



WHOLE QUALITY ROOT VOCABULARY STANDARD

WHOLE QUALITY STANDARD VOC1

Revision 2.6 — October 2026

Authoritative Vocabulary for the Whole Quality Methodology

WHOLE QUALITY INSTITUTE

Foreword

Whole Quality is intended to be applicable across very different Quality Objects: infrastructure systems, support services, management arrangements, health states, educational systems, environmental services, and other objects and systems-of-systems. These domains require different applied language, but they cannot support one methodology if their principal concepts drift apart.

This Standard establishes the WQI Root Vocabulary: the authoritative vocabulary of concepts that belong to the Whole Quality methodology itself. It provides the common conceptual foundation from which Applied Vocabularies, Core Standards, Context Guides, and other Whole Quality documents are developed.

The Root Vocabulary is not an exhaustive dictionary for every application domain. It defines Root Concepts that must retain stable meaning across domains and also controls selected supporting concepts and methodological documentation structures needed for coherent Whole Quality use. Infrastructure-specific terms remain in IQI_VOC1. Support-service and occupational terms remain in AMSI_VOC1. Other application domains may develop their own Applied Vocabularies while adopting Root Concepts without modification.

This Standard is voluntary and non-regulatory. It does not establish technical, clinical, service- delivery, management, certification, or legal requirements. Its purpose is to preserve one coherent language for Whole Quality reasoning.

Revision 2.6 clarifies the distinction between the actual Quality State of a Quality Object and what can be established about that state through Quality Determination. It also incorporates controlled concepts for Quality Claim formation and for the relationship of Quality to Harm, Risk, and Safety, while preserving their distinct methodological roles. The complete Evidence Quality and Management System Quality Factor and Indicator architectures remain established in WQI_EQC1 and WQI_QMS1.

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1 Introduction

1.1 Purpose

The purpose of this Standard is to establish the authoritative vocabulary of the Whole Quality methodology, including its Root Concepts and supporting controlled concepts, and to define the rules by which Root Concepts are adopted and extended in Applied Vocabularies.

1.2 Position Within the Whole Quality Architecture

The WQI Root Vocabulary defines the shared terms used across Whole Quality documents. WQI Core Standards establish the Factor and Indicator architectures for particular classes of Quality Objects; Applied Vocabularies interpret Root Concepts for their domains, and Context Guides address defined contexts.

- Foundational Articles explain.
- The WQI Root Vocabulary defines.
- Applied Vocabularies extend.
- Core Standards require.
- Context Guides interpret.

1.3 One Concept - One Authoritative Definition

Each controlled Whole Quality concept shall have one Authoritative Definition at the document layer appropriate to that concept. Root Concepts and supporting WQI-controlled concepts defined in this Standard are governed here. Applied Concepts are defined in the relevant Applied Vocabulary. Core Standards and Context Guides use and cross-reference those definitions; they do not redefine them.

1.4 Relationship to Applied Vocabularies

Applied Vocabularies adopt Root Concepts without modification and define only additional concepts required by the relevant class of Quality Objects. IQI_VOC1 therefore retains infrastructure-specific concepts, while AMSI_VOC1 retains support-service, occupational, and caregiving concepts.

1.5 Intended Use

This Standard is intended to support consistent drafting, interpretation, comparison, revision, and expansion of Whole Quality documents across application domains.

2 Reference Documents

- WQI Foundational Articles 1-11, current revision-controlled editions.
- FTA5 - One Root Vocabulary, Many Applied Vocabularies, current revision-controlled edition.
- FTA7 - Boundaries in Whole Quality, current revision-controlled edition.
- FTA11 - Methodological Resolution in Whole Quality, current revision-controlled edition.
- IQI_VOC1 - Infrastructure Quality Vocabulary Standard, current revision-controlled edition.
- WQI_EQC1 — Evidence Quality Standard — Core, current controlled edition.
- AMSI_VOC1 - Support Service Quality Vocabulary Standard, current revision- controlled edition.
- Relevant WQI, IQI, and AMSI Core Standards and Context Guides used to test conceptual consistency.

External laws, regulations, codes, classifications, scientific sources, professional standards, contractual requirements, specifications, design bases, and other justified sources may form part of the Applicable Basis or Reference Layer in particular applications. They do not control the meaning of Root Concepts within Whole Quality documents unless expressly incorporated into the Whole Quality vocabulary architecture.

- FTA12 - Evidence in Whole Quality: Evidence Quality, Findings, Uncertainty, and Traceability, current revision-controlled edition.

- FTA13 - Management System Quality in Whole Quality, current revision-controlled edition.
- FTA14 - Quality and Harm: The Dual-Nature Postulate, current revision-controlled edition.
- FTA15 - Quality and Harm: From Quality Conditions to Harm, Risk, and Safety, current revision-controlled edition.
- WQI_QMS1 — Management System Quality Standard — Core, current controlled edition.

3 Root Conceptual Framework and Vocabulary Scope

3.1 Root Conceptual Dependency

Whole Quality is organized through related methodological concepts. Their dependencies are logical but do not require a rigid one-pass sequence. The architecture distinguishes the actual Quality State of the Quality Object from what Quality Determination can establish about that state and from any subsequent Quality Claim.

Reality: Quality Object -> Quality State.

Quality Determination: Intended Function(s) and Intended Result(s) -> Function Realization -> Quality Factors -> Quality Indicators -> Quality Outcome Criteria. Applicable Basis and Reference Layer establish or support what applies and what is expected. Evidence concerning actual condition, considered through Evidence Quality, supports Quality Determination and Evidence-Supported Findings about the Quality State.

Quality Claim formation, where a Quality Claim is made: applicable Findings -> Materiality -> material Findings -> Synthesis of Material Findings -> Positive, Conditionally Positive, or Negative Conclusion; or, where none can responsibly be expressed, Refusal to Express a Conclusion -> Quality Claim.

Scale, Boundaries, Interfaces, and Context establish relevant aspects of the scope and conditions within which the Quality Object, its Function Realization, and the intended Quality Determination are considered.

Methodological Resolution establishes the degree of quality-relevant detail used to examine the defined Quality Object for the intended Quality Determination.

Applicable Basis establishes or justifies what applies to the Quality Object, its Intended Functions and Intended Results, and the intended Quality Determination. Reference Layer identifies the sources used to establish or justify applicable Quality Outcome Criteria.

Evidence Quality governs what Evidence can responsibly support. Evidence Sufficiency, Evidence Trustworthiness, and Evidence Applicability constrain the scope and certainty of Findings and of what can be determined about the Quality State; they do not create or alter the underlying Quality State.

Where a Management System is separately defined as the Quality Object, WQI_QMS1 establishes the six-Factor and fifty-Indicator architecture used to examine its Quality. Applicable Evidence remains subject to the Evidence Quality architecture.

Failure-Mode Families may be used to test whether important aspects of Function Realization have been overlooked. They do not by themselves generate the Quality Factor architecture.

Critical Conditions and Non-Compensability constrain interpretation and synthesis where specified unfavorable, failed, or unresolved conditions cannot responsibly be offset by favorable Findings elsewhere.

Traceability preserves the material relationships connecting a Quality Determination and, where applicable, a Quality Claim to their relevant methodological and evidentiary basis.

Application may involve iterative refinement as understanding develops. Such refinement shall not be used to change the Quality Object, scope, criteria, Evidence basis, or other material elements merely to obtain a preferred Finding, Conclusion, or Quality Claim.

3.2 Quality Object as the Primary Reference Point

Every Quality Determination begins with a defined Quality Object.

The Quality Object identifies the subject whose Quality is being determined. It therefore provides the primary reference point for establishing or interpreting its Intended Functions and Intended Results, Function Realization, Scale, Boundaries, Interfaces, Context, Quality Factors, Quality Indicators, Quality Outcome Criteria, Evidence needs, and the permissible scope of what can be determined about the Quality State and of any resulting Quality Claim.

A constituent, subsystem, dependency, organization, service, Management System, or other related subject does not automatically become a separate Quality Object merely because it is examined as part of the determination. It becomes a separate Quality Object when it is separately defined as the subject of a Quality Determination.

Quality Objects may overlap. They may also share infrastructure, resources, constituents, Interfaces, organizations, information, or other elements. Such overlap or sharing does not merge their Quality States.

The Quality State of one Quality Object does not automatically establish the Quality State of another Quality Object. What is established about one Quality Object also does not automatically establish what can be determined about another, even where the two Quality Objects overlap or share elements.

3.3 Iterative Refinement

Whole Quality permits iterative refinement.

Initial understanding of a Quality Object may reveal that additional or different detail is needed to make the intended Quality Determination adequately supported. Refinement may therefore affect the Quality Object Description, Methodological Resolution, Boundaries, Interfaces, Context, Applicable Basis, Quality Factors, Quality Indicators, Quality Outcome Criteria, Evidence needs, or other elements of the methodological structure.

Iteration is legitimate when it improves the adequacy of the Quality Determination. Iteration shall not be used to alter the methodological basis silently in order to obtain a preferred Finding, Conclusion, or Quality Claim.

Where refinement materially changes the defined subject, scope, basis, Evidence, interpretation, or permissible Finding, Conclusion, or Quality Claim, the change should remain traceable. The final methodological structure shall correspond to the Quality Object and Quality Determination actually used to establish the reported Findings and, where applicable, the Conclusion and Quality Claim.

3.4 Invariance and Context

The meanings of Root Concepts are invariant across Whole Quality applications. Their application, however, is not context-free.

Different Quality Objects and application domains may require different substantive requirements, scientific knowledge, Quality Outcome Criteria, Evidence, methods, terminology, Methodological Resolution, and other application-specific provisions.

Context may affect which requirements or criteria apply, which conditions are relevant, what Evidence is needed, and how the Quality Object and its Function Realization must be examined.

Some recurring classes of Quality Objects may have specialized invariant Quality architectures established through WQI cross-domain testing. Such an invariant architecture remains an application of the general Whole Quality methodology and does not imply that all classes of Quality Objects share the same Factors, Indicators, criteria, Evidence, or implementation.

Applied Vocabularies, Core Standards, and Context Guides may interpret Root Concepts for particular classes of Quality Objects or bounded applications. They shall not redefine the Root Concepts themselves. Context-specific interpretation therefore changes how an invariant concept is applied, not what that Root Concept means.

3.5 Vocabulary Scope

The WQI Root Vocabulary defines concepts that have a distinct methodological role in Whole Quality and broad relevance across different classes of Quality Objects and application domains.

It is not intended to define every technical, scientific, clinical, biological, organizational, legal, regulatory, management, reliability, risk, performance, conformity, or other domain term that may be relevant to a Quality Determination.

Where an established domain concept is used without a distinct WQI methodological meaning, its established domain meaning remains applicable.

Where a particular application requires additional controlled terminology, that terminology may be defined as an Applied Concept in the appropriate Applied Vocabulary, Core Standard, Context Guide, or other controlled application document.

A concept should be included as a Root Concept only where it performs a distinct Whole Quality methodological role and its meaning is sufficiently stable and broadly applicable across different Quality Objects or domains.

The Root Vocabulary should therefore be sufficient for the Whole Quality methodology without becoming a general dictionary of every concept that Whole Quality may use.

4 Whole Quality Vocabulary - Terms and Definitions

4.1 Concepts Used in Quality Determination

4.1.1 Whole Quality

WHOLE QUALITY - A methodology for determining what can be established about the Quality State of a defined Quality Object and, where applicable, communicating that determination through a Quality Claim, by examining realization of its Intended Functions and Intended Results within declared Boundaries and Interfaces, using Quality Factors, Quality Indicators, Quality Outcome Criteria, and applicable Evidence.

Note 1. Whole Quality is applicable across different classes and Scales of Quality Objects.

Note 2. The methodology does not require maximum detail; Methodological Resolution should be adequate for the intended Quality Determination.

Note 3. Whole Quality may use established domain methods without replacing their established meanings.

4.1.2 Quality

QUALITY - The degree to which a defined Quality Object realizes its Intended Functions and Intended Results within declared Boundaries and Interfaces in relation to applicable Quality Outcome Criteria.

Note 1. Quality concerns actual Function Realization, not merely activity, effort, documentation, conformity, certification, performance, absence of observed failure, or risk.

Note 2. What can responsibly be established about Quality may be partial, conditional, degraded, mixed, or otherwise bounded by the applicable Findings, Evidence Quality, Uncertainty, scope, and Methodological Resolution.

Note 3. Where a Quality Object has multiple Intended Functions, favorable realization of one does not automatically compensate for failure or unresolved realization of another.

Note 4. Where a Quality Object has multiple Intended Functions or Intended Results, their Function Realization shall be examined sufficiently to support the scope of the intended Quality Determination and resulting Quality Claim or Claims.

Note 5. Evidence supporting one Intended Function or Intended Result shall not automatically be treated as Evidence supporting another; shared use shall be justified for the Finding being supported.

4.1.3 Quality Object

QUALITY OBJECT - The defined subject whose Quality is being determined.

Note 1. A Quality Object may be physical or nonphysical and may contain or depend on other subjects.

Note 2. A constituent or subsystem becomes a separate Quality Object only when separately defined for a Quality Determination.

Note 3. Quality Objects may overlap or share elements without merging their Quality States.

Note 4. Definition of the Quality Object should be justified by the intended Quality Determination, Function Realization, and Applicable Basis rather than by a preferred Quality State or Quality Claim.

4.1.4 Intended Function

INTENDED FUNCTION - What the Quality Object is required or intended to do.

Note 1. A Quality Object may have more than one Intended Function.

Note 2. Multiple Intended Functions may have different, shared, interacting, dependent, or prioritized Intended Results. These relationships should be made clear where they affect the Quality Determination or Quality Claim.

Note 3. An Intended Function shall be established for the Quality Object and Context being considered.

Note 4. Applicable Basis may be used to establish or justify an Intended Function.

Note 5. For biological or natural Quality Objects, an Intended Function does not require conscious design and may be established through an appropriate scientific basis.

4.1.5 Intended Result

INTENDED RESULT - A result required or intended to arise from realization of an Intended Function.

Note 1. An Intended Function may have one or more Intended Results.

Note 2. Intended Results may be immediate, delayed, continuous, intermittent, tangible, or intangible.

Note 3. Not every consequence or output is an Intended Result.

Note 4. An Intended Result may be associated with more than one Intended Function where justified.

4.1.6 Function Realization

FUNCTION REALIZATION - The manner and degree to which a Quality Object realizes an Intended Function and its associated Intended Results.

Note 1. Function Realization may be complete, partial, degraded, intermittent, conditional, absent, or not demonstrated.

Note 2. It may depend on relevant conditions, relationships, dependencies, and Interfaces.

Note 3. For conditional, intermittent, standby, or demand-dependent functions, demonstrated capability may form part of Function Realization.

Note 4. Current activity or performance does not necessarily demonstrate all conditions of Function Realization.

Note 5. Where a Quality Object has multiple Intended Functions, Function Realization may be examined for the individual functions and associated Intended Results and for material relationships among them.

4.1.7 Scale

SCALE - The level of aggregation or extent at which a Quality Object is defined and its Quality is considered.

Note 1. Changing Scale changes the level or extent at which the Quality Object is considered.

Note 2. Scale is distinct from Methodological Resolution.

Note 3. What is established about a Quality State at one Scale does not automatically transfer to another Scale.

Note 4. Evidence or Findings may support consideration at another Scale only where that use is justified.

4.1.8 Methodological Resolution

METHODOLOGICAL RESOLUTION - The degree of quality-relevant detail used to examine a defined Quality Object for the intended determination.

Note 1. Methodological Resolution concerns depth of examination, not the level or extent of the Quality Object.

Note 2. Finer Methodological Resolution may reveal additional relevant detail without creating a new Quality Object or Scale.

Note 3. More detail is not automatically better; resolution should be adequate for the intended Quality Determination.

4.1.9 Boundary

BOUNDARY - The relevant limit that defines what is included within and excluded from a Quality Object for the intended determination.

Note 1. Boundaries may be physical, functional, organizational, informational, responsibility-based, temporal in application, or otherwise relevant.

Note 2. A Boundary need not coincide with ownership, property, jurisdiction, or organizational limits.

Note 3. Internal distinctions do not automatically create separate Quality Objects.

Note 4. An external dependency may be essential to Function Realization without being included within the Quality Object.

4.1.10 Interface

INTERFACE - A relevant point or relationship through which parts of a Quality Object, or the Quality Object and something outside it, interact in Function Realization.

Note 1. Interfaces may involve material, energy, information, control, authority, responsibility, service, or other interactions.

Note 2. An Interface does not automatically merge participating subjects into one Quality Object.

Note 3. Interface degradation may impair Function Realization.

Note 4. The same relationship may participate in more than one Quality Object.

4.1.11 Boundary Transparency

BOUNDARY TRANSPARENCY - The degree to which the relevant limits, inclusions, exclusions, and Boundary relationships of a Quality Object are made sufficiently clear for the intended Quality Determination.

Note 1. Boundary Transparency supports consistent interpretation of what is and is not included in the Quality Object.

4.1.12 Interface Transparency

INTERFACE TRANSPARENCY - The degree to which the relevant interactions within a Quality Object and across its Boundary are made sufficiently clear for the intended Quality Determination.

Note 1. Interface Transparency complements Boundary Transparency.

Note 2. A transparent Boundary does not necessarily imply a transparent Interface.

4.1.13 Context

CONTEXT - The relevant surrounding conditions and circumstances that affect the Quality Object, Function Realization, or the intended Quality Determination.

Note 1. Context is distinct from the Quality Object, Scale, Boundary, Interface, Methodological Resolution, and Applicable Basis.

Note 2. Context may affect applicability of Quality Outcome Criteria but does not itself establish the substantive expected state.

4.1.14 Applicable Basis

APPLICABLE BASIS - The requirements, knowledge, and other justified bases used to establish what applies to a Quality Object, its Intended Functions and Intended Results, and the intended Quality Determination.

Note 1. Applicable Basis may include legal, regulatory, contractual, technical, scientific, professional, functional, or other justified bases.

Note 2. Applicable Basis may establish or justify priorities among multiple Intended Functions or Intended Results.

Note 3. Conflicting bases should be addressed through applicable authority or precedence rather than analyst preference.

Note 4. Applicable Basis is distinct from Reference Layer, Evidence, and Context.

4.1.15 Failure Mode

FAILURE MODE - A way in which an Intended Function or Intended Result may fail to be realized as required or may become degraded.

Note 1. A Failure Mode is not the same as its cause or consequence.

Note 2. A possible Failure Mode is not evidence that failure has occurred.

Note 3. A Failure Mode is not automatically a Critical Condition.

Note 4. Failure Modes may be represented differently at different Methodological Resolution.

4.1.16 Failure-Mode Family

FAILURE-MODE FAMILY - A broad grouping of related Failure Modes used to test whether important aspects of Function Realization have been overlooked.

Note 1. Failure-Mode Families are a completeness-checking device and do not by themselves generate the Quality Factor architecture.

Note 2. The number or classification of Failure-Mode Families does not determine the number of Quality Factors.

4.1.17 Quality Factor

QUALITY FACTOR - A principal dimension of Function Realization used to determine what can be established about the Quality State of a defined Quality Object.

Note 1. Quality Factors are derived from the Quality Object, Intended Functions and Intended Results, Boundaries, Interfaces, relevant conditions, and applicable requirements or knowledge.

Note 2. Failure-Mode Families may be used to test whether important dimensions have been omitted.

Note 3. A Quality Factor is not a measurement, score, criterion, or finding.

Note 4. The number of Quality Factors is a methodological result rather than a universal constant.

4.1.18 Quality Indicator

QUALITY INDICATOR - An aspect of a Quality Factor that identifies what should be examined to understand that Factor.

Note 1. A Quality Indicator identifies what should be examined, not how the examination must be performed.

Note 2. An Indicator may support quantitative or qualitative examination.

Note 3. An Indicator is distinct from a metric, observed value, Quality Outcome Criterion, Evidence, Finding, Quality State, or Quality Claim.

Note 4. Factor and Indicator classification may vary with Methodological Resolution where justified.

4.1.19 Quality Outcome Criterion

QUALITY OUTCOME CRITERION - The expected state or result against which observations associated with a Quality Indicator are interpreted.

Note 1. A Quality Outcome Criterion should have a traceable substantive basis.

Note 2. One Quality Indicator may require multiple complementary Quality Outcome Criteria.

Note 3. A Quality Outcome Criterion is distinct from the Quality Indicator itself.

Note 4. Context may affect applicability of a criterion without itself creating the substantive expected state.

Note 5. A Quality Outcome Criterion applies to the condition examined through a Quality Indicator; it does not replace or redefine the Indicator.

4.1.20 Reference Layer

REFERENCE LAYER - The body of sources used to establish or justify the Quality Outcome Criteria applicable to a Quality Object.

Note 1. The Reference Layer may include laws, regulations, standards, contracts, specifications, design bases, scientific literature, professional guidance, validated data, and other justified sources from which applicable Quality Outcome Criteria may be established or justified.

Note 2. Inclusion of a source does not make every part of that source applicable.

Note 3. Quality Outcome Criteria should be traceable to the relevant Reference Layer sources.

Note 4. Reference Layer is distinct from Applicable Basis and Evidence.

4.1.21 Evidence

EVIDENCE - Information or observations used to support a Finding about the actual condition of a Quality Object.

Note 1. Evidence may include observations, measurements, tests, records, physical conditions, samples, images, operating information, testimony, system information, or other relevant information.

Note 2. Evidence may be quantitative or qualitative.

Note 3. Evidence is distinct from the Quality State of the Quality Object and from the Finding that it supports.

Note 4. The existence or quantity of information does not by itself establish Evidence Quality or a Finding.

Note 5. Evidence may itself be treated as a Quality Object when its Quality is separately determined.

4.1.24 Evidence Quality

EVIDENCE QUALITY - The degree to which Evidence realizes its Intended Function of supporting a Finding about the actual condition of a Quality Object.

Note 1. Evidence Quality is determined through Evidence Sufficiency, Evidence Trustworthiness, and Evidence Applicability.

Note 2. Evidence Quality is use-dependent. The same Evidence may have different Quality for different Findings, Intended Functions or Intended Results, Quality Objects, Contexts, times, or Quality Determinations.

Note 3. High Evidence Quality does not establish favorable Quality of the Quality Object being examined.

Note 4. Poor Evidence Quality does not by itself establish poor Quality of the Quality Object being examined.

Note 5. Evidence Quality limits the scope and certainty of the Finding that the Evidence can responsibly support.

Note 6. In simple terms, Evidence Quality asks three separate questions: Is there enough Evidence? - Evidence Sufficiency. Can the Evidence be relied upon? - Evidence Trustworthiness. Can the Evidence properly be used for this Finding? - Evidence Applicability.

Note 7. Evidence Quality concerns the capability and condition of the Evidence for the use being made of it. It is not established merely because a Finding was produced.

Note 8. Evidence Quality is used to determine what the Evidence can responsibly support in a Finding. It does not ordinarily require a separate Quality State for the Evidence unless Evidence itself is separately defined as the Quality Object of another Quality Determination.

WQI_EQC1 establishes the three Evidence Quality Factors and ten Indicators. The definitions below identify these cross-domain concepts; the Core Standard controls their architecture, intent, boundaries, and use.

For the complete Evidence Quality Indicator architecture and its application, see WQI_EQC1. The definitions of the ten Indicator concepts follow in sections 4.1.28 through 4.1.37.

Application note. Evidence Quality is distinct from the Quality of the primary Quality Object or Management System to which the Evidence relates. High Evidence Quality does not establish a favorable Quality State of that other object, and unfavorable or limited Evidence Quality does not by itself establish an unfavorable Quality State of that other object. Evidence Quality determines what the Evidence can responsibly support.

Application note. Evidence Quality remains distinct from Uncertainty and Traceability. Uncertainty identifies what remains unknown, unresolved, or not established with sufficient confidence. Traceability makes the evidentiary and reasoning relationships visible. Neither is an additional Evidence Quality Factor or Indicator, and neither substitutes for Evidence Quality.

4.1.25 Evidence Sufficiency

EVIDENCE SUFFICIENCY - The degree to which Evidence provides enough support for the intended scope and certainty of a Finding.

Note 1. Evidence Sufficiency concerns whether enough evidentiary support is available for the Finding being made.

Note 2. More Evidence is not automatically sufficient Evidence.

Note 3. Evidence may be sufficient for a limited Finding without being sufficient for a broader Finding, Quality State, or Quality Claim.

Note 4. Insufficient Evidence limits what can responsibly be established; it does not by itself establish poor Quality of the Quality Object being examined.

Note 5. Evidence Sufficiency is examined through Coverage, Completeness, and Resolution.

4.1.26 Evidence Trustworthiness

EVIDENCE TRUSTWORTHINESS - The degree to which Evidence can be relied upon as representing the condition that it purports to represent.

Note 1. Evidence Trustworthiness concerns whether the evidentiary representation can be relied upon, not whether enough Evidence exists or whether it is applicable to a particular Finding.

Note 2. Evidence Trustworthiness is examined through Source Reliability, Validity, Accuracy, and Evidence Integrity.

Note 3. Evidence may be trustworthy for what it represents without being sufficient or applicable for the Finding being made.

4.1.27 Evidence Applicability

EVIDENCE APPLICABILITY - The degree to which Evidence can properly be used to support a particular Finding and Quality Determination.

Note 1. Evidence Applicability depends on the relationship between the Evidence and the subject, Context, and determination for which it is used.

Note 2. Evidence may be trustworthy and sufficient for one Finding while not being applicable to another.

Note 3. Evidence originating at another time, Lifecycle stage, Scale, Context, Quality Object, or condition shall not be assumed to remain applicable.

Note 4. Evidence Applicability is examined through Subject Applicability, Context Applicability, and Determination Applicability.

4.1.28 Coverage

COVERAGE - The degree to which Evidence extends across the relevant parts, conditions, periods, events, or other aspects that must be examined for the Finding being supported.

Note 1. Broad Coverage does not by itself establish that material Evidence within the applicable scope is complete.

4.1.29 Completeness

COMPLETENESS - The degree to which material Evidence needed within the applicable scope is present rather than missing.

Note 1. Completeness is evaluated within the applicable scope and does not by itself establish adequate Coverage beyond that scope.

Note 2. Evidence may have broad Coverage while remaining incomplete where material Evidence within that covered scope is missing.

4.1.30 Resolution

RESOLUTION - The degree of evidentiary detail or discrimination available to support the Finding at the Methodological Resolution required for the intended Quality Determination.

Note 1. More detail is not automatically better; Evidence Resolution should be adequate for the Finding being supported.

Note 2. Evidence Resolution concerns the detail available in the Evidence. Methodological Resolution concerns the degree of quality-relevant detail used in the examination. They are related but are not the same concept.

4.1.31 Source Reliability

SOURCE RELIABILITY - The degree to which the source of Evidence can be relied upon for the evidentiary use being made of it.

Note 1. Source Reliability does not by itself establish the Validity, Accuracy, or Integrity of particular Evidence.

4.1.32 Validity

VALIDITY - The degree to which Evidence represents the condition or characteristic that it purports to represent.

Note 1. Evidence may be valid as a representation of a characteristic while still containing material error in that representation.

Note 2. This WQI use of Validity concerns the representational relationship of Evidence. It does not replace broader or domain-specific meanings of validity used in particular scientific, technical, legal, or research contexts.

4.1.33 Accuracy

ACCURACY - The degree to which the condition or characteristic represented by Evidence is represented without material error.

Note 1. Accuracy is distinct from whether the Evidence represents the correct condition or characteristic for the use being made of it.

4.1.34 Evidence Integrity

EVIDENCE INTEGRITY - The degree to which Evidence has remained materially intact and free from unauthorized, unexplained, or quality-relevant alteration, loss, substitution, or distortion through its evidentiary lifecycle.

Note 1. Evidence Integrity may be affected during recording, storage, transfer, processing, transformation, retrieval, selection, retention, or reuse.

Note 2. Evidence Integrity concerns preservation of the Evidence through its evidentiary lifecycle. Accuracy concerns whether the represented condition is represented without material error. One may affect the other, but they are not the same concept.

4.1.35 Subject Applicability

SUBJECT APPLICABILITY - The degree to which Evidence concerns the Quality Object, part, condition, event, or period that is the subject of the Finding.

4.1.36 Context Applicability

CONTEXT APPLICABILITY - The degree to which Evidence remains applicable under the conditions and circumstances in which the Finding is being made.

4.1.37 Determination Applicability

DETERMINATION APPLICABILITY - The degree to which what the Evidence represents can properly support the particular Finding or Quality Determination for which it is being used.

Note 1. Evidence may validly and accurately represent one condition while not supporting a different Finding for which it is being used.

Note 2. Evidence may be Valid and Accurate for what it represents while still being unsuitable for the particular Finding being made.

Note 3. Determination Applicability concerns whether the condition represented by the Evidence is relevant to the logical conclusion being drawn. It does not replace Subject Applicability or Context Applicability.

4.1.38 Uncertainty

UNCERTAINTY - The extent to which a relevant condition, relationship, or conclusion in a Quality Determination remains unknown or not established with sufficient confidence.

Note 1. Uncertainty may arise from Evidence, measurement, sampling, variability, assumptions, models, incomplete information, conflicting information, or changing conditions.

Note 2. Uncertainty is distinct from Evidence Quality, although limitations in Evidence Quality may contribute to Uncertainty.

Note 3. Material Uncertainty may remain even where Evidence is of high Quality.

Note 4. Uncertainty does not by itself establish poor Quality.

Note 5. Material Uncertainty should remain visible in the Quality Determination and bound the certainty or scope of the Quality Claim.

Note 5. Uncertainty concerns what is known or can be established about a condition, relationship, or conclusion; it does not make the underlying Quality State itself uncertain in existence.

4.1.39 Unresolved Condition

UNRESOLVED CONDITION - A relevant condition, discrepancy, anomaly, evidence gap, uncertainty, or potential failure mechanism that has not been sufficiently resolved for the intended Quality Determination or Quality Claim.

Note 1. An Unresolved Condition may require monitoring, investigation, restriction, qualification, or exclusion from a Quality Claim.

4.1.40 Assumption

ASSUMPTION - A proposition accepted for the purpose of analysis or interpretation when it has not been fully demonstrated by direct Evidence.

Note 1. Assumptions should be declared when they materially affect the Quality Determination or Quality Claim.

4.1.41 Assumption Drift

ASSUMPTION DRIFT - The loss of validity, relevance, or visibility of an Assumption as the Quality Object, Context, Evidence, or time changes.

Note 1. Assumption Drift may occur when an original design, service, organizational, biological, social, or operating Assumption is carried forward without re-examination.

4.1.42 Evidence-Supported Finding

EVIDENCE-SUPPORTED FINDING - An Evidence-supported result established through Quality Determination concerning an applicable aspect of the Quality State of a defined Quality Object.

Note 1. A Finding is distinct from the Evidence that supports it and from the Quality State about which it is made.

Note 2. A Finding may establish achievement, non-achievement, another determined condition, or that the available Evidence does not support determination of the matter being examined.

Note 3. The scope and certainty of a Finding shall not exceed what its supporting Evidence can responsibly support.

Note 4. Where a Finding contributes to examination of more than one Intended Function or Intended Result, the applicability of its supporting Evidence to each use shall be established rather than assumed.

Note 5. Contrary, conflicting, or materially inconsistent Evidence relevant to a Finding shall remain visible in establishing what that Finding can responsibly state.

4.1.43 Quality Factor Interpretation

QUALITY FACTOR INTERPRETATION - The interpretation of relevant Evidence-Supported Findings to determine what they establish about the condition of a Quality Factor.

Note 1. Quality Factor Interpretation may be qualitative or quantitative.

Note 2. Interpretation should consider applicable Quality Outcome Criteria, Evidence Quality, Uncertainty, and relevant relationships among Findings.

Note 3. Interpretation is not automatically a count, average, weight, or score.

Note 4. Favorable Findings do not automatically compensate for unfavorable or unresolved Findings; any compensation should be justified and traceable.

4.1.44 Critical Condition

CRITICAL CONDITION - A condition whose absence, non-achievement, violation, failure, or unresolved status prevents a responsible Positive Conclusion or otherwise materially constrains the permissible Conclusion or Quality Claim.

Note 1. A Critical Condition is not merely an important condition.

Note 2. Critical status should be justified through Function Realization and the Applicable Basis.

Note 3. An unresolved Critical Condition does not necessarily prove poor underlying Quality, but it prevents a responsible Positive Conclusion where demonstration is required and may otherwise constrain the permissible Conclusion or Quality Claim.

Note 4. Critical status shall not be assigned merely by analyst preference.

4.1.45 Non-Compensability

NON-COMPENSABILITY - The principle that specified unfavorable or unresolved conditions cannot be offset by favorable findings elsewhere in the Quality Determination.

Note 1. Non-Compensability does not apply automatically to every unfavorable or unresolved condition.

Note 2. Its application should be justified through Function Realization, Applicable Basis, Quality Outcome Criteria, or another relevant basis.

Note 3. A Critical Condition has a non-compensable consequence at the relevant determination, but a non-compensable condition need not always be formally classified as Critical.

Note 4. Averaging, weighting, or scoring shall not be used to conceal a non-compensable condition.

4.1.46 Quality Determination

QUALITY DETERMINATION - The Evidence-based process of determining what can be established about the Quality State of a defined Quality Object through evaluation of Evidence in relation to applicable Quality Outcome Criteria.

Note 1. Quality Determination does not create or establish the underlying Quality State; it establishes what can responsibly be determined about that state.

Note 2. Quality Determination establishes Evidence-Supported Findings concerning applicable aspects of the Quality State.

Note 3. Quality Determination is bounded by the defined Quality Object, Scale, Boundary, Interfaces, Context, temporal basis, Methodological Resolution, Applicable Basis, applicable Quality Outcome Criteria, and available Evidence.

Note 4. Limitations in Evidence Quality and material Uncertainty limit what can responsibly be determined; they do not by themselves establish favorable or unfavorable Quality of the Quality Object.

Note 5. Quality Determination is defined by its methodological function and does not depend upon a particular person, organization, institutional role, or first-, second-, or third-party status.

Note 6. Iterative refinement is permitted where material changes and their evidentiary basis remain traceable.

4.1.47 Quality State

QUALITY STATE - The actual Quality-relevant condition of a defined Quality Object, at a defined time or period, in relation to realization of its Intended Functions and Intended Results.

Note 1. A Quality State is a condition of the Quality Object and exists independently of whether a Quality Determination has been performed.

Note 2. Quality Factors and Quality Indicators provide the methodological structure through which what can be established about the Quality State is determined. Quality Outcome Criteria establish the expected states or results against which applicable aspects of the Quality State are evaluated.

Note 3. Evidence, Findings, Evidence limitations, Uncertainty, and Quality Claims concern what can be established or communicated about the Quality State; they are not constituents of the Quality State itself.

Note 4. The Quality State is temporally situated. Its consideration within Whole Quality is bounded by the defined Quality Object, Scale, Boundary, Interfaces, applicable Context, and temporal basis.

Note 5. The Quality State of one Quality Object does not automatically establish the Quality State of another Quality Object or at another Scale.

4.1.48 Materiality

MATERIALITY - The significance of a Finding, condition, relationship, limitation, or other matter to the synthesis, Conclusion, or information necessary for a Quality Claim to realize its Intended Function for its recipient.

Note 1. Materiality is relational and depends upon the intended Quality Claim, its Intended Function, recipient, Context, and applicable Findings.

Note 2. Materiality does not alter the underlying Finding or Quality State.

Note 3. A Finding is material where its inclusion, relationship, or omission can materially affect the synthesis, Conclusion, or recipient's understanding of the Quality Claim.

Note 4. Materiality is not established solely by the favorable or unfavorable character of a Finding.

4.1.49 Synthesis of Material Findings

SYNTHESIS OF MATERIAL FINDINGS - The structured consideration of material Findings and their relevant relationships to establish what Conclusion, if any, those Findings support concerning the Quality State of the defined Quality Object and, where applicable, for an intended Quality Claim.

Note 1. Synthesis does not create or alter Findings or the underlying Quality State.

Note 2. Synthesis shall preserve applicable Critical Conditions, Non-Compensability, mandatory requirements, material Interfaces and dependencies, and material Uncertainty.

Note 3. Synthesis is not inherently a count, average, weighting, or score of Findings.

Note 4. Synthesis is performed once in the formation of the applicable Quality Claim; subsequent reporting does not constitute a second synthesis.

For purposes of Quality Claim formation, the substantive Conclusion forms are Positive Conclusion, Conditionally Positive Conclusion, and Negative Conclusion. Refusal to Express a Conclusion is distinct from those substantive Conclusion forms.

4.1.50 Positive Conclusion

POSITIVE CONCLUSION - A Conclusion expressed by the claimant where synthesis of the material Findings supports that the Quality Object realizes its Intended Functions and Intended Results as required within the applicable scope and conditions.

Note 1. A Positive Conclusion does not require perfection or the absence of every unfavorable Finding.

Note 2. A Positive Conclusion shall not disregard an applicable Critical Condition or Non-Compensable condition.

Note 3. A Positive Conclusion concerning Quality does not by itself establish absence of Harm or Risk or establish Safety.

4.1.51 Conditionally Positive Conclusion

CONDITIONALLY POSITIVE CONCLUSION - A Conclusion expressed by the claimant where synthesis of the material Findings supports a Positive Conclusion subject to identified material conditions that are to be fulfilled in the future.

Note 1. The future conditions may include required actions, modifications, engineering work, regulatory actions, financing, implementation, verification, or other material conditions.

Note 2. A Conditionally Positive Conclusion does not establish that the identified future conditions will be fulfilled.

Note 3. Feasibility, planning, financing, authorization, requirement, or expected completion of a future condition does not establish its fulfillment.

Note 4. The future conditions and their relationship to the Positive Conclusion shall be identified sufficiently for the recipient to understand what must occur for the Positive Conclusion to become supportable without those conditions.

Note 5. A Conditionally Positive Conclusion shall not be used where the material Findings support a Negative Conclusion merely because corrective action or another future change may be possible.

4.1.52 Negative Conclusion

NEGATIVE CONCLUSION - A Conclusion expressed by the claimant where synthesis of the material Findings supports that the Quality Object does not realize its Intended Functions or Intended Results as required within the applicable scope and conditions.

Note 1. Failure to support a Positive Conclusion does not by itself support a Negative Conclusion.

Note 2. Insufficient Evidence, an evidence gap, or Uncertainty does not by itself support a Negative Conclusion.

Note 3. A Negative Conclusion requires an affirmative basis in the applicable material Findings and their synthesis.

Note 4. The possibility of future corrective action does not by itself alter a Negative Conclusion supported by the current applicable Findings.

4.1.53 Refusal to Express a Conclusion

REFUSAL TO EXPRESS A CONCLUSION - An attributable statement by the claimant that the available basis does not support expression of a Positive, Conditionally Positive, or Negative Conclusion, together with the material reason or reasons for that refusal.

Note 1. Refusal to Express a Conclusion is not a substantive Conclusion about the Quality State of the Quality Object.

Note 2. Refusal does not by itself establish favorable, unfavorable, or other Quality of the Quality Object.

Note 3. Reasons may include insufficient or unsuitable Evidence, material Uncertainty, unresolved material matters, or another limitation preventing a supportable Conclusion.

Note 4. Findings that can responsibly be established remain Findings notwithstanding the refusal and should remain available to the Quality Claim where material.

4.1.54 Quality Claim

QUALITY CLAIM - An attributable communication by a claimant concerning the Quality State of a defined Quality Object, made for a recipient and an Intended Function and supported by applicable Findings established through Quality Determination.

Note 1. A Quality Claim may express a Positive, Conditionally Positive, or Negative Conclusion or a Refusal to Express a Conclusion.

Note 2. A Quality Claim shall not exceed the scope or certainty supported by the applicable Findings and Quality Determination.

Note 3. A Quality Claim shall communicate or provide traceable access to the material Findings, conditions, limitations, Uncertainty, and other information necessary for the recipient to understand its meaning and basis.

Note 4. A Quality Claim does not create or alter the Quality State or the Findings upon which it is based.

Note 5. Different claimants may express different Quality Claims from the same applicable Findings where their Intended Functions, recipients, Contexts, or materiality differ, provided that each Claim remains supportable by those Findings.

Note 6. A conformity or certification claim is not automatically a complete Quality Claim.

4.1.55 Traceability

TRACEABILITY - The ability to follow and understand the material relationships connecting a Quality Determination and, where applicable, a Quality Claim to their relevant methodological and evidentiary basis.

Note 1. Traceability may include the defined Quality Object, Intended Functions and Intended Results, Applicable Basis, Reference Layer, Quality Factors, Quality Indicators, Quality Outcome Criteria, Evidence, Evidence Quality, Findings, Quality Factor Interpretations, Critical Conditions, Non-Compensability, Uncertainty, Materiality, Synthesis of Material Findings, Conclusion or Refusal to Express a Conclusion, and Quality Claim.

Note 2. Traceability does not create or establish the Quality State; it makes visible the basis through which Findings about that state and subsequent Quality Claims can be understood.

Note 3. Traceability includes both substantive and evidentiary relationships.

Note 4. Traceability should be adequate for the Intended Function and Methodological Resolution of the applicable Quality Determination or Quality Claim; it does not require maximum documentation.

Note 5. Traceability supports evaluation of Evidence Quality but does not by itself establish that Evidence is sufficient, trustworthy, or applicable.

4.1.56 Absence of Observed Failure

ABSENCE OF OBSERVED FAILURE - A condition in which no failure has been identified within the available observation or Evidence, without demonstrating that the Quality Object satisfies all relevant Quality Outcome Criteria.

Note 1. Absence of observed failure is not equivalent to demonstrated Quality.

Note 2. The meaning of non-observation depends on the adequacy and coverage of monitoring and Evidence.

4.2 Supporting Cross-Domain Concepts

The concepts in this subsection support application across Quality Objects and domains. They are not sequential links in the principal conceptual pathway.

4.2.1 Data

DATA - Recorded representations of observations, measurements, events, conditions, transactions, or other information that may be used as Evidence after evaluation of their relevance, dependability, Context, and meaning.

Note 1. Data are not automatically Evidence; they become Evidence for a particular Quality Determination when used to support a Finding about actual condition.

Note 2. Data may be quantitative or qualitative, structured or unstructured, direct or derived, current or historical.

Note 3. The existence or quantity of Data does not establish Evidence Quality.

Note 4. The same Data may have different evidentiary value for different Quality Objects, Indicators, Quality Determinations, Contexts, or times.

Note 5. Transformation, aggregation, filtering, interpretation, or transfer of Data may affect suitability and should remain traceable where material.

4.2.2 Lifecycle

LIFECYCLE - The sequence of relevant stages through which a Quality Object is conceived, created, established, used, maintained, changed, transitioned, and ended.

Note 1. Lifecycle stages depend on the Quality Object; no universal sequence is required.

Note 2. Not every Quality Object has the same stages, and not every stage is relevant to every Quality Determination.

Note 3. Intended Functions, Intended Results, Applicable Basis, Context, Boundaries, Interfaces, Evidence, Assumptions, and other relevant elements may originate or change at different Lifecycle stages.

Note 4. Evidence or an Assumption originating at one stage may remain relevant later, but continuing applicability should not be assumed.

Note 5. The Quality State of a Quality Object may differ across Lifecycle stages or times and shall not be assumed to transfer unchanged from one to another.

4.2.3 Harm

HARM - Injury, damage, loss, or other adverse effect upon an affected subject or interest.

Note 1. Harm is distinct from Quality. A Quality deficiency, non-achievement, or unfavorable Finding concerning Quality does not by itself constitute Harm.

Note 2. A Quality condition may be Harm-capable where an applicable connection between that condition and Possible Harm is established.

Note 3. A Harm Pathway establishes the connection through which a Harm-capable condition may lead to Possible Harm. The existence of a Harm Pathway does not establish that Harm has been or will be realized.

Note 4. Possible Harm identifies injury, damage, loss, or another adverse effect that may result through an established Harm Pathway. Realized Harm is Harm that has actually occurred.

Note 5. Conditions of Materialization are the circumstances necessary for an established Harm Pathway to proceed to Realized Harm. The potential of a Quality condition to contribute to Harm does not itself constitute Harm.

Note 6. Harm is distinct from Risk. Risk requires a separate determination concerning the probability and severity of Possible Harm according to the Applicable Basis.

Note 7. Harm is distinct from Safety. Safety requires a separate determination concerning whether applicable Risk is acceptable or tolerable according to applicable Safety criteria established or justified through the Applicable Basis.

Note 8. The absence of a demonstrated Harm Pathway, Possible Harm, or Realized Harm does not by itself establish favorable Quality of the Quality Object.

4.2.4 Harm-capable condition

HARM-CAPABLE CONDITION - A condition for which an applicable connection to Possible Harm has been established.

4.2.5 Harm Pathway

HARM PATHWAY - An established sequence or mechanism through which a Harm-capable condition may lead to Possible Harm.

4.2.6 Possible Harm

POSSIBLE HARM - Harm that may result through an established Harm Pathway but has not thereby been established as realized.

4.2.7 Conditions of Materialization

CONDITIONS OF MATERIALIZATION - The circumstances necessary for an established Harm Pathway to proceed to Realized Harm.

4.2.8 Realized Harm

REALIZED HARM - Harm that has actually occurred.

4.2.9 Risk

RISK - The determination of the probability and severity of Possible Harm according to the Applicable Basis.

Note 1. Risk concerns Possible Harm identified through an applicable Harm Pathway. The existence of a Quality deficiency, Harm-capable condition, or Harm Pathway does not by itself establish Risk.

Note 2. Probability concerns how likely the identified Harm is to occur through the applicable Harm Pathway. Severity concerns how serious the injury, damage, loss, or other adverse effect would be if the Harm occurs.

Note 3. Risk is distinct from Harm. Harm is injury, damage, loss, or other adverse effect; Risk concerns the probability and severity of Possible Harm.

Note 4. Risk may be determined before Harm is realized. Realized Harm does not by itself establish what the Risk was before the Harm occurred.

Note 5. The methods, scales, categories, calculations, assumptions, and thresholds used in Risk determination may be quantitative, qualitative, or combined and shall be established or justified through the Applicable Basis. Whole Quality does not establish a universal Risk scale or threshold.

Note 6. Uncertainty in the probability, severity, Harm Pathway, Conditions of Materialization, or other relevant matters shall remain visible and shall limit the scope or certainty of the Risk determination as applicable.

Note 7. Risk determination is distinct from Quality Determination. A Finding concerning Quality does not automatically establish Risk, and a Risk determination does not replace or alter the applicable Finding.

4.2.10 Safety

SAFETY - The determined condition concerning whether Risk associated with Possible Harm is acceptable or tolerable according to applicable Safety criteria established or justified through the Applicable Basis.

Note 1. Safety requires an applicable Risk determination and applicable criteria against which that Risk is evaluated.

Note 2. Safety is distinct from Risk. Risk concerns the probability and severity of Possible Harm; Safety concerns whether that Risk is acceptable or tolerable according to the applicable Safety criteria.

Note 3. A Risk value, level, or category does not by itself establish Safety. The Risk shall be evaluated against the Safety criteria applicable to the particular Context and purpose.

Note 4. Whole Quality does not establish a universal Risk level, threshold, or boundary at which Safety begins or ends. Applicable Safety criteria shall be established or justified through the Applicable Basis.

Note 5. The absence of Realized Harm does not by itself establish Safety. Likewise, the existence of Possible Harm does not by itself establish that a condition is unsafe.

Note 6. Safety is distinct from Quality. A Quality deficiency does not by itself establish that the Quality Object is unsafe, and a Safety determination does not establish that applicable Quality requirements have been achieved.

Note 7. A determination of Safety does not erase, correct, or alter an underlying Quality deficiency or applicable Finding.

Note 8. Safety determination should remain traceable, as applicable, to the Risk determination, Possible Harm, Harm Pathway, underlying Quality condition, Evidence, and Applicable Basis.

4.2.11 Management System

MANAGEMENT SYSTEM - The actual management used by an organization to realize a required product, service, work, or other Intended Result.

Note 1. A Management System exists through the actual management used in practice, whether or not the organization formally identifies, documents, certifies, or names it as a management system.

Note 2. A Management System may itself be defined as a Quality Object.

Note 3. The Boundary of a Management System Quality Object depends on the defined realization responsibility, organization or organizational part, Lifecycle Context, Interfaces, and intended Quality Determination.

Note 4. A Management System Quality Object is distinct from the product, service, work, or other managed result it is used to realize; that managed subject may separately be defined as a Quality Object.

4.2.12 Management System Quality

MANAGEMENT SYSTEM QUALITY - The degree to which a Management System realizes its Intended Function.

Note 1. Management System Quality is the application of Quality to a Management System defined as the Quality Object.

Note 2. Management System Quality is determined from actual management functioning in practice, not merely from the existence, documentation, certification, or formal description of management arrangements.

Note 3. The Quality State of a Management System and the Quality State or conformity of the product, service, work, or other managed result are distinct. What can be established about each requires the determination appropriate to that Quality Object or subject.

Note 4. Evidence may relate across these Quality Objects, but a Quality State shall not be automatically inferred from one to another.

Note 5. The common Management System Quality architecture is established in WQI_QMS1. IQI and AMSI may interpret its application for their respective Quality Objects and Contexts without establishing separate Core QMS architectures.

4.2.13 Management System Intended Function

MANAGEMENT SYSTEM INTENDED FUNCTION - To ensure, within the applicable responsibility and authority of the Management System, that the required product, service, work, or other Intended Result is realized as required.

Note 1. Ensure does not mean that the Management System guarantees every outcome or has unlimited control over conditions outside its applicable responsibility and authority.

Note 2. The Management System Intended Function is the application of the general WQI concept Intended Function where a Management System is the Quality Object.

4.2.14 Management System Intended Result

MANAGEMENT SYSTEM INTENDED RESULT - The required product, service, work, or other Intended Result is realized as required within the applicable responsibility, authority, Boundaries, Interfaces, Context, and temporal basis of the Management System.

Note 1. The Management System Intended Result concerns what the management is intended to ensure, not a guarantee that every condition affecting the managed product, service, work, or other result is within management control.

Note 2. The Management System Intended Result is the application of the general WQI concept Intended Result where a Management System is the Quality Object.

4.2.15 Management System Quality Architecture

MANAGEMENT SYSTEM QUALITY ARCHITECTURE — The six Factor and fifty Indicator structure established in WQI_QMS1 for examining the Quality of a Management System defined as the Quality Object.

Note 2. Invariance concerns the determination function preserved by each Factor and Indicator. It does not require identical procedures, technologies, organizational arrangements, Evidence, criteria, or implementation across domains.

Note 3. Applicable Quality Outcome Criteria, Evidence, methods, responsibilities, and other application-specific provisions remain Context-dependent.

Note 4. The Management System Quality Architecture applies when a Management System of the type defined in this Standard is separately defined as the Quality Object. It does not establish that all classes of Quality Objects share the same Factors or Indicators.

WQI_QMS1 establishes the full fifty Indicator architecture and the authoritative Indicator Statements. The definitions here identify shared concepts without reproducing that architecture.

Application note. Management System Quality and the Quality of the product, service, work, or other managed result concern distinct Quality Objects or subjects and require separate determination where each is to be established. A favorable state of one does not by itself establish a favorable state of the other.

Application note. Management System Quality is also distinct from Evidence Quality. Indicator 3.6 examines management capability and actual functioning in selecting and using an evidentiary basis; the Evidence used to support Findings remains separately subject to Evidence Sufficiency, Evidence Trustworthiness, and Evidence Applicability.

4.2.16 Requirements Realization

REQUIREMENTS REALIZATION - The degree to which management establishes, connects, allocates, verifies, changes, and maintains the requirements necessary to define what must be realized.

4.2.17 Realization Capability

REALIZATION CAPABILITY - The degree to which management establishes and maintains the capability needed to realize what is required under applicable conditions, including after change and under unusual conditions.

4.2.18 Quality-State Determination

QUALITY-STATE DETERMINATION - The degree to which management can determine what can be established about the actual Quality-relevant condition relevant to its responsibilities with sufficient scope, method, competence, Evidence use, criteria, interpretation, and current validity.

Note 1. Quality-State Determination does not mean creation or establishment of the underlying Quality State. It concerns management capability to determine what can responsibly be established about that state.

4.2.19 Quality-State Information

QUALITY-STATE INFORMATION - The degree to which Quality-relevant information remains sufficiently identifiable, connected, current, available, communicated, and protected for Management System Function Realization.

4.2.20 Quality-State Influence

QUALITY-STATE INFLUENCE - The degree to which management can appropriately protect, contain, stabilize, respond, intervene, establish an acceptable resulting condition, address affected scope, and address cause and recurrence where required.

4.2.21 Lifecycle and Interface Realization

LIFECYCLE AND INTERFACE REALIZATION - The degree to which Management System Function Realization remains sufficiently connected through relevant Lifecycle stages, changes, transfers, handoffs, and Interfaces.

4.2.22 Management System Quality Indicators

MANAGEMENT SYSTEM QUALITY INDICATORS — The fifty Indicator functions established in WQI_QMS1 for examining the six Management System Quality Factors at the present Core Methodological Resolution.

Note 1. A Management System Quality Indicator identifies what should be examined; it does not prescribe a universal method of examination or a universal Quality Outcome Criterion.

Note 2. An Indicator may be inapplicable to a particular bounded determination where the corresponding function or dependency does not exist. Applicability shall be established rather than assumed.

Note 3. Indicator 3.6, Evidence Selection, Representativeness, and Use, examines management's capability and actual functioning in selecting and using an evidentiary basis. It does not replace Evidence Quality. Evidence used to support Findings remains subject to Evidence Sufficiency, Evidence Trustworthiness, and Evidence Applicability.

4.3 Supporting Methodological Documentation

The structures in this subsection support application, review, and Traceability. They are controlled methodological documentation structures but are not Root Concepts and are not links in the principal conceptual pathway.

4.3.1 Quality Object Description

QUALITY OBJECT DESCRIPTION - The documented description of the defined Quality Object used for a Quality Determination.

Note 1. The description should contain enough information to make the subject of the Quality Determination clear.

Note 2. It may identify or reference composition, Scale, Boundaries, Interfaces, Context, Intended Functions, Intended Results, dependencies, and other relevant characteristics.

Note 3. The level of detail should be adequate for the intended Quality Determination and Methodological Resolution.

Note 4. A Quality Object Description does not establish the Quality State.

Note 5. Refinement is permitted; a material change to the defined subject or scope should remain traceable.

4.3.2 Quality Determination Record

QUALITY DETERMINATION RECORD - The record documenting the basis, scope, Evidence, reasoning, limitations, and result of a particular Quality Determination.

Note 1. The record should contain or reference enough information for the material basis and reasoning of the determination to be traceable.

Note 2. It may contain or reference the Quality Object Description, intended determination, temporal basis, Methodological Resolution, Applicable Basis, Reference Layer, Quality Factors, Quality Indicators, Quality Outcome Criteria, Evidence, Evidence Quality, Assumptions, Unresolved Conditions, Uncertainty, Findings, Quality Factor Interpretations, Critical Conditions, Non-Compensability, Materiality, Synthesis of Material Findings, Conclusion or Refusal to Express a Conclusion, Quality Claim, and limitations.

Note 3. The record need not have the same form, length, or detail in every application; it should be adequate to the nature, significance, Methodological Resolution, and intended use of the determination.

Note 4. The record does not replace underlying Evidence or substantive sources where they should remain independently identifiable and reviewable.

Note 5. Material changes to assumptions, scope, Evidence, reasoning, Findings, synthesis, Conclusions, or Quality Claims should remain traceable where they affect what can responsibly be established or communicated.

Note 6. A Quality Determination Record may document what has been established about the Quality State, including applicable Findings, limitations, Uncertainty, and, where relevant, synthesis, Conclusion or Refusal to Express a Conclusion, and Quality Claim.

Note 7. Multiple Quality Determinations of the same Quality Object at different times, Scales, Contexts, Methodological Resolutions, or intended determinations may require distinct records.

4.4 WQI Vocabulary and Document-Governance Concepts

The concepts in this subsection govern how Whole Quality concepts are explained, defined, adopted, extended, required, and interpreted across WQI documents and application domains. They describe the architecture and governance of the WQI methodology rather than the Quality State of a Quality Object.

4.4.1 Foundational Article

FOUNDATIONAL ARTICLE - A WQI publication that explains the concepts, principles, development, and reasoning of the Whole Quality methodology without replacing authoritative vocabulary definitions or establishing detailed requirements.

Note 1. A Foundational Article may explain reasoning, derivation, relationships, examples, or research basis associated with Whole Quality concepts.

Note 2. Where wording in a Foundational Article differs from an Authoritative Definition in the Root Vocabulary, the Authoritative Definition controls.

Note 3. A Foundational Article may identify research directions or propositions that have not been incorporated into the Root Vocabulary.

4.4.2 Root Vocabulary

ROOT VOCABULARY - The single authoritative vocabulary that defines concepts belonging to the Whole Quality methodology itself and that are intended to retain the same meaning across application domains.

Note 1. The WQI Root Vocabulary is adopted without redefinition by Applied Vocabularies and other Whole Quality documents.

Note 2. The Root Vocabulary is not intended to define every domain concept that may be relevant to a Quality Determination.

Note 3. Inclusion in the Root Vocabulary requires broad methodological significance across different classes of Quality Objects or application domains.

4.4.3 Root Concept

ROOT CONCEPT - A concept whose meaning is methodological and broadly applicable across different classes of Quality Objects and application domains.

Note 1. A concept should be placed in the Root Vocabulary only when cross-domain use demonstrates broad methodological significance.

Note 2. Importance to a particular application domain does not by itself make a concept a Root Concept.

Note 3. A Root Concept may have different applications in different domains, but its Authoritative Definition remains invariant.

4.4.4 Applied Vocabulary

APPLIED VOCABULARY - A controlled vocabulary that adopts Root Concepts without modification and defines additional concepts required to represent a particular class of Quality Objects or application domain accurately.

Note 1. An Applied Vocabulary does not replace or alter the Root Vocabulary.

Note 2. An Applied Vocabulary may define Applied Concepts needed for its application domain.

Note 3. An Applied Vocabulary may explain how a Root Concept applies within its domain, provided the Root meaning is not redefined.

Note 4. Examples include infrastructure and support-service Applied Vocabularies.

4.4.5 Applied Concept

APPLIED CONCEPT - A concept required to describe a defined class of Quality Objects or application domain but not sufficiently universal to belong to the Root Vocabulary.

Note 1. Applied Concepts shall remain consistent with Root Concepts and should not duplicate or redefine an existing Root Concept.

Note 2. An Applied Concept may be important or essential within its application domain without becoming a Root Concept.

Note 3. Repeated use across domains does not automatically make an Applied Concept a Root Concept; movement to the Root Vocabulary requires controlled review.

4.4.6 Standard

STANDARD - A document established for consistent use that provides requirements, specifications, guidelines, characteristics, or other provisions applicable to a defined subject.

Note 1. A Standard may apply to a product, service, process, work, Management System, person, method, condition, or other defined subject.

Note 2. A Standard may contribute to the Applicable Basis, Reference Layer, or both. Its applicability and authority shall be established for the particular use.

Note 3. Use of a Standard does not by itself establish conformity, Quality, a Quality State, or authorization to make a Quality Claim.

Note 4. Within Whole Quality, Standard is a general document concept. Core Standard is a particular Whole Quality document type.

4.4.7 Product Standard

PRODUCT STANDARD - A Standard that establishes requirements, specifications, characteristics, or other provisions applicable to a defined product for its intended purpose.

Note 1. A Product Standard may address composition, design, performance, safety, reliability, compatibility, manufacture, testing, information, or other relevant product characteristics and conditions.

Note 2. Product conformity, the Quality State of the product, and the Quality State of the Management System used to realize the product are distinct. What can be established about each requires the determination appropriate to that subject or Quality Object.

Note 3. Product requirements should be connected, where applicable, to the product's Intended Functions, Intended Results, Context, Boundaries, Interfaces, and Lifecycle.

4.4.8 Service Standard

SERVICE STANDARD - A Standard that establishes requirements, specifications, characteristics, or other provisions applicable to a defined service and its realization for its intended purpose.

Note 1. Depending on the defined service, a Service Standard may address the service arrangement, participants, work performed, results, Intended Functions, Intended Results, roles, responsibilities, temporal conditions, Boundaries, Interfaces, Context, Quality Outcome Criteria, Evidence requirements, or other aspects of service realization.

Note 2. The composition and Boundary of the service to which the Standard applies should be defined at an adequate Scale and Methodological Resolution.

Note 3. Service conformity, the Quality State of the service, and the Quality State of the Management System used to realize the service are distinct. What can be established about each requires the determination appropriate to that subject or Quality Object.

Note 4. A Service Standard is distinct from a Management System standard governing the management used to realize the service.

4.4.9 Core Standard

CORE STANDARD - A document that uses the Root Vocabulary and relevant Applied Vocabulary to establish a stable Quality architecture and requirements for a defined class of Quality Objects.

Note 1. A Core Standard may establish Intended Functions, Quality Factors, Quality Indicators, Quality Outcome Criteria, Evidence requirements, Critical Conditions, Non-Compensability rules, Quality Determination requirements, and permissible Quality Claims.

Note 2. A Core Standard may establish an invariant methodological architecture for its defined class of Quality Objects while allowing Context Guides to interpret that architecture for bounded applications.

Note 3. A Core Standard shall not redefine Root Concepts.

Note 4. A Core Standard may concern a product, service, Management System, or other defined class of Quality Objects. Its designation as a Core Standard identifies its position and function within the Whole Quality document architecture.

4.4.10 Context Guide

CONTEXT GUIDE - A document that interprets a Core Standard within a bounded application Context without redefining Root or Applied Concepts or changing the invariant Core architecture.

Note 1. A Context may be defined by Quality Object type, service, technology, environment, Lifecycle stage, population, jurisdiction, operating condition, or another relevant application condition.

Note 2. A Context Guide may identify applicable Quality Outcome Criteria, Reference Layer sources, Evidence needs, interpretation provisions, and other context-specific information necessary to apply the Core Standard.

Note 3. A Context Guide may make the Core Standard more specific for its bounded application but shall not silently alter the Core architecture.

4.4.11 Context-Specific Interpretation

CONTEXT-SPECIFIC INTERPRETATION - The explanation of how Root and Applied Concepts, Core requirements, Quality Indicators, Quality Outcome Criteria, Evidence, Boundaries, Interfaces, Failure Modes, and other relevant methodological elements are understood and applied within a defined Context.

Note 1. Context-Specific Interpretation clarifies application; it does not create a conflicting definition.

Note 2. Context-Specific Interpretation may establish how a Core requirement applies to particular conditions without redefining the Root or Applied Concept on which that requirement depends.

Note 3. Where Context affects applicability of a Quality Outcome Criterion, the applicable substantive basis should remain identifiable.

4.4.12 Authoritative Definition

AUTHORITATIVE DEFINITION - The controlling definition of a concept located at the document layer appropriate to that concept.

Note 1. Each controlled WQI concept should have one Authoritative Definition. Other documents should adopt it or cross-reference it rather than reproduce a modified definition.

Note 2. Explanatory wording, examples, application notes, or context-specific interpretations shall not silently replace or modify the Authoritative Definition.

Note 3. Where an Authoritative Definition is revised through controlled vocabulary governance, dependent WQI documents should be reviewed for consequential consistency.

4.4.13 Conceptual Dependency

CONCEPTUAL DEPENDENCY - A defined logical relationship through which one Whole Quality concept depends on, constrains, supports, or otherwise relates methodologically to another concept.

Note 1. Conceptual Dependency does not require a rigid one-pass sequence.

Note 2. Conceptual dependencies may form principal, supporting, constraining, or iterative relationships.

Note 3. Explicit Conceptual Dependencies support Traceability and help prevent Whole Quality concepts from becoming disconnected glossary entries.

Note 4. Iterative application may move among conceptually dependent elements as understanding develops, provided material changes remain traceable and the final Quality Determination is internally consistent.

5 Rules for Applied Vocabulary Development

5.1 Adoption of Root Concepts

An Applied Vocabulary shall adopt Root Concepts and their Authoritative Definitions without modification.

Where additional explanation is needed, the Applied Vocabulary may provide an application note, Context-Specific Interpretation, or define an Applied Concept related to the Root Concept, provided the Root meaning is preserved.

An Applied Vocabulary shall not reproduce a Root Concept under a different definition or create an Applied Concept whose meaning conflicts with an existing Root Concept.

5.2 Introduction of Applied Concepts

An Applied Concept may be introduced when the relevant application domain requires controlled language that is not already adequately provided by the Root Vocabulary.

Where an Applied Concept has a methodological relationship to a Root Concept, that relationship should be identified.

An Applied Concept should not be introduced merely to rename an existing Root Concept or to avoid applying its Authoritative Definition.

An Applied Concept may be highly important within one application domain without becoming a Root Concept.

5.3 Screening for Root Concept Status

A concept proposed for addition to the Root Vocabulary should be tested against the following questions:

- Does the concept perform a distinct methodological role in Whole Quality?
- Does it retain substantially the same methodological meaning across different classes of Quality Objects and application domains?
- Is the concept needed by Whole Quality itself rather than primarily by one application domain?
- Would inclusion in the Root Vocabulary reduce conceptual duplication without forcing unlike Quality Objects into inaccurate language?
- Has use or testing across more than one application domain demonstrated broad methodological significance?
- Would changing the concept affect multiple Applied Vocabularies, Core Standards, Context Guides, or other Whole Quality structures?
- Can the concept be defined with sufficient stability to function as an invariant cross-domain concept?

A concept that satisfies these questions may be considered for controlled addition to the Root Vocabulary. A concept that remains primarily domain-specific should remain in the appropriate Applied Vocabulary, Core Standard, Context Guide, or other application document.

5.4 Supporting Controlled Concepts

Not every controlled term defined in this Standard is necessarily a Root Concept.

This Standard may also define supporting cross-domain concepts, supporting methodological documentation structures, and WQI vocabulary or document-governance concepts where consistent controlled use is necessary for the Whole Quality methodology.

Such concepts shall be identified according to their methodological status and shall not be presented as Root Concepts unless they satisfy the Root Concept screening requirements.

Applied Vocabularies may use these supporting controlled concepts where relevant without converting them into domain-specific Root Concepts.

5.5 Cross-References and Reproduction

Other Whole Quality documents should cross-reference the applicable Authoritative Definition.

Reproduction of a controlled definition may be permitted for usability where the wording remains unchanged and the authoritative source is clearly identified.

Where explanatory text accompanies a reproduced definition, the explanation shall not silently modify the Authoritative Definition.

5.6 Controlled Evolution

Changes to Root Concepts require assessment of relevant Conceptual Dependencies and effects across Applied Vocabularies, Core Standards, Context Guides, Foundational Articles, tools, diagrams,

Quality Determination structures, Quality Claim structures, and other materially dependent Whole Quality documents or implementations.

Changes to other controlled concepts in this Standard should undergo a level of dependency review proportionate to their methodological role and downstream use.

Controlled changes should be edition-controlled, traceable, and proportionate to demonstrated methodological need.

Root Concept revision should preserve backward compatibility where reasonably possible. Where backward compatibility cannot responsibly be preserved, the nature and consequence of the change should be made explicit.

6 Scope, Applicability, and Exclusions

6.1 Scope

This Standard establishes and governs the authoritative vocabulary of the Whole Quality methodology. It applies to Root Concepts and to the supporting controlled concepts and methodological documentation structures expressly defined in this Standard.

Root Concepts are intended to remain stable in meaning across application domains and classes of Quality Objects. They should be revised only where cross-domain application demonstrates a need for greater conceptual precision or methodological completeness.

Where revision is necessary, backward compatibility should be preserved where reasonably possible.

6.2 Applicability

Whole Quality vocabulary may be applied to human-invented, natural, biological, social, organizational, technical, informational, and mixed Quality Objects at different Scales.

Application requires the Quality Object and the relevant basis of the Quality Determination to be sufficiently established for the intended use.

As applicable, this includes the Quality Object, Intended Functions and Intended Results, Scale, Boundaries, Interfaces, Context, Methodological Resolution, Applicable Basis, Quality Outcome Criteria, Evidence basis, relevant Uncertainty, and permissible scope of Findings, Conclusions, and Quality Claims concerning the Quality State.

Not every application requires the same level of detail. The methodological structure should be adequate for the intended Quality Determination.

6.3 Relationship to Laws and Other Standards

This Standard does not replace laws, regulations, professional standards, technical codes, contracts, policies, classification systems, scientific knowledge, specifications, design bases, or other domain-specific requirements or authoritative sources.

Such sources may contribute to the Applicable Basis, the Reference Layer, or both, depending on the methodological role they perform in a particular Quality Determination.

Their applicability, authority, and relevance should be established for the use being made of them.

Use of an external source within a Quality Determination does not alter the Authoritative Definition of a WQI Root Concept unless the WQI vocabulary itself is formally revised.

6.4 Exclusions

This Standard does not itself establish:

- mandatory technical or performance thresholds;
- technical design rules;
- service-delivery requirements;
- clinical decisions or treatment requirements;

- conformity-assessment or certification procedures;
- legal or regulatory obligations;
- domain-specific operating requirements;
- particular numerical Quality Outcome Criteria;
- authorization to make a particular Quality Claim; or
- a universal Quality State classification or scoring system.

Such provisions may arise from the Applicable Basis, Reference Layer, Applied Vocabularies, Core Standards, Context Guides, applicable domain methods, or other justified sources.

Annex A (informative) - Root-to-Applied Vocabulary Matrix

The following matrix illustrates how selected Whole Quality Root Concepts and supporting WQI-controlled concepts may be adopted and interpreted in IQI and AMSI applications. Root Concepts retain their Authoritative Definitions. The applied examples shown here do not redefine those concepts and are not intended to constitute complete Applied Vocabularies.

WQI concept	IQI applied example	AMSI applied example
Quality Object	Infrastructure system, facility, asset, network, infrastructure-related product or service, or Management System separately defined as the subject of a Quality Determination	Support service, service arrangement, work or occupational subject, or Management System separately defined as the subject of a Quality Determination
Intended Function	What the defined infrastructure Quality Object is required or intended to do	What the defined support-service Quality Object is required or intended to do
Intended Result	Required or intended result arising from realization of an infrastructure Intended Function	Required or intended result arising from realization of a support-service Intended Function
Function Realization	Manner and degree to which the infrastructure Quality Object realizes its Intended Functions and associated Intended Results	Manner and degree to which the support-service Quality Object realizes its Intended Functions and associated Intended Results
Scale	Component, asset, facility, local network, transmission network, integrated infrastructure system, or other defined level or extent	Individual service episode, service arrangement, provider, program, population, or other defined level or extent
Methodological Resolution	Degree of infrastructure-quality detail used to examine the defined infrastructure Quality Object	Degree of service-quality detail used to examine the defined support-service Quality Object
Boundary	Infrastructure, asset, operating-medium, functional, organizational, responsibility, or other relevant limit	Service, responsibility, participation, organizational, temporal, or other relevant limit
Interface	Physical, energy, material, information, control, organizational, responsibility, supplier, operator, or external-system interaction	Interaction among person supported, provider, caregiver, organization, funder, information system, service element, or other relevant participant or dependency
Context	Operating environment, location, climate, geology, jurisdiction, Lifecycle stage, infrastructure use, surrounding systems, or other relevant conditions	Service setting, population, jurisdiction, individual circumstances, provider conditions, program structure, or other relevant circumstances
Applicable Basis	Laws, regulations, codes, contracts, specifications, design bases, technical requirements, scientific knowledge, operating requirements, and other justified bases	Laws, program requirements, contracts, service requirements, individual plans, professional requirements, evidence-based practice, and other justified bases
Quality Factor	Principal dimension of infrastructure Function Realization that must be understood	Principal dimension of support-service Function Realization that must be understood

Quality Indicator	Aspect of an infrastructure Quality Factor identifying what should be examined	Aspect of a service Quality Factor identifying what should be examined
Quality Outcome Criterion	Expected infrastructure state or result established from an applicable justified basis	Expected service state or result established from an applicable justified basis
Reference Layer	Sources supporting applicable infrastructure Quality Outcome Criteria	Sources supporting applicable service Quality Outcome Criteria
Evidence	Inspection results, measurements, tests, operating records, physical observations, monitoring information, documentation, testimony, or other relevant information	Service records, direct observations, interviews, documented actions, outcomes, communications, measurements, or other relevant information
Evidence Quality	Quality of infrastructure Evidence for the Findings and determination it supports	Quality of support-service Evidence for the Findings and determination it supports
Evidence Sufficiency	Whether available infrastructure Evidence provides enough support for the intended scope and certainty of the Finding and Quality Determination	Whether available service Evidence provides enough support for the intended scope and certainty of the Finding and Quality Determination
Evidence Trustworthiness	Whether infrastructure Evidence can be relied upon as representing the condition that it purports to represent	Whether support-service Evidence can be relied upon as representing the condition that it purports to represent
Evidence Applicability	Whether infrastructure Evidence can properly be used to support the particular Finding and Quality Determination	Whether support-service Evidence can properly be used to support the particular Finding and Quality Determination
Quality Determination	Evidence-based process for determining what can be established about the Quality State of a defined infrastructure Quality Object	Evidence-based process for determining what can be established about the Quality State of a defined support-service Quality Object
Quality State	Actual Quality-relevant condition of the defined infrastructure Quality Object at the applicable time or period	Actual Quality-relevant condition of the defined support-service Quality Object at the applicable time or period
Quality Claim	Attributable infrastructure Quality Claim supported by applicable Findings established through Quality Determination	Attributable support-service Quality Claim supported by applicable Findings established through Quality Determination
Traceability	Ability to follow the material methodological and evidentiary basis of infrastructure Quality Determination and, where applicable, Quality Claim	Ability to follow the material methodological and evidentiary basis of support-service Quality Determination and, where applicable, Quality Claim
Lifecycle	Design, manufacture, construction, installation, commissioning, operation, maintenance, modification, repair, transition, decommissioning, or other relevant stages	Service planning, initiation, provision, monitoring, modification, transition, completion, or other relevant stages
Management System	Actual management used by an energy-infrastructure organization for a defined realization responsibility and separately definable as the Quality Object	Actual management used by a support-service organization for a defined realization responsibility and separately definable as the Quality Object
Management System Quality	WQI_QMS1 supplies the common Core architecture; IQI	WQI_QMS1 supplies the common Core architecture;

	interprets it for the defined infrastructure Management System and Context.	AMSI interprets it for the defined support-service Management System and Context.
Standard; Product Standard; Service Standard	Adopted by reference; infrastructure application explained in IQI documents	Adopted by reference; Support Service Standard defined as an AMSI Applied Concept

Annex B (informative) - Conceptual Dependency Map

The following questions provide a practical reading sequence for applying the Whole Quality vocabulary. They reflect the principal Conceptual Dependencies of Whole Quality but do not establish a mandatory one-pass procedure. Application may require iterative refinement as understanding of the Quality Object and intended Quality Determination develops.

Define the subject and basis

- What is the Quality Object whose Quality is being determined?
- At what Scale is the Quality Object defined and its Quality being considered?
- Has the Quality Object been described sufficiently for the intended Quality Determination?
- What Context affects the Quality Object, its Function Realization, or the intended Quality Determination?
- What Applicable Basis establishes or justifies what applies to the Quality Object and the intended Quality Determination?
- What Methodological Resolution is adequate for the intended Quality Determination?

Establish function

- What Intended Function or Intended Functions apply to the Quality Object?
- What Intended Results are associated with those Intended Functions?
- Where there is more than one Intended Function, what relationships, shared Intended Results, dependencies, or applicable priorities among them must be understood?
- How are the Intended Functions and associated Intended Results realized?
- Under what relevant conditions must Function Realization occur or be demonstrated?
- For a Management System Quality Object: What product, service, work, or other Intended Result is the Management System used to realize, and what Management System Intended Function and Intended Result apply?

Establish Boundaries and Interfaces

- What is included within and excluded from the Quality Object's Boundary?
- What relevant internal Boundary relationships must be distinguished to understand Function Realization?
- Are the relevant limits, inclusions, exclusions, and Boundary relationships sufficiently transparent for the intended Quality Determination?
- What relevant Interfaces exist within the Quality Object or across its Boundary?
- What passes, interacts, or is coordinated through those Interfaces?
- Are the relevant interactions sufficiently transparent to understand Function Realization?

Develop and test the examination architecture

- Where the Quality Object is a Management System, is WQI_QMS1 applied at a Methodological Resolution adequate for the determination?
- Where a Management System Indicator is not applicable to the bounded determination, has that inapplicability been established rather than assumed?

- What Failure Modes could prevent or degrade realization of the Intended Functions or Intended Results?
- Which Failure-Mode Families are useful for testing whether important aspects of Function Realization have been overlooked?
- Which Quality Factors represent the principal dimensions of Function Realization that must be understood?
- Which Quality Indicators identify what should be examined to understand each Quality Factor?
- Is the resulting Factor and Indicator structure adequate at the selected Methodological Resolution?

Establish what is expected

- Which Quality Outcome Criteria establish the expected states or results against which observations associated with each Quality Indicator will be interpreted?
- What Reference Layer sources establish or justify those Quality Outcome Criteria?
- Which Standards, including any applicable Product Standards or Service Standards, contribute to the Applicable Basis or Reference Layer, and what authority and scope do they have for the defined Quality Object?
- Is each Quality Outcome Criterion applicable to the defined Quality Object and Context?
- Can the relationship from the Applicable Basis and Reference Layer to the applicable criteria be followed sufficiently?

Establish what is actually found

- What Evidence is available concerning the actual condition of the Quality Object?
- Is the Evidence sufficient, trustworthy, and applicable for the Findings and Quality Determination it is used to support?
- Where multiple Intended Functions or Intended Results are examined, is the Evidence sufficient, trustworthy, and applicable for each Finding it is used to support?
- What material Uncertainty remains?
- What Assumptions are being relied upon, and is there evidence of Assumption Drift?
- What Unresolved Conditions remain?
- What Evidence-Supported Findings can responsibly be made?

Interpret the Quality Factors

- What do the relevant Evidence-Supported Findings establish about each Quality Factor?
- What relationships among Findings are material to that interpretation?
- Are any unfavorable or unresolved conditions Critical Conditions?
- Do any applicable Non-Compensability provisions prevent favorable Findings elsewhere from offsetting particular unfavorable or unresolved conditions?

Determine what can be established about the Quality State

- What do the applicable Findings and Quality Factor Interpretations establish about the Quality State of the defined Quality Object?
- What limitations, Evidence limitations, Uncertainty, conditions, or qualifications constrain what can responsibly be determined?
- Does the Quality Determination remain bounded by the defined Quality Object, Scale, Boundary, Interfaces, Context, temporal basis, Methodological Resolution, Applicable Basis, applicable Quality Outcome Criteria, and available Evidence?

Form and communicate the Quality Claim, where applicable

- Which Findings are material to the Intended Function of the Quality Claim and its recipient?
- What Conclusion, if any, does Synthesis of Material Findings support?

- Is a Positive, Conditionally Positive, or Negative Conclusion supported?
- If none of those Conclusions can responsibly be expressed, is Refusal to Express a Conclusion required?
- For a Conditionally Positive Conclusion, what identified material conditions are to be fulfilled in the future?
- Who is the claimant, who is the recipient, and what is the Intended Function of the Quality Claim?
- What material Findings, conditions, limitations, Harm-related Findings, and Uncertainty must be communicated or made traceably accessible?
- Does the Quality Claim remain within the scope and certainty supported by the applicable Findings and Quality Determination?
- Can the material relationships connecting the Quality Determination and Quality Claim to their methodological and evidentiary basis be traced?

Applicable Basis establishes what applies. Reference Layer supports what is expected. Evidence supports what is actually found.

This map represents Conceptual Dependency, not a rigid workflow. Whole Quality permits iterative refinement where additional understanding reveals that the Quality Object, Methodological Resolution, Boundaries, Interfaces, Applicable Basis, Quality Factors, Quality Indicators, Quality

Outcome Criteria, Evidence needs, or other elements require further development. Material changes should remain traceable, and the final Quality Determination should be internally consistent.

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