management	Cost management	Cost	Risk
 Stakeholder management	Stakeholder management	Stakeholder management, Communications management	Stakeholder, Communication	Organization, Progress
 Risk management	Risk management	Risk management	Risk	Risk
 Governance	Organizational governance	Integration management	Resource, Stakeholder, Integration	Organization, Business case, Progress
 Resource management	Resource management	Resource management, Procurement management	Resource, Procurement	Plans
 Quality management	Management control	Quality management	Quality	Quality



2. Quality Management System

The objective of the Quality Management System (QMS) is to continually improve UNOPS performance, to meet the expectations and needs of partners and beneficiaries and to address risks and opportunities through the consistent application of policies, standards and process requirements.

KEY MESSAGE

The UNOPS Quality Management System is the framework of all UNOPS policies, standards, processes and guidance that supports the achievement of UNOPS quality objectives.





The legislative framework forms the foundation of the UNOPS QMS. Corporate-level policies and process requirements reflect how UNOPS has planned to meet the requirements of its partners, beneficiaries and other key stakeholders, as well as the values, principles and goals of UNOPS and the United Nations system, while managing risks and opportunities.

The QMS process, depicted in [FIGURE 5](#), involves a framework of Operational Directives (ODs) and Operational Instructions (OIs), as well as corporate-level strategies such as the *Gender, diversity and inclusion in our workforce: Strategy 2022-2025* and the *Gender Mainstreaming Strategy*, along with the underlying processes outlined in the Process and Quality Management System (PQMS). All UNOPS personnel must follow UNOPS policies and process requirements in order to ensure that risks are managed, opportunities are recognized and quality objectives are met.

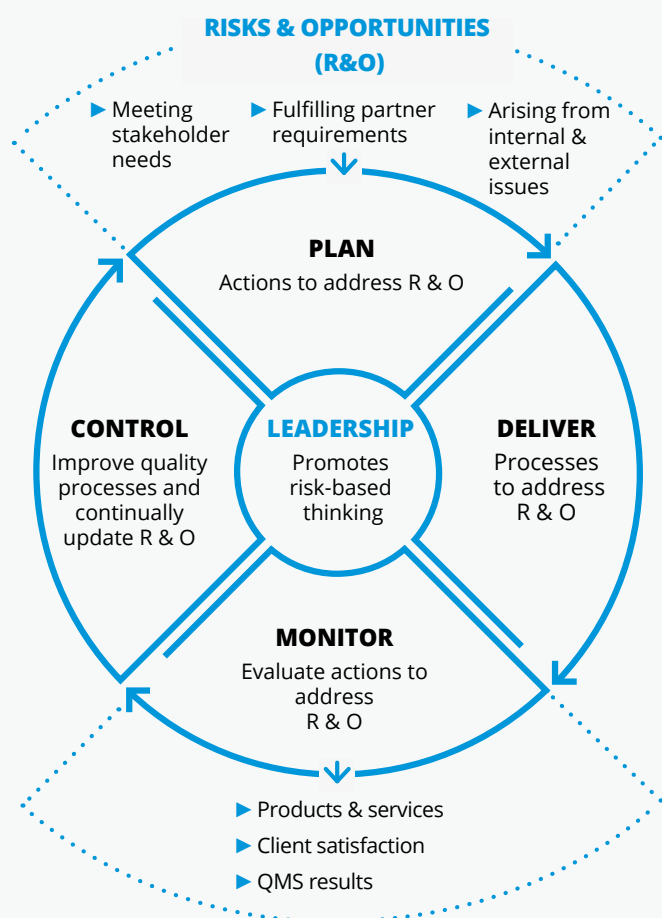
One of the key resources that forms a part of the QMS is the Implementation Standards Management Framework (ISMF), which supports the standardization of project implementation practices and the development of content that underpins the delivery of projects at UNOPS and supports the implementation of the QMS.⁵ The standards included within the ISMF shall be followed for UNOPS activities, as applicable.

In addition to the content included within the ISMF, there are other functional areas that underpin the QMS and are critical for the successful delivery of projects at UNOPS. For example, financial management, people management, oversight and control and management review, among others.

MORE INFORMATION

Refer to the [ISMF dashboard](#) for an overview of the policies, standards, guidance and templates that support the delivery of all projects at UNOPS.

FIGURE 5 Quality Management System process



⁵ See the *Implementation Standards Management Framework: Guidelines*.



The Plan-Deliver-Monitor-Control (PDMC) model, depicted in [FIGURE 5](#), is a process for the continual improvement of policies, standards, processes and performance at UNOPS and facilitates the application of the QMS.

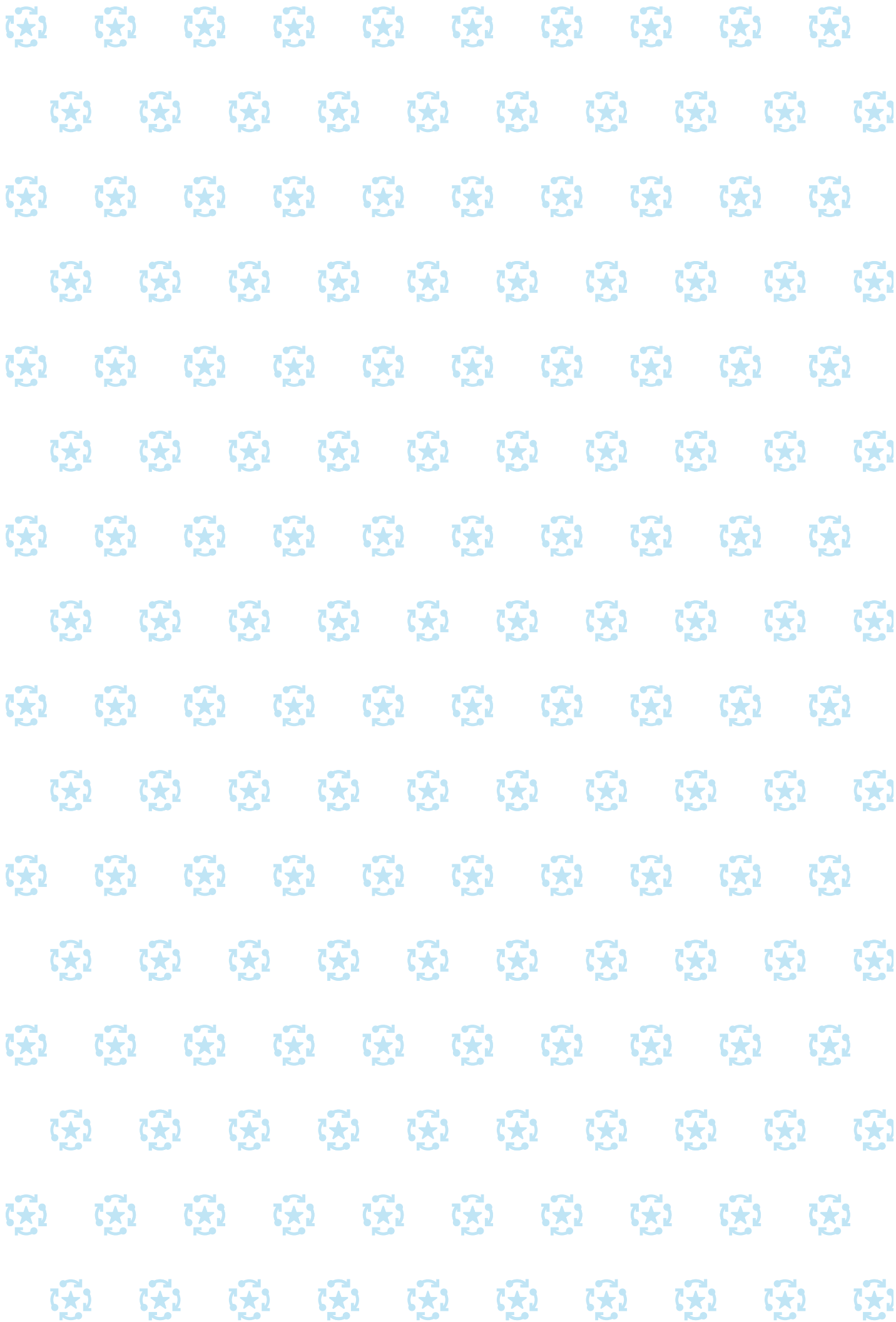
These process groups are operationalized in the *Project Management Manual (PMM)*, as shown in [TABLE 2](#). The requirements outlined in the *PMM*, together with key procurement, human resource and financial management processes, enable effective quality management in UNOPS projects.

[TABLE 2](#) provides an overview of the *PMM* activities with specific links to quality management and illustrates the linkage between these activities and the QMS. However, it should be recognized that all of the mandatory, recommended and optional activities in the *PMM* contribute to the improved quality of projects, noting that not all activities are applicable for each project.

TABLE 2 Overview of the *PMM* activities with links to quality management

PROJECT STAGE	UNOPS QMS PROCESS	REQ. *	ACTIVITY
General Activities	Monitor (Assurance)	0.3	Ensure management of issues, risks and lessons
	Monitor (Assurance)	0.4	Ensure creation, update and archival of records
	Monitor (Assurance)	0.5	Ensure usage of UNOPS systems and mandatory templates
	Deliver	0.6	Provide evidence for audit
Opportunity Stage	Plan	1.4	Develop opportunity
	Plan	1.4.1	Complete Proposal
Pre-engagement Stage	Monitor (Assurance)	2.1	Ensure pre-engagement activities
	Plan	2.1.8	Create Project Initiation Documentation
Initiation Stage	Monitor (Assurance)	3.1	Ensure engagement formalization activities
	Plan	3.1.1	Complete Project Initiation Documentation
	Plan	3.1.2	Create Implementation Plan
	Monitor (Assurance)	3.2	Ensure project initiation activities
Implementation Stage	Plan	4.1	Conduct implementation planning workshops
	Plan	4.2	Complete Implementation Plan
	Plan	4.2.2	Complete Sub-Plans
	Plan	4.4	Update Implementation Plan
	Plan	4.4.2	Complete Quarterly Plan
	Monitor (Assurance)	4.6	Ensure delivery Teams planning activities
	Plan	4.6.1	Complete Delivery Team Plan
	Deliver	4.7.4	Report engagement status
	Monitor (Assurance)	4.7.4.A	Complete project quarterly assurance
	Deliver - Monitor	4.8.7	Manage quality
	Deliver	4.8.9	Report project status
	Deliver	4.8.9.A	Submit Quarterly Status Report
	Deliver	4.9.3	Report work package status
	Monitor	4.11	Monitor project progress
	Control	4.12	Control work package changes
	Control	4.13	Control project changes
Closure Stage	Monitor (Assurance)	5.1	Ensure operational closure
	Deliver	5.1.2	Submit Final Report
	Deliver	5.1.3	Obtain No-Objection Letter
	Monitor (Assurance)	5.2	Ensure financial closure

* Note that the numbering in this table follows the numbering in the *PMM*, Part II: Requirements.



3. Quality management approach

At the project-level, making certain that the objective of the Quality Management System is met requires a consistent approach to quality management. A standard quality management approach in UNOPS projects ensures that quality is integrated and recognized throughout the project lifespan.

KEY MESSAGE

The quality management approach describes how quality is achieved throughout the project lifespan.





The *PMM* requires the inclusion of a quality management approach in the Project Initiation Documentation (PID) for all Category 2 and 3 projects, regardless of size or complexity (2.1.8 and 3.1.2). For Category 1 projects the quality management approach should be included in the project description, in the absence of a PID. The following section reflects the standard quality management approach for inclusion in the PID or project description. This approach should be tailored to the particular requirements of the project, including any additions or exclusions with regards to particular reporting requirements, techniques and standards to ensure effective quality management. A standardized quality management approach will make it easier for project teams to document and readily identify exceptions as needed.

3.1 Standard quality management approach

The purpose of quality management is to ensure that quality is integrated and recognized throughout the project lifespan and that projects deliver outputs that are fit for purpose and satisfy the quality requirements of partners and beneficiaries. This approach identifies the quality management procedure, applicable techniques and standards, reporting and records requirements, the timing of quality management activities and the roles and responsibilities for those with quality management responsibilities.

PROCEDURE

The quality management procedure is composed of quality planning, quality assurance and quality control activities, which are identified based on the defined quality requirements at the project, work package and/or deliverable levels (see Section 4).

TECHNIQUES AND STANDARDS




The UNOPS quality management system (QMS) is the framework of all policies, standards, processes and guidance that supports the achievement of UNOPS quality objectives. All UNOPS projects are managed in compliance with this framework. This framework includes, for example, the *PMM*, the Executive Office Directive on *Health & Safety and Social & Environment Management*, the Operational Instruction on *Risk Management*, the processes to *Manage HR, Ethics and Culture* in the PQMS and the guidance in the Management Perspectives series, along with many others.

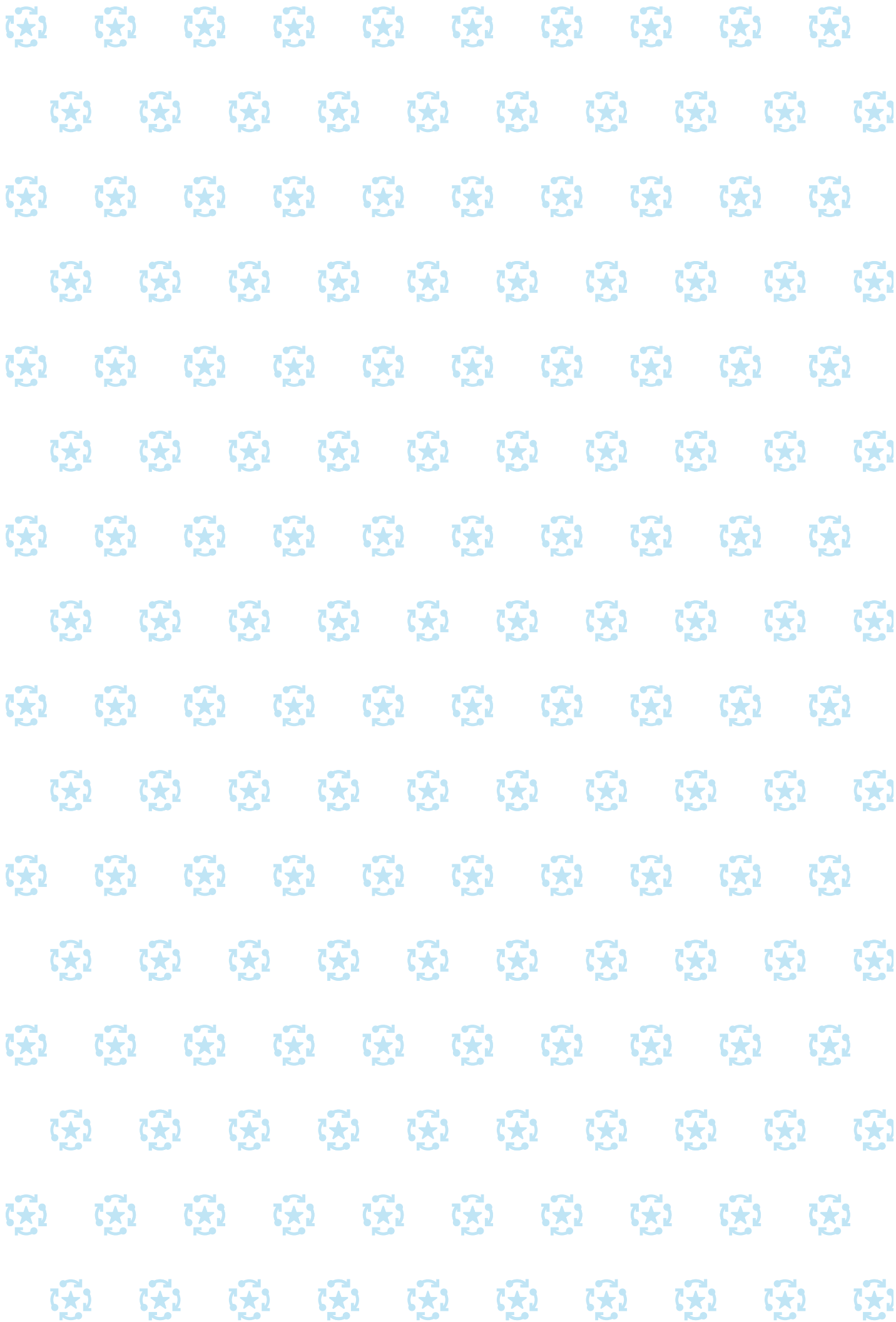
Specific standards that are applicable to a particular project should be identified in the quality management approach. For example, the *Design Planning Manual for Buildings* in a project to construct a new school.

REPORTING AND RECORDS, TIMING OF ACTIVITIES AND ROLES AND RESPONSIBILITIES

The timing requirements for quality activities, including quality reporting requirements and quality records, are identified during quality planning activities. The mandatory reporting and/or records requirements are outlined in the *PMM*. The Project Manager will manage quality throughout the project, ensuring that the quality of work packages and deliverables complies with the quality requirements/ acceptance criteria of the project. The Project Manager will also monitor the Project Success Criteria throughout the project lifespan, as applicable.

**TABLE 3** Timing of quality activities

 QUALITY ACTIVITY	 TIMING	 RESPONSIBLE
Project status report	As needed during implementation	Project Manager
Report work package status	As needed during implementation	Technical Coordinators
Quarterly status report	Quarterly during implementation	Project Manager
Final narrative report	During project closure	Project Manager
Quality register updated	As needed during the project	Project Manager
Project quarterly assurance	Quarterly during implementation	Project Manager
Exception report	Any time a quality tolerance is exceeded	Project Manager



4. Quality management procedure

The Quality Management System includes a procedure for the continual improvement of the way that UNOPS manages the delivery of projects. At the project-level, this procedure includes quality planning, quality assurance and quality control.

KEY MESSAGE

The quality management procedure at the project-level includes quality planning, quality assurance and quality control.





The quality management procedure is a direct reflection of international standards and good practices. Managing quality in projects involves an iterative approach, which is operationalized through the project management methodology in the *PMM*.

EXAMPLE 2 Quality management and gender mainstreaming and social inclusion

The quality management procedure provides support to gender mainstreaming and social inclusion activities in projects. In turn, mainstreaming gender and social inclusion in project activities contributes to the improved quality of projects. Gender and social inclusion experts may be retained to identify ways to mainstream gender and social inclusion in a project.

For example, experts can conduct a gender analysis and support the creation of a Gender Action Plan (GAP) (quality planning). The implementation of the GAP is then controlled using set objectives and revised, as necessary (quality control). Concurrent to this, the Project Manager, in collaboration with the Gender Focal Point and supported by a gender specialist, if necessary, assures that the GAP is implemented according to set objectives and gender indicators (quality assurance).

4.1 Quality planning

According to ISO 9001:2015, “Quality planning is focused on setting quality objectives and specifying necessary operational processes, and related resources to achieve the quality objectives.”⁶ The purpose of planning quality is to “determine the quality requirements and standards that will be applicable to the project, the deliverables of the project and how the requirements and standards will be met based on the project objectives.”⁷

The following section examines quality planning in the UNOPS context and provides guidance and techniques relevant to the quality planning process. [TABLE 4](#) provides an overview of *PMM* activities with links to quality management planning.

A sound quality planning process is integral to enabling UNOPS to meet the needs of partners, end-users and other key stakeholders. It provides the opportunity to clearly communicate and agree upon the acceptance criteria, and to highlight the project success criteria, by which project success will be measured.

CONSIDERATION

Clearly identifying what is not part of the acceptance criteria helps to eliminate features that do not add value to project outputs and/or limit the potential risk of scope creep associated with unidentified quality issues.

6 International Organization for Standardization, ‘Quality management systems – Fundamentals and vocabulary’ [hereinafter ISO 9000 Fundamentals & Vocabulary], <www.iso.org/obp/ui/#iso:std:iso:9000:ed-4:vi:en>, accessed 06 March 2019, para. 3.3.5.

7 International Organization for Standardization, ‘Guidance on project management’, ISO 21500:2012, Geneva, Switzerland, 2012, para. 4.3.32.

**TABLE 4** Overview of PMM activities with links to quality management planning

PROJECT STAGE	REQ. *	ACTIVITY
Opportunity Stage	1.4	Develop opportunity
	1.4.1	Complete Proposal
Pre-engagement Stage	2.1.8	Create Project Initiation Documentation
Initiation Stage	3.1.1	Complete Project Initiation Documentation
	3.1.2	Create Implementation Plan
Implementation Stage	4.1	Conduct implementation planning workshops
	4.2	Complete Implementation Plan
	4.2.2	Complete Sub-Plans
	4.4	Update Implementation Plan
	4.4.2	Complete Quarterly Plan
	4.6.1	Complete Delivery Team Plan

* Note that the numbering in this table follows the numbering in the PMM, Part II: Requirements.

4.1.1 The Quality Plan

The output of the quality management planning process is the Quality Plan. The Quality Plan should form a part of the Implementation Plan (baseline), drafted during project Initiation and completed during the first quarter of the Implementation Stage (3.1.2; 4.2).

The Quality Plan may be a sub-plan that is annexed to the Implementation Plan, it may be incorporated directly into the Implementation Plan or it may be a stand-alone plan for Category 1 projects that do not have an Implementation Plan. The following should be included in the Quality Plan, wherever it resides:

- Project output(s) description;
- Quality requirements/acceptance criteria;
- Quality tolerances; and
- Quality register.

The extent of a Quality Plan will depend on the size and complexity of a project. The use of professional judgement is crucial in determining the parameters of quality management planning for each specific project.

CATEGORY 1 PROJECTS

For Category 1 (primarily transactional) projects, quality is often embedded in established internal processes, reducing the likelihood of quality related issues. In a team where all members are committed to quality deliverables and key performance indicators (KPIs) are tracked, a simplified Quality Plan may be sufficient. However, the Quality Plan should define expectations for these internal processes for use as a reference for performance management. Many Category 1 projects are recurring in nature and continuous process improvements will reduce waste and repetitive efforts, resulting in a more optimized process.



CATEGORY 2 PROJECTS

For Category 2 (primarily advisory) projects, the lack of quality poses a significant reputational risk and the poor quality of outputs may jeopardize the work of UNOPS partners. For such projects, the quality approach must be checked before outputs are agreed and finalized with partners. Peer reviews are an effective mechanism when done rigorously and by qualified personnel. In other cases, third-party review by experts from outside UNOPS may be necessary. These reviews should be documented in the Quality Plan.

In Category 2 projects where activities are implemented through implementing partners (e.g., grantees), quality management activities may include site visits, the review and verification of financial records, milestone reports and spot checks, which should be identified in the Quality Plan.

CATEGORY 3 PROJECTS

Category 3 infrastructure implementation projects often have a complex set of considerations. Quality outputs and parameters can be difficult to define because UNOPS operates in diverse contexts and there are often a wide range of inputs, outputs and activities and a broad range of expectations from different stakeholders for a single output. For example, a single hospital output will have one set of expectations if it is a 10-bed maternity facility in a small town and a completely different set of expectations if it is a 100-bed regional facility that performs a range of surgical operations.

The quality criteria for each project output should be clearly defined and the use of expert judgement can help to validate the quality of project outputs. As a result of the added complexity in these projects, the Quality Plan may require more detail.

EXAMPLE 3 Applicable standards for a transport infrastructure project

In all UNOPS transport infrastructure projects, the UNOPS *Design Planning Manual for Transport Infrastructure* must be applied in conjunction with relevant national or international standards. Other relevant standards may include, for example, the national road design code, standard road construction specifications and the American Association of State Highway and Transportation Officials Highway Safety Manual. The more stringent standard must always apply. If a partner has identified a particular standard in the Legal Agreement then this must also be considered in the development of the Quality Plan for the project.

MORE INFORMATION

A template for a Quality Plan is available on the [Quality Management](#) intranet page for use by project teams.

For guidance on defining the project scope, including the acceptance criteria, refer to the *PMM* and the Management Perspectives series publication *Management Control: Guidelines for Projects*.

For guidance on incorporating gender considerations in the project scope, including the acceptance criteria, refer to the *Gender Mainstreaming in Projects: Guidelines* (see Section 2.2).

For information on the specific key performance indicators (KPIs) for the procurement of goods and services, refer to the *Procurement Manual*.



4.1.2 Acceptance criteria

During the Opportunity and Pre-engagement Stages of a project, business developers work with partners and other key stakeholders, as well as relevant subject matter experts, to create specific and measurable definitions of acceptable quality for project outputs, known as acceptance criteria or quality requirements. The scope of the project outputs to be delivered must first be defined, which will then drive the definition of the acceptance criteria. These criteria should be defined based on the specific attributes, characteristics and performance requirements, among others, of the project outputs.

It is important to find the appropriate level of specificity when defining the quality requirements/acceptance criteria to prevent the risk of increased cost and time to meet overly stringent requirements or ill-defined criteria that may fail to meet the agreed expectations of key stakeholders.

DEFINITION 4 Acceptance criteria

“A prioritized list of criteria that the project [output] must meet before the customer will accept it.”⁸

Acceptance criteria are defined and detailed in the PID or project description and documented as part of the Implementation Plan, the Quality Plan and subsequent work packages. Once approved and included in the PID, the acceptance criteria may only be modified with the approval of the Project Board. This may trigger an amendment to the Legal Agreement if the modification results in changes to the acceptance criteria that are outside the defined tolerances (see [Section 4.1.4](#)).

It is important to keep the acceptance criteria realistic and clearly distinguish between critical and nice-to-have features. Fewer and clearer acceptance criteria are preferable to too many complex requirements because the defined acceptance criteria will directly affect the project scope, its complexity and the associated tolerances. Acceptance criteria should be defined using a ‘SMART’ approach: specific, measurable, achievable, relevant and time-bound.

Wherever possible, it is advisable to use existing industry standards to define the acceptance criteria for the delivery of outputs because these are more likely to be understood and actionable during implementation.

As illustrated in [Example 4](#), the acceptance criteria should ensure that gender considerations are reflected in project outputs. Developing the acceptance criteria through a gender lens will improve the quality of project outputs and support the delivery of projects that are fit for purpose and meet the expectations and requirements of partners and beneficiaries.

The acceptance criteria included in the PID should be cited as a baseline in the Implementation Plan and may need to be further refined and detailed for specific products and services.

CONSIDERATION

Quality requirements for project outputs may be broader than the acceptance criteria. During consultations with partners and other key stakeholders to define the scope of project outputs, expectations and needs in addition to those defined in the acceptance criteria may be identified. These expectations and needs should be thoroughly understood and evaluated to ensure that they are represented in quality planning activities.

⁸ PRINCE2, p. 370.



EXAMPLE 4 Acceptance criteria in projects

Category 1: For the procurement of ambulances, the acceptance criteria might include the following:

- ▶ The total cost must not exceed USD 1,275,000.
- ▶ The procurement, customs clearing and delivery of 35 ambulances.
- ▶ Ambulances must be Toyota Land Cruiser 78 Series or an equivalent model.
- ▶ Preventive maintenance for 150,000 km of travel must be included.
- ▶ All ambulances must be delivered by December 2022.

Category 2: For the provision of technical assistance to improve water resources knowledge and management, the acceptance criteria might include the following:

- ▶ The total cost must not exceed USD 125,000.
- ▶ Deliver five training courses of three days duration on the management and operation of pumping stations and transmission mains.
- ▶ Trainings will be provided in person or in a virtual format, if necessary.
- ▶ Gender and social inclusion must be considered in the selection of training participants.
- ▶ All trainings must be completed by March 2023.

Category 3: For the design and construction of a school, the acceptance criteria might include the following:

- ▶ The total cost must not exceed USD 9,275,000.
- ▶ Handover and operation of the school must take place by April 2023.
- ▶ The school design must meet the design brief provided by the funding source.
- ▶ The school design must meet all local regulations for infrastructure design.
- ▶ The school design must include seismic design requirements.
- ▶ The building must have satisfactorily completed the Defects Notification Period (DNP).
- ▶ The school design must include input from the local community.
- ▶ The school must provide sanitary facilities to meet the needs of girls and boys, including menstrual hygiene management facilities appropriate to the local context.
- ▶ The local community (representative of gender, age, status and class) should be satisfied with the project.

4.1.3 Project Success Criteria

In addition to the acceptance criteria, the Project Success Criteria, illustrated in [TABLE 5](#), [TABLE 6](#) and [TABLE 7](#), are an integral component of quality management in all UNOPS projects and must be monitored and measured throughout the project lifespan.⁹

MORE INFORMATION

The UNOPS Project Success Criteria are available in the OI on Project Management and via the [Quality management](#) intranet page.

⁹ UNOPS, 'Project Management', OI.IPS.2022.04, 13 September 2022.



WHAT ARE THE PROJECT SUCCESS CRITERIA?

UNOPS aims to go beyond the traditional expectations of delivering projects that meet the expectations of time, cost and quality defined in the acceptance criteria. The Project Success Criteria focus on expanding the understanding of what a successful project looks like at UNOPS. Therefore, these criteria identify three dimensions – project expectations, project management success and stakeholder satisfaction – that need to be monitored and measured to determine whether UNOPS is delivering successful projects for partners and beneficiaries.

The Project Success Criteria were first identified at UNOPS in 2012 and underwent an extensive review process in 2020 and 2021. With the support of technical experts and stakeholders at multiple levels in both headquarters and in the field, the current version of the Project Success Criteria were developed and refined to reflect a tailored, more actionable approach to project success at UNOPS. The goal is to mainstream the recognition and use the Project Success Criteria at UNOPS.

The three dimensions depicted in [FIGURE 6](#) seek to determine whether UNOPS is delivering projects that meet the defined expectations of partners and beneficiaries by following the UNOPS project management methodology, and achieving the satisfaction of all project stakeholders, both internal and external.

FIGURE 6 Overview of the Project Success Criteria



Each dimension is broken down into enumerated criteria, as shown in [FIGURE 7](#). Each of the enumerated criteria include specific indicators, along with measures and good practices to enable their recognition and use in UNOPS projects. The Project Success Criteria include both internal and external perceptions of a successful project. They incorporate project contributions to specific outcomes, including contributions to the Sustainable Development Goals (SDGs), and delivering projects that further the UNOPS mission and vision.

CONSIDERATION

The identified measures for the Project Success Criteria include both system checks and manual checks. The progressive development of the project quarterly assurance process in oneUNOPS Projects (oUP) will involve the inclusion of these measures, as appropriate (see [Section 4.2.1](#)).

**FIGURE 7** Criteria of the three dimensions of the Project Success Criteria

1	2	3
PROJECT EXPECTATIONS	PROJECT MANAGEMENT SUCCESS	STAKEHOLDER SATISFACTION
<ul style="list-style-type: none"> ▶ 1.1 Time expectations ▶ 1.2 Cost expectations ▶ 1.3 Quality expectations ▶ 1.4 Scope expectations ▶ 1.5 Link to outcomes 	<ul style="list-style-type: none"> ▶ 2.1 Governance ▶ 2.2 Stakeholder management ▶ 2.3 Time management ▶ 2.4 Budget management ▶ 2.5 Quality management ▶ 2.6 Scope management ▶ 2.7 Change control ▶ 2.8 Risk management ▶ 2.9 HSSE and gender integration ▶ 2.10 Project personnel management ▶ 2.11 Knowledge management 	<ul style="list-style-type: none"> ▶ 3.1 Government ▶ 3.2 Beneficiaries ▶ 3.3 Donor ▶ 3.4 Portfolio entities

The Project Success Criteria should be considered in conjunction with the acceptance criteria identified for each individual project and monitored throughout the project lifespan, as applicable.

CONSIDERATION

In order to meet the Project Success Criteria, it is critical that a project takes an integrated approach, with consideration for all of the Management Perspectives simultaneously and interdependently from the Opportunity Stage through the Closure Stage of the project (see [Section 1.2](#)).






Project expectations

The first dimension of the Project Success Criteria focuses on whether the project is successfully achieving time, cost, quality, scope and outcomes outlined in the Legal Agreement. The purpose of this dimension is to determine whether the development of the project and the expectations identified in the Legal Agreement match the reality of the delivery of the project.

While the success of this dimension can only be fully assessed after the end of the Implementation Stage, based on the identified measures, certain indicators can be monitored during the quarterly assurance process to identify trends and assist with corrective actions, if needed.

[TABLE 5](#) illustrates each of the enumerated criteria for this category, along with the associated indicators.

**TABLE 5** The Project Success Criteria: Project expectations

CRITERIA	BSC*	INDICATORS
1.1 Time expectations	 Process	1.1.1 No significant deviations between the planned implementation end date and the actual implementation end date
		1.1.2 No significant deviations between the planned closure date and the actual closure date
1.2 Cost expectations	 Finance	1.2.1 No significant deviations between the planned budget and the actual cost
1.3 Quality expectations	 Process	1.3.1 Acceptance criteria, with defined tolerances, are identified in the Legal Agreement
1.4 Scope expectations	 Process	1.4.1 No significant deviations between the planned outputs and the actual outputs
1.5 Link to outcomes	 Stakeholders	1.5.1 Targets on the number and type of beneficiaries are identified in the Legal Agreement
		1.5.2 Project outputs are linked to the Sustainable Development Goals in the Legal Agreement
		1.5.3 Impacts that project outputs are intended to contribute to are identified in the Legal Agreement

* Balanced Scorecard: people; finance; stakeholders; process

For each indicator in [TABLE 5](#), there are identified measures that can be checked in the system or manually. Commentary on good practice for each indicator, which is generally applicable for all UNOPS projects, is provided in the following section.

CRITERIA 1.1: TIME EXPECTATIONS

✎ **Indicator 1.1.1:** No significant deviations between the planned implementation end date and the actual implementation end date

📄 **System measure:** Total months from the start date indicated in the Legal Agreement to the actual implementation end date divided by the length of implementation in the Legal Agreement (months), which provides a ratio of timeliness. (Ratio)

A project should be delivered on time or ahead of schedule, as evidenced by a deviation between the planned and actual implementation end dates of less than one. The deviation is calculated by dividing the actual length of implementation by the planned length of implementation (i.e., the number of months between the start date in the Legal Agreement and the actual implementation end date divided by the number of months between the start date in the Legal Agreement and the implementation end date in the Legal Agreement).

Any significant deviations may also be determined by calculating the percent variance using the following formula: $[(\text{actual} - \text{planned}) / \text{planned}] * 100$. A percent variance of 5 per cent or greater will be considered a significant deviation.

If a project is extended through an amendment to the Legal Agreement, this measure is used to assess any significant deviations, based on the original quality planning. However, if it was always expected that extensions were likely and this is recognized as part of the delivery process, then this indicator is not relevant and is not a negative factor in relation to quality planning.



✂ **Indicator 1.1.2:** No significant deviations between the planned closure date and the actual closure date

📄 **System measure:** The total months planned for operational and financial closure, divided by the total months from the implementation end date to the end of financial closure, which provides a ratio of timeliness. (Ratio)

Closure should occur on time or ahead of schedule, as evidenced by a deviation between the planned and actual closure dates of less than one. The deviation is calculated by dividing the actual length of closure by the planned length of closure (i.e., the number of months between the implementation end date and the end of financial closure divided by the number of months included in the Closure Plan for operational and financial closure).

Any significant deviations may also be determined by calculating the percent variance using the following formula: $[(\text{actual} - \text{planned}) / \text{planned}] * 100$. A percent variance of 5 per cent or greater will be considered a significant deviation.

Certain types of agreements require that operational and financial closure are completed prior to the expiry of the Legal Agreement, in which case this indicator is not applicable.

MORE INFORMATION

For detailed guidance on project closure, refer to the *Project Closure: Guidelines*.

CRITERIA 1.2: COST EXPECTATIONS

✂ **Indicator 1.2.1:** No significant deviations between the planned budget and the actual cost

📄 **System measure:** The project cost identified in the final financial statement divided by the budget identified in the Legal Agreement, which provides a ratio of budget planning. (Ratio)

The project should be delivered at or below the budget as evidenced by a deviation between the planned budget and the actual cost of less than one. The deviation is calculated by dividing the actual cost of the project included in the final financial statement by the budget included in the Legal Agreement.

Any significant deviations may also be determined by calculating the percent variance using the following formula: $[(\text{actual} - \text{planned}) / \text{planned}] * 100$. A percent variance of 5 per cent or greater will be considered a significant deviation.

If a project budget is modified through an amendment to the Legal Agreement, this measure can be used to assess any significant deviations. However, if the original budget plans only for the initial project activities (e.g., site investigations, a feasibility study and concept design) and not for subsequent activities (e.g., detailed designs and construction), the indicator may not be relevant.

A detailed granular review of the cause of cost overruns and/or write-offs should indicate any write-offs that were outside the control of UNOPS (e.g., currency fluctuations).

CRITERIA 1.3: QUALITY EXPECTATIONS

✂ **Indicator 1.3.1:** Acceptance criteria, with defined tolerances, are identified in the Legal Agreement

🔧 **Manual measure:** All acceptance criteria, with defined tolerances, have been identified within the Legal Agreement. (Yes/No)

The accurate identification and documentation of the acceptance criteria and quality requirements of partners and other key stakeholders, along with defined tolerances, is a critical aspect of meeting project expectations (see [Section 4.1.1](#)).



CRITERIA 1.4: SCOPE EXPECTATIONS

✂ **Indicator 1.4.1:** No significant deviations between the planned outputs and the actual outputs

📄 **System measure:** All outputs are identified in the Legal Agreement and in oneUNOPS Projects (oUP) and are delivered by the implementation end date. (Ratio)

The outputs identified in the Legal Agreement are documented and monitored in oUP and delivered by the implementation end date. The outputs should be delivered as evidenced by a deviation between the planned number of outputs and the actual number of outputs of less than one. The deviation is calculated by dividing the number of outputs identified in the Legal Agreement and oUP by the actual number of outputs delivered by the implementation end date.

All outputs identified in the Legal Agreement should be delivered without any significant modifications or non-conformities. In the case of any significant changes, this should be identified in the second dimension of the Project Success Criteria, project management success ([CRITERIA 2.4](#)).

CRITERIA 1.5: LINK TO OUTCOMES

✂ **Indicator 1.5.1:** Targets on the number and type of beneficiaries are identified in the Legal Agreement

🔧 **Manual measure:** The Legal Agreement clearly articulates the number and type of beneficiaries (disaggregated by gender, age, and other socially inclusive metrics), along with associated targets. (Yes/No)

The Legal Agreement should articulate measurable goals and targets for beneficiaries, disaggregated by gender, age, and other socially inclusive metrics. The project should regularly monitor and record the achievement of these goals and targets.

✂ **Indicator 1.5.2:** Project outputs are linked to the Sustainable Development Goals in the Legal Agreement

🔧 **Manual measure:** There is a defined link between project outputs and the SDGs identified in the Legal Agreement. (Yes/No)

The Legal Agreement should articulate specific and measurable linkages between the SDGs and project outputs. The project should regularly monitor and record these linkages. Efforts to provide all primary and secondary SDG links to project outputs are currently underway. It is the intention to embed these links in the oUP system in the future.

✂ **Indicator 1.5.3:** Impacts that project outputs are intended to contribute to are identified in the Legal Agreement

🔧 **Manual measure:** The Legal Agreement articulates the intended impact contribution of the project, a recognition of the capacity of the beneficiaries to achieve the identified impacts and any intermediate impacts. (Yes/No)

The Legal Agreement should articulate the intended impact contribution of the project, a recognition of the capacity of the beneficiaries to achieve the identified impacts and any intermediate impacts. Any identified intermediate impacts should be monitored and recorded during the project.



Project management success

The second dimension of the project success criteria focuses on project management success. The criteria within this dimension determine whether the project is planned, delivered and monitored and controlled consistent with UNOPS project management methodology. The purpose of this dimension is to examine the performance of the project management team during the delivery of the project. Therefore, these indicators can be monitored during the quarterly assurance process during the implementation of the project, as applicable.

TABLE 6 illustrates each of the enumerated criteria for this category, along with the associated indicators. For each indicator, there are identified measures that can be checked in the system, manually or both. Commentary on good practice for each indicator, which is generally applicable for all UNOPS projects, is provided in the following section.

It is not currently possible to customize the system measures to reflect specific content in the Legal Agreement or the project tolerances set by the Project Executive. However, the future inclusion of customized tolerances in the system may provide a better, more nuanced and accurate indicator set for project quarterly assurance.

**TABLE 6** UNOPS project success criteria: Project management success

CRITERIA	BSC*	INDICATOR
2.1 Governance	Stakeholders	2.1.1 Key stakeholders are represented in the governance structure
2.2 Stakeholder management	Stakeholders	2.2.1 The Communications Plan is identified and delivered as planned
2.3 Time management	Process	2.3.1 The Procurement Plan is identified and delivered as planned
		2.3.2 The Human Resource Plan is identified and delivered as planned
		2.3.3 Outputs and deliverables are identified and delivered as planned
2.4 Budget management	Finance	2.4.1 The project maintained a positive cash balance throughout
		2.4.2 Expenditure forecasting is identified and delivered as planned
		2.4.3 There are no significant deviations from the planned budget lines
		2.4.4 There are no write-offs
2.5 Quality management	Process	2.5.1 The Quality Management Plan is identified and the quality requirements/acceptance criteria are achieved as planned
2.6 Scope management	Process	2.6.1 A work breakdown structure is identified
2.7 Change control	Process	2.7.1 Change is documented and managed
2.8 Risk management	Process	2.8.1 The risk and issue registers are managed during the project
2.9 HSSE and gender integration	Process	2.9.1 The approved HSSE Plan is identified and managed
		2.9.2 The Gender Action Plan is identified and managed
2.10 Project personnel management	Process	2.10.1 The right people at the right time are identified in the Human Resource Plan
	People	2.10.2 Gender, diversity and social inclusion considerations are reflected in the project team
2.11 Knowledge management	Process	2.11.1 Risks, issues and lessons learned are identified in project planning
	Process	2.11.2 The lessons learned register is managed during the project

* Balanced Scorecard: people; finance; stakeholders; process



CRITERIA 2.1: GOVERNANCE

✖ **Indicator 2.1.1:** Key stakeholders are represented in the governance structure

✎ **Manual measure:** The Project Board terms of reference (TORs) are in place and meetings are occurring and documented. The Communications Plan identifies the key stakeholders who should be included in the project governance structure. (Yes/No)

Governance roles should be clearly defined and articulated in the Project Initiation Documentation (PID) or the project description, as applicable, and included within the Legal Agreement. These roles should be empowered and represent national ownership, wherever possible. Note that this may be limited for some Category 1 projects.

MORE INFORMATION

For further guidance on governance in projects, refer to the management perspective *Governance: Guidelines for Projects*.

CRITERIA 2.2: STAKEHOLDER MANAGEMENT

✖ **Indicator 2.2.1:** The Communications Plan is identified and delivered as planned

✎ **Manual measure:** An approved Communications Plan is identified in one UNOPS Projects (oUP) and is being monitored, controlled and delivered as planned. (Yes/No)

A Communications Plan is critical for effective engagement with all stakeholders. The Communications Plan should identify the key stakeholders, disaggregated by sex and age, and incorporate the method, format and timing of communications activities.

CRITERIA 2.3: TIME MANAGEMENT

✖ **Indicator 2.3.1:** The Procurement Plan is identified and delivered as planned

✎ **Manual measure:** An approved Procurement Plan is identified and is being monitored, controlled and delivered as planned. (Yes/No)

A robust Procurement Plan should be in use and regularly monitored and controlled and updated, as required, on a quarterly basis during the project. The Procurement Plan for the project may be included within the consolidated Procurement Plan of the Country Office.

✖ **Indicator 2.3.2:** The Human Resource Plan is identified and delivered as planned

✎ **Manual measure:** An approved Human Resource Plan is identified and is being monitored, controlled and delivered as planned. (Yes/No)

A robust Human Resource Plan, rooted in gender parity, should be in use and regularly monitored, controlled and updated, as required, on a quarterly basis for projects with medium to large personnel levels.

✖ **Indicator 2.3.3:** Outputs and deliverables are identified and delivered as planned

✎ **Manual measure:** Outputs and deliverables are being monitored, controlled and delivered as per the Implementation Plan. (Yes/No)

A work breakdown structure should define all outputs and deliverables, including gender outputs and deliverables, which should be delivered according to the approved Implementation Plan.

Currently, this measure is manual but the intention is to make this a system check in the future through the reporting on milestones during quarterly assurance.



CRITERIA 2.4: BUDGET MANAGEMENT

✂ **Indicator 2.4.1:** The project maintained a positive cash balance throughout

☐ **System measure:** There are no negative cash balances. (Yes/No)

Projects should request timely tranches to ensure sufficient liquidity for project delivery.

✂ **Indicator 2.4.2:** Expenditure forecasting is identified and delivered as planned

☐ **System measure:** Expenditure on a quarterly basis is consistent with the forecast. (Ratio)

The project should forecast the overall expenditure at the start of the project and should deliver according to this forecast. The expenditure forecast should be reviewed, at a minimum, on a quarterly basis.

✂ **Indicator 2.4.3:** There are no significant deviations from the planned budget lines

☐ **System measure:** The number and magnitude of budget adjustments moving funds between budget lines. (Qty and %)

There should be no significant movement of funds between the planned budget lines in relation to the total planned budget. This is evidenced by a deviation of less than five per cent between budget lines. The deviation is calculated using the following formula: $(\text{total value of budget adjustments} / \text{total budget}) * 100$.

A limited number of budget adjustments, with a deviation of less than five per cent between lines, indicates that the budget is planned and managed well. However, if a budget adjustment is triggered via a formal change control procedure at the project-level, which affects other indicators, this should not have a negative implication.

This does not apply in the context of additional contributions or funding received for the project budget that are allocated to budget lines.

When budget transfer limits are identified in the Legal Agreement, these conditions will limit the potential movement of funds, affecting this indicator.

✂ **Indicator 2.4.4:** There are no write-offs

✎ **Manual measure:** The number and value of write-offs. (Yes/No)

The project should have no budget write-offs. If a write-off is necessary, there should be further inspection to determine whether it is the result of poor project management or whether it is outside the control of the project team.



CRITERIA 2.5: QUALITY MANAGEMENT

✂ **Indicator 2.5.1:** The Quality Management Plan is identified and quality requirements/acceptance criteria are achieved as planned

✎ **Manual measure:** A Quality Management Plan is identified in oUP and is being monitored, controlled and delivered as planned. (Yes/No)

The Quality plan should include the following: the quality management approach, as defined in the Project Initiation Documentation (PID) or in the project description; the project output(s) description; the quality requirements/acceptance criteria, along with defined quality tolerances; the UNOPS project success criteria; and the quality register. It should also identify the relevant quality management activities, along with identified roles and responsibilities for completing these activities (see [Section 4.1](#)).

The Quality Plan should be monitored and controlled and updated, as required, on a quarterly basis to ensure that the quality requirements/acceptance criteria are achieved within the defined tolerances.

CRITERIA 2.6: SCOPE MANAGEMENT

✂ **Indicator 2.6.1:** A work breakdown structure is identified

✎ **Manual measure:** The project clearly articulates the work needed to deliver the outputs and deliverables. (Yes/No)

The project should have a work breakdown structure in place. This should identify the steps needed to deliver the outputs and associated deliverables. The work breakdown structure should be further developed and refined during quarterly planning activities during the Implementation Stage of the project.

MORE INFORMATION

Refer to the *Management Control: Guidelines for Projects* for detailed guidance on scope management and developing a work breakdown structure.

CRITERIA 2.7: CHANGE CONTROL

✂ **Indicator 2.7.1:** Change is documented and managed

✎ **Manual measure:** Requests for changes to time, cost and/or scope are documented and managed in a timely manner. (Yes/No)

The project should have a clear change control procedure in place at both the project and work package levels. Any requests for change that may affect the Legal Agreement should be documented and managed in accordance with the change control procedure in the *PMM*.

MORE INFORMATION

For detailed guidance on the change control procedure the management perspective *Management Control: Guidelines for Projects*.

CRITERIA 2.8: RISK MANAGEMENT

✂ **Indicator 2.8.1:** The risk and issue registers are managed during the project

📄 **System and Manual measure:** Risks are escalated in oUP to relevant entities. (Yes/No)

📄 **System measure:** The number of risks and issues that are automatically escalated (for future implementation in the system). (Qty)

Risks should be identified, mitigated and/or escalated in a timely manner in oUP. What is considered 'timely' in this context is a matter of professional judgment and will also depend on the level of the risk. When issues materialize from identified risks, the cost of these issues should be assessed and documented.

MORE INFORMATION

Refer to the [Risk management in projects](#) intranet page for further details and links to guidance on managing risks in projects and how to use the risk management tool in oUP.



CRITERIA 2.9: HSSE AND GENDER INTEGRATION

✂ **Indicator 2.9.1:** The approved HSSE Plan is identified and managed

📋 **System measure:** An approved HSSE Plan is identified in oUP and is being monitored, controlled and delivered as planned. (Yes/No)

Health, safety, social and environmental (HSSE) issues and targets are identified in a timely manner and are documented, actioned and reported, as needed.

✂ **Indicator 2.9.2:** The Gender Action Plan is identified and managed

📋 **System measure:** An approved Gender Action Plan is identified in oUP and is being monitored, controlled and delivered as planned. (Yes/No)

The Gender Action Plan should be monitored and controlled and updated, as required, on a quarterly basis during the project. Gender issues and targets are identified in a timely manner and are documented, actioned and reported, as needed.

MORE INFORMATION

Refer to the [Health, safety, social and environmental management \(HSSE\)](#) intranet page for templates, guidelines, procedures, tools and other resources.

MORE INFORMATION

Refer to the intranet page [How do I create a Gender Action Plan \(GAP\) for my project?](#) for further guidance and resources.

CRITERIA 2.10: PROJECT PERSONNEL MANAGEMENT

✂ **Indicator 2.10.1:** The right people at the right time are identified in the Human Resource Plan

✂ **Manual measure:** Project personnel have the right experience to deliver and are resourced adequately to avoid overloading personnel. (Yes/No)

Human resource needs should be planned for and mobilized in a timely manner as per the Human Resource Plan for projects with medium to large personnel levels. The Human Resource Plan should be monitored and controlled and updated, as required, on a quarterly basis during the project.

Personnel should possess the required certifications, training and experience, appropriate to their assignment. The Human Resource Plan should be updated, as necessary, to avoid overloading personnel, which can affect project performance and result in a high turnover of personnel.

✂ **Indicator 2.10.2:** Gender, diversity and social inclusion considerations are reflected in the project team

📋 **System measure:** The project team meets gender, diversity and North/South balance targets. (Yes/No)

✂ **Manual measure:** Social inclusion has been addressed in the project team. (Yes/No)

Gender, diversity (in particular, a North/South balance) and social inclusion should be evidenced and leveraged in the project team. This improves project performance via the inclusion of diverse perspectives, experiences and skill sets.

MORE INFORMATION

Refer to the *Gender, diversity and inclusion in our workforce: Strategy 2022-2025* for more information on UNOPS approach to gender, diversity and inclusion.

CRITERIA 2.11: KNOWLEDGE MANAGEMENT

✂ **Indicator 2.11.1:** Risks, issues and lessons learned are identified in project planning

✂ **Manual measure:** The Proposal and/or Project Initiation Documentation (PID) identify previous lessons learned for incorporation in the project. (Yes/No)

Project planning activities should identify risks, known issues and lessons learned from previous similar projects, which should be documented in the Implementation Plan and monitored, controlled and updated, as required, and at a minimum on a quarterly basis.



Particular focus should be given to identifying gender-specific risks and lessons learned for incorporation in project planning activities. Risks and lessons learned related to health and safety should also receive particular attention in planning activities.

✂ **Indicator 2.11.2:** The lessons learned register is managed during the project

📄 **System measure:** The number of lessons learned identified and recorded in oUP. (Qty)

✍ **Manual measure:** Documented lessons learned are structured in accordance with good practice considerations. (Yes/No)

Lessons learned during the development, implementation and closure of the project should be documented in the lessons learned register for use in the development of new projects. Gender-specific lessons learned should be clearly documented in the lessons learned register.

The following considerations should guide the recording of lessons learned:¹⁰

- ➔ Provide a rationale: Describe how the lesson was learned. What happened? Why did it happen? Why is it important?
- ➔ Identify applicable preconditions: Under what conditions would the application of the lesson learned be appropriate.
- ➔ Include a suggestion: Describe what has been learned and should be repeated or avoided in the future.
- ➔ Identify applicable task(s): Describe the task to which the lesson learned may be applied. Tasks may include activities, decisions, procedures or processes.

Stakeholder satisfaction

The final dimension of the project success criteria measures whether project stakeholders – including governments, beneficiaries, donors and UNOPS portfolio entities – have had a positive project experience. The purpose of this dimension is to gauge the satisfaction of the various entities involved in the project during the operational closure process, to understand whether it has been successful on a quantitative basis from the viewpoint of different stakeholder groups.

TABLE 7 illustrates each of the enumerated criteria for this category, along with the associated indicators. For these indicators, there is a manual check to measure the criteria, along with commentary on good practice.

TABLE 7 UNOPS project success criteria: Stakeholder satisfaction

CRITERIA	BSC*	INDICATORS*
3.1 Government	Stakeholders	3.1.1 Positive government feedback on the survey
3.2 Beneficiaries		3.2.1 Positive beneficiary feedback on the survey
3.3 Donor		3.3.1 Positive donor feedback on the survey
3.4 Portfolio entities		3.4.1 Positive feedback from portfolio entities

* Balanced Scorecard: people; finance; stakeholders; process

¹⁰ Dr. Ralph Maurer, 'Lessons Learned: Utilizing lessons learned from ILO project evaluations in policy decision making', i-eval THINK Piece, No. 1, International Labour Office Evaluation Unit, March 2012, p. 14.



CRITERIA 3.1 – 3.4

 **Manual measure:** Stakeholder surveys should record positive feedback. (Yes/No)

For each stakeholder group, a positive experience should be had by all stakeholders involved with the project.

This is measured by conducting a stakeholder survey, using a simple star rating, on a scale of one to five. For all projects with a duration of greater than 12 months, this survey should take place at six month intervals. Beneficiary surveys should also be disaggregated by sex and age.

No further review is required if the survey responses average four or five stars. If the average response is between one and three stars, then the project team should investigate and document the reasons and make any necessary modifications to stakeholder management activities, as applicable. These survey responses should also be documented in the lessons learned register for the project.

4.1.4 Quality tolerances

A quality tolerance is the “quantified description of acceptable variation for a quality requirement.”¹¹ The inclusion of an acceptable range of variation when defining the acceptance criteria/quality requirements is needed to allow for the successful management and control of quality.

Establishing quality tolerances enables a project manager to manage and control project activities in line with their own professional judgement, so long as the project remains within the established tolerances. However, when these tolerances are exceeded, the issue is escalated to the project board for a decision on how to proceed ([4.13.1](#)).

Quality tolerances are progressively defined as a project moves from the Opportunity Stage to the start of the Implementation Stage. The PID may already include high-level quality tolerances but these tolerances should be fully defined – together with all other project and work package level tolerances – in the Implementation Plan, which is approved at the start of the Implementation Stage. This enables the Project Manager to deliver the project in accordance with the principle of manage by exception,¹² which is explored in more detail in the *PMM, Part 1: Guidelines* and the Management Perspectives series publication *Management Control: Guidelines for Projects*.

The consideration of both project-level and specific work package or output quality tolerances may be needed for more complex projects to enable effective management control. Certain tolerances are defined in the Project Success Criteria (see [Criteria 1.1](#), [1.2](#) and [1.4](#)) for use internally and may be used where no specific values are applied.

¹¹ *PMBOK® Guide*, p. 725.

¹² *PRINCE2*, p. 24.



EXAMPLE 5 Quality tolerances

Category 1: For a transactional human resources project to recruit 50 personnel for a UNOPS partner, the quality tolerance may relate to the degree of acceptable inaccuracy. For example, the number of errors identified in final draft contracts must not exceed 2% (i.e., one error total in the 50 contracts that must be corrected).

Category 2: For an advisory services project, the quality requirements might include a third-party review by an independent entity of the advisory process on a quarterly basis. These reviews must result in no more than minor comments affecting less than 5% of the content or advice provided. Any comments requiring major revisions to the advice provided or affecting 5% or more of the content will be considered to exceed quality tolerances.

Category 3: Using the school in [Example 4](#), the quality tolerances in the Implementation Plan may affect some, but not all, of the acceptance criteria as follows:

- ▶ The total cost will be USD 8,600,000, **+0% or -5%**.
- ▶ Handover and operation of the school must take place by April 2023, **+/- 1 month**, as it may be subject to changes in security constraints and physical access to the site.
- ▶ The school design must meet the net floor area identified in the design brief provided by the funding source, **+10% or -5%**.
- ▶ The school design must include seismic design requirements, **0%**.
- ▶ The building must be free of defects after 12 months of operation, **0%**.
- ▶ The school must provide sanitary facilities to meet the needs of both girls and boys, including the provision of menstrual hygiene management facilities suited to the local context, **0%**.
- ▶ The school design must include input from the local community (representative of gender, age, status and class), **0%**.
- ▶ The local community should be satisfied with the project as indicated by **no more than 10% dissatisfaction rating** in the post completion assessment ([4.2.1.G](#)).

4.1.5 Quality planning techniques

The following techniques are relevant to assist the project team with the quality planning process. While certain techniques may be relevant to the actual planning process, others may be identified during the planning process for application at defined points during the project lifespan.

Regular reviews may be needed to check the effectiveness of any applied techniques and whether there is a developing trend that could indicate the need for revisions to their application. This may require more focussed efforts to resolve any perceived or developing issues.



EXPERT JUDGEMENT

The use of expert judgement is a critical aspect of quality planning activities. It is important to include individuals who possess a thorough understanding of quality management, quality control and quality assurance, as well as individuals with technical experience in measuring and controlling quality, where relevant.

A Quality Plan that is prepared with the input from one or more people with significant experience and expertise will always be more considered, practical and effective than a plan prepared by someone with little or no experience in quality planning. This does not mean that experts cannot be wrong but that the level of risk, the likely cost of any remedial activity and the impact of any quality failure on delivery should be substantially reduced.

Expert input should be solicited to help with project planning from early in the project lifespan, as per the *PMM*, because it will help to inform the definition of the acceptance criteria as well as the quality planning process.

EXAMPLE 6 Expert judgment

A standard construction specification calls for a concrete slab that is level and smooth, which is defined by a height difference of less than 3 mm between two points that are 3 m apart. This requires careful construction techniques and management to achieve this level of quality. The engineer is aware that the concrete slab will be covered in tiles and is willing to accept a slab with up to a 6 mm difference in height between two points 3 m apart. This will reduce the time needed to finish the surface of the concrete slab, without any adverse effects on the finished floor.

COST-BENEFIT ANALYSIS

Conducting a cost-benefit analysis for each quality activity compares the cost of the activity to the expected benefit.¹³ This technique is useful during the planning process to identify the costs associated with meeting the defined or proposed acceptance criteria.

In general, the higher the level of benefit associated with an acceptance criteria, the higher the cost to determine whether the criteria has been met. This leads to an issue with diminishing returns on the investment made to achieve the benefit. Defining particularly burdensome acceptance criteria may require substantially more effort and expense to assess and achieve them. Conversely, if the criteria are overly simplistic, they may be easily achieved and not have any real credibility in terms of delivering a quality product.

It is important to understand the nature of the criteria and the implications for the project, with consideration for the local context. An acceptance criteria that may be applicable in a local context with extremely high levels of technical competency may not be realistic in a context with low technical competency levels. A more technically advanced criteria may require significantly more testing and more advanced assessment techniques that are not suitable for the local context.

This technique can be useful to validate whether unrealistic expectations of quality exist and help to define the physical and financial resources, as well as equipment, needed to deliver the project in accordance with the Quality Plan.

¹³ *PMBOK® Guide*, p. 282.



EXAMPLE 7 Cost-benefit analysis for community satisfaction in a new school

Using the school project in [Example 4](#), a cost-benefit analysis can be used to evaluate the cost of the acceptance criteria relating to community input and satisfaction for the design and construction of a school. It is necessary to determine the cost of monitoring community satisfaction through surveys, including the costs associated with support functions needed to meet the suggested acceptance criteria of 85% positive satisfaction. This cost is balanced against the expected benefit of meeting the proposed project acceptance criteria. The cost-benefit analysis revealed that the cost to meet an 85% positive satisfaction level would be double that of meeting an acceptance criteria value of 70%. This enabled an informed decision on the prioritization of funds relative to an acceptable level for the acceptance criteria.

EXAMPLE 8 Cost-benefit analysis for menstrual hygiene management facilities suited to the local context

A cost-benefit analysis can be used to assess the costs associated with conducting a gender analysis early on in project planning to provide a thorough understanding of the local context and what kind of facilities and resources would be necessary to meet the acceptance criteria associated with providing menstrual hygiene management facilities within the school that are suited to the local context (see [Example 4](#)).

The cost-benefit analysis can also examine the potential benefits associated with the level of gender analysis conducted. For example, a more extensive gender analysis may be able to not only contribute to the quality of the facilities and ensure they are fit for purpose based on the local context, but may also be able to contribute to other acceptance criteria on community satisfaction and inputs. Therefore, the actual cost for the gender analysis may be proportionally lower than the benefits achieved.

COST OF QUALITY

Similarly to the cost-benefit analysis of meeting the identified acceptance criteria, it is sensible to consider the lifecycle costs of poor quality. This includes an examination into the cost of avoiding failures as well as the cost of rectifying non-conforming outputs during and after the project.¹⁴ There are also potential costs associated with the failure to deliver the identified outcomes.

In some projects, such as transactional projects with many standardized processes, short durations and well-defined outputs, this may be a relatively simple process. However, in infrastructure projects, the examination process may be substantial due to the need to consider the much longer lifespans of many interrelated elements and the physical and operational environments in which infrastructure is delivered.

There are more unknowns at the start of an infrastructure project, such as site conditions and soil bearing capacity, which require assessment and investigation, thereby improving the quality of the output when used in the design of the infrastructure. The use of lesser quality materials, equipment and work quality will result in higher future maintenance and operational expenditure and the potential for the early failure of infrastructure. In this situation the cost of quality can be a critical factor in the project design process.

The cost of a quality assessment is a significant input into any 'total cost of ownership' calculation, as defined by the Procurement Group for use in sustainable procurement processes, and is a major consideration for use in lifecycle analysis and the management of infrastructure assets.

¹⁴ Ibid.



There are many instances where decisions on quality criteria have resulted in significant costs for conformance or critical issues when the detection of non-conformance in design or delivery has failed, resulting in injuries or even fatalities. Balancing the cost of conformance or nonconformance requires professional judgement and careful assessment, particularly if it could lead to the loss of life in infrastructure projects.

MORE INFORMATION

For further guidance on the 'total cost of ownership', refer to the Procurement Group intranet page on [Total cost of ownership](#).

EXAMPLE 9 The cost of quality

COST OF CONFORMANCE	COST OF NONCONFORMANCE
PREVENTION COSTS (build a quality product) <ul style="list-style-type: none"> ▶ Training ▶ Document processes ▶ Equipment ▶ Time to do it right 	INTERNAL FAILURE COSTS (failures found by the project) <ul style="list-style-type: none"> ▶ Rework ▶ Scrap
APPRAISAL COSTS (assess the quality) <ul style="list-style-type: none"> ▶ Testing ▶ Destructive testing loss ▶ Inspections 	EXTERNAL FAILURE COSTS (failures found by the customer) <ul style="list-style-type: none"> ▶ Liabilities ▶ Warranty work ▶ Lost business
Money spent during the project to avoid failures	Money spent during and after the project because of failures

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BENCHMARKING

By using the benchmarking technique in quality planning, the project team can identify best practices, areas for improvement and measure the performance of project practices by comparing actual and planned project practices to those of similar projects or practices.¹⁵ Benchmarking is a technique that contributes to the continuous improvement of UNOPS processes by identifying and implementing best practices, derived from both UNOPS experience and industry or institutional examples.

While it can be difficult to obtain benchmark indicators that are comparable between specific organizations, particularly in the UNOPS operational context, there are existing benchmarks for various institutional or industrial indicators at a national level that may be useful. These can be considered proxies for the consideration of quality, depending on the project scale and complexity.

It is first necessary to identify what to benchmark. For example, break the project down into smaller components for measurement and identify the relevant quality indicators. Once the particular components are identified, it is necessary to identify relevant data from sufficiently similar projects at the local, national and international level. Dividing the project into smaller components and identifying quality indicators is helpful in the process to identify relevant data because different components may be represented in different types of projects.

Project records, including lessons learned and the quarterly assurance process can provide a starting point for identifying relevant data for each component and indicator. It is generally better to use a larger sample of similar projects, where possible, to develop a range with upper and lower boundaries for each indicator to improve the quality of benchmarking.

¹⁵ Ibid., p. 281.



Once the relevant data is identified, it is necessary to review, assess and validate the available data for application in the current project. The results of the data analysis can then be integrated into project planning and quality activities, identifying and tailoring best practices in project processes to continually improve the quality of these processes, activities and project outputs.

EXAMPLE 10 Benchmarking

In a project to develop water and sanitation facilities in a local community, the use of benchmarking can help to improve project quality. The project includes water supply with both open wells and boreholes, as well as communal sanitation facilities and the replacement of open drains with piped wastewater drainage to a pump point. The Business Developer looks for references to each of these items in previous UNOPS projects and also consults resources such as SPHERE, UNHCR and WHO to identify what quality standards can be applied. This information is used to determine the approximate time and order of cost needed for the project, as well as the maximum number of users per item and the quality of water supply and wastewater management.

MORE INFORMATION

Refer to the [Global Risk Library](#) in oUP for risks, issues and lessons learned from other UNOPS projects.

BRAINSTORMING

Brainstorming is a technique to gather information, often in collaboration with technical experts.¹⁶ This technique is useful to identify the frequency and nature of quality activities within the quality planning process. When the right individuals are included in this exercise – for example, technical experts, gender focal points, project team members and local government and institutional stakeholders – the result is both improved accuracy of the identified activities and increased commitment to the delivery of these activities. This exercise should strive for the equal representation of women and men, wherever possible.

It is useful to include skilled external facilitators in this process to avoid bias and to ensure a thorough exploration of concepts and ideas for application. The brainstorming technique may be an appropriate technique for use during the Project Definition Workshop (2.1.6), which is recommended during the Pre-engagement Stage of a project.

4.2 Quality assurance

Quality assurance is a critical process within quality management that provides confidence that project objectives will meet or exceed the expectations of key stakeholders. Performing quality assurance contributes to the continuous improvement of the and the Quality Management System (QMS) at UNOPS.

Quality assurance is the “part of quality management focused on providing confidence that quality requirements will be fulfilled.”¹⁷ In other words, quality assurance is the review of processes, tools, procedures, techniques and resources needed to meet the quality requirements.¹⁸

¹⁶ Ibid.

¹⁷ ISO 9001:2015, para. 3.3.6.

¹⁸ ISO 21500:2012, para. 4.3.33.



Quality assurance in projects involves both internal and external activities. While project quarterly assurance (see [Section 4.2.1](#)) is a form of internal quality assurance, the Project Board must also conduct external quality assurance activities, which may include reporting to partners and other key stakeholders on project progress during project board meetings and through reporting requirements identified in the Legal Agreement.

EXAMPLE 11 Quality assurance on external reporting requirements

Feedback from partners indicated dissatisfaction due to the lack of timely reporting in UNOPS projects. In response to this feedback, changes were implemented in oUP to embed external reporting requirements in the project schedule. Following the plan – deliver – monitor – control (PDMC) model of the UNOPS QMS, the reporting requirements are captured during the quality planning process, embedded in the schedule in oUP, monitored during the quarterly assurance process and controlled, as necessary, to ensure timely reporting in accordance with the schedule.

The assurance process also reviews quality control measures and their effectiveness. Any shortfall or inadequacy identified by the assurance process should result in a corrective action that includes further action at the quality control level, delivering continuous improvements to both the system and the project being delivered.

This section will examine quality assurance within the UNOPS context and provide relevant techniques to perform quality assurance. Refer to [TABLE 8](#) for an overview of the *PMM* requirements and their links to quality assurance.

EXAMPLE 12 Quality assurance in projects

Category 1: In a Category 1 project involving the procurement of pharmaceuticals, UNOPS is responsible for performing quality assurance by checking that the manufacturer has the appropriate certificates during the solicitation and selection process and conducting spot checks to ensure compliance with the identified quality requirements.¹⁹

Category 2: In a Category 2 project involving the provision of grant support, UNOPS may perform quality assurance by reviewing and verifying financial records or conducting spot checks to ensure that grant support funds are used to carry out the activities identified in the grant support agreement.

Category 3: In a Category 3 project with infrastructure outputs, UNOPS is responsible for performing quality assurance to confirm that the identified quality requirements will be met through site inspections, such as inspecting reinforcements prior to the pouring of concrete or reviewing the results from strength tests of the poured concrete to determine that the requisite strength will be achieved.

¹⁹ See Annex 2 of the *Procurement Manual: Quality Assurance Policy for the Procurement of Medicines, Medical Devices and other Health Products*.

**EXAMPLE 13** Quality assurance external to a project

UNOPS design review is a form of quality assurance that is external to the project. The purpose of design review is to ensure that designs comply with applicable standards and performance requirements. The design practitioner must comply with the quality requirements identified in the UNOPS Infrastructure Design Standards manuals and international and local design standards, as applicable. The design practitioner exercises quality control to make sure that all quality requirements are met in the submitted design documents. The Design Review team in the Infrastructure and Project Management Group (IPMG) provides quality assurance to verify that the quality requirements are controlled and that the deliverables are fit for purpose.

EXAMPLE 14 Gender expert and design review

There is no such thing as gender-neutral infrastructure. Infrastructure, by nature, provides services or access to services to individuals and communities. Access and use of these services is most often impacted by the gender of users. The quality of the infrastructure design review process can be greatly improved by the inclusion of a gender expert to ensure that the particular infrastructure in question will be equally accessible by all individuals.

TABLE 8 Overview of PMM activities with links to quality assurance

PROJECT STAGE	UNOPS QMS	REQ. *	ACTIVITY
General Activities	Monitor (Assurance)	0.3	Ensure management of issues, risks and lessons
	Monitor (Assurance)	0.4	Ensure creation, update and archival of records
	Monitor (Assurance)	0.5	Ensure usage of UNOPS systems and mandatory templates
	Deliver	0.6	Provide evidence for audit
Pre-engagement Stage	Monitor (Assurance)	2.1	Ensure pre-engagement activities
Initiation Stage	Monitor (Assurance)	3.1	Ensure engagement formalization activities
	Monitor (Assurance)	3.2	Ensure project initiation activities
Implementation Stage	Monitor (Assurance)	4.6	Ensure delivery Teams planning activities
	Deliver	4.7.4	Report engagement status
	Monitor	4.7.4.A	Complete project quarterly assurance
	Deliver - Monitor	4.8.7	Manage quality
	Deliver	4.8.9	Report project status
	Deliver	4.8.9.A	Submit Quarterly Status Report
	Deliver	4.9.3	Report work package status
	Monitor	4.11	Monitor project progress
Closure Stage	Monitor (Assurance)	5.1	Ensure operational closure
	Deliver	5.1.2	Submit Final Report
	Monitor (Assurance)	5.2	Ensure financial closure

* Note that the numbering in this table follows the numbering in the PMM, Part II: Requirements.

MORE INFORMATION

Quality assurance in physical infrastructure projects is discussed in detail in the *Construction Supervision: Guidelines* (see Section 3.4.1). Refer to this publication for guidance on UNOPS quality assurance role in the context of Works Contracts management.



4.2.1 Project quarterly assurance

An important activity in the quality assurance process at UNOPS is project quarterly assurance. While the quality assurance process includes many activities that occur on a continuous basis, the use of regular, formal reviews enables a better understanding of trends and provides an opportunity to assure that the quality approach is effective.

Completing project quarterly assurance is the responsibility of the Project Executive and should be conducted at a minimum, on a quarterly basis (4.7.4.A). While project quarterly assurance is a collaborative process, the responsibility and accountability for this activity is independent of the project team, which is important to ensure the integrity of this process. The information used by the Project Executive to complete quarterly assurance is received from the Project Manager in the quarterly status report (4.8.9.A), via the inputs from the Project Manager in the quarterly assurance process in oneUNOPS Projects (oUP) and/or obtained by the direct review of system information.

Project assurance may also be conducted more frequently than on a quarterly basis, depending on the particular circumstances of the project. More frequent project assurance is recommended good practice, particularly when a project has a duration of less than three months or where quality may be so critical that assurance is completed on a monthly basis to reduce risks.

In the context of UNOPS projects, the project quarterly assurance process monitors that:

- The project is healthy and is being run in accordance with the requirements contained in the legal agreement, as well as UNOPS policies and process requirements;
- The project is progressing as planned and the business case (i.e., project justification) is still valid;
- The project is performing during implementation against the relevant indicators of the UNOPS Project Success Criteria, as applicable based on the timing of the process, and the acceptance criteria;
- Appropriate procedures are in place and utilized to address any changes outside agreed tolerance levels;
- Projects are managed and delivered in accordance with the expectations of key stakeholders;
- Any risks and issues are identified and managed, including escalation where appropriate; and
- The Quality Plan is being implemented.

SYSTEM INTERFACE

Some aspects of project quarterly assurance were incorporated into oUP in January 2021 via a set of indicators for every ongoing project – including projects in the Defects Notification Period (DNP) – that must be recorded as either 'on track' or 'not on track' in the quarterly assurance questionnaire in oUP. The questionnaire is automatically created in the system on the first day of every calendar quarter.



CONSIDERATION

The quarterly assurance feature in oUP does not currently address all aspects of project quarterly assurance. This process will be progressively modified to provide more objective data via the system interface and to clearly differentiate between project performance and project team performance (i.e., the underlying project design compared to the project team's delivery). These improvements will provide a more focussed and objective assurance process, which will improve quality in UNOPS projects.

For each indicator in the oUP quarterly assurance process, the system may present facts generated from data within the system to assist in the determination of whether the indicator is 'on track' or not. For example, regarding the expenditure forecast indicator, if the data in the system shows a difference of more than fifteen percent between the actual expenditure amount and the forecasted expenditure amount for the quarter, then the system will suggest that this indicator is not 'on track'. These facts will only be available for the indicators where relevant data is available in the system.

CONSIDERATION

The system may suggest a status for a particular indicator, based on the available data in the system, but professional judgement should always be exercised to determine whether a particular indicator is 'on track' or not.

There are three activities in the quarterly assurance process in oUP and the first two activities may be conducted simultaneously:²⁰

1. The Project Manager reviews the relevant indicators, enters a comment for each indicator (optional), and determines the suggested final status for each indicator. The Project Manager shall enter a general comment about the quarterly assurance process for the project.
2. The Head of Support Services reviews the relevant indicators and enters a status for each applicable indicator.
3. The Project Executive reviews the information entered by the Project Manager and the Head of Support Services, may enter a comment under each indicator (optional) and either approves or rejects the project quarterly assurance activity. It is mandatory for the Project Executive to enter a general comment about the quarterly assurance process for the project.

A focused and objective assurance process necessitates the following:

- ➔ Project "objectives and relevant standards to be achieved are communicated, understood, accepted and adhered to" by the project team;
- ➔ The Quality Plan is applied throughout the project; and
- ➔ The "established tools, procedures, techniques and resources are used."²¹

Where a Gender Action Plan (GAP) has been established, the Project Manager should include the status of any activities required by the GAP in the Quarterly Status Report. The Project Executive then assures these activities during the quarterly assurance process. The project or office gender focal point should participate in any discussions during the assurance process for these specific activities.

As noted in the *PMM Part I: Guidelines* (see Section 3.2.5), each project quarterly assurance process, when amalgamated, forms the basis for office quarterly assurance, which looks at quality assurance and performance at a portfolio level.

MORE INFORMATION

For more information on quarterly assurance in oUP, refer to the ICT - System Support guidance on [Quarterly Assurance](#).

²⁰ Note that these activities may also be completed by deputies, 'officers in charge', or other roles (e.g., for the Head of Support Services), as applicable in the particular context.

²¹ *PRINCE2*, p. 83.



4.2.2 Quality assurance techniques

There are several techniques to assist UNOPS personnel in completing the quality assurance process. The data resulting from the quality planning and quality control processes also informs the quality assurance process.

In particular, infrastructure projects should have a substantive recognition of the need for effective quality assurance of the quality control activities implemented by works contractors or direct implementation personnel. This may be problematic in contexts with remote sites or limited access to sites due to security restrictions. Specific techniques and assurance methods will need to be developed, in consultation with relevant subject matter experts, to ensure that the assurance process is a valid and robust process in line with both UNOPS and partner expectations.

PROCESS ANALYSIS

A process analysis examines problems, constraints and non-value-added activities to identify necessary improvements to project management processes.²² This may include a root cause analysis technique to identify the problem, any causes of the problem and possible solutions.²³

While both the process analysis and root cause analysis techniques relate to project processes, process analysis can be a useful technique for quality assurance. It can be used to assess the 'non value add' quality control activities that may be outdated or no longer useful, enabling reconfiguration or removal to improve efficiency. Examples of this include manual quality control techniques that could be replaced with automated sensors and reporting.

The use of root cause analysis is closely linked to change requests, which frequently have quality control related issues as a primary cause, triggering a change request. These may include non-conforming elements that need a detailed assessment to arrive at a range of solutions for consideration in the change control process.

AUDIT

An audit may be required by the Legal Agreement or requested by UNOPS Internal Audit and Investigations Group (IAIG) (0.6). In some situations, particularly if there are specific concerns over issues with quality, an audit may be requested by the Project Executive or the Engagement Authority. The purpose of the audit is to "determine if project activities comply with organizational and project policies, processes, and procedures" via an independent process.²⁴

An audit can provide substantial information and assurance of the quality processes. While it may be noted that an audit can be requested by IAIG, in some cases, IAIG is facilitating and providing information to other entities such as the United Nations Board of Auditors or the Joint Inspection Unit of the United Nations System.

The outputs from audits can lead to significant changes in quality processes affecting the organization and all future projects, supporting the continuous improvement of quality in UNOPS.

MORE INFORMATION

See [Section 4.1.3](#) and [4.3.1](#) for techniques that may also be relevant to performing quality assurance.

MORE INFORMATION

For further information on audit requirements, visit the [Internal Audit and Investigations Group \(IAIG\)](#) intranet page.

²² PMBOK® Guide, p. 292.

²³ Ibid.

²⁴ Ibid., p. 294.



RISK-BASED PERFORMANCE ASSESSMENT

The Risk-based performance assessment (RBPA) is a quality assurance tool employed at UNOPS to help field operations understand how their projects and programmes are being delivered relative to established good practices and UNOPS policies, systems and processes. The information obtained during these assessments supports the mitigation of risks, the improvement of local management practices, and the continual improvement of UNOPS corporate systems, processes and standards.

MORE INFORMATION

For further information on the RBPA, refer to the [Risk-based performance assessment](#) intranet page.

REVIEW APPROVED CHANGE REQUESTS

An important method for ensuring effective quality assurance is the review of approved change requests to determine whether they were implemented as approved. Change requests may be at the project or work package level, as illustrated in [Example 15](#) and [16](#).

EXAMPLE 15 Review approved change requests: project-level

Any preconditions associated with approvals during the engagement development process should be reviewed during implementation. This may include the confirmation that any conditions for approval set by the Engagement Acceptance Committee (EAC) or the Integrated Practice Advice and Support (IPAS) units have been included in the risk register and satisfactorily met during project implementation.

EXAMPLE 16 Review approved change requests: Work package level

In limited circumstances, a conditional Design Review Certificate may be issued by the UNOPS Design Review team on the condition that certain changes are implemented in the relevant design. The Project Manager is responsible for conducting quality assurance on the design work package to ensure that the required conditions have been addressed by the design practitioner before proceeding with construction.

Under normal circumstances, approved change requests should be checked by the Project Executive as part of the quarterly assurance process.



4.3 Quality control

The purpose of performing quality control is to “determine whether the established project objectives, quality requirements and standards are being met and to identify the causes of, and ways to eliminate unsatisfactory performance.”²⁵ Effective quality control requires the implementation, monitoring and recording of methods and responsibilities as identified in the Quality Plan. Refer to [TABLE 9](#) for an overview of the *PMM* requirements and their links to quality control. In the context of UNOPS projects, controlling quality requires the following:

- **Quality policies, standards and procedures are applied.** This includes for example, UNOPS policies, health and safety procedures, the *PMM* and the *Procurement Manual*. This may also include external quality standards, such as design and construction codes or standards for infrastructure works, donor requirements identified in the Legal Agreement, or other external regulatory requirements, as applicable.
- **Quality methods as detailed in the Quality Plan are applied.** This may include visual inspections, reviews, surveys and feasibility studies and formal building inspections, among others. Note that works contractors are required to identify quality control measures for construction works, which are reviewed and monitored by a UNOPS construction supervision team or third-party consultants. However, the extent of these measures cannot be fully identified in the Quality Plan, because they will be submitted by individual contractors, as required, during the Implementation Stage.
- **The quality register is updated regularly throughout the project.** The quality register, which is included in the Implementation Plan, or the Quality Plan, as applicable, during the Initiation Stage of the project, should capture any reviews, issues, non-conformities, corrective actions, testing and acceptance data.

This process can help project teams to identify causes associated with ineffective processes or the poor quality of outputs, as well as to determine any necessary corrective actions. Controlling quality also has the benefit of confirming that the deliverables and associated work meet the expectations of key stakeholders.²⁶

EXAMPLE 17 Quality control

Category 1: In a Category 1 project involving the procurement of pharmaceuticals, quality control involves the process used by the manufacturer to ensure that the pharmaceuticals meet the identified quality requirements (e.g., sampling, specifications, testing, etc.).

Category 2: In a Category 2 project involving the provision of technical assistance, quality control activities may include the periodic monitoring and review of project activities to determine whether the quality requirements are being met and quality processes are being followed. Timely monitoring and review enables the early identification of any risks to achieving the project acceptance criteria/quality requirements, and provides project teams the opportunity to identify a course of action to address and rectify these risks before they become issues.

Category 3: In a Category 3 infrastructure project, quality control by the contractor may include making sure that the concrete mix is correct, the quality of materials meet the requirements, curing has taken place, concrete pouring is correct, testing of concrete samples and making certain that reinforcements are tied correctly.

²⁵ ISO 21500: 2012, para. 4.3.34.

²⁶ *PMBOK® Guide*, p. 298.


EXAMPLE 18 Quality control and gender mainstreaming

In a Category 3 infrastructure project, following a vision of creating equal opportunities for all, a requirement is established that 15% of all personnel involved in the design and construction of the infrastructure must be women. Quality control will determine whether the 15% requirement is effectively implemented by the contractor and that salaries are directly paid to women.

TABLE 9 Overview of PMM activities with links to quality control

PROJECT STAGE	UNOPS QMS	REQ. *	ACTIVITY
General Activities	Monitor (Assurance)	0.3	Ensure management of issues, risks and lessons
	Monitor (Assurance)	0.4	Ensure creation, update and archival of records
	Monitor (Assurance)	0.5	Ensure usage of UNOPS systems and mandatory templates
Pre-engagement Stage	Monitor (Assurance)	2.1	Ensure pre-engagement activities
Initiation Stage	Monitor (Assurance)	3.1	Ensure engagement formalization activities
	Monitor (Assurance)	3.2	Ensure project initiation activities
Implementation Stage	Monitor (Assurance)	4.6	Ensure delivery Teams planning activities
	Deliver	4.7.4	Report engagement status
	Monitor	4.7.4.A	Complete project quarterly assurance
	Deliver - Monitor	4.8.7	Manage quality
	Deliver	4.8.9	Report project status
	Deliver	4.8.9.A	Submit Quarterly Status Report
	Deliver	4.9.3	Report work package status
	Monitor	4.11	Monitor project progress
	Control	4.12	Control work package changes
	Control	4.13	Control project changes
Closure Stage	Monitor (Assurance)	5.1	Ensure operational closure
	Deliver	5.1.2	Submit Final Report
	Monitor (Assurance)	5.2	Ensure financial closure

* Note that the numbering in this table follows the numbering in the PMM, Part II: Requirements.

MORE INFORMATION

For information on quality control in the context of physical infrastructure projects, refer to the *Construction Supervision: Guidelines*.



4.3.1 Quality control techniques

Several techniques are available to assist project teams in conducting effective quality control. The information resulting from quality control activities will inform the quality assurance process. Quality control activities should be included in the quality register, and updated throughout the project lifespan.

EXPERT JUDGEMENT

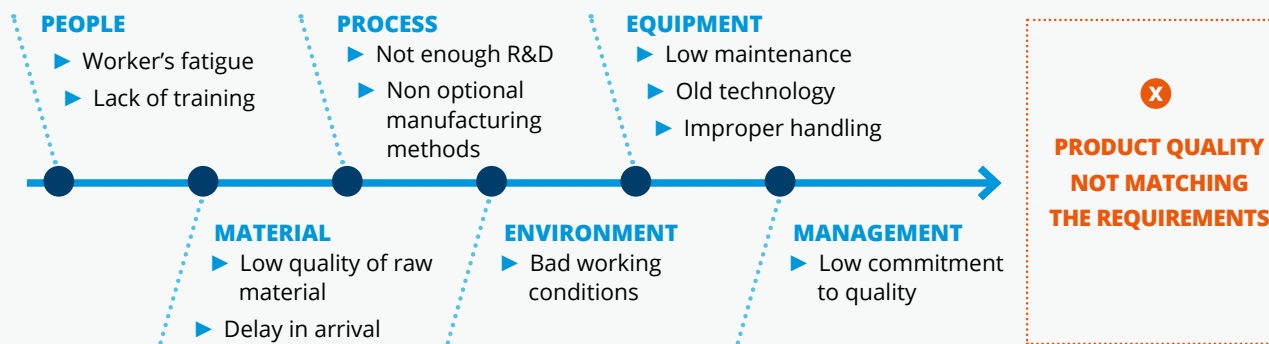
It is important that the Project Board defines effective escalation and rectification procedures along with tolerances. However, no process can substitute for the exercise of professional judgement by subject matter experts.

Professional judgement becomes even more important for quality issues outside defined tolerances, when it is necessary to consider mitigation or rectification techniques and the relative costs and merits of rectifying an issue or accepting aspects that are outside tolerance. In these circumstances, clear records should be kept of the basis for the decision, who made the decision and on what date to ensure that there is a verifiable audit trail.

CAUSE-AND-EFFECT DIAGRAMS

Cause-and-effect diagrams, also known as fishbone or Ishikawa diagrams, are used to trace the root cause of problems. This is accomplished by placing the problem at the head of the fishbone and asking the question “Why?” until the root cause of the problem is discovered or all reasonable possibilities have been raised.²⁷

EXAMPLE 19 Cause-and-effect diagram



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MORE INFORMATION

The cause-and-effect diagrams are similar to the problem tree analysis technique discussed in the Management Perspective series publication *Management Control: Guidelines for Projects*.

FLOWCHARTS

Flowcharts, or process maps, turn inputs into outputs through a sequence of steps and decision points and feedback loops.²⁸ This technique may be useful to estimate the cost of quality in the quality planning or control process.

In general, the greater the number of steps in the flowchart, the greater the likelihood of multiple consequential steps and the increase in process controls to manage these steps. This can be costly, with little benefit for the final output and should be considered when determining whether a flowchart is a useful tool for a specific output.

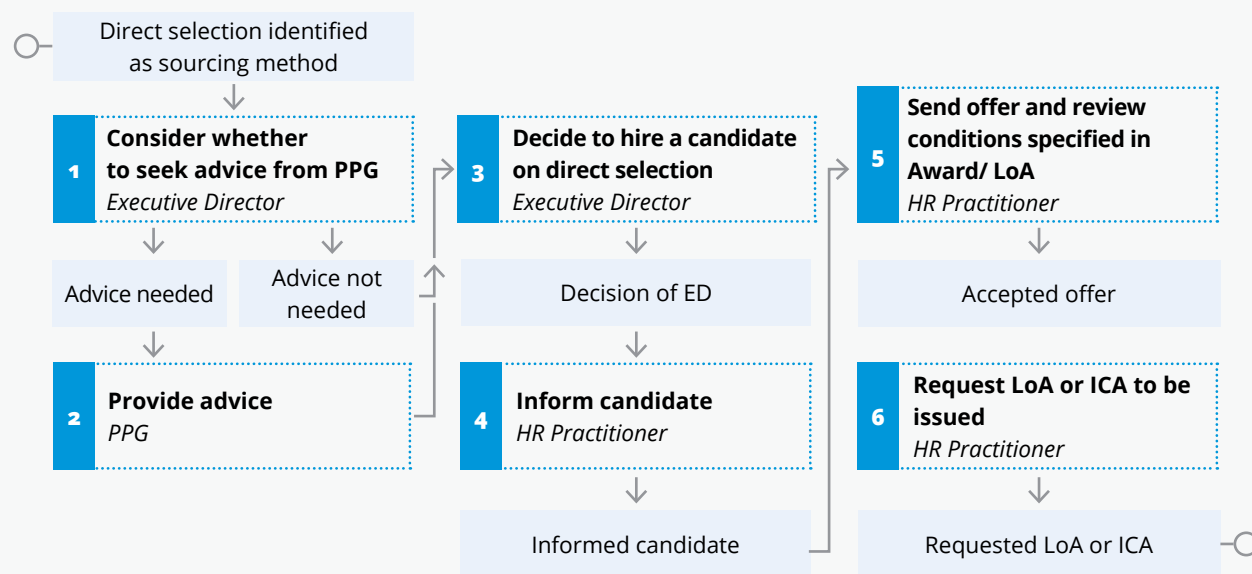
²⁷ Ibid., p. 293.

²⁸ Ibid.



Example 20 illustrates a simple flowchart for a primarily linear process. However, the application of this technique to the design and construction of a school, with many decision points and potential options to deliver the output, would be extremely difficult. It may be helpful on a superficial level, to get a sense of various potential issues, but would not be useful for effective quality control.

EXAMPLE 20 Flowchart



CHECKSHEETS

Checksheets, also called tally sheets, organize facts to collect data about potential quality problems.²⁹ This technique is particularly valuable to gather data while performing inspections to identify defects and may be useful in controlling quality during the Implementation Stage.

EXAMPLE 21 Advisory services report checksheet

DEFECT	1/22/2022	2/23/2022	3/22/2022	4/24/2022
Missing examples	10	8	2	1
Grammatical errors	52	31	15	6
Formatting errors	8	2	1	0
Incorrect content	2	1	0	0

Example 21 shows that the preparation of an advisory services report was checked on a monthly basis between the first draft and the final report that was submitted. During this period, the quality of the report improved as various defects were rectified, which resulted in a significantly better final output.

²⁹ Ibid., p. 302.

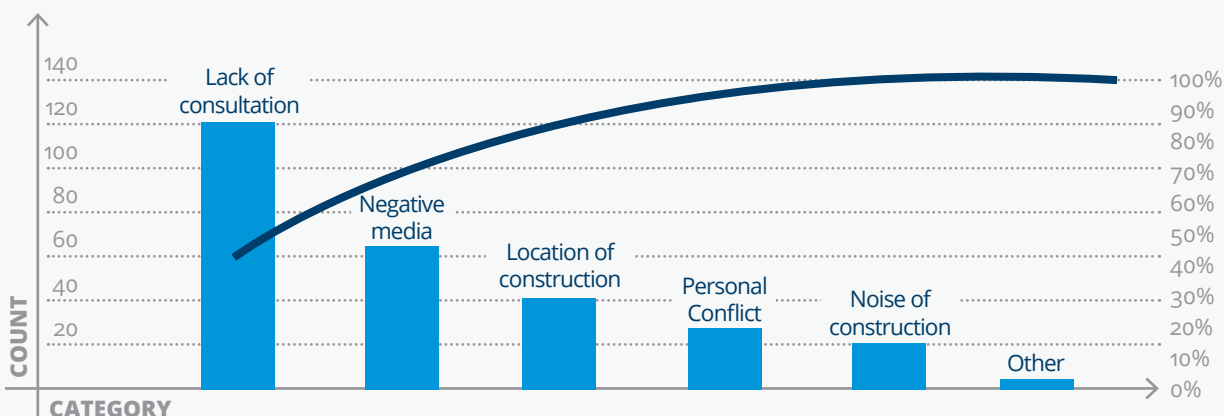


PARETO DIAGRAMS

A Pareto diagram is a graphical technique to identify the primary cause(s) of a problem. It does this by illustrating the frequency of causes for a particular problem, starting from most frequent to least frequent, to account for 100% of the causes. This diagram can be created using Google Sheets. This technique may be useful in identifying ways to control quality during project implementation.

EXAMPLE 22 Pareto diagram

COMMUNITY DISSATISFACTION WITH THE PROJECT



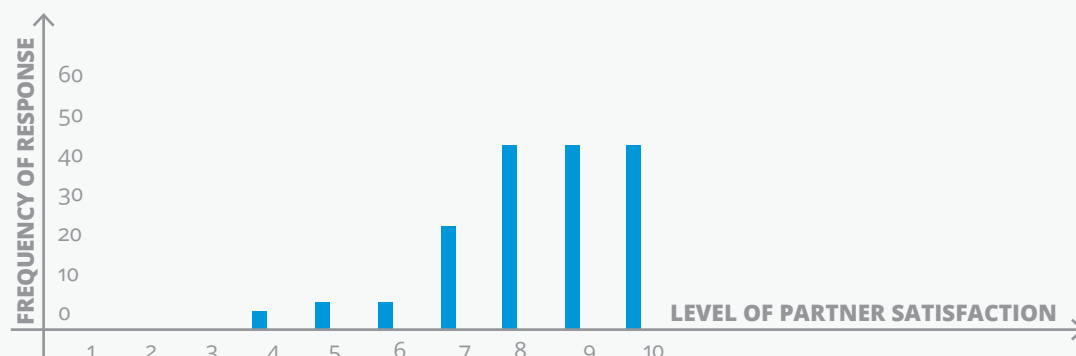
In [Example 22](#), the project team may identify personal conflict as the primary cause of community dissatisfaction with a project because of the vocal nature of a few individuals. However, the infrequency of this cause in comparison with others, as illustrated through this technique, clearly indicates that improving community satisfaction is more effectively accomplished by increasing the opportunity for consultation with the community and including a diversity of voices (e.g., by gender, age, disability, etc.) in the consultation process.

HISTOGRAMS

Histograms are a graphical representation to illustrate the frequency of each value in a set of data to show a tendency, dispersion and the shape of a statistical distribution.³⁰ This technique may be useful in identifying ways to control quality during the Implementation Stage.

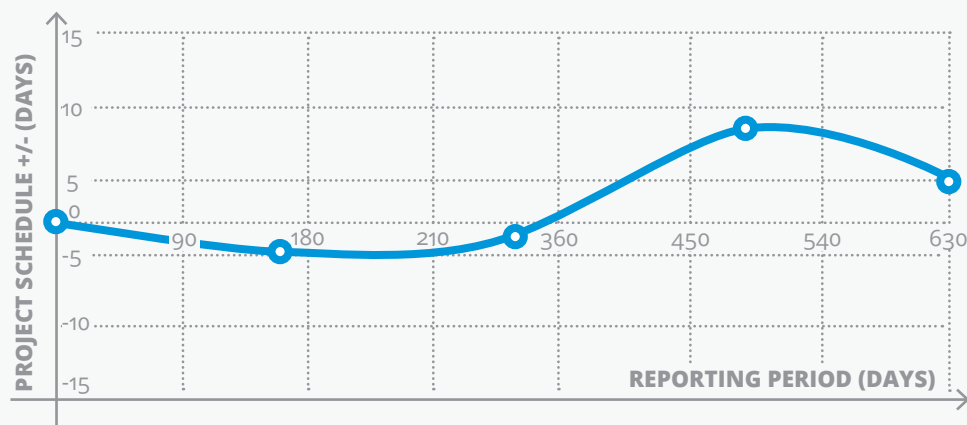
This technique may be especially important for the identification of outliers beyond the tolerances, which may be defined for specific parameters. The shape of the statistical distribution can also provide an early warning of potential issues. For example, in a lopsided bell curve, where the majority of occurrences are close to the acceptable lower tolerance limit, as opposed to occurrences that are evenly distributed across a range.

³⁰ Ibid., p. 293.

**EXAMPLE 23** Histogram**PARTNER SATISFACTION****CONTROL CHARTS**

Control charts determine the stability or predictability of a process.³¹ This technique may be used to identify points for corrective action to control processes for cost and schedule, volume, and frequency of scope changes, or other management results to control project management processes.³²

This technique may be particularly useful to provide an early warning of potential quality control issues. Reviewing a trend over time, especially if correlated with other characteristics such as changes in testing regimes, may reveal the need for further assessment of earlier work if a sudden increase means that earlier controls may have failed to detect issues.

EXAMPLE 24 Control chart**SCHEDULE CONTROL CHART****SCATTER DIAGRAMS**

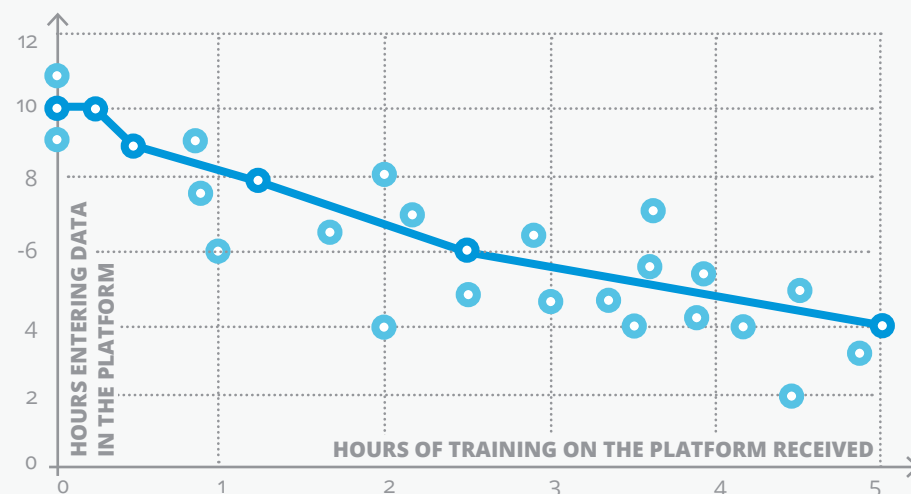
Scatter diagrams are graphical representations of pairs of data, one on each axis, to identify relationships between the data sets. This is used to identify how a change to the independent variable will affect the dependent variable.³³ This technique is useful in both the planning and controlling quality processes.

Example 25 illustrates a positive correlation between the amount of time individuals are spending entering data on project activities in the new online platform and the number of hours of training received per person on the platform.

³¹ Ibid., p. 304.

³² Ibid.

³³ Ibid., p. 293.

**EXAMPLE 25** Scatter diagram**TIME SPENT ENTERING DATA ON PROJECT ACTIVITIES****STATISTICAL SAMPLING**

Statistical sampling is a technique that examines one part of a larger population to assess the quality of the entire population.³⁴ There are various sampling techniques available and, when applying this method as a form of inspection, it is important to use the correct technique to obtain an accurate representation of the population in question. The specific details and timing of this activity should be included in the quality register.

CONSIDERATION

Statistical sampling may be appropriate in a project involving the procurement of pharmaceuticals. Under these circumstances, the sampling programme must follow the *UNOPS Procurement Manual, Annex 2: Quality Assurance Policy for the Procurement of Medicines, Medical Devices and other Health Products*.

INSPECTION

Inspection involves reviewing a project output for compliance with relevant standards and may be used at multiple levels, from reviewing the results of a particular activity to reviewing the final project output.³⁵ There may be several names used in reference to inspections, including reviews, peer reviews, audits or walkthroughs.³⁶

Inspection may often be viewed as an 'easy' option for quality control activities. However, if personnel do not have the necessary training to understand and interpret the identified inspection items, the nature of any observations may not be accurate.

Example 26 shows a typical health, safety, social and environmental (HSSE) inspection form. If the individual responsible for conducting this inspection is under time constraints during the site visit, they may be more likely to simply check off the items, rather than fully engage with the process. This may lead to inaccurate reporting and the failure to detect increased risks, which could be a critical failure point that results in, for example, serious health and safety violations.

³⁴ Ibid., p. 303.

³⁵ Ibid.

³⁶ Ibid.

**EXAMPLE 26** Inspection form

CATEGORY	☑	OBSERVATIONS	RESPONSIBLE	DATE CLOSED
1. GENERAL SITE LAYOUT & WELFARE				
1.1 Site accommodation (toilets, canteen, water, dry clothing, personal protective equipment, cleanness, separate facilities for women)				
1.2 General appearance of the worksite (clean/ untidy, fencing)				
1.3 Materials storage (protected, tidy, stored correctly), slip, trip and fall risks (protruding bars, cable management)				
1.4 Security, site boundaries (clearly marked/ defined, safety signage displayed, security arrangements), lighting				
2. EMERGENCY ARRANGEMENTS AND RESPONSE				
2.1 Fire (evacuation plan, muster point marked, extinguishers, fire alarm)				
2.2 First Aid (first aiders, first aid kit – location availability), spill kits (availability, location)				
2.3 Information display (emergency plan, contacts, site rules, policies, PSEA grievance mechanisms)				
3. WORK AT HEIGHT				
3.1 Scaffolding (foundation, bracings, access, handrails, toe boards, tagging)				
3.2 Mobile platforms, ladders (locking, securing, tagging)				
3.3 Fall protection (edge protection in place, fall arrest systems, openings fenced off or covered)				
4. EQUIPMENT/PORTABLE TOOLS/ELECTRICAL APPLIANCES				
4.1 Lifting equipment and management of lifting operations (cranes, hoists, davits, slings, chains, permit)				
4.2 Tools and equipment (condition, regular checking, maintenance, storage, guards in place)				
4.3 Transformers & Power Supply (security, connection, labelling, inspections)				
*PRIORITY: (A1) IMMEDIATELY (A2) WITHIN 24 HRS (B3) WITHIN 3 DAYS (C) OTHER (STATE)				



POST-COMPLETION ASSESSMENT FOR INFRASTRUCTURE IMPLEMENTATION

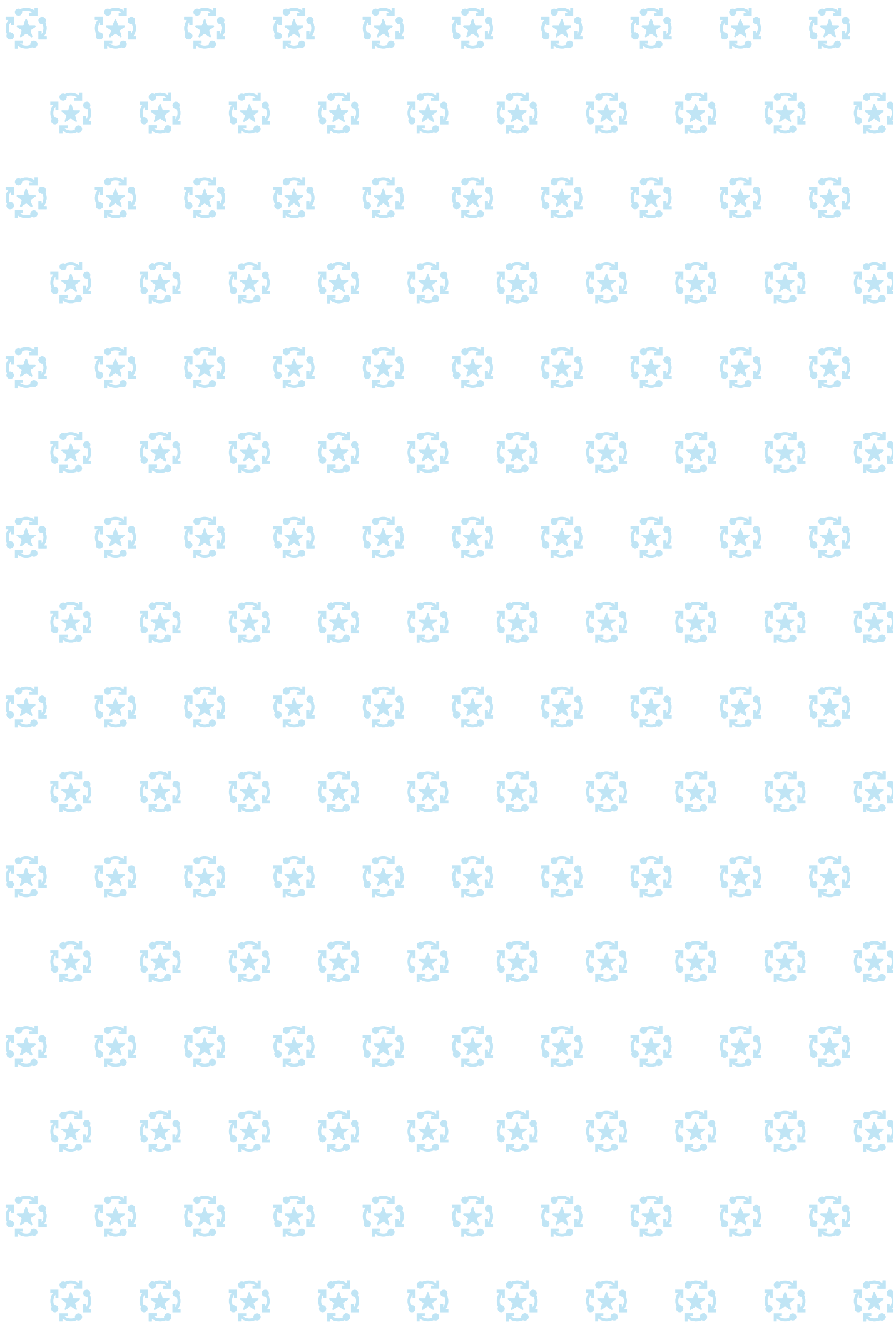
A post-completion assessment is the systematic process of providing lessons and feedback on the operational and technical aspects of a completed infrastructure asset. The process involves a wide spectrum of stakeholders, including the occupants or users of the infrastructure. The assessment should ensure the inclusion of women and vulnerable groups to capture and share knowledge.

A key intention behind a post-completion assessment is to close the feedback loop and to not only assure, but to gradually improve the quality of infrastructure outputs by establishing a mechanism to capture and share knowledge from projects.

The assessment process should look at the design as it was originally conceived, what was actually delivered, any issues for users and how the occupants and users are actually using the infrastructure asset. Careful observation and discussions could reveal issues with the design brief or perception-related issues, which could inform future improvements in the design or modifications to user procedures. Ultimately, this can lead to design improvements and more informed design solutions, based on the feedback.

The assessment should be implemented at the time of final inspections, prior to issuing a Final Certificate at the end of the DNP. This assessment process is mandatory for all infrastructure assets, as per the *PMM*, and any lessons learned during the assessment should be incorporated in the lessons learned register for the project.

It is likely that this assessment approach will be further defined in the future. Until this is achieved, the assessment process will be driven by the project team and, as a result, may be fairly subjective and varied. This is also due to the different nature of infrastructure outputs and their scale, complexity and original design intent.



5. Records, reporting, and roles and responsibilities

When conducting quality management planning activities, it is important to clearly identify all quality management-related activities, including reporting requirements and associated records, along with the timing of these activities and the associated roles and responsibilities to carry out these activities.

KEY MESSAGE

Effective quality management requires the creation, management and control of documented information,³⁷ timely and accurate reporting and defined roles and responsibilities for quality activities.



³⁷ See ISO 9001:2015, para. 7.5.



5.1 Records

The Quality Plan should include the identification of required records, their storage and preservation, and the format and composition of the quality register.³⁸ Effective quality management requires the creation, update and archival of all project records (0.4). See TABLE 10 for an overview of the PMM activities with links to quality management records.

DEFINITION 5 Records

According to PRINCE2, records are the “[d]ynamic management products that maintain information regarding project progress.”³⁹

The International Organization for Standardization (ISO) adapted its definition to reflect the changing landscape, where business records are created and managed in a digital environment. In this context, records are defined as “information created, received and maintained as evidence and as an asset by an organization or person, in pursuit of legal obligations or in the transaction of business”.⁴⁰

CONSIDERATION

The value of traceability defines the benefits of guaranteeing effective document management and control. The central goal of this concept is to ensure the accurate identification and appropriate response to quality issues, and also supports the continual improvement of the QMS.

Created during the Initiation Stage of the project, the quality register is a key quality management record that includes all planned and completed quality activities, including results from quality inspections, design review and assurance activities, as well as any activities identified in the gender analysis or the Gender Action Plan. The quality register should be updated regularly throughout the project.

The information contained in the quality register informs quality planning, assurance and control activities, as well as data to update applicable logs and registers throughout the project Initiation and Implementation Stages. The information contained in the quality register will also provide input to reporting requirements, where applicable.

MORE INFORMATION

Refer to the [Quality Management](#) intranet page for a template of the quality register. This register will vary significantly depending on the size and category of the project and the particular context.

³⁸ PRINCE2, p. 324.

³⁹ Ibid., p. 383.

⁴⁰ International Organization for Standardization, 'Information and documentation – Records management', ISO 15489-1:2016, 2016, para. 3.14.

**TABLE 10** Overview of the PMM activities with links to quality management records

PROJECT STAGE	UNOPS QMS	REQ. *	ACTIVITY
General Activities	Monitor (Assurance)	0.4	Ensure creation, update and archival of records
	Monitor (Assurance)	0.5	Ensure usage of UNOPS systems and mandatory templates
Opportunity Stage	Plan	1.4.1	Complete Proposal
Pre-engagement Stage	Plan	2.1.8	Create Project Initiation Documentation
Initiation Stage	Plan	3.1.1	Complete Project Initiation Documentation
	Plan	3.1.2	Create Implementation Plan
Implementation Stage	Plan	4.2	Complete Implementation Plan
	Plan	4.2.2	Complete Sub-Plans
	Plan	4.4	Update Implementation Plan
	Plan	4.4.2	Complete Quarterly Plan
	Plan	4.6.1	Complete Delivery Team Plan
	Deliver	4.7.4	Report engagement status
	Monitor	4.7.4.A	Complete project quarterly assurance
	Deliver - Monitor	4.8.7	Manage quality
	Deliver	4.8.9	Report project status
	Deliver	4.8.9.A	Submit Quarterly Status Report
	Deliver	4.9.3	Report work package status
	Control	4.12.1	Report work package tolerance exception
	Control	4.13.1	Report project tolerance exception
	Plan	4.13.3	Submit Exception Plan
Closure Stage	Deliver	5.1.2	Submit Final Report
	Deliver	5.1.3	Obtain No-Objection Letter

* Note that the numbering in this figure follows the numbering in the PMM, Part II: Requirements.

5.2 Reporting

Timely and accurate reporting is essential for effective quality management, allowing for the early detection of and response to any issues that may affect the acceptance criteria/quality requirements in a project and providing assurance to partners and other key stakeholders. The Quality Plan should include any reporting requirements relevant to quality management, their purpose, timing and the intended recipients of these reporting activities.⁴¹ This may include Quarterly Status Reports, Quarterly Assurance Reports, Final Reports, as well as Exception Reports, when necessary. Refer to [TABLE 11](#) for an overview of the PMM activities with links to quality reporting.

In addition to the reporting requirements defined in the PMM, specific reporting requirements for a particular project should be included in the Legal Agreement and further developed, as necessary, in the Quality Plan and identified in the quality register. The purpose of reporting requirements is to monitor and control project progress, as well as to assure partners and other key stakeholders that the project is progressing as planned to meet the acceptance criteria/quality requirements as agreed.

⁴¹ PRINCE2, p. 324.



In the quality context, a nonconformity is the non-fulfillment of a requirement.⁴² It refers to a situation where an output or process does not meet the agreed quality criteria within the defined tolerances. In the UNOPS context, this is referred to as an issue and may or may not lead to an exception, depending on the scale and nature of the issue in question.

The discovery of any substantial deviations with regard to the acceptance criteria/quality requirements should be documented in the Quarterly Status Reports as well as in the issue register. Where an issue is expected to exceed the defined quality tolerances, an Exception Report is triggered and the issue must be managed and controlled in accordance with the requirements contained in *PMM, Part II: Requirements* (4.13).

EXAMPLE 27 Nonconformity/off-specification in projects

Category 1: In a Category 1 project involving the procurement of pharmaceuticals, a nonconformity may be identified where a spot check reveals that the manufacturer has not complied with the quality requirements, as evidenced by sample results showing errors in the product that exceed the quality tolerances set for the sampling procedure. In this situation, it is necessary to report an exception in accordance with the requirements in the *PMM*.

Category 2: A nonconformity may be identified in a Category 2 project with an output in grant support during the review of milestone reports and interim financial reports that indicate any inconsistencies in the use of grant support funds. For example, that the grant support funds were used for activities other than those activities identified in the proposal and approved by UNOPS. To address any potential nonconformity, a more thorough review of financial records should be conducted, and possibly site visits, to verify any nonconformities and determine the necessary course of action.

Category 3: In a Category 3 project with infrastructure outputs, a site inspection during the quality assurance process revealed that the proper strength tests had not been conducted by the contractor. The absence of these tests indicates that there may be nonconformities that were not identified. In this case, testing would need to be completed by the contractor to determine the presence of any nonconformity and the determination as to whether or not the tests revealed any deviation from quality tolerances.

During the Closure Stage of the project, following the handover of all project outputs, the Closure Manager should review the acceptance criteria/quality requirements, the quality register and lessons learned for incorporation in the Final Report. This report is submitted to the Partner for approval (5.1.2).

⁴² ISO 9000 Fundamentals & Vocabulary, para. 3.6.9.

**TABLE 11** Overview of the PMM activities with links to quality reporting

PROJECT STAGE	UNOPS QMS	REQ. *	ACTIVITY
General Activities	Monitor (Assurance)	0.4	Ensure creation, update and archival of records
	Monitor (Assurance)	0.5	Ensure usage of UNOPS systems and mandatory templates
Implementation Stage	Deliver	4.7.4	Report engagement status
	Monitor	4.7.4.A	Complete project quarterly assurance
	Deliver - Monitor	4.8.7	Manage quality
	Deliver	4.8.9	Report project status
	Deliver	4.8.9.A	Submit Quarterly Status Report
	Deliver	4.9.3	Report work package status
	Control	4.12.1	Report work package tolerance exception
	Control	4.13.1	Report project tolerance exception
Closure Stage	Deliver	5.1.2	Submit Final Report
	Deliver	5.1.3	Obtain No-Objection Letter

* Note that the numbering in this figure follows the numbering in the PMM, Part II: Requirements.

MORE INFORMATION

For further guidance on reporting requirements, see the Management Perspectives series publication *Management Control: Guidelines for Projects*.

Refer to the *Project Closure: Guidelines* for additional guidance on the roles, responsibilities and accountabilities for required activities and best practices for project closure.

Particular reporting requirements are identified in the UNOPS Contracts for Works for mandatory use with contractors. Similar reports should be considered for internal use in situations where a direct implementation modality is used to deliver infrastructure assets. More general quality management reporting requirements are also outlined in the *Construction Supervision: Guidelines*.



5.3 The timing of quality management activities

Identifying the timing of quality management activities provides a structured approach to quality management throughout the project lifespan, establishing clear expectations for the project team.

During the Opportunity, Pre-engagement and Initiation Stages of a project, the Business Developer, in collaboration with key stakeholders and technical experts, will define the specific and measurable acceptance criteria/quality requirements for project outputs (1.4, 2.1.8 and 3.1.1). This is accompanied by the processes, procedures, techniques, standards and responsibilities for quality management activities during the project lifespan.⁴³

The timing of formal quality management activities should be identified in the Quality Plan. At a minimum, quality planning includes the following activities:

- Developing the Quality Plan during the Initiation Stage and the first quarter of the Implementation Stage (3.1.2 and 4.2);
- Updating the quality register regularly during the Initiation and Implementation Stages with the planned and actual quality management activities (0.4 and 4.8.7);
- Reviewing and updating the Quality Plan on a quarterly basis during the project Implementation Stage (0.4 and 4.4);
- Conducting quality assurance, at minimum, on a quarterly basis during the project Implementation Stage (4.7.4.A);
- Reviewing the project success criteria, as applicable, during the project quarterly assurance process to assess trends and identify any corrective measures, when needed.
- Facilitating a quality audit during the Closure Stage of the project, when required by the legal agreement or at any point during the project when requested by IAIG (0.6); and
- Submitting the Final Report to the partner for approval during project closure (5.1.2).

Including the timing of formal quality management activities in the Quality Plan communicates the expectations of quality management activities to the project team. Identifying specific milestones in the system-based project scheduling can reinforce the recognition of the timing of these quality activities. This enables the project team to deliver project outputs that meet or exceed the quality expectations and requirements of key stakeholders.

⁴³ PRINCE2, p. 323.



5.4 Roles, responsibilities and accountabilities

Quality management requires defined roles and responsibilities for quality management activities to make certain that all necessary quality activities are implemented in a timely and effective manner.

The roles, responsibilities and accountabilities for quality activities identified in the *PMM* are defined by the responsibility assignment matrices (RACI) in the *PMM, Part II: Requirements*. The Quality Plan should identify the relevant roles, responsibilities and accountabilities for any additional quality management activities identified in the Quality Plan.

DEFINITION 6 RACI

RACI is a “common type of responsibility assignment matrix that uses responsible, accountable, consult, and inform statuses to define the involvement of stakeholders in project activities.”⁴⁴

It is important to determine who is responsible for quality activities. Certain projects implemented by UNOPS may not have clear cut boundaries between quality control and assurance. This can be a result of capacity development initiatives, in which UNOPS personnel actively help those responsible for delivery even though UNOPS personnel are not directly responsible for delivery activities. This may include entities such as community groups, grantees, procurement vendors and works contractors.

In direct implementation projects, UNOPS will take on both the quality assurance and quality control roles. This requires a clear separation of duties to ensure effective quality management. In more conventional infrastructure projects, the works contractor is the entity responsible for controlling quality. However, if capacity development is part of the project, the UNOPS personnel providing capacity development inputs are frequently involved in quality control. This may lead to contractual risks and liabilities if a quality issue is raised during the delivery of the output. Under these circumstances, it is important to incorporate checks and balances to ensure the appropriate definition of roles and the segregation of responsibilities and accountabilities.

Depending on the complexity of the projects within an office portfolio, some offices may have quality assurance/quality control (QA/QC) assistants, officers or advisors to assist with quality-related activities. These personnel may be attached to the Country Office structure, embedded in a Project/Programme Management Office (PMO) or employed directly within a project. These roles may be particularly prevalent in offices with substantial infrastructure workloads, due to the inherent complexity of these types of projects.

These personnel should inform or advise the project team as needed for the purpose of quality management and can be a critical resource for effective implementation. However, this does not in any way substitute the responsibility of the Project Manager to manage quality as per the *PMM*, nor the responsibility of the Project Executive to complete project quarterly assurance.

For all other quality activities that may be identified or updated as the project progresses, the associated roles, responsibilities and accountabilities should be included in the Quality Plan and reviewed and updated throughout the project lifespan.

⁴⁴ *PMBOK® Guide*, p. 718.



EXAMPLE 28 Responsibilities of a quality assurance/quality control officer

The terms of reference for a quality assurance/quality control (QA/QC) officer at UNOPS may include providing the necessary technical expertise for project implementation to ensure compliance of quality plans, materials, test procedures, specifications. Responsibilities may include, but are not limited to, the following:

- ▶ Assist in the management of the QA/QC plans, strategies, and reports for the programme;
- ▶ Guide and advise the drafting and development of the programme's Quality Management Strategy and QA/QC Plan which should be aligned with the requirements of the Country Office's QA/QC unit;
- ▶ Provide advice and guidance on project QA/QC plans and protocols for construction, construction equipment and materials;
- ▶ Guide and assist the establishment of quality procedures, including time limits for inspection, sampling and testing of works and materials;
- ▶ Recommend specific quality standards and construction schedules, which are appropriate to all levels of construction projects;
- ▶ Complete various QA/QC activities in a timely manner, according to approved work plans, specified quality standards and development needs;
- ▶ Control and assess progress of work, review the work plans of contractors and provide recommendations to project managers on methods to overcome issues and challenges;
- ▶ Conduct quality control reviews and prepare related reports for the design and construction of works, as required, and facilitate the compilation of inputs for monitoring and evaluation;
- ▶ Provide technical input and assist the Procurement Unit with all contractual matters for the completion of respective contracts;
- ▶ Monitor the implementation of works by conducting site visits and providing guidance for improvements;
- ▶ Review all standards to be used during laboratory tests, QA/QC testing schedules and procedures;
- ▶ Review contractor practices and conventional methodologies and make recommendations where remedial action is required;
- ▶ Check the accuracy of outputs produced in compliance with established quality standards;
- ▶ Provide recommendations to contractors to ensure that the most economical and appropriate quality materials and methods are utilized; and
- ▶ Recommend solutions to quality issues and identify improvements or rectification, when necessary.

MORE INFORMATION

For further guidance on defined roles, responsibilities and accountabilities, see the *PMM Part I: Guidelines* and the Management Perspectives series publication *Governance: Guidelines for Projects*.



References

UNOPS POLICIES

Policies listed below can be found on the [policies](#) page.

- UNOPS, '[Management of UNOPS Partners and Resulting Agreements](#)', OD.EO.2017.02, 13 October 2017.
- UNOPS, '[Project Management](#)', OI.IPS.2022.04, 13 September 2022.

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Publications listed below appear in the same order as they appear in the Implementation Standards Management Framework (ISMF) structure.

- [Gender, diversity and inclusion in our workforce: Strategy 2022-2025](#), Copenhagen, March 2022.
- [Gender Mainstreaming Strategy: Enhancing gender equality through UNOPS projects](#), Copenhagen, 30 August 2018.
- [Project Success Criteria](#), Vers. 2.0, Copenhagen, August 2022.
- [Implementation Standards Management Framework Guidelines](#), Vers. 1.0, Copenhagen, June 2020.
- [Project Management Manual, Part I: Guidelines](#), Vers. 1.1, Copenhagen, September 2019.
- [Project Management Manual, Part II: Requirements](#), Vers. 1.1, Copenhagen, December 2018.
- [Procurement Manual](#), Revision 7, Copenhagen, 1 July 2021.
- [Management Control: Guidelines for Projects](#), Vers. 1.0, Copenhagen, December 2019.
- [Governance: Guidelines for Projects](#), Vers. 1.0, Copenhagen, February 2021.
- [Project Closure: Guidelines](#), Vers. 1.0, Copenhagen, September 2020.
- [Construction Supervision: Guidelines](#), Vers. 1.1, Copenhagen, December 2018.
- '[Quality Plan](#)', Project management template, Copenhagen, June 2022.
- '[Quality register](#)', Project management template, Copenhagen, June 2022.

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- Axelos, *Managing Successful Projects with PRINCE2*, 6th ed., TSO, Norwich, 2017.
- International Organization for Standardization, *Guidance on project management*, 2012.
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