



RESEARCH AND JUSTIFICATION OF QUALITY CLAIM FACTORS AND INDICATORS

WHOLE QUALITY JUSTIFICATION WQI_QCJ1

Functional Derivation and Cross-Context Testing
of a Claim Quality Structure

Article — October 2026

WHOLE QUALITY INSTITUTE

Table of Contents

Table of Contents.....	2
Abstract.....	6
1. Purpose and Scope.....	6
1.1 Research Purpose.....	7
1.2 Questions Addressed	7
1.3 Exclusions	8
2. The Quality Claim as a Quality Object	8
2.1 The Claim and the Original Quality Object	9
2.2 The Quality State of the Claim	9
2.3 Intended Function of the Quality Claim	10
2.4 General and Specific Intended Functions	11
2.5 Boundary, Interfaces, Context, and Applicable Basis	11
3. Research Inputs from FTA16	12
3.1 Sources of Claim Quality	12
3.2 Constituent Parts Identified in FTA16 Research	13
3.3 Substantive Support	14
3.4 Material Completeness.....	14
3.5 Preservation of Material Relationships	14
3.6 Consistency of Synthesis and Conclusion or Refusal	15
3.7 Treatment of Uncertainty and Limitations.....	15
3.8 Attribution	15
3.9 Recipient Applicability	16
3.10 Context Applicability	16
3.11 Traceability	17
3.12 Communicative Realization	17
3.13 Why These Are Research Inputs, Not Predetermined Factors or Indicators	17
4. From Intended Function to a Claim Quality Structure	18
4.1 Functional Starting Point	19
4.2 Function Realization and Non-Realization	19
4.3 Candidate Dimensions of Claim Quality	20
4.4 From Candidate Dimensions to Factors and Indicators	21
5. Derivation and Justification Method	22
5.1 Functional Derivation.....	23
5.2 Failure-Mode Test	23
5.3 Distinction Test.....	24
5.4 Removal Test	24

5.5 Absorption Test	25
5.6 Missing-Function Test	25
5.7 Cross-Context and Cross-Domain Stress Test	26
6. Discovery of Candidate Claim Quality Factors.....	26
6.1 Functional Grouping of Candidate Dimensions	27
6.2 Distinguishing Factors from Indicators	29
6.3 Distinguishing Factors from Supporting Methodological Conditions	30
6.4 Candidate Factor Structure	30
7. Justification of the Candidate Claim Quality Factors.....	31
7.1 Functional Necessity	32
7.2 Distinctness	33
7.3 Removal and Absorption Testing	34
7.4 Failure-Mode Coverage.....	36
7.5 Factor-Level Conclusion.....	37
8. Discovery of Candidate Claim Quality Indicators	38
8.1 Indicator Derivation	39
8.2 Allocation of Indicators to Factors	42
8.3 Indicator Distinction	43
8.4 Indicator Completeness.....	44
9. Justification of the Candidate Claim Quality Indicators	47
9.1 Functional Necessity	47
9.2 Distinctness	49
9.3 Removal and Absorption Testing	50
9.4 Failure-Mode Coverage.....	51
9.5 Indicator-Level Conclusion	53
10. Interaction, Critical Conditions, Non-Compensability, and Non-Substitutability	54
10.1 Interaction Among Factors and Indicators.....	55
10.2 Critical Conditions	56
10.3 Non-Compensability	57
10.4 Why No Universal Weighting or Scoring Is Established	57
11. Cross-Context and Cross-Domain Stress Testing	59
11.1 Purpose of Stress Testing	59
11.2 Different Types of Quality Claims	59
11.3 Different Recipients and Intended Uses	60
11.4 Different Quality Objects and Domains	61
11.5 What Changes Across Applications	62
11.6 What Remains Invariant	63

12. Evidence Quality, Uncertainty, Materiality, and Traceability	64
12.1 Evidence for Determining Claim Quality	64
12.2 Evidence Quality	66
12.3 Uncertainty	66
12.4 Materiality	67
12.5 Traceability	68
12.6 Distinguishing Supporting Concepts from Factors and Indicators.....	69
13. Missing-Function Review	70
13.1 Communication of What Has Been Established.....	71
13.2 Material Sufficiency	71
13.3 The Recipient	72
13.4 Purpose and Specific Intended Function.....	72
13.5 Context	73
13.6 Communication	73
13.7 Accuracy.....	73
13.8 Consistency.....	74
13.9 Attribution and Authority	74
13.10 Traceability and Verifiability.....	74
13.11 Independence, Impartiality, and Objectivity.....	75
13.12 Currency and Continuing Validity	75
13.13 Completeness of the Proposed Structure	76
14. Necessary but Not Closed	77
14.1 Conservative Expansion.....	77
14.2 Conservative Simplification	78
15. Conditions for Controlled Revision.....	79
15.1 Candidate Conditions for Revision	79
15.2 Revision Principles	81
16. Research Conclusions and Proposed Structure	83
16.1 Supported Claim Quality Factors	84
16.2 Supported Claim Quality Indicators	85
16.3 Relationships Among Factors and Indicators.....	87
16.4 Limits of the Present Justification.....	89
17. Implications for the Claim Quality Standard — Core.....	90
17.1 What the Research Supports for the Core	91
17.2 What Remains Context-Specific.....	93
17.3 Separation of the Justification Article from the Core Standard.....	95
References.....	97

Copyright and Use Notice	98
--------------------------------	----

Abstract

This article develops and tests a proposed set of Quality Factors and Quality Indicators for determining the Quality of a Quality Claim.

The starting point is the proposition established in WQI FTA16 that a Quality Claim can itself be treated as a Quality Object. At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

The research asks what distinct and recurring dimensions of Function Realization must be examined to determine whether a Quality Claim realizes that Intended Function. It begins with candidate sources and constituent parts of Claim Quality identified during development of FTA16, including substantive support, material completeness, preservation of material relationships, consistency between Synthesis of Material Findings and the Conclusion or Refusal to Express a Conclusion, treatment of Uncertainty and limitations, attribution, recipient applicability, Context applicability, Traceability, and communicative realization.

These candidate elements are treated as research inputs rather than as predetermined Quality Factors or Quality Indicators. The analysis tests whether they represent distinct dimensions of Function Realization, whether some should be combined or absorbed into others, whether some operate instead as supporting methodological conditions, and whether important functions are missing.

The research applies functional derivation, failure-mode, distinction, removal, absorption, missing-function, and cross-context and cross-domain stress tests. Particular attention is given to whether the resulting structure remains applicable across different types of Quality Claims, recipients, purposes, Contexts, and classes of original Quality Objects without converting Context-specific requirements into universal requirements.

The intended result is a justified set of Claim Quality Factors and Quality Indicators at the present WQI Methodological Resolution. The article does not establish the Claim Quality Standard — Core. Rather, it provides the research and justification from which such a Core may subsequently be developed if the proposed Factors and Indicators are supported.

1. Purpose and Scope

This article develops and justifies a common set of Quality Factors and Quality Indicators for determining the Quality of a Quality Claim.

In simpler terms, the research asks: what must be examined to determine whether a Quality Claim performs its function well as a Claim?

WQI FTA16 establishes that a Quality Claim may itself be treated as a Quality Object. Once the Claim is defined as the Quality Object, its Quality concerns the degree to which it realizes its own Intended Function and Intended Results within its declared Boundary and Interfaces in relation to applicable Quality Outcome Criteria.

The article therefore moves from the foundational proposition established in FTA16 toward discovery and justification of a possible common structure for determining Claim Quality. It examines candidate sources and constituent parts of Claim Quality identified during development of FTA16, tests their functions, and determines whether they should be treated as distinct Quality Factors, Quality Indicators, supporting methodological conditions, or other elements needed for the determination.

The objective is not to preserve a predetermined number or arrangement of Factors and Indicators. Candidate elements may be retained, combined, absorbed, reclassified, or rejected where the research supports such treatment. Additional elements may be introduced where a necessary function is found to be missing.

The resulting set of Factors and Indicators, if supported, is intended to provide the basis for subsequent development of a Claim Quality Standard — Core. The present article provides the research and justification for that later standard; it does not itself constitute the Core.

1.1 Research Purpose

The research purpose is to determine whether a common and justified set of Quality Factors and Quality Indicators can be derived for Quality Claims as a class of Quality Objects.

The derivation begins from the general Intended Function of a Quality Claim established in FTA16:

At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

This Intended Function provides the starting point for the research.

The central task is to identify the distinct dimensions through which realization or non-realization of this Intended Function can be determined. A proposed Factor or Indicator is therefore not justified merely because it describes a desirable characteristic of a Claim, appears frequently in professional practice, or is useful for administration or documentation. It must serve a necessary and distinguishable function in determining whether the Claim realizes its Intended Function and Intended Results.

The research also examines whether the proposed Factors and Indicators remain applicable as the original Quality Object, type of Claim, claimant, recipient, purpose, Context, form of communication, and Applicable Basis change.

Being common across different Claims does not require identical technical implementation in every application. It requires that the underlying function remain necessary even where the Evidence, Quality Outcome Criteria, methods, terminology, or practical means of evaluating that function differ.

The purpose is therefore both constructive and critical: to derive a set of Factors and Indicators sufficient to make necessary aspects of Claim Quality visible, while avoiding unnecessary duplication, premature classification, or Context-specific requirements presented as universal features of Claim Quality.

1.2 Questions Addressed

- What dimensions of Function Realization are necessary to determine whether a Quality Claim realizes its general Intended Function?
- Which candidate elements identified during development of FTA16 represent distinct Quality Factors?
- Which candidate elements are better understood as Quality Indicators within a broader Factor?
- Which elements operate as supporting methodological concepts or conditions rather than as Factors or Indicators?
- Can any proposed Factor or Indicator be removed without making a recurring and material mode of Claim failure invisible?
- Can the function of one proposed element be fully absorbed by another without important information being lost?
- Are there recurring ways in which a Quality Claim can fail to realize its Intended Function that are not represented by the proposed Factors and Indicators?
- Which elements remain necessary across different types of Quality Claims, recipients, purposes, Contexts, and classes of original Quality Objects?
- Which aspects vary by Context and should therefore be established through the Applicable Basis or application-specific Quality Outcome Criteria rather than incorporated into the common Factors and Indicators?

- How should interactions among Factors and Indicators, Critical Conditions, Non-Compensability, Uncertainty, Materiality, Evidence Quality, and Traceability be treated without combining concepts that perform different functions?
- Does the resulting set of Factors and Indicators provide a sufficient basis for development of a Claim Quality Standard — Core?

These questions are examined through the derivation and justification methods established later in this article.

1.3 Exclusions

This article does not determine the Quality of any particular Quality Claim.

It does not establish universal Quality Outcome Criteria for all Claims. Quality Outcome Criteria establish the expected states or results against which applicable aspects of a Quality State are evaluated and may depend upon the defined Claim, its Intended Function and Intended Results, recipient, Context, Applicable Basis, and other applicable conditions.

The article does not establish a universal scoring, weighting, grading, or averaging system for Claim Quality. Interaction among Factors and Indicators does not by itself establish compensability, and strength in one dimension should not be assumed to offset a material deficiency in another.

The research does not assume that every candidate source or constituent part identified during development of FTA16 must become a Quality Factor or Quality Indicator. Those elements are research inputs and remain subject to functional derivation, distinction, removal, absorption, missing-function, and stress testing.

The article does not redetermine the Quality State of the original Quality Object about which a Claim is made. Determination of Claim Quality concerns the Quality Claim as the defined Quality Object. Evidence concerning the original Quality Object and Evidence concerning the Claim may be connected, but their functions remain distinct.

The article also does not merge Quality, Evidence Quality, Harm, Risk, or Safety into Claim Quality. Where these concepts or their determinations are material to a particular Claim, their responsible treatment may affect realization of the Claim's Intended Function, but each retains its distinct methodological meaning.

Finally, this article does not establish the Claim Quality Standard — Core. It is intended to determine and justify the Factors and Indicators that may support development of that Core in a subsequent publication.

2. The Quality Claim as a Quality Object

FTA16 establishes that a Quality Claim can itself be treated as a Quality Object.

This creates two related but distinct Quality Objects:

- the original Quality Object about which Findings have been established; and
 - the Quality Claim through which what has been established is communicated to a recipient.
- The Quality of these two objects is not the same determination. The original Quality Object has its own Intended Functions, Intended Results, Quality State, Boundary, Interfaces, Context, and Applicable Basis. The Quality Claim has its own Intended Function and Intended Results and can therefore have its own Quality State.

This distinction provides the foundation for the present research. If the Claim is a Quality Object, its Quality can be determined. If its Quality can be determined, the research must identify what dimensions of Function Realization are necessary for that determination.

The purpose of this section is therefore not to repeat the full development presented in FTA16. It establishes the parts of the Claim-as-Quality-Object proposition needed to derive and test candidate Quality Factors and Quality Indicators.

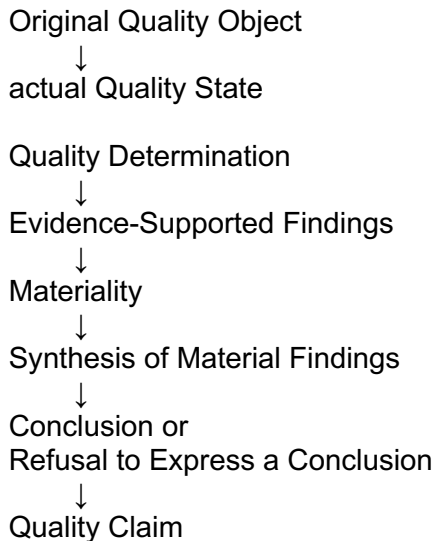
2.1 The Claim and the Original Quality Object

The original Quality Object exists independently of a Quality Claim made about it.

Its Quality State is the actual Quality-relevant condition of that defined Quality Object, at a defined time or period, in relation to realization of its Intended Functions and Intended Results.

Quality Determination does not create that Quality State. It establishes, through applicable Evidence and Quality Outcome Criteria, what can be established about it. The results are Evidence-Supported Findings concerning applicable aspects of the Quality State.

The relationship can therefore be represented in simplified form as:



The Claim does not become part of the Quality State of the original Quality Object. Nor does it replace the Findings upon which it relies. It is a separate, attributable communication concerning what has been established about that state.

This separation has an important consequence for Claim Quality.

A Claim can realize its Intended Function even when it communicates unfavorable Findings or a Negative Conclusion concerning the original Quality Object. Conversely, a Claim can fail to realize its Intended Function even when the original Quality Object has a favorable Quality State.

For example, a Claim may fail if it omits a material Finding, exceeds the certainty supported by the Evidence, obscures an important condition or limitation, or communicates the Findings in a way that does not serve the legitimate information needs for which the Claim is made.

The Quality of the Claim must therefore be determined in relation to the Claim itself, rather than inferred from the favorable or unfavorable Quality State of the original Quality Object.

2.2 The Quality State of the Claim

Once a Quality Claim is treated as a Quality Object, it has its own Quality State.

The Quality State of the Claim is its actual Quality-relevant condition, at the applicable time or period, in relation to realization of the Claim's Intended Function and Intended Results.

This state exists independently of whether a Quality Determination of the Claim has been performed.

A Claim may therefore possess characteristics that support realization of its Intended Function, characteristics that interfere with realization, or both. Those characteristics belong to the actual condition of the Claim. Evidence and Findings concerning them belong to the determination of that condition.

This distinction is important for the present research. The Quality Factors and Quality Indicators to be derived should provide a structure for determining what can be established about the Quality State of the Claim. They should not be treated as components that create that state.

The Claim's Quality State also should not be confused with the Quality State of the original Quality Object.

The relationship is:

Original Quality Object



its Quality State



Findings concerning that state



Quality Claim

and, separately:

Quality Claim



its own Quality State



Quality Determination of the Claim



Findings concerning the Quality of the Claim

The two determination processes may be connected through Evidence, Findings, Traceability, and other relevant relationships, but they remain distinct.

This distinction allows the Quality of a Claim to be examined without redetermining the Quality of the original Quality Object.

2.3 Intended Function of the Quality Claim

The derivation of Claim Quality Factors and Quality Indicators begins from the Intended Function of the Quality Claim.

FTA16 establishes the general Intended Function as follows:

At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

Several elements of this Intended Function are important for the present research.

First, the Claim is a communication. Its function is not merely to store Findings or reproduce the records of a Quality Determination.

Second, the communication must be supportable. A Claim cannot properly extend beyond what the applicable Findings support.

Third, the communication must be materially sufficient. It need not contain every available piece of information, but it must preserve the information and relationships that are material to its Intended Function.

Fourth, the Claim is made for a recipient. A communication that is technically accurate but unusable for its intended recipient may fail to realize its Intended Function.

Fifth, the Claim is made for a purpose and within a Context. The same Findings may support Claims with different content, emphasis, or form where legitimate differences in recipient, purpose, or Context make different information material.

These elements provide functional starting points for the later derivation. They do not yet establish the final Quality Factors or Quality Indicators.

The research must determine whether these functions are distinct, how they relate to one another, whether some belong within broader dimensions of Function Realization, and whether additional necessary functions are missing.

2.4 General and Specific Intended Functions

The general Intended Function applies to the Quality Claim as a class of Quality Objects.

A particular Quality Claim may also have a specific Intended Function.

For example, a Claim may be intended to inform a purchasing decision, communicate conformity with specified requirements, support an operational decision, communicate the result of an assessment, provide information to a regulator, support a financing or insurance decision, or inform a service recipient about a determined condition.

These specific functions may differ substantially, but each remains within the general function of communicating what has been established about the Quality State of the original Quality Object in a supportable and materially sufficient way for the applicable recipient, purpose, and Context.

The specific Intended Function therefore does not expand what the applicable Findings support. It helps establish what information is material, what form of communication is appropriate, and what Intended Results the particular Claim is expected to realize.

This distinction is important when testing whether proposed Quality Factors and Quality Indicators are common across different Claims.

A common Factor or Indicator should remain relevant as the specific Intended Function changes. Its practical application or Quality Outcome Criteria may change, but the underlying determination function should remain necessary.

If an element is necessary only for a particular type of Claim or particular use, it may belong to the Applicable Basis or Context-specific requirements rather than to the common set of Claim Quality Factors and Indicators.

2.5 Boundary, Interfaces, Context, and Applicable Basis

A Quality Claim cannot be determined without defining what is included in the Claim and the conditions under which it is intended to function.

The Boundary identifies what belongs to the Claim as the defined Quality Object. Depending on the form of the Claim, this may include information communicated directly and information made available through traceable supporting records or references where such access is part of the Claim's Intended Function.

Interfaces connect the Claim to matters outside its Boundary that affect its Function Realization. These may include the applicable Findings, supporting Evidence, the original Quality Object, the claimant, the recipient, referenced information, communication systems, or other dependencies necessary to understand or use the Claim.

Context concerns the circumstances in which the Claim is made and used. It may affect what information is material, how the Claim must be communicated, and what a recipient reasonably needs for the Claim to realize its Intended Function.

The Applicable Basis provides the authoritative or justified basis relevant to the Claim. Depending on the application, it may include laws, regulations, standards, contractual requirements, professional requirements, defined methods, or other justified sources.

These elements do not automatically become Quality Factors or Quality Indicators.

Instead, they define and constrain the conditions within which the Claim's Quality is determined. They may also establish application-specific Quality Outcome Criteria.

The later derivation must therefore distinguish between:

- dimensions of Function Realization that belong in the common set of Claim Quality Factors and Indicators;
- conditions needed to define the Claim and its determination; and
- requirements or criteria that vary according to the Claim's specific purpose, recipient, Context, or Applicable Basis.

Maintaining these distinctions is necessary if the resulting Factors and Indicators are to remain useful across materially different types of Quality Claims.

3. Research Inputs from FTA16

Development of FTA16 required examination of what may affect the Quality of a Quality Claim once the Claim is treated as a separate Quality Object.

FTA16 identified matters that may affect Claim Quality; it did not determine that each matter constitutes an independent Quality Factor or Quality Indicator.

That work identified several recurring matters that may affect whether a Claim realizes its Intended Function. Some remained in the final FTA16 as sources of Claim Quality. Others were developed in greater detail during drafting but were intentionally reserved for the present research rather than being presented as an already established set of Quality Factors or Quality Indicators.

The resulting research inputs are:

- substantive support;
- material completeness;
- preservation of material relationships;
- consistency between the Synthesis of Material Findings and the Conclusion or Refusal to Express a Conclusion;
- treatment of Uncertainty and limitations;
- attribution;
- recipient applicability;
- Context applicability;
- Traceability; and
- communicative realization.

These elements provide a starting set for investigation. Their inclusion does not establish that there are ten Quality Indicators, ten Quality Factors, or any particular grouping among them.

Some may represent distinct dimensions of Function Realization. Some may operate as Quality Indicators within a broader Quality Factor. Some may overlap and require combination. Others may be conditions or supporting methodological concepts rather than components of the final Factor-and-Indicator structure.

3.1 Sources of Claim Quality

FTA16 establishes that the Quality of a Claim does not follow automatically from the Quality of the original Quality Object.

A Claim concerning an original Quality Object with an unfavorable Quality State may itself realize its Intended Function well if it communicates what has been established accurately, supportably, and in a materially sufficient way.

Conversely, a Claim concerning an original Quality Object with a favorable Quality State may fail to realize its Intended Function if it materially misstates, omits, distorts, obscures, or exceeds what the applicable Findings support.

Claim Quality may therefore be affected by several different relationships.

The Claim must remain connected to the Findings upon which it relies. Material information and material relationships among Findings must be preserved. The Conclusion or Refusal to Express a Conclusion must remain supportable by the Synthesis of Material Findings. Material Uncertainty and limitations must not be hidden or transformed into unsupported certainty. The Claim must be attributable. Its content and form must remain applicable to its recipient, purpose, and Context. Material relationships to its supporting basis must remain traceable where needed. And the communication must be capable of realizing its Intended Function.

These are possible sources of Claim Quality or Claim failure.

At this stage, however, identifying a source of Claim Quality is not the same as establishing a Quality Factor.

A source identifies a matter through which realization or non-realization may arise. A Quality Factor must represent a principal and distinct dimension of Function Realization used to determine what can be established about the Quality State of the Claim.

The research must therefore determine which sources, alone or in combination, satisfy that stronger function.

3.2 Constituent Parts Identified in FTA16 Research

During development of FTA16, the research inputs were also examined as possible constituent parts of Claim Quality.

The term constituent part was useful during exploration because it allowed potentially important elements to be identified without prematurely deciding their final methodological status.

The ten constituent parts were:

1. substantive support;
2. material completeness;
3. preservation of material relationships;
4. consistency of Synthesis and Conclusion or Refusal;
5. treatment of Uncertainty and limitations;
6. attribution;
7. recipient applicability;
8. Context applicability;
9. Traceability; and
10. communicative realization.

The list is useful because it brings together several different ways in which a Claim may succeed or fail.

It is not yet a Factor-and-Indicator structure.

For example, recipient applicability and Context applicability may prove to be separate determination functions, or they may be expressions of a broader common function. Traceability may prove to be a dimension of Claim Quality, an Indicator within another Factor, or a supporting condition needed to establish other aspects of Claim Quality. Similar questions arise for attribution, material completeness, and treatment of Uncertainty.

The present research therefore retains the ten elements as candidate inputs while reopening their classification.

3.3 Substantive Support

A Quality Claim must remain within what the applicable Evidence-Supported Findings can support.

Substantive support concerns the relationship between what the Claim communicates and the determined basis upon which that communication relies.

A Claim may fail in this respect by asserting more than the Findings establish, increasing certainty beyond what is supported, changing the scope of a Finding, presenting a conditional matter as unconditional, or communicating a Conclusion that the Synthesis of Material Findings does not support.

Substantive support does not require every supporting Finding or item of Evidence to be reproduced within the Claim.

It requires that the substantive content of the Claim remain supportable by the applicable Findings and that access to the relevant basis be available where needed through appropriate Traceability.

This candidate element appears central because a communication that is clear, useful, and properly addressed to its recipient may nevertheless fail as a Quality Claim if its substantive assertions are unsupported.

Whether substantive support should itself constitute a Quality Factor, or whether it should be represented through one or more Indicators within a broader Factor, remains to be tested.

3.4 Material Completeness

A Quality Claim need not communicate everything known about the original Quality Object.

It must, however, communicate or provide appropriate access to the information necessary for the Claim to realize its Intended Function.

Material completeness therefore concerns whether material Findings, conditions, limitations, Uncertainty, and other matters necessary to the intended Claim have been preserved rather than omitted.

This is not the same as information quantity.

A long Claim may remain materially incomplete. A short Claim may be materially sufficient if it communicates what its recipient needs for the applicable purpose and makes supporting information appropriately accessible where required.

Materiality provides the connection between the determined basis and the intended Claim. What is material may therefore vary with the recipient, Intended Function, Context, and applicable Findings.

The research must determine whether material completeness represents a distinct dimension of Claim Quality or is better treated as part of a broader dimension concerning the sufficiency or integrity of the communication.

3.5 Preservation of Material Relationships

Individual Findings do not necessarily carry their full meaning when separated from the relationships among them.

A Finding may depend upon another Finding, qualify another Finding, apply only under stated conditions, or become material because of its relationship to another condition or limitation.

A Claim may therefore reproduce individual Findings accurately while still changing their meaning if material relationships among them are lost, obscured, or rearranged.

Preservation of material relationships concerns whether the Claim maintains the relationships necessary for the recipient to understand what the applicable Findings collectively establish.

This candidate element is closely related to substantive support and material completeness but is not necessarily identical to either.

A Claim may include all material Findings and reproduce each accurately while still creating a misleading overall meaning through the way those Findings are related.

The distinction must therefore be tested rather than assumed.

3.6 Consistency of Synthesis and Conclusion or Refusal

A Conclusion is not independent of the Synthesis of Material Findings that supports it.

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.

The Claim should preserve the relationship between the Synthesis of Material Findings and the Conclusion or Refusal that follows from it.

A Claim may fail where:

- a Positive Conclusion is expressed without support for realization of the applicable Intended Functions and Intended Results as required;
- a Conditionally Positive Conclusion is used where the applicable Findings do not support a Positive Conclusion subject to identified material future conditions;
- a Negative Conclusion is expressed merely because a Positive Conclusion cannot be supported, without an affirmative basis for non-realization; or
- a substantive Conclusion is expressed where the available basis instead supports Refusal to Express a Conclusion.

This candidate element therefore concerns the integrity of the transition from Synthesis to what the claimant ultimately expresses.

The later tests must determine whether this is a distinct dimension of Claim Quality or one important manifestation of a broader requirement for substantive support.

3.7 Treatment of Uncertainty and Limitations

Uncertainty and limitations constrain what can responsibly be established and communicated.

A Claim may fail if material Uncertainty is omitted, understated, converted into unsupported certainty, or presented in a way that prevents the recipient from understanding its significance.

The same applies to material limitations in Evidence, scope, applicability, methods, temporal basis, or other relevant conditions.

Treatment of Uncertainty and limitations does not mean that every uncertainty or limitation must receive equal prominence in every Claim.

Their treatment depends upon Materiality to the Intended Function, recipient, purpose, Context, and applicable Findings.

This candidate element may overlap with material completeness and substantive support. Nevertheless, its removal could make a recurring mode of Claim failure less visible: a Claim may state individually supportable information yet communicate a materially stronger level of certainty than the basis permits.

Its distinctness must therefore be tested.

3.8 Attribution

A Quality Claim is attributable to a claimant.

Attribution identifies who is responsible for making the Claim and distinguishes the claimant's communication from the underlying Evidence, Findings, and Quality State of the original Quality Object.

Attribution can be important because different claimants may make different supportable Claims from the same Findings where their Intended Functions, recipients, Contexts, or Materiality judgments legitimately differ.

A Claim whose source or claimant cannot be established may impair responsibility, interpretation, Traceability, or appropriate use.

Attribution does not by itself make a Claim supportable or high in Quality. An authoritative claimant can make a deficient Claim, while a less institutionally prominent claimant may make a well-supported Claim.

The research must determine whether attribution represents an independent dimension of Function Realization, an Indicator of a broader communicative dimension, or a condition necessary for a communication to function as an attributable Quality Claim.

3.9 Recipient Applicability

A Quality Claim is made for a recipient.

The recipient may be an individual, organization, authority, customer, service recipient, operator, regulator, investor, lender, insurer, purchaser, or another party with a legitimate information need.

Recipient applicability concerns whether the Claim is suitable for the recipient for whom it is intended.

This does not mean that the recipient determines what is true or what the Findings support.

Recipient needs cannot create Findings, increase supported certainty, remove material limitations, or justify distortion of the determined basis.

They can, however, affect what information is material, what level of explanation is necessary, what terminology can responsibly be used, and how information must be presented for the Claim to realize its Intended Function.

A Claim may therefore be substantively supportable yet fail to realize its Intended Function for its intended recipient.

The research must determine whether recipient applicability is sufficiently distinct to require separate representation or whether it belongs within a broader dimension of communicative realization or applicability.

3.10 Context Applicability

A Quality Claim is also made within a Context.

Context may include the circumstances, purpose, environment, institutional setting, timing, decision setting, or other conditions relevant to how the Claim is intended to function.

A Claim appropriate in one Context may be inadequate or misleading in another even where the underlying Findings remain unchanged.

Context applicability therefore concerns whether the Claim remains suitable for the circumstances in which it is intended to be used.

Context does not alter the Quality State of the original Quality Object or permit the Claim to exceed the applicable Findings.

It affects how those Findings can responsibly be communicated and what information, qualifications, form, or level of detail may be necessary.

Recipient applicability and Context applicability are closely related. The research must test whether they represent separate dimensions or should be combined under a broader common function.

3.11 Traceability

Traceability allows the material relationships connecting the Claim to its relevant basis to be followed and understood.

Depending upon the Claim and its Intended Function, this may include relationships to the original Quality Object, applicable Findings, Evidence and Evidence Quality, Applicable Basis, Materiality, Synthesis of Material Findings, Conclusion or Refusal to Express a Conclusion, Uncertainty, limitations, claimant, recipient, and Context.

Traceability does not require every supporting element to be physically reproduced within the Claim.

Nor does Traceability by itself establish favorable Claim Quality.

A Claim may be extensively documented and still be substantively unsupported, materially incomplete, misleading, or unsuitable for its recipient.

Nevertheless, without sufficient Traceability, it may be impossible to establish whether important parts of the Claim are supported or how they relate to the basis from which the Claim was formed.

Traceability therefore appears important both to the functioning of the Claim and to the possibility of determining its Quality.

This dual role requires careful testing. The research must distinguish Traceability as a possible characteristic of the Claim from Traceability as a methodological capability needed to perform Quality Determination.

3.12 Communicative Realization

A Quality Claim must function as a communication.

A Claim may be substantively supportable, materially complete, and traceable yet still fail if its intended recipient cannot reasonably understand or use what it communicates for the intended purpose.

Communicative realization concerns whether the Claim communicates its material meaning in a form sufficient for its Intended Function.

Possible considerations may include clarity, intelligibility, accessibility, organization, appropriate level of detail, and preservation of substantive meaning through the chosen form of communication.

These considerations should not be converted prematurely into universal stylistic rules.

Different recipients and Contexts may require different forms of communication. Technical terminology may be necessary for one recipient and inappropriate for another. A concise statement may be sufficient in one application while another requires extensive supporting information.

The common function is therefore not a particular style. It is successful communication of the supportable and materially sufficient meaning needed for the Claim's Intended Function.

Whether communicative realization should form a Quality Factor of its own, or be represented differently within the final structure, remains a research question.

3.13 Why These Are Research Inputs, Not Predetermined Factors or Indicators

The ten candidate elements provide a useful description of where Claim Quality may arise or fail.

They do not establish the final Factor-and-Indicator structure.

Treating them as predetermined Factors or Indicators would reverse the required research sequence. Instead of deriving Factors and Indicators from the Intended Function and testing their necessity and distinctness, the research would begin with an inherited list and seek reasons to preserve it.

The present study takes the opposite approach.

Each candidate element may be:

- retained as a distinct function;
- combined with another element where the functions substantially overlap;
- placed within a broader Quality Factor as a Quality Indicator;
- treated as a supporting methodological condition rather than as a Factor or Indicator;
- reformulated where its present wording does not identify the underlying function clearly;
- removed if its function is fully absorbed elsewhere without loss; or
- supplemented where the missing-function analysis identifies an unrepresented recurring mode of Claim failure.

The number of resulting Factors and Indicators is therefore not predetermined.

The controlling question is whether the resulting set allows the necessary and distinct dimensions of Function Realization of a Quality Claim to be determined without unnecessary duplication and without leaving a recurring material failure mode invisible.

This preserves the distinction between research input and research result.

It also establishes the transition to the next stage of the study: deriving possible Claim Quality Factors and Indicators from the general Intended Function of the Quality Claim and testing whether the candidate elements support that derivation.

4. From Intended Function to a Claim Quality Structure

The candidate elements identified in Section 3 provide possible sources of Claim Quality and possible modes of Claim failure. They do not by themselves establish the Factors and Indicators needed to determine Claim Quality.

The derivation must begin from the Intended Function of the Quality Claim.

At the general level, a Quality Claim is intended to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

The research question is therefore not simply:

What characteristics should a good Claim possess?

The more precise question is:

What distinct dimensions of Function Realization must be examined to determine whether a Quality Claim performs this Intended Function?

This distinction is important.

A desirable characteristic does not automatically justify a Quality Factor. A common professional practice does not automatically justify a Quality Indicator. A documentation requirement does not automatically represent a dimension of Claim Quality.

Factors and Indicators should arise from functions that must remain visible in determining whether the Claim realizes its Intended Function.

The derivation therefore proceeds from:

```

Intended Function
↓
necessary functions of the Claim
↓
recurring modes of non-realization
↓
candidate dimensions of Function Realization
↓
candidate Quality Factors

```

↓
candidate Quality Indicators

The candidate elements from Section 3 are tested against this sequence rather than inserted into it automatically.

4.1 Functional Starting Point

The general Intended Function contains several functional requirements.

A Quality Claim must communicate something that has been established.

What it communicates must remain supportable by the applicable Findings.

The communication must be materially sufficient for its Intended Function.

It must be directed to a recipient.

It must serve a defined purpose within an applicable Context.

These requirements suggest several broad functional questions.

First, does the Claim preserve the supportable meaning of what has been established?

Second, does it preserve the material information and relationships necessary for that meaning to remain sufficient?

Third, is the communication applicable to the recipient, purpose, and Context for which the Claim is made?

Fourth, does the Claim communicate that meaning in a form through which the recipient can reasonably understand and use it for the intended purpose?

These questions provide a first functional grouping of the candidate elements identified in Section 3.

They do not yet establish four Quality Factors.

At this stage, they are working questions used to discover whether distinct dimensions of Function Realization exist.

4.2 Function Realization and Non-Realization

A useful way to identify a necessary dimension of Claim Quality is to ask how the Claim can fail to realize its Intended Function.

Consider several possible Claims.

A Claim may be clearly written and directed to the correct recipient, but make an assertion that the applicable Findings do not support.

A Claim may communicate only supportable statements, but omit a material limitation that changes how those statements should be understood.

A Claim may include all material Findings individually, but present them in a way that destroys an important relationship among them.

A Claim may accurately represent the Findings but express a Positive Conclusion where the Synthesis of Material Findings supports only a Conditionally Positive Conclusion.

A Claim may preserve the Findings and Conclusion correctly but omit material Uncertainty and communicate a stronger level of certainty than the basis supports.

A Claim may be substantively sound but fail to identify the claimant where attribution is necessary to understand responsibility for the communication.

A Claim may be technically accurate but unsuitable for the recipient or Context in which it is intended to function.

A Claim may contain the necessary information but communicate it in a form that prevents the intended recipient from reasonably understanding or using it.

A Claim may appear complete but lack sufficient Traceability to establish how its material assertions relate to the determined basis.

These examples show that Claim failure can occur through different routes.

The purpose of the Factor-and-Indicator structure is to make the necessary and distinct routes visible without representing the same underlying failure more than once.

Non-realization therefore provides an important test.

If removal of a proposed dimension makes a recurring and material mode of Claim failure invisible, that dimension may be necessary.

If the same failure remains fully visible through another dimension, the proposed element may be redundant or may belong within that broader dimension.

This reasoning will later be formalized through the Failure-Mode, Removal, and Absorption Tests.

4.3 Candidate Dimensions of Claim Quality

The functional questions and failure modes identified above suggest an initial grouping of the Section 3 research inputs.

One possible grouping is:

A. Preservation of the determined basis

This concerns whether the Claim remains within what has been established and preserves the supportable substantive meaning of the applicable Findings.

Candidate inputs relevant to this function include:

- substantive support;
- preservation of material relationships;
- consistency between Synthesis of Material Findings and the Conclusion or Refusal to Express a Conclusion; and
- treatment of Uncertainty and limitations where these constrain what can responsibly be communicated.

B. Material sufficiency

This concerns whether the Claim contains, communicates, or makes appropriately accessible the material information needed for its Intended Function.

Candidate inputs relevant to this function include:

- material completeness;
- material Findings;
- material conditions;
- material limitations;
- material Uncertainty; and
- other information whose omission would materially change or weaken what the Claim communicates.

C. Applicability

This concerns whether the Claim is suitable for the circumstances in which it is intended to function.

Candidate inputs relevant to this function include:

- recipient applicability;
- Context applicability;

- purpose;
- specific Intended Function; and
- requirements established through the Applicable Basis.

D. Communicative realization

This concerns whether the supportable and materially sufficient meaning of the Claim is communicated in a form through which the intended recipient can reasonably understand and use it for the intended purpose.

Candidate inputs may include:

- intelligibility;
- clarity;
- organization;
- appropriate level of detail;
- accessibility where relevant; and
- preservation of substantive meaning through the chosen form of communication.

Two additional candidate elements require separate examination:

Attribution

Attribution may be a necessary characteristic of a Quality Claim because the Claim is an attributable communication. It remains to be determined whether attribution represents a distinct dimension of Function Realization, belongs within another dimension, or operates as a necessary condition for the communication to function as a Quality Claim.

Traceability

Traceability may support the Claim's connection to its Findings and other relevant basis. It may also be necessary for determining the Quality of the Claim. The research must determine whether Traceability is itself a dimension of Claim Quality, an Indicator within another dimension, or primarily a supporting methodological capability.

This preliminary grouping is intentionally conservative.

It reduces the ten research inputs to a smaller number of possible functions without yet declaring any of them to be final Quality Factors.

4.4 From Candidate Dimensions to Factors and Indicators

The next step is to distinguish a Quality Factor from a Quality Indicator.

Under the Whole-Quality methodology, a Quality Factor is a principal dimension of Function Realization used to determine what can be established about the Quality State of a defined Quality Object.

For the present research, a candidate Claim Quality Factor should therefore satisfy at least the following conditions:

- it represents a principal dimension of realization of the Claim's Intended Function;
- its function is distinguishable from the functions of the other proposed Factors;
- removing it would make a recurring and material mode of Claim non-realization invisible or inadequately represented;
- its function cannot be fully absorbed into another Factor without important loss;
- it remains applicable across materially different types of Quality Claims; and
- it can support more specific Quality Indicators through which the dimension can be examined.

A Quality Indicator performs a more specific role within a Factor.

A candidate Indicator should identify a distinct and recurring aspect through which realization or non-realization of the Factor can be determined.

An Indicator should not merely repeat the Factor using different words.

It should also not be retained separately where its function is fully represented by another Indicator.

This produces a working hierarchy:

Intended Function of the Quality Claim



Quality Factors

principal dimensions of Function Realization



Quality Indicators

distinct aspects through which each Factor can be examined



Quality Outcome Criteria

expected states or results applicable to the determination

The research should not move directly from the candidate list in Section 3 to this hierarchy.

Each proposed Factor and Indicator must first survive the tests established in Section 5.

The initial grouping in Section 4.3 therefore remains provisional.

It suggests that the final structure may be substantially simpler than the original list of ten constituent parts, but it does not determine how many Factors or Indicators will ultimately be justified.

That result must emerge from the testing.

5. Derivation and Justification Method

The proposed Claim Quality Factors and Quality Indicators should be derived and tested rather than selected because they appear useful or familiar.

The research therefore uses seven related tests:

- Functional Derivation;
- Failure-Mode Test;
- Distinction Test;
- Removal Test;
- Absorption Test;
- Missing-Function Test; and
- Cross-Context and Cross-Domain Stress Test.

No single test is sufficient by itself.

Functional Derivation asks why an element is needed.

Failure-Mode testing asks what can go wrong if the function represented by that element is not realized.

Distinction testing asks whether the element performs a function different from the other proposed elements.

Removal testing asks what becomes invisible if the element is removed.

Absorption testing asks whether another element can fully perform the same determination function.

Missing-Function testing asks whether important recurring modes of Claim failure remain outside the proposed set.

Stress testing asks whether the proposed Factors and Indicators remain necessary as the type of Claim, recipient, purpose, Context, and original Quality Object change.

Together, these tests are intended to produce a set that is sufficient without unnecessary duplication and common enough to support a later Claim Quality Standard — Core.

5.1 Functional Derivation

Functional Derivation begins with the general Intended Function of the Quality Claim rather than with a preferred list of Factors or Indicators.

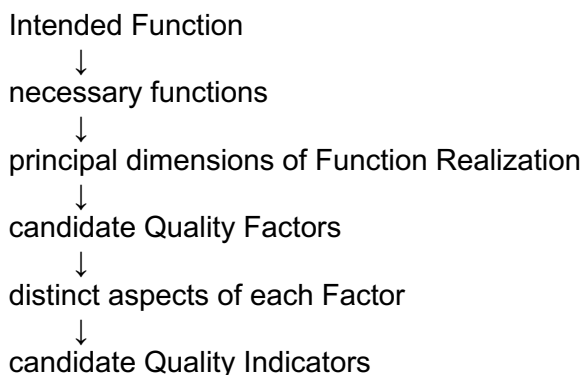
The starting question is:

What must a Quality Claim be able to do in order to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the applicable purpose and Context?

A candidate Factor should represent a principal dimension through which realization of that Intended Function can be determined.

A candidate Indicator should identify a more specific and distinct aspect through which realization or non-realization of its Factor can be examined.

The derivation therefore proceeds in the following direction:



This direction is important.

The research should not begin with an existing list of desirable Claim characteristics and then construct a reason for each to become a Factor or Indicator.

Nor should Factors be derived merely from common document headings, professional practices, regulatory categories, or the organization of FTA16.

Such sources may provide useful evidence or examples, but the justification for a Factor or Indicator must arise from its function in determining Claim Quality.

5.2 Failure-Mode Test

The Failure-Mode Test asks how a Quality Claim can fail to realize its Intended Function.

For each candidate Factor or Indicator, the research asks:

What recurring and material form of Claim failure does this element make visible?

Examples identified during the preliminary research include:

- communicating something that the applicable Findings do not support;
- omitting information that is material to the Claim;
- preserving individual Findings while changing their material relationships;
- expressing a Conclusion that is not supported by the Synthesis of Material Findings;
- concealing or understating material Uncertainty or limitations;
- failing to establish attribution where attribution is necessary;
- communicating information that is unsuitable for the intended recipient;
- communicating information that is unsuitable for the applicable Context;

- preventing important relationships to the Claim's basis from being followed and understood; and
- presenting otherwise supportable information in a form that the intended recipient cannot reasonably understand or use.

The existence of a failure mode does not automatically justify a separate Factor.

Several failure modes may arise from the same principal dimension of Function Realization and therefore belong under one Factor.

The test instead establishes whether the proposed structure makes the failure visible somewhere appropriate.

A Factor or Indicator becomes more strongly justified where its absence would leave a recurring and material form of non-realization unrepresented.

5.3 Distinction Test

The Distinction Test asks whether two proposed elements perform genuinely different determination functions.

Different words do not necessarily identify different functions.

For example, material completeness and treatment of Uncertainty may initially appear distinct. But if material Uncertainty is simply one type of information that must be included when material, part of its function may already be represented by material completeness.

At the same time, Uncertainty may also constrain the strength and certainty of what the Claim can support. That function may relate more directly to preservation of the determined basis.

The purpose of the Distinction Test is therefore not merely to decide whether two terms have different meanings.

It asks whether keeping them separate makes a distinct aspect of Function Realization visible that would otherwise be lost.

Two candidate elements should remain separate where:

- they concern different functions;
- each can succeed while the other fails;
- their failure produces meaningfully different effects on Claim Function Realization; or
- combining them would obscure a distinction needed for Quality Determination.

Where these conditions are not supported, combination or reclassification should be considered.

5.4 Removal Test

The Removal Test temporarily removes a proposed Factor or Indicator from the working structure.

The question is then:

What necessary determination becomes impossible, unclear, or materially weaker?

If removal causes a recurring and material mode of Claim failure to disappear from the determination, the element has evidence of necessity.

If removal produces no meaningful loss because the same function remains fully represented elsewhere, the element may be unnecessary as a separate Factor or Indicator.

Removal testing is particularly useful where several candidate elements appear closely related.

For example, if recipient applicability were removed, could communicative realization fully identify a Claim that is clear and understandable but provides information unsuitable for the intended recipient?

If not, some form of recipient applicability remains necessary, although further testing would still be required to determine whether it should be a Factor or an Indicator.

The Removal Test therefore examines necessity, not final classification.

5.5 Absorption Test

The Absorption Test asks whether the function of one proposed element can be fully incorporated into another without important loss.

This test is stronger than identifying overlap.

Two elements may overlap while still performing distinct functions.

Absorption is supported only where one element can carry the full necessary determination function of the other without making a recurring mode of Claim success or failure less visible.

For example, the research may ask whether:

- treatment of Uncertainty can be fully represented through substantive support and material completeness;
- preservation of material relationships can be fully represented through substantive support;
- recipient applicability and Context applicability can be combined within a broader applicability function;
- attribution can be represented within another communicative or support-related dimension; or
- Traceability can be represented as part of another Factor rather than as a Factor of its own.

The result should not be driven by a preference for either fewer or more Factors.

Simplification is justified only where no necessary determination function is lost.

Separation is justified only where a distinct function remains visible.

5.6 Missing-Function Test

Testing the existing candidates is not sufficient.

The candidate pool originated in the development of FTA16 and may therefore reflect the questions that happened to arise during that work.

The Missing-Function Test asks:

Can a Quality Claim materially fail to realize its general Intended Function in a recurring way that is not made visible by any proposed Factor or Indicator?

The test begins again from the general Intended Function rather than from the candidate list.

It considers whether a Claim can fail in relation to:

- what is communicated;
- the support for what is communicated;
- what material information is included or omitted;
- relationships among material Findings;
- the Conclusion or Refusal expressed;
- material Uncertainty and limitations;
- attribution;
- recipient;
- purpose;
- Context;
- communication and use; or
- other functions not yet represented.

A newly identified failure should not automatically create a new Factor or Indicator.

The research must first determine whether the failure is already represented by an existing element, can be absorbed without loss, is Context-specific, or reveals a genuinely missing common function.

This test protects the proposed set from becoming closed merely because the initial candidate list appears comprehensive.

5.7 Cross-Context and Cross-Domain Stress Test

A common Claim Quality structure should remain useful across materially different applications.

The Cross-Context and Cross-Domain Stress Test therefore changes the surrounding application while asking whether the proposed determination functions remain necessary.

The test may vary:

- the original Quality Object;
- the domain in which the Claim is made;
- the claimant;
- the recipient;
- the specific Intended Function;
- the decision or use supported by the Claim;
- the form and level of detail of the Claim;
- the Context;
- the Applicable Basis; and
- the applicable Quality Outcome Criteria.

Possible applications may include Claims concerning physical infrastructure, products, services, management systems, support services, Evidence, or other defined Quality Objects.

Recipients may include customers, service recipients, operators, regulators, purchasers, insurers, lenders, investors, management, technical specialists, or other parties with legitimate information needs.

The test does not require the same Quality Outcome Criteria, Evidence, terminology, communication form, or technical method in every application.

Those matters may properly vary.

The question is whether the underlying Factor or Indicator continues to perform a necessary determination function as those application-specific features change.

If an element is necessary only within one particular domain, recipient group, document form, or regulatory setting, it should not automatically be treated as part of the common Claim Quality structure.

It may instead belong to the Applicable Basis, application-specific Quality Outcome Criteria, or a future Context Guide.

Conversely, if the same underlying function remains necessary despite substantial changes in application, that provides evidence that the element may belong in the common set.

The stress test therefore distinguishes what is common in Claim Quality from what properly changes with application.

The result of the seven tests is not expected to prove that the initial candidate set was correct.

The purpose is to discover the smallest sufficiently complete set of distinct Factors and Indicators that keeps the necessary dimensions of Claim Function Realization visible.

That tested set can then become the subject of the Factor-level and Indicator-level justification developed in the following sections.

6. Discovery of Candidate Claim Quality Factors

The preceding sections identified ten research inputs and organized them provisionally around several possible functions. The present section asks which of those functions are sufficiently principal, distinct, and necessary to be treated as candidate Quality Factors.

The purpose is not to find a separate Factor for every research input.

A Quality Factor is a principal dimension of Function Realization. Several research inputs may therefore belong within one Factor where they represent different aspects of the same principal function.

The derivation begins again from the general Intended Function of the Quality Claim:

At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

Four broad functions are directly visible in this formulation:

- preserving a supportable relationship to what has been established;
- providing materially sufficient information;
- remaining applicable to the recipient, purpose, and Context; and
- realizing the communication in a form through which its intended meaning can function for the recipient.

The research inputs concerning Attribution and Traceability require additional treatment because their roles are not as readily classified.

These broad functions are tested below as possible principal dimensions of Claim Function Realization.

6.1 Functional Grouping of Candidate Dimensions

The first grouping is based on function rather than terminology.

Candidate Group A — Support

This group concerns whether the substantive meaning communicated by the Claim remains within and consistent with what has been established through Quality Determination.

It includes the functions represented by:

- substantive support;
- preservation of material relationships;
- consistency between Synthesis of Material Findings and the Conclusion or Refusal to Express a Conclusion; and
- treatment of Uncertainty and limitations insofar as they constrain the strength, scope, or certainty of what can responsibly be claimed.

These elements concern different possible failures, but they share a common question:

Does the Claim remain supportable by the determined basis from which it is formed?

This appears to be a principal dimension rather than merely one specific characteristic of a Claim.

A Claim may be materially complete, appropriate for its recipient, and clearly communicated while still failing because what it asserts is not supported.

Support therefore cannot be fully absorbed into completeness, applicability, or communication.

Candidate Group B — Material Sufficiency

This group concerns whether the Claim provides the material information necessary to realize its Intended Function.

It includes:

- material completeness;
- inclusion of material Findings;
- inclusion of material conditions;
- inclusion of material limitations;

- inclusion of material Uncertainty; and
- preservation or appropriate accessibility of other information whose omission would materially affect the Claim.

The common question is:

Does the Claim provide what is materially necessary for the intended communication?

This function is distinguishable from Support.

A Claim may contain only statements that are individually supportable and still omit a material Finding or limitation. In such a case, Support may be realized while Material Sufficiency is not.

Conversely, a Claim may include all material subjects but make an unsupported assertion about one of them. Material Sufficiency would not cure the failure of Support.

The two functions therefore cannot be fully absorbed into one another without losing an important distinction.

Candidate Group C — Applicability

This group concerns whether the Claim is suitable for the conditions under which it is intended to function.

It includes:

- recipient applicability;
- purpose applicability;
- Context applicability;
- the specific Intended Function; and
- relevant requirements established through the Applicable Basis.

The common question is:

Is the Claim applicable to the recipient, purpose, and Context for which it is made?

This function is distinguishable from both Support and Material Sufficiency.

A Claim may accurately and completely communicate the applicable Findings yet still fail for a particular use because it does not address the information needs, conditions, or requirements relevant to that use.

Applicability does not permit the recipient or Context to change what the Findings support.

Rather, it concerns whether the supportable information has been formed into a Claim suitable for the intended application.

Candidate Group D — Communicative Realization

This group concerns whether the Claim actually performs its communicative function.

Possible aspects include:

- intelligibility;
- clarity;
- organization;
- appropriate level of detail;
- accessibility where required; and
- preservation of substantive meaning through the form of communication.

The common question is:

Can the intended recipient reasonably understand and use the material meaning communicated by the Claim for its intended purpose?

This function is not identical to Applicability.

A Claim may contain information applicable to the recipient and Context but present it in a form that prevents effective understanding or use.

Conversely, a Claim may be exceptionally clear and understandable while communicating information that is not applicable to the intended purpose.

The two functions therefore remain distinguishable at this stage.

Attribution

Attribution does not fit as readily into one of the four groups.

A Quality Claim is, by definition, an attributable communication by a claimant. Attribution therefore appears necessary to establish whose Claim is being communicated and who is responsible for that communication.

However, this does not necessarily make Attribution a principal dimension of Function Realization.

Attribution may instead be:

- a necessary condition for the communication to constitute an attributable Quality Claim;
- an Indicator within a broader Factor; or
- part of the Traceability needed to connect the Claim to its claimant and basis.

Further testing is therefore required before Attribution is elevated to Factor status.

Traceability

Traceability also performs more than one possible role.

It can be a characteristic of the Claim or its supporting information because it allows material relationships to the relevant basis to be followed and understood.

It can also be a capability required for Quality Determination itself.

This creates a risk of treating a methodological means of determining Claim Quality as though it were automatically a principal dimension of the Claim's Quality State.

Traceability should therefore not yet be classified as a separate Factor.

The later Indicator analysis should test where specific Traceability functions belong and whether any residual function remains that requires independent representation.

6.2 Distinguishing Factors from Indicators

The functional grouping suggests that the original ten research inputs do not operate at the same methodological level.

Some describe broad functions.

Others describe more specific ways in which those functions can succeed or fail.

For example, substantive support appears broader than consistency between Synthesis and Conclusion or Refusal. The latter is one specific relationship through which substantive Support may be realized or fail.

Similarly, Material Sufficiency is broader than inclusion of material Uncertainty. Material Uncertainty is one type of information whose omission may make a Claim materially insufficient.

Applicability is broader than recipient applicability or Context applicability considered separately. Recipient and Context identify distinct aspects through which the broader function may be examined.

Communicative Realization is broader than clarity or intelligibility. Those characteristics may help determine whether the communicative function is realized, but neither alone describes the principal dimension.

This suggests the following methodological separation:

Factor level:

principal dimensions of Claim Function Realization.

Indicator level:

distinct recurring aspects through which realization or non-realization of each principal dimension can be determined.

The original research inputs should therefore not be preserved at one common level merely because they appeared together during FTA16 development.

6.3 Distinguishing Factors from Supporting Methodological Conditions

A further distinction is necessary between characteristics of the Claim and conditions needed to determine those characteristics.

Evidence, Evidence Quality, Materiality, Uncertainty, Traceability, Applicable Basis, Boundary, and Interfaces may all be necessary to perform a responsible Quality Determination of a Claim.

Their methodological importance does not automatically make each of them a Claim Quality Factor.

For example, Evidence is required to establish Findings about the Quality State of the Claim. Evidence is therefore indispensable to Quality Determination, but Evidence itself is not automatically a Factor of the Claim.

Evidence Quality affects what can responsibly be established from that Evidence. It should not be confused with the Quality State being determined.

Materiality helps determine what information, relationship, limitation, or other matter is significant to the Synthesis, Conclusion, or information necessary for the Claim to realize its Intended Function. Materiality may therefore operate across several Factors rather than constitute a separate Factor.

Uncertainty may similarly operate in more than one way. Material Uncertainty may constrain what the Claim can support and may also constitute information whose omission makes the Claim materially insufficient. This does not necessarily require an independent Uncertainty Factor.

Applicable Basis provides authoritative or otherwise justified requirements and criteria for the determination. Those requirements may affect applicable Quality Outcome Criteria without becoming universal Factors.

Boundary and Interfaces define what is being determined and its relevant relationships. They enable the determination but are not thereby separate dimensions of Claim Function Realization.

Traceability requires particular care because it may operate both as a characteristic relevant to the Claim and as a methodological capability supporting the determination. Its specific functions should therefore be allocated only after Indicator-level testing.

This distinction prevents the Factor set from becoming a list of every concept needed to perform Quality Determination.

6.4 Candidate Factor Structure

The functional grouping and preliminary distinction tests support four candidate principal dimensions for further testing:

1. Support

The degree to which the Claim preserves a supportable relationship between what it communicates and what has been established through the applicable Quality Determination.

2. Material Sufficiency

The degree to which the Claim provides the material information necessary for realization of its Intended Function.

3. Applicability

The degree to which the Claim is suitable for its intended recipient, purpose, and Context in relation to the Applicable Basis.

4. Communicative Realization

The degree to which the Claim communicates its material meaning in a form through which the intended recipient can reasonably understand and use it for the intended purpose.

These four candidate Factors are provisional.

Their identification at this stage means only that each appears to represent a principal dimension of Claim Function Realization that cannot immediately be absorbed into the others without loss.

No conclusion has yet been reached that the four-Factor set is sufficient, distinct, or complete.

In particular, the following questions remain open:

- Can Support and Material Sufficiency fail independently often enough to justify their separation?
- Does Applicability remain distinct from Communicative Realization across materially different Claims and Contexts?
- Does Attribution require representation as a separate Factor, or can its necessary function be represented elsewhere?
- Does Traceability contain a Claim-level function that cannot be represented through the four candidate Factors?
- Does treatment of Uncertainty require independent representation beyond Support and Material Sufficiency?
- Are there recurring material modes of Claim failure not represented by the four candidate Factors?
- Do all four candidate Factors remain necessary across different types of Quality Claims and original Quality Objects?

These questions must be answered through the Factor-level tests before the candidate structure can be supported.

The four-Factor set should therefore be understood as a research proposition:

Support

Material Sufficiency

Applicability

Communicative Realization

It is not yet the proposed Claim Quality Standard — Core and should not yet be treated as a final WQI Factor set.

Section 7 applies the functional necessity, distinction, removal, absorption, and failure-mode tests to this proposition.

7. Justification of the Candidate Claim Quality Factors

Section 6 produced a provisional four-Factor structure:

- Support;
- Material Sufficiency;
- Applicability; and
- Communicative Realization.

The purpose of the present section is not to preserve this structure.

Each candidate Factor must be tested to determine whether it represents a necessary and distinct principal dimension of Claim Function Realization.

The analysis therefore asks:

- Is the function represented by the candidate Factor necessary to realization of the general Intended Function of a Quality Claim?
- Can that function succeed or fail independently of the other candidate Factors?
- What recurring and material mode of Claim failure becomes invisible if the Factor is removed?
- Can another Factor fully absorb its function without important loss?
- Does the Factor represent a principal dimension rather than a more specific Indicator or supporting methodological condition?

The same analysis also tests whether Attribution or Traceability reveals a missing principal dimension not represented by the four candidates.

7.1 Functional Necessity

Support

The general Intended Function requires a Quality Claim to communicate what has been established about the Quality State of the original Quality Object.

A Claim therefore cannot realize its Intended Function merely by being useful, complete, clear, or suitable for its recipient. What it communicates must remain supportable by the applicable Findings.

Without this function, a communication could satisfy the other candidate dimensions while asserting something that the Quality Determination did not establish.

Support is therefore necessary.

Its necessity arises directly from the relationship between the Claim and the determined basis from which the Claim is formed.

Material Sufficiency

The general Intended Function requires not merely a supportable communication, but a materially sufficient communication.

A Claim may avoid unsupported statements while still omit information necessary to understand what has been established or to use the Claim for its Intended Function.

Material Sufficiency therefore addresses a function not fully represented by Support.

Its necessity arises because selective communication can remain technically supportable while materially changing or weakening what the recipient is able to understand from the Claim.

Material Sufficiency is therefore necessary.

Applicability

The general Intended Function identifies a recipient, purpose, and Context.

A Claim is not formed in the abstract. It is intended to function under particular conditions and for an intended use.

A communication may be supportable and materially sufficient in a general sense yet fail to provide what is necessary for the recipient, purpose, or Context for which it is made.

Applicability is therefore necessary to connect the Claim's substantive content to its intended use.

This does not allow the recipient, purpose, or Context to change what the Findings support. It determines whether the Claim, while remaining supportable, is suitable for the conditions in which it is intended to function.

Communicative Realization

The Quality Claim is a communication.

Its Intended Function is therefore not realized merely because the necessary information exists within a document, record, dataset, or other information source.

The material meaning must be communicated in a form through which the intended recipient can reasonably understand and use it for the intended purpose.

A Claim may be supportable, materially sufficient, and applicable while still fail because its communication prevents its intended meaning from being understood or used.

Communicative Realization is therefore also necessary.

Preliminary result

Each of the four candidate Factors corresponds to a necessary component of the general Intended Function:

Support

→ what is communicated remains supportable by what has been established.

Material Sufficiency

→ what is materially necessary is provided.

Applicability

→ what is provided is suitable for the intended recipient, purpose, and Context.

Communicative Realization

→ the material meaning can function as communication for that recipient and purpose.

Functional necessity therefore supports retaining all four candidates for further testing.

7.2 Distinctness

Functional necessity alone does not justify four separate Factors.

The next question is whether each performs a sufficiently distinct determination function.

Support and Material Sufficiency

These functions can fail independently.

A Claim may contain only supportable statements while omitting a material Finding, condition, limitation, or qualification.

In that case, Support may be realized while Material Sufficiency fails.

Conversely, a Claim may address every material subject but make an assertion about one of those subjects that exceeds the applicable Findings.

In that case, the Claim may be materially complete in subject coverage while Support fails.

The distinction is therefore substantive:

Support asks whether what the Claim communicates is supported.

Material Sufficiency asks whether the Claim communicates what is materially necessary.

Neither question fully answers the other.

Material Sufficiency and Applicability

Material Sufficiency depends partly upon the Intended Function, recipient, purpose, and Context because these help establish what information is material.

This creates interaction between the two Factors.

Interaction, however, does not eliminate distinctness.

Material Sufficiency concerns the presence or accessibility of necessary material information.

Applicability concerns whether the Claim is suitable for the circumstances and use for which it is made.

A Claim may contain all material information yet organize or frame its substantive content for a use different from the one for which the Claim is being relied upon.

Conversely, a Claim may be directed to the correct recipient and purpose but omit information material to that use.

The functions therefore remain distinguishable.

Applicability and Communicative Realization

These candidates are particularly close and require careful separation.

Applicability concerns whether the Claim is suitable for the intended recipient, purpose, and Context.

Communicative Realization concerns whether its material meaning is communicated in a form through which the intended recipient can reasonably understand and use it.

A Claim may address the correct recipient, purpose, and Context but be expressed so poorly that its material meaning cannot reasonably be understood.

Communicative Realization would fail even though the Claim's substantive applicability is otherwise appropriate.

Conversely, a Claim may be exceptionally clear and intelligible but provide information suitable for a different purpose or Context.

Communicative Realization would not cure the failure of Applicability.

The distinction is therefore supportable, although the interaction between these Factors is substantial.

Support and Communicative Realization

A clearly communicated Claim can be unsupported.

An awkwardly communicated Claim can contain substantively supportable information.

The functions are therefore plainly distinct.

Preliminary result

The four candidate Factors can fail independently in recurring and meaningful ways.

Their interactions do not presently justify combining them.

7.3 Removal and Absorption Testing

The Removal and Absorption Tests provide a stronger challenge to the proposed structure.

Removal of Support

If Support is removed, the remaining Factors can examine whether the Claim is materially sufficient, applicable, and effectively communicated.

They cannot establish whether what the Claim asserts remains within what the applicable Findings support.

An unsupported but complete, applicable, and clearly communicated Claim could therefore escape identification as deficient in this principal respect.

Support cannot be removed.

Removal of Material Sufficiency

If Material Sufficiency is removed, Support can establish that individual assertions do not exceed the Findings.

Applicability and Communicative Realization can examine intended use and communication.

None necessarily establishes whether a material Finding, condition, limitation, or other necessary matter has been omitted.

Material Sufficiency cannot therefore be removed.

Removal of Applicability

If Applicability is removed, the remaining Factors can examine support, material information, and communication.

They cannot fully establish whether the Claim is suitable for the recipient, purpose, and Context for which it is intended.

Attempting to absorb this function into Material Sufficiency would make material information and intended application difficult to distinguish.

Attempting to absorb it into Communicative Realization would combine substantive suitability with the effectiveness of communication.

Applicability therefore remains necessary as a separate candidate Factor.

Removal of Communicative Realization

If Communicative Realization is removed, the remaining Factors can establish that a Claim is supported, materially sufficient, and applicable.

They cannot fully identify a Claim whose material meaning is present but is communicated in a form that prevents the intended recipient from reasonably understanding or using it.

Communicative Realization cannot therefore be removed.

Absorption among the four Factors

No candidate Factor presently appears capable of fully absorbing another without important loss.

Support cannot absorb Material Sufficiency because supportable statements may still be materially incomplete.

Material Sufficiency cannot absorb Support because complete subject coverage does not establish that the assertions are supported.

Applicability cannot absorb Communicative Realization because suitability for a recipient and purpose does not establish successful communication.

Communicative Realization cannot absorb Applicability because clarity and usability do not establish suitability for the intended application.

The Removal and Absorption Tests therefore continue to support four distinct principal dimensions.

Attribution

The same tests do not presently support Attribution as a fifth Factor.

Removing Attribution as a separate Factor does not necessarily make attribution invisible.

Where identification of the claimant is necessary to understand responsibility, authority, origin, applicability, or use of the Claim, attribution can be examined through more specific requirements associated with the relevant Factor or through Traceability and the applicable Quality Outcome Criteria.

More importantly, Attribution does not appear to describe a principal dimension comparable to Support, Material Sufficiency, Applicability, or Communicative Realization.

It appears instead to be a necessary characteristic or condition whose significance depends upon the Claim and its Intended Function.

At this stage, Attribution is therefore not supported as a separate Quality Factor.

This does not justify removing Attribution from the later Indicator analysis.

Traceability

Traceability also does not presently satisfy the test for a separate Factor.

Traceability may be necessary to establish the relationship between the Claim and its Findings, claimant, Applicable Basis, or other supporting matters.

However, this function often enables determination of another substantive dimension rather than defining a separate principal dimension of Claim Function Realization.

For example, Traceability to Findings may be necessary to determine Support.

Traceability to material supporting information may contribute to Material Sufficiency.

Traceability to the intended use or Applicable Basis may support determination of Applicability.

Traceability may also be required across the Quality Determination itself.

Creating a separate Traceability Factor could therefore duplicate functions already represented elsewhere while also combining characteristics of the Claim with characteristics of the determination process.

The present analysis does not support Traceability as a fifth Factor.

Its Claim-level functions remain candidates for Indicator-level treatment.

7.4 Failure-Mode Coverage

The proposed Factor set should make the recurring material modes of Claim failure identified in the research visible.

Unsupported assertion

A Claim communicates more than the applicable Findings establish.

Primary Factor:

Support.

Unsupported certainty, scope, or condition

A Claim changes the certainty, scope, qualification, or conditional status supported by the Findings.

Primary Factor:

Support.

Loss of material relationships

A Claim reproduces individual Findings but changes their collective meaning by losing or distorting material relationships.

Primary Factor:

Support, subject to later Indicator testing.

Inconsistent Conclusion or Refusal

The expressed Conclusion or Refusal does not remain consistent with the Synthesis of Material Findings.

Primary Factor:

Support.

Material omission

A Claim omits a Finding, condition, limitation, Uncertainty, or other matter necessary to its Intended Function.

Primary Factor:

Material Sufficiency.

Unsuitable recipient or use

A Claim is substantively sound but unsuitable for the recipient or purpose for which it is intended.

Primary Factor:

Applicability.

Unsuitable Context

A Claim is used or framed in a way that is not applicable to the Context for which it is intended to function.

Primary Factor:

Applicability.

Communication failure

The necessary meaning is present but cannot reasonably be understood or used by the intended recipient because of the form of communication.

Primary Factor:

Communicative Realization.

Unclear or absent attribution

Where claimant identity is material, absence or ambiguity of attribution may impair interpretation, responsibility, applicability, or Traceability.

This failure is visible but does not yet require an independent Factor. Its final placement should be determined during Indicator derivation.

Insufficient Traceability

Where material relationships to the Claim's basis cannot be followed and understood, determination of Support, Material Sufficiency, Applicability, or other relevant aspects may be impaired.

This failure also remains visible without presently establishing Traceability as a separate Factor.

The Indicator analysis must determine which Claim-level Traceability functions require explicit representation.

Failure-mode result

The four candidate Factors provide coverage of the principal failure modes identified to this stage.

Attribution and Traceability remain necessary research subjects, but neither presently reveals a missing principal dimension requiring a fifth Factor.

7.5 Factor-Level Conclusion

Application of Functional Derivation, Distinction, Removal, Absorption, and Failure-Mode testing supports the following four candidate Quality Factors for Quality Claims:

1. Support
2. Material Sufficiency
3. Applicability
4. Communicative Realization

Each represents a necessary principal dimension of realization of the general Intended Function of a Quality Claim.

Each can fail while one or more of the others succeed.

Removal of any one leaves a recurring and material mode of Claim failure inadequately represented.

None can presently be fully absorbed into another without loss of an important determination function.

The analysis does not presently support Attribution or Traceability as additional Quality Factors.

This conclusion remains provisional in two respects.

First, the Missing-Function Review and Cross-Context and Cross-Domain Stress Testing later in this article may reveal a principal function not represented by the four-Factor set.

Second, the adequacy of the Factors depends partly upon whether a coherent and sufficiently complete set of Quality Indicators can be derived beneath them.

The present Factor-level conclusion should therefore be stated as follows:

The research supports, at the present stage and Methodological Resolution, a four-Factor candidate structure for determining Claim Quality:

Support

Material Sufficiency

Applicability

Communicative Realization

This is a research result, not yet a Claim Quality Standard — Core.

The next stage is to derive candidate Quality Indicators for each Factor and determine whether those Indicators make the necessary recurring aspects of Claim Function Realization visible without unnecessary duplication.

8. Discovery of Candidate Claim Quality Indicators

Sections 6 and 7 support, at the present stage of the research, four candidate Quality Factors:

- Support;
- Material Sufficiency;
- Applicability; and
- Communicative Realization.

The next task is to determine what distinct and recurring aspects of each Factor must be examined to determine whether that Factor is realized.

These aspects are candidate Quality Indicators.

The derivation does not begin with a target number of Indicators. Nor does it require every research input identified in FTA16 to become a separate Indicator.

A candidate Indicator should remain only where it identifies a distinct aspect of Function Realization that would otherwise be inadequately visible.

The derivation therefore asks:

- What can materially fail within each Factor?
- Which failures represent different determination questions?
- Which original research inputs belong within the same Indicator?
- Which research inputs operate across more than one Factor?
- Which concepts support Quality Determination without themselves becoming Indicators?
- Is any necessary aspect of a Factor missing from the original FTA16 research inputs?

8.1 Indicator Derivation

Factor 1 — Support

Support concerns whether the Claim preserves a supportable relationship between what it communicates and what has been established through the applicable Quality Determination.

Several distinct relationships must be considered.

Candidate Indicator 1.1 — Substantive Support

The first question is whether the substantive assertions made by the Claim remain within what the applicable Evidence-Supported Findings establish.

A Claim may fail where it:

- asserts something not established by the Findings;
- extends a Finding beyond its supported scope;
- changes a conditional Finding into an unconditional assertion;
- increases the level of certainty beyond what is supported; or
- otherwise communicates a substantive position that exceeds the determined basis.

This function is fundamental to Support and cannot be assumed merely because other relationships within the Claim are preserved.

Substantive Support is therefore retained as a candidate Indicator.

Candidate Indicator 1.2 — Preservation of Material Relationships

A Claim may reproduce individual Findings accurately while changing their collective meaning through loss, separation, rearrangement, or distortion of material relationships among them.

The determination must therefore examine whether relationships necessary to preserve the supportable meaning of the Findings remain intact.

This function is related to Substantive Support but is not identical to it.

Indicator 1.1 asks whether the substantive assertions themselves are supported.

Indicator 1.2 asks whether the material relationships through which those assertions acquire their proper meaning have been preserved.

Preservation of Material Relationships is therefore retained as a separate candidate Indicator.

Candidate Indicator 1.3 — Conclusion Consistency

Where a Claim expresses a Positive Conclusion, Conditionally Positive Conclusion, Negative Conclusion, or Refusal to Express a Conclusion, the expressed result must remain consistent with the Synthesis of Material Findings that supports it.

This is a specific relationship within Support.

A Claim may reproduce individual Findings accurately yet express a Conclusion that those Findings, when synthesized, do not support.

Conclusion Consistency therefore identifies a recurring and distinct mode of failure.

It is retained as a candidate Indicator.

Candidate treatment of Uncertainty under Support

Material Uncertainty can constrain the strength, scope, or certainty of what may responsibly be communicated.

However, this does not necessarily require a separate Support Indicator.

Where a Claim expresses greater certainty than the determined basis permits, the failure is already visible through Substantive Support.

Where Uncertainty is materially necessary information but is omitted, the failure belongs primarily to Material Sufficiency.

The present derivation therefore does not create a separate Uncertainty Indicator under Support.

Uncertainty remains a cross-cutting methodological consideration whose effects must be represented through the applicable Indicators.

Factor 2 — Material Sufficiency

Material Sufficiency concerns whether the Claim provides the material information necessary for realization of its Intended Function.

The original research input of material completeness provides the starting point, but the Indicator should identify the underlying function rather than merely restate the Factor.

Candidate Indicator 2.1 — Material Information Sufficiency

The determination must examine whether the Claim communicates, includes, or makes appropriately accessible the information that is material to its Intended Function.

Depending upon the Claim, this may include:

- material Findings;
- material conditions;
- material limitations;
- material Uncertainty;
- qualifications;
- dependencies;
- applicable scope information; and
- other matters whose omission would materially affect the meaning or use of the Claim.

This Indicator does not require maximum information.

It concerns sufficiency of material information.

A Claim may therefore satisfy the Indicator while remaining concise, provided that what is materially necessary is communicated or appropriately accessible.

Possible separation of material categories

The research could create separate Indicators for Findings, conditions, limitations, and Uncertainty.

At the present stage, that separation does not appear justified.

These categories identify different types of information, but their common determination function is whether materially necessary information is provided.

Creating a separate universal Indicator for each category could convert possible content types into fixed structural requirements even where one or more categories are not material to a particular Claim.

They are therefore provisionally retained within Material Information Sufficiency rather than separated into multiple Indicators.

Candidate Indicator 2.2 — Accessibility of Material Supporting Information

Material information does not always need to be reproduced directly within the Claim.

For some Claims, appropriate access to supporting information may be sufficient or necessary.

The determination must therefore consider whether material information that is not directly communicated remains appropriately accessible where access is necessary to realization of the Claim's Intended Function.

This is not merely a question of document availability.

The relevant relationship must allow the intended recipient, where appropriate, to reach and identify the material supporting information needed for the Claim's intended use.

This candidate Indicator requires later testing because it may overlap with Traceability.

The research must determine whether accessibility of supporting information is a distinct aspect of Material Sufficiency or whether its necessary function can be absorbed elsewhere.

Factor 3 — Applicability

Applicability concerns whether the Claim is suitable for its intended recipient, purpose, and Context in relation to the Applicable Basis.

Candidate Indicator 3.1 — Recipient Applicability

The Claim must be suitable for the recipient for whom it is intended.

This may affect:

- what information is material;
- what explanation is necessary;
- the level of technical detail;
- terminology;
- qualifications needed for responsible interpretation; and
- information necessary for the recipient's intended use.

Recipient applicability does not permit adaptation that changes or exceeds the applicable Findings.

It concerns whether the supportable Claim is suitable for the legitimate information needs of its intended recipient.

Recipient Applicability is therefore retained as a candidate Indicator.

Candidate Indicator 3.2 — Purpose Applicability

A Claim is made for an Intended Function or specific purpose.

The same determined Findings may support different Claims where those Claims serve different legitimate purposes, provided that each remains supportable and materially sufficient.

The determination must therefore examine whether the Claim is suitable for the purpose for which it is made.

A Claim developed for one decision or use may not necessarily be suitable for another even when the underlying Findings remain unchanged.

Purpose Applicability is therefore retained as a candidate Indicator.

Candidate Indicator 3.3 — Context Applicability

The Claim must also remain suitable for the Context in which it is intended to function.

Context may affect the significance of information, applicable conditions, timing, institutional setting, dependencies, or other circumstances relevant to the Claim's use.

A Claim suitable in one Context may be inadequate or misleading in another.

Context Applicability therefore remains a candidate Indicator distinct from recipient and purpose applicability.

Applicable Basis

The Applicable Basis may establish requirements affecting recipient, purpose, Context, content, form, or other aspects of a particular Claim.

However, Applicable Basis is the authoritative or otherwise justified basis against which applicable requirements and Quality Outcome Criteria may be established.

It is not, by that fact alone, an Indicator.

The present derivation therefore treats Applicable Basis as supporting the determination of Applicability and other Factors rather than as a separate Claim Quality Indicator.

Factor 4 — Communicative Realization

Communicative Realization concerns whether the material meaning of the Claim is communicated in a form through which the intended recipient can reasonably understand and use it for the intended purpose.

Several possible communication characteristics were identified during the earlier research, including clarity, intelligibility, organization, level of detail, and accessibility.

The question is whether these represent distinct universal Indicators or different means through which a smaller number of functions are realized.

Candidate Indicator 4.1 — Intelligibility

The intended recipient must be able reasonably to understand the material meaning communicated by the Claim.

A Claim may contain supportable, materially sufficient, and applicable information but fail if its meaning cannot reasonably be understood.

Intelligibility may depend upon terminology, explanation, organization, presentation, language, technical complexity, or other characteristics.

Those characteristics are not themselves proposed as universal Indicators.

They are possible means through which Intelligibility may be realized or impaired.

Intelligibility is therefore retained as a candidate Indicator.

Candidate Indicator 4.2 — Usability for Intended Purpose

Understanding a Claim does not necessarily establish that the communication can function for its intended purpose.

The determination should therefore examine whether the communicated meaning can reasonably be used by the intended recipient for the purpose for which the Claim is made.

This does not concern whether the recipient ultimately makes a particular decision or achieves a particular external result.

It concerns whether the Claim, as a communication, provides its material meaning in a form capable of serving its intended communicative function.

Usability for Intended Purpose is therefore retained as a candidate Indicator, subject to testing against Purpose Applicability.

8.2 Allocation of Indicators to Factors

The initial derivation produces the following provisional allocation:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

1.3 Conclusion Consistency

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

2.2 Accessibility of Material Supporting Information

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

4.2 Usability for Intended Purpose

This produces ten candidate Indicators.

The number ten is incidental.

It does not reproduce the original ten FTA16 research inputs one-for-one.

Several original inputs have been combined, divided, or reclassified.

For example:

- treatment of Uncertainty operates through Support and Material Sufficiency rather than becoming an independent Indicator;
- material completeness is reformulated as Material Information Sufficiency;
- recipient and Context applicability remain distinct aspects beneath a broader Applicability Factor;
- communicative realization has moved from a research input to Factor level and is examined through more specific Indicators;
- Attribution remains unresolved rather than being forced into the ten-Indicator set; and
- Traceability remains partly unresolved because it may support several Indicators and the Quality Determination itself.

The provisional allocation must therefore be tested functionally rather than accepted because it happens to contain ten Indicators.

8.3 Indicator Distinction

Several candidate pairs require particular scrutiny.

Substantive Support and Preservation of Material Relationships

Substantive Support concerns whether the Claim's assertions remain within what the Findings establish.

Preservation of Material Relationships concerns whether relationships among Findings necessary to preserve their meaning remain intact.

A Claim can reproduce each individual Finding supportably while altering the overall meaning by separating a qualification from the Finding it qualifies or by obscuring a dependency among Findings.

The two candidate Indicators therefore appear distinguishable.

Substantive Support and Conclusion Consistency

Conclusion Consistency is a particular form of support relationship.

This raises the possibility that it could be absorbed into Substantive Support.

However, the transition from Synthesis of Material Findings to Conclusion or Refusal is methodologically important and can fail even where the Claim's presentation of individual Findings remains accurate.

The distinction is provisionally retained because Conclusion Consistency makes this transition independently visible.

The Absorption Test in Section 9 should determine whether separate Indicator status is justified.

Material Information Sufficiency and Accessibility of Material Supporting Information

These candidates are closely related.

Material Information Sufficiency concerns whether necessary information is provided.

Accessibility concerns one possible way in which information not directly included in the Claim may nevertheless be available as part of the Claim's functional Boundary or through its Interfaces.

It is therefore possible that Accessibility is not a distinct Indicator but a condition or means through which Material Information Sufficiency can be realized.

This distinction remains unresolved and should receive particular attention in Section 9.

Recipient, Purpose, and Context Applicability

These three candidates interact strongly.

Recipient identifies for whom the Claim is made.

Purpose identifies what the Claim is intended to accomplish.

Context identifies the circumstances within which it is intended to function.

Changes in any one may alter what is material or suitable without necessarily changing the others.

The three are therefore provisionally retained separately.

The later tests must determine whether this separation improves determination or merely divides one common applicability function into unnecessary parts.

Intelligibility and Usability for Intended Purpose

A Claim may be understandable but not usable for its intended communicative purpose.

For example, its meaning may be clear while its organization, format, accessibility, or level of detail prevents the recipient from applying that meaning as intended.

Conversely, usability ordinarily depends upon sufficient intelligibility.

The relationship is therefore asymmetrical rather than identical.

The candidates remain separate for testing.

8.4 Indicator Completeness

The provisional ten-Indicator set must now be checked against the original research inputs and known failure modes.

Substantive support

Represented by:

1.1 Substantive Support.

Material completeness

Represented principally by:

2.1 Material Information Sufficiency.

Preservation of material relationships

Represented by:

1.2 Preservation of Material Relationships.

Consistency of Synthesis and Conclusion or Refusal

Represented by:

1.3 Conclusion Consistency.

Treatment of Uncertainty and limitations

Represented across:

1.1 Substantive Support, where certainty, scope, or qualification exceeds what is supported; and

2.1 Material Information Sufficiency, where material Uncertainty or limitations are omitted.

No separate Indicator is presently required.

Recipient applicability

Represented by:

3.1 Recipient Applicability.

Context applicability

Represented by:

3.3 Context Applicability.

Communicative realization

Represented principally by:

4.1 Intelligibility and

4.2 Usability for Intended Purpose.

Attribution

Attribution is not yet explicitly represented.

This requires further examination.

Because a Quality Claim is an attributable communication by a claimant, the ability to identify the claimant may be necessary to establish responsibility for the Claim and, in some applications, to interpret its authority, scope, or use.

However, claimant identification alone does not appear to represent a principal aspect of Support, Material Sufficiency, Applicability, or Communicative Realization in every application.

Three possibilities remain:

- Attribution should become an Indicator under Applicability;
- Attribution should be represented through Traceability or applicable Quality Outcome Criteria; or
- Attribution is a defining condition of a Quality Claim rather than a Quality Indicator.

Section 9 should test these alternatives rather than introduce an Attribution Indicator solely to preserve the original research input.

Traceability

Traceability is also not represented by a single Indicator.

Its functions appear in several places.

Traceability to Findings may be necessary to determine Substantive Support.

Traceability of material relationships may support Preservation of Material Relationships.

Traceable access to supporting information may affect Material Information Sufficiency or the provisional Accessibility Indicator.

Traceability to claimant, Applicable Basis, purpose, or Context may support other determinations.

This distribution suggests that Traceability may be a cross-cutting capability rather than a single Indicator.

The later tests should determine whether any specifically Claim-level Traceability function remains invisible without explicit Indicator status.

Missing-function review at the Indicator level

The provisional set makes visible the principal recurring failure modes identified during FTA16 research:

- unsupported substantive content;
- distortion or loss of material relationships;
- inconsistency between Synthesis and Conclusion or Refusal;
- omission of materially necessary information;
- inability to reach material supporting information where such access is necessary;
- mismatch with the intended recipient;
- mismatch with the intended purpose;
- mismatch with the applicable Context;
- failure of intelligibility; and
- failure of communicative usability.

No additional recurring function is yet clearly established.

However, Attribution and Traceability remain unresolved, and several proposed Indicators may prove absorbable.

The present result should therefore be treated as a candidate Indicator set rather than a final one:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

1.3 Conclusion Consistency

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

2.2 Accessibility of Material Supporting Information

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

4.2 Usability for Intended Purpose

Section 9 must now test whether each candidate Indicator is functionally necessary, sufficiently distinct, resistant to removal or absorption, and needed to make a recurring material mode of Claim failure visible.

Particular attention should be given to:

- whether Conclusion Consistency should remain separate from Substantive Support;
- whether Accessibility of Material Supporting Information should remain separate from Material Information Sufficiency;

- whether Recipient, Purpose, and Context Applicability require three Indicators;
- whether Usability for Intended Purpose remains distinct from Purpose Applicability;
- whether Attribution requires explicit Indicator status; and
- whether any Claim-level Traceability function remains unrepresented.

9. Justification of the Candidate Claim Quality Indicators

Section 8 derived ten candidate Quality Indicators beneath the four candidate Quality Factors.

The purpose of the present section is to determine whether each candidate Indicator represents a necessary and sufficiently distinct aspect of Claim Function Realization.

The analysis applies four principal questions:

- Is the function represented by the Indicator necessary?
- Does the Indicator make visible a recurring and material mode of Claim failure?
- Would removal of the Indicator leave that failure inadequately represented?
- Can its function be fully absorbed by another Indicator without important loss?

The analysis also reconsiders Attribution and Traceability to determine whether either requires explicit Indicator status.

9.1 Functional Necessity

Factor 1 — Support

1.1 Substantive Support

Substantive Support examines whether what the Claim asserts remains within what the applicable Evidence-Supported Findings establish.

This function is necessary.

Without it, the determination could not directly identify a Claim that exceeds the Findings in substance, scope, certainty, qualification, or conditional status.

No other proposed Indicator performs this general function.

Substantive Support is therefore retained.

1.2 Preservation of Material Relationships

Individual assertions may each be supportable while their combined presentation changes the meaning established by the Findings.

A determination of Support must therefore examine not only individual assertions but also material relationships among them.

This function is necessary because otherwise a Claim could preserve each Finding separately while materially distorting what the Findings collectively establish.

Preservation of Material Relationships is therefore retained.

Preservation of Material Relationships remains distinct because a Claim may communicate individually supportable propositions while altering, separating, or obscuring relationships among them in a manner that changes the supportable meaning of the Findings as a whole.

1.3 Conclusion Consistency

Where a Claim expresses a Conclusion or Refusal to Express a Conclusion, consistency with the Synthesis of Material Findings is necessary.

However, this function is narrower than Substantive Support.

A Conclusion is itself part of what the Claim communicates. If the Conclusion exceeds or contradicts what the Synthesis supports, the Claim contains unsupported substantive content.

Conclusion Consistency therefore identifies an important failure mode, but that failure is already visible through Substantive Support.

Removing Conclusion Consistency as a separate Indicator does not remove the determination function, provided that Substantive Support expressly includes consistency of any expressed Conclusion or Refusal with the Synthesis of Material Findings.

The Absorption Test therefore supports combining Candidate Indicator 1.3 with Indicator 1.1.

Conclusion Consistency should remain an explicit consideration within Substantive Support, but not a separate universal Indicator.

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

A Claim must provide the information that is material to realization of its Intended Function.

Without this Indicator, omission of a material Finding, condition, limitation, Uncertainty, qualification, dependency, or other necessary matter could remain invisible.

The function cannot be absorbed into Support because a Claim may contain only supportable statements while still omitting material information.

Material Information Sufficiency is therefore retained.

2.2 Accessibility of Material Supporting Information

Accessibility is important where material supporting information is not communicated directly within the Claim but must remain available for the Claim to realize its Intended Function.

The question is whether this requires a separate universal Indicator.

If material supporting information must be accessible for the Claim to be materially sufficient, lack of access is already a failure of Material Information Sufficiency.

Accessibility describes one way in which material information may be provided rather than a separate principal aspect of Material Sufficiency.

Its significance also varies substantially by the Boundary, Interfaces, recipient, purpose, Context, and Applicable Basis of the particular Claim.

The Absorption Test therefore supports incorporating accessibility into Material Information Sufficiency rather than retaining Candidate Indicator 2.2 separately.

Material Information Sufficiency should expressly cover information communicated directly and material information made appropriately accessible where such access is necessary.

Factor 3 — Applicability

3.1 Recipient Applicability

A Claim is made for a recipient.

The determination must therefore examine whether the Claim is suitable for that recipient's legitimate information needs in relation to the Claim's Intended Function.

A Claim may be supportable and materially sufficient yet fail because it is not suitable for the recipient for whom it is intended.

Recipient Applicability is therefore necessary.

3.2 Purpose Applicability

A Claim is also made for a purpose or specific Intended Function.

The same Findings may support different Claims for different legitimate purposes.

A Claim suitable for one purpose may not be suitable for another.

Purpose Applicability therefore represents a necessary determination function.

3.3 Context Applicability

The circumstances in which the Claim is intended to function may affect its applicability even where recipient and purpose remain unchanged.

Timing, institutional setting, dependencies, applicable conditions, or other Contextual matters may materially affect whether the Claim is suitable for use.

Context Applicability is therefore also necessary.

At the level of function, recipient, purpose, and Context are distinguishable.

The remaining question is whether they should remain three Indicators or be combined into a smaller structure. That question is addressed through the Distinction and Absorption Tests below.

Factor 4 — Communicative Realization

4.1 Intelligibility

A Quality Claim must communicate meaning.

If the intended recipient cannot reasonably understand its material meaning, the communicative function is not realized even where the information is supportable, sufficient, and applicable.

Intelligibility is therefore necessary.

4.2 Usability for Intended Purpose

The candidate Indicator asks whether the communicated meaning can reasonably be used by the intended recipient for the purpose for which the Claim is made.

This function is important, but it substantially overlaps with Purpose Applicability.

Purpose Applicability already asks whether the Claim is suitable for its intended purpose.

If Usability refers to substantive suitability for that purpose, it belongs under Applicability.

If it refers instead to whether the form of communication permits the recipient to understand and act upon the communicated meaning, much of its function is represented by Intelligibility and the communication requirements established through applicable Quality Outcome Criteria.

The candidate therefore does not yet demonstrate a sufficiently independent universal function to justify separate Indicator status.

The Absorption Test supports removing Usability for Intended Purpose as a separate Indicator while preserving its relevant functions through Purpose Applicability and Intelligibility.

9.2 Distinctness

After the initial necessity analysis, seven candidate Indicators remain:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

The remaining Indicators must now be tested against one another.

Substantive Support and Preservation of Material Relationships

These remain distinct.

Substantive Support can succeed at the level of individual assertions while material relationships among those assertions are distorted.

Preservation of Material Relationships therefore makes visible a failure not fully captured by examining assertions independently.

Both Indicators are retained.

Material Information Sufficiency and Support

These remain distinct.

Support concerns whether communicated content is supportable.

Material Information Sufficiency concerns whether materially necessary content is provided.

A Claim can satisfy one while failing the other.

Both functions must remain visible.

Recipient, Purpose, and Context Applicability

These three Indicators are related but not identical.

Recipient asks:

For whom must the Claim function?

Purpose asks:

For what Intended Function or use must the Claim function?

Context asks:

Under what relevant circumstances must the Claim function?

A change in one does not necessarily require a change in the others.

The same recipient may use a Claim for different purposes.

The same purpose may involve different recipients.

The same recipient and purpose may occur under different Contextual conditions.

Combining all three into a single Applicability Indicator would preserve the general concept but make these different sources of non-applicability less visible.

The Distinction Test therefore supports retaining all three.

Intelligibility and Applicability

Intelligibility remains distinct from the three Applicability Indicators.

A Claim may be applicable to the correct recipient, purpose, and Context while being expressed in a way that prevents reasonable understanding.

Conversely, a Claim may be completely intelligible but unsuitable for its recipient, purpose, or Context.

Intelligibility therefore remains a separate Indicator beneath Communicative Realization.

9.3 Removal and Absorption Testing

Removal of Substantive Support

Without Substantive Support, no remaining Indicator directly establishes whether the substantive assertions and any expressed Conclusion or Refusal remain within what the determined basis supports.

The Indicator cannot be removed.

Removal of Preservation of Material Relationships

Without this Indicator, individual assertions may all appear supportable while the Claim changes their collective meaning.

That failure would not necessarily be visible through Substantive Support understood only at the assertion level.

The Indicator cannot be removed.

The final formulation of Substantive Support and Preservation of Material Relationships should nevertheless make their Boundary clear to prevent duplication.

Removal of Material Information Sufficiency

Without this Indicator, no remaining Indicator establishes whether materially necessary information has been omitted.

It cannot be removed.

Removal of Recipient Applicability

Without this Indicator, the structure can examine purpose and Context but may not establish whether the Claim is suitable for the particular recipient.

It cannot be removed.

Removal of Purpose Applicability

Without this Indicator, recipient and Context remain visible but suitability for the Claim's specific Intended Function may disappear.

It cannot be removed.

Removal of Context Applicability

Without this Indicator, the determination may overlook circumstances materially affecting whether the Claim can appropriately function.

It cannot be removed.

Removal of Intelligibility

Without Intelligibility, the structure can establish that a Claim is supported, materially sufficient, and applicable, but not whether its material meaning can reasonably be understood by the intended recipient.

It cannot be removed.

Absorption result

The seven remaining Indicators cannot presently be fully absorbed into one another without important loss.

The analysis therefore reduces the original ten candidate Indicators to seven.

9.4 Failure-Mode Coverage

The seven-Indicator set can now be tested against the recurring failure modes identified during the research.

Unsupported assertion

Visible through:

1.1 Substantive Support.

Unsupported Conclusion or Refusal

Visible through:

1.1 Substantive Support, which includes consistency of an expressed Conclusion or Refusal with the Synthesis of Material Findings.

Unsupported certainty, scope, qualification, or conditional status

Visible through:

1.1 Substantive Support.

Loss or distortion of material relationships

Visible through:

1.2 Preservation of Material Relationships.

Material omission

Visible through:

2.1 Material Information Sufficiency.

Omission of material Uncertainty or limitations

Visible through:

2.1 Material Information Sufficiency.

Overstatement despite Uncertainty or limitations

Visible through:

1.1 Substantive Support.

Failure to provide necessary access to material supporting information

Visible through:

2.1 Material Information Sufficiency where such access is necessary to realization of the Claim's Intended Function.

Mismatch with intended recipient

Visible through:

3.1 Recipient Applicability.

Mismatch with intended purpose

Visible through:

3.2 Purpose Applicability.

Mismatch with applicable Context

Visible through:

3.3 Context Applicability.

Failure of reasonable understanding

Visible through:

4.1 Intelligibility.

Attribution

Attribution requires a separate final test.

The definition of Quality Claim identifies the Claim as an attributable communication by a claimant. A communication for which no claimant can be established may therefore fail a defining condition for treatment as a Quality Claim.

Once the claimant is established, however, attribution does not appear to describe a recurring dimension of Claim Function Realization comparable to the seven Indicators above.

Where claimant identity is material to interpretation, authority, responsibility, recipient use, or Context, its necessary communication can be addressed through Material Information Sufficiency, Applicability, applicable Quality Outcome Criteria, and Traceability.

The research therefore does not support Attribution as an eighth universal Quality Indicator.

Instead, attribution should be treated as a defining condition of the Quality Claim and, where material to the Claim's Intended Function, as information whose adequacy is examined through the applicable Factor and Quality Outcome Criteria.

Traceability

Traceability also requires separate treatment.

The ability to follow and understand material relationships connecting the Quality Determination and, where applicable, the Quality Claim to their relevant methodological and evidentiary basis is necessary to responsible determination.

However, the analysis does not identify one independent Claim-level failure that requires Traceability to become an eighth Indicator.

Traceability supports determination of several Indicators:

- Substantive Support may require Traceability from assertions to applicable Findings;
- Preservation of Material Relationships may require Traceability among Findings, qualifications, conditions, and the Claim;
- Material Information Sufficiency may require Traceability to supporting information made accessible rather than directly communicated;
- Applicability may require Traceability to the recipient, purpose, Context, or Applicable Basis where those relationships are material.

Traceability therefore operates across the structure.

Treating it as a single Indicator beneath one Factor would understate this cross-cutting function.

Treating it as an additional Factor would duplicate substantive functions already represented by the four Factors.

The present research therefore treats Traceability as a cross-cutting methodological requirement supporting Quality Determination and, where applicable, the functioning of the Claim, rather than as a separate universal Quality Indicator.

Missing failure modes

After Attribution and Traceability are treated in this way, no recurring material mode of Claim failure identified to this stage remains clearly outside the seven-Indicator structure.

This result remains subject to the later Missing-Function Review and Cross-Context and Cross-Domain Stress Test.

9.5 Indicator-Level Conclusion

Application of Functional Necessity, Distinction, Removal, Absorption, and Failure-Mode testing supports the following provisional Indicator structure:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

Three candidate Indicators from Section 8 are not retained separately:

Conclusion Consistency is absorbed into Substantive Support.

Accessibility of Material Supporting Information is absorbed into Material Information Sufficiency.

Usability for Intended Purpose is represented through Purpose Applicability and Intelligibility rather than retained as an independent Indicator.

The analysis also reaches two additional provisional conclusions:

Attribution is necessary to the concept of an attributable Quality Claim but is not presently supported as a separate universal Quality Factor or Quality Indicator.

Traceability is necessary across the determination and may be necessary to the functioning of particular Claims, but is not presently supported as a separate universal Quality Factor or Quality Indicator.

The resulting structure therefore contains:

4 candidate Quality Factors

and

7 candidate Quality Indicators.

The reduction from ten candidate Indicators to seven is not based on a preference for a smaller structure.

It results from applying the Absorption and Distinction Tests while preserving the determination functions represented by the removed candidates.

The seven-Indicator set remains provisional.

It must still be tested for interaction, Critical Conditions, Non-Compensability, cross-context and cross-domain applicability, and missing functions before it can support development of a Claim Quality Standard — Core.

10. Interaction, Critical Conditions, Non-Compensability, and Non-Substitutability

Sections 7 and 9 provisionally support four Quality Factors and seven Quality Indicators for determining Claim Quality.

The Factors are distinct, but they do not operate in isolation.

Support, Material Sufficiency, Applicability, and Communicative Realization can affect one another because they contribute together to realization of the Claim's Intended Function.

Interaction, however, does not mean that the Factors or Indicators are interchangeable.

A strong result in one dimension does not by itself correct a material failure in another.

The present section therefore examines:

- interaction among Factors and Indicators;
- the role of Critical Conditions;
- Non-Compensability; and
- why the research does not establish universal weighting or scoring.

10.1 Interaction Among Factors and Indicators

The proposed structure separates dimensions of Claim Function Realization so that materially different forms of success and failure remain visible.

That separation does not imply independence in operation.

A failure in one Factor may affect realization of another.

Support and Material Sufficiency

Support and Material Sufficiency interact closely.

A Claim may communicate only supportable information but omit a material limitation. The omission is principally a failure of Material Sufficiency.

That omission may also cause the remaining communication to convey a stronger meaning than the Findings support.

In such a case, the same condition may affect both Material Sufficiency and Support.

The Factors remain distinct because the determination questions remain different:

Support asks whether what is communicated remains supportable.

Material Sufficiency asks whether what is materially necessary is provided.

Material Sufficiency and Applicability

What information is material may depend partly upon the recipient, purpose, and Context.

A Finding or limitation that is not material for one use may become material for another.

Applicability therefore helps establish the conditions under which Material Sufficiency is determined.

This interaction does not make the Factors interchangeable.

Applicability concerns suitability for the intended application.

Material Sufficiency concerns whether the information necessary for that application is provided.

Applicability and Communicative Realization

Recipient, purpose, and Context can affect how a Claim must be communicated.

Technical terminology may be appropriate for one recipient and prevent reasonable understanding by another.

A highly condensed format may serve one purpose but fail another.

Applicability therefore influences the conditions under which Intelligibility is determined.

Communicative Realization nevertheless remains distinct because a Claim can be substantively applicable while failing to communicate its material meaning intelligibly.

Support and Communicative Realization

Communication form can also affect Support.

A statement may be supportable in isolation but presented in a way that creates an unsupported overall meaning.

Where presentation changes substantive meaning, the issue is not merely one of Intelligibility. Support may also fail.

This reinforces the need to determine the actual function of a condition rather than assign each observed problem mechanically to only one Indicator.

Interaction among Indicators

The seven Indicators may likewise interact.

For example:

- loss of a material relationship may affect both Preservation of Material Relationships and Material Information Sufficiency;
- omitted Uncertainty may affect Material Information Sufficiency and may also cause failure of Substantive Support where the Claim communicates greater certainty than the Findings support;
- Recipient Applicability may affect what level of explanation is required for Intelligibility;
- Purpose Applicability may affect what information is material;
- Context Applicability may affect the significance of a condition, limitation, or dependency.

Such interaction does not require duplication of the same Finding under every affected Indicator.

The Quality Determination should identify the condition, establish its material relationships, and determine which Factors and Indicators are affected.

The structure therefore permits one Evidence-Supported Finding to be relevant to more than one Indicator where the functions affected are genuinely different.

10.2 Critical Conditions

Not every deficiency within a Factor or Indicator has the same significance.

A Critical Condition is:

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.

The concept is applicable to Claim Quality.

A condition affecting one Factor or Indicator may be sufficiently significant that strength elsewhere cannot support a Positive Conclusion concerning the Claim.

For example, a Claim that makes a materially unsupported substantive assertion may fail a condition necessary for a responsible Positive Conclusion even if it is otherwise complete, applicable, and intelligible.

Similarly, omission of a material limitation may constrain the permissible Conclusion where the omission materially changes the meaning of the Claim.

A failure of Intelligibility may also become critical where the intended recipient cannot reasonably understand information necessary for the Claim's Intended Function.

Criticality therefore does not belong exclusively to any one Factor or Indicator.

Nor does every failure of Support, Material Sufficiency, Applicability, or Communicative Realization automatically constitute a Critical Condition.

Whether a condition is critical depends upon its significance to Function Realization and the applicable Quality Outcome Criteria.

The Applicable Basis may establish specific Critical Conditions for a particular class or application of Quality Claims.

Where it does not, Criticality must be supported through the applicable Quality Determination rather than assumed from the name of the Factor or Indicator.

The four-Factor and seven-Indicator structure therefore identifies dimensions in which relevant conditions are examined.

It does not predetermine the material significance of every condition found within those dimensions.

10.3 Non-Compensability

Interaction among Factors and Indicators raises the question of compensation.

If one dimension is strongly realized, can that strength compensate for failure in another?

The present research does not support such a general rule.

The Factors represent different necessary dimensions of Claim Function Realization.

A Claim does not become supportable because it is highly intelligible.

A materially incomplete Claim does not become sufficient because it is well adapted to its recipient.

A Claim unsuitable for its intended purpose does not become applicable because every assertion is substantively supported.

A Claim whose material meaning cannot reasonably be understood does not realize its communicative function merely because the underlying information is complete.

This establishes a principle of Non-Compensability:

Strength in one Quality Factor or Quality Indicator does not, by itself, compensate for material non-realization of another necessary Factor or Indicator.

Non-Compensability does not mean that every deficiency produces the same Conclusion.

A condition may be immaterial, material but non-critical, or critical depending upon the applicable Quality Outcome Criteria and the circumstances of the determination.

Nor does Non-Compensability prohibit consideration of interactions among Findings during Synthesis.

It means that Synthesis should not erase a material failure in one necessary dimension merely because another dimension performs strongly.

Non-Substitutability

A related principle is Non-Substitutability.

Factors and Indicators may interact, but one does not become a substitute for another merely because both contribute to the same Intended Function.

For example:

- Intelligibility cannot substitute for Substantive Support;
- Substantive Support cannot substitute for Material Information Sufficiency;
- Recipient Applicability cannot substitute for Purpose Applicability;
- Purpose Applicability cannot substitute for Context Applicability; and
- preservation of individual assertions cannot substitute for Preservation of Material Relationships.

Non-Substitutability preserves the distinct determination function that justified each Factor and Indicator.

The principle is particularly important where a simplified assessment might otherwise collapse several dimensions into one general impression of Claim quality.

10.4 Why No Universal Weighting or Scoring Is Established

The proposed Factors and Indicators could be converted superficially into a numerical scoring system.

The present research does not establish such a system.

A universal weighting model would require a justified basis for deciding that one Factor or Indicator contributes a fixed proportion of Claim Quality relative to another.

The present derivation provides no such basis.

More importantly, fixed weighting could conflict with Critical Conditions and Non-Compensability.

For example, a materially unsupported Claim should not become acceptable merely because high scores for Applicability and Intelligibility raise an overall numerical average.

Similarly, a material omission should not disappear mathematically because other Indicators receive favorable scores.

The significance of a Finding may also change with:

- the Claim's specific Intended Function;
- the recipient;
- the purpose;
- the Context;
- the Applicable Basis;
- applicable Quality Outcome Criteria;
- the nature of the original Quality Object; and
- the material relationships among Findings.

A universal numerical weight would risk treating these Context-dependent relationships as fixed.

The research therefore establishes neither:

- universal numerical weights;
- universal point values;
- universal averaging;
- universal pass/fail percentages; nor
- a universal composite Claim Quality score.

This does not prohibit an Applicable Basis from establishing justified quantitative methods for a particular application.

Where such a method is used, it should preserve Critical Conditions, material relationships, and the distinct functions represented by the applicable Factors and Indicators.

A Context-specific scoring method should therefore not be mistaken for a universal property of the WQI Claim Quality structure.

Section Conclusion

The analysis supports four related propositions.

First, the proposed Factors and Indicators interact. A single condition may affect more than one dimension where different functions are genuinely affected.

Second, Critical Conditions may arise within any Factor or Indicator, but criticality is not determined merely by the Factor or Indicator in which a condition appears.

Third, the proposed Factors and Indicators are Non-Compensable in the sense that strength in one does not by itself offset material non-realization of another necessary dimension.

Fourth, the Factors and Indicators are Non-Substitutable: interaction does not eliminate the distinct determination function for which each was retained.

These conclusions provide no basis for universal weighting, averaging, or scoring.

The next question is whether the proposed four-Factor and seven-Indicator structure remains coherent when applied across materially different types of Quality Claims, recipients, purposes, Contexts, and classes of original Quality Objects.

11. Cross-Context and Cross-Domain Stress Testing

The proposed structure has so far been derived principally from the general Intended Function of a Quality Claim and tested against recurring modes of Claim failure.

A further question remains:

Does the proposed structure remain applicable when the type of Quality Claim, original Quality Object, recipient, purpose, Context, and Applicable Basis change materially?

A structure intended for Quality Claims as a class should not depend upon the terminology, practices, or requirements of one professional domain.

At the same time, cross-domain applicability does not require identical Quality Outcome Criteria, Evidence, methods, terminology, or forms of communication.

The stress test therefore distinguishes between:

- the functions that must remain represented across applications; and
- the application-specific means by which realization of those functions is determined.

The present test does not attempt to establish requirements for the domains considered. Its purpose is narrower: to determine whether materially different applications reveal a missing universal Factor or Indicator, or make one of the proposed Factors or Indicators unnecessary.

11.1 Purpose of Stress Testing

Cross-context and cross-domain stress testing serves four purposes.

First, it tests invariance.

A proposed Factor or Indicator intended for Quality Claims generally should continue to represent a necessary determination function as the application changes.

Second, it tests overreach.

A proposed element may appear universal because it is important in one domain while actually depending upon a particular regulatory, contractual, professional, technical, or institutional setting.

Third, it tests completeness.

A materially different application may expose a recurring mode of Claim failure that was not visible in the applications considered during initial derivation.

Fourth, it tests Methodological Resolution.

An element may remain necessary across applications while its practical realization varies substantially. In that case, the common function may belong in the general structure while the detailed requirements belong in the Applicable Basis, Quality Outcome Criteria, or a Context-specific application.

The stress test therefore asks of each application:

- Is Support still necessary?

- Is Material Sufficiency still necessary?
- Is Applicability still necessary?
- Is Communicative Realization still necessary?
- Do the seven Indicators continue to identify distinct aspects of those Factors?
- Does the application reveal a missing universal function?
- Does it show that an apparently universal element is actually Context-specific?

11.2 Different Types of Quality Claims

Quality Claims may differ substantially in form and purpose.

A Claim may communicate:

- a Positive, Conditionally Positive, or Negative Conclusion;
- a Refusal to Express a Conclusion;
- a determination concerning conformity with specified requirements;
- a determination concerning the condition or performance of a physical object;
- a determination concerning a service or management system;
- a determination concerning Evidence or another information object; or
- another supportable communication concerning the Quality State of a defined Quality Object.

These differences do not remove the need for Support.

Whatever the form of the Claim, what it communicates must remain within what the applicable Findings establish.

They do not remove Material Sufficiency.

The information necessary for the Claim to realize its Intended Function may differ, but materially necessary information must still be provided.

They do not remove Applicability.

The Claim must still be suitable for its recipient, purpose, and Context.

They do not remove Communicative Realization.

The Claim must still communicate its material meaning intelligibly.

The content of the determination changes.

The functions through which Claim Quality is examined remain.

11.3 Different Recipients and Intended Uses

The proposed structure can also be tested by changing the recipient while holding the underlying Findings substantially constant.

Possible recipients may include:

- a customer or service recipient;
- an operator;
- technical management;
- organizational leadership;
- a purchaser;
- a regulator;
- an insurer;
- a lender;
- an investor;
- an acquirer or partner; or
- another person or organization relying upon the Claim for a defined purpose.

Different recipients may legitimately require different levels of explanation, detail, terminology, supporting information, or access.

This variation does not change the function of Substantive Support.

A Claim cannot exceed the Findings merely because a recipient would prefer a simpler or stronger answer.

Preservation of Material Relationships also remains necessary. Simplification for a recipient cannot responsibly destroy relationships needed to preserve the meaning of the Findings.

Material Information Sufficiency changes in application because information material to one recipient or purpose may not be material to another.

The Indicator nevertheless remains necessary.

Recipient Applicability becomes especially visible in this test because the same technically correct communication may function adequately for a specialist and inadequately for a non-specialist recipient.

Purpose Applicability also remains distinct. The same recipient may rely upon different Claims for different purposes.

Context Applicability remains necessary where circumstances affecting use differ.

Intelligibility likewise remains necessary, although what constitutes intelligible communication may vary with the recipient.

The stress test therefore supports retaining the three Applicability Indicators separately rather than replacing them with one undifferentiated concept of relevance.

11.4 Different Quality Objects and Domains

The structure should also remain usable when the original Quality Object changes fundamentally.

Consider, at the level necessary for methodological testing, Claims concerning:

- physical infrastructure;
- a manufactured product;
- a service;
- a management system;
- a support service;
- Evidence as a Quality Object; and
- another defined information object.

The technical basis for determining the original object's Quality State may differ substantially across these classes.

The Evidence may differ.

The applicable Quality Outcome Criteria may differ.

The Failure Modes may differ.

The relevant professional knowledge may differ.

The Applicable Basis may differ.

None of these differences removes the need for a Claim to remain supportable by what has been established.

The Support Factor therefore survives the domain change.

A Claim concerning infrastructure may fail Support by overstating what inspection, testing, operational Evidence, or other Findings establish.

A Claim concerning a service may fail Support by communicating a result broader than the applicable Findings.

A Claim concerning a management system may fail Support by converting limited Findings into a broader assertion not established by the determination.

A Claim concerning Evidence as a Quality Object may similarly fail if it communicates a stronger conclusion about Evidence Quality than the applicable Findings support.

The technical subject changes; the Support function does not.

Material Sufficiency across domains

The information that is material changes substantially with the original Quality Object and the Claim's Intended Function.

For one Claim, a material limitation may concern physical condition.

For another, it may concern scope, population, time period, process coverage, methodological limitation, or dependency.

The Indicator should therefore not prescribe universal content categories beyond what is functionally necessary.

Material Information Sufficiency survives the domain change precisely because it is defined through Materiality rather than through a fixed list of required information.

Applicability across domains

Recipient, purpose, and Context remain relevant across the tested classes.

Their practical content changes.

A regulator, service recipient, technical operator, purchaser, or organizational decision-maker may require different information from the same or similar Findings.

The Applicable Basis may also establish different requirements for different applications.

These differences support keeping the Applicability Factor general while allowing its Quality Outcome Criteria to vary.

Communicative Realization across domains

The form of communication may range from a short statement to a technical report, structured record, certificate, assessment, digital interface, or another attributable communication.

No single presentation format is therefore universal.

Intelligibility nevertheless remains necessary.

The relevant question is not whether every Claim uses the same language or form.

It is whether the material meaning can reasonably be understood by the intended recipient for the intended purpose.

Stress-test result across Quality Objects

No tested change in the class of original Quality Object eliminates one of the four Factors or reveals a new principal dimension of Claim Function Realization.

The application changes.

The common determination functions remain.

11.5 What Changes Across Applications

The stress test identifies substantial elements that should not be fixed universally merely because the Factors and Indicators are common.

Depending upon the application, the following may change:

- the original Quality Object;
- its Intended Functions and Intended Results;
- the Claim's specific Intended Function;
- the claimant;
- the recipient;
- the purpose;
- the Context;
- the Boundary and Interfaces;
- the Applicable Basis;
- applicable Quality Outcome Criteria;
- the Evidence;
- Evidence Quality requirements;
- relevant Failure Modes;
- what information is material;
- the significance of particular Uncertainty;
- Critical Conditions;
- the form and level of communication;
- terminology;
- necessary supporting information;
- Traceability requirements; and
- the methods used to perform Quality Determination.

These elements may materially affect how a Factor or Indicator is determined.

They do not therefore become universal merely because they are important in a particular application.

This distinction is essential to preventing the general Claim Quality structure from becoming a collection of domain-specific requirements.

11.6 What Remains Invariant

Across the tested variations, the following four principal functions remain necessary:

Support

The Claim must remain supportable by what has been established.

Material Sufficiency

The Claim must provide the information material to realization of its Intended Function.

Applicability

The Claim must be suitable for its intended recipient, purpose, and Context.

Communicative Realization

The Claim must communicate its material meaning intelligibly.

The seven Indicators also remain functionally identifiable:

Under Support:

1.1 Substantive Support

The Claim's substantive assertions, including any expressed Conclusion or Refusal, remain within what the applicable Findings support.

1.2 Preservation of Material Relationships

Material relationships necessary to preserve the supportable meaning of the Findings are maintained.

Under Material Sufficiency:

2.1 Material Information Sufficiency

Information material to realization of the Claim's Intended Function is communicated or made appropriately accessible where necessary.

Under Applicability:

3.1 Recipient Applicability

The Claim is suitable for its intended recipient.

3.2 Purpose Applicability

The Claim is suitable for its intended purpose or specific Intended Function.

3.3 Context Applicability

The Claim is suitable for the Context in which it is intended to function.

Under Communicative Realization:

4.1 Intelligibility

The material meaning of the Claim can reasonably be understood by its intended recipient.

Cross-context and cross-domain result

The stress test does not establish that every application will use identical Quality Outcome Criteria or methods for these Factors and Indicators.

It establishes a narrower result:

At the present Methodological Resolution, materially different types of Quality Claims, recipients, purposes, Contexts, and classes of original Quality Objects do not reveal a need to remove, add, or fundamentally redefine any of the four candidate Factors or seven candidate Quality Indicators.

The test also supports the earlier treatment of Attribution and Traceability.

Attribution remains a defining condition of the Quality Claim and may become materially important within a particular application, but the cross-domain test does not reveal a separate universal dimension of Function Realization requiring an Attribution Factor or Indicator.

Traceability remains necessary across the methodological relationships through which Claim Quality is determined and supported, but the stress test does not reveal an independent universal Claim Quality dimension requiring a separate Traceability Factor or Indicator.

The result therefore strengthens, but does not yet finalize, the proposed structure.

The remaining analysis must examine more directly the roles of Evidence Quality, Uncertainty, Materiality, and Traceability and confirm that these supporting concepts have not been incorrectly excluded from the Factor and Indicator structure.

12. Evidence Quality, Uncertainty, Materiality, and Traceability

The preceding analysis supports, at the present Methodological Resolution, four candidate Quality Factors and seven candidate Quality Indicators for Quality Claims.

Several other WQI concepts remain essential to the determination of Claim Quality:

- Evidence Quality;
- Uncertainty;
- Materiality; and
- Traceability.

Their importance does not establish that they should be additional Quality Factors or Quality Indicators.

The present section examines the functions these concepts perform and tests whether their exclusion from the proposed Factor and Indicator structure leaves a necessary dimension of Claim Function Realization unrepresented.

A central distinction must be maintained throughout:

The Quality State of the original Quality Object and the Quality State of the Claim are different Quality States of different Quality Objects.

Accordingly, the Evidence and Findings used to determine the original Quality Object should not be confused with the Evidence and Findings used to determine the Quality of the Claim itself.

12.1 Evidence for Determining Claim Quality

A Quality Claim is formed from applicable Evidence-Supported Findings concerning the original Quality Object.

Once the Claim itself becomes the Quality Object, however, a second Quality Determination is possible.

That determination concerns the actual Quality State of the Claim.

The relationship can be represented as follows:

Original Quality Object

↓

Quality Determination of the original Quality Object

↓

Evidence-Supported Findings concerning the original Quality Object

↓

Materiality and Synthesis

↓

Conclusion or Refusal

↓

Quality Claim

Then, separately:

Quality Claim as Quality Object

↓

Quality Determination of the Claim

↓

Evidence-Supported Findings concerning Claim Quality

The second determination does not repeat or replace the first.

Its question is not:

What is the Quality State of the original Quality Object?

Its question is:

What can be established about the Quality State of the Claim in relation to the Claim's own Intended Function and applicable Quality Outcome Criteria?

Evidence relevant to that determination may include, as applicable:

- the Claim itself;
- the Findings from which the Claim was formed;
- the Synthesis of Material Findings;
- the applicable Conclusion or Refusal to Express a Conclusion;
- information concerning the claimant;
- information establishing the intended recipient;
- the Claim's specific Intended Function or purpose;
- relevant Context;
- the Applicable Basis;
- supporting records;
- material information made accessible through the Claim's Interfaces;
- records necessary to establish Traceability; and
- other Evidence relevant to applicable Claim Quality Outcome Criteria.

Not every determination requires the same Evidence.

The necessary Evidence depends upon the Claim, its Boundary and Interfaces, the applicable Factors and Indicators, the Quality Outcome Criteria, and the circumstances of the determination.

Evidence is therefore indispensable to determining Claim Quality.

Evidence is not, for that reason, itself an additional Claim Quality Factor.

It is the information or observation used to support Findings about the Claim's actual condition.

12.2 Evidence Quality

Evidence used to determine Claim Quality must itself be capable of realizing its Intended Function of supporting Findings about the actual condition of the Claim.

Evidence Quality is therefore directly relevant to what can responsibly be established about Claim Quality.

Weak, incomplete, unreliable, inapplicable, or otherwise inadequate Evidence may constrain the Findings that can be established about one or more Claim Quality Indicators.

This limitation must not be converted automatically into a Finding that the Claim itself has poor Quality.

The distinction is fundamental.

Insufficient Evidence to establish Substantive Support does not, by itself, establish that Substantive Support fails.

Insufficient Evidence to establish Material Information Sufficiency does not, by itself, establish that the Claim is materially insufficient.

Insufficient Evidence to establish Recipient Applicability does not, by itself, establish that the Claim is unsuitable for its recipient.

Insufficient Evidence to establish Intelligibility does not, by itself, establish that the Claim is unintelligible.

Evidence Quality constrains what the Quality Determination can establish.

It does not substitute for the Quality State being determined.

Where the Evidence does not support a Positive, Conditionally Positive, or Negative Conclusion concerning Claim Quality, the applicable WQI conclusion logic remains controlling.

Failure to support a Positive Conclusion is not equivalent to support for a Negative Conclusion.

Evidence Quality is therefore essential to Claim Quality Determination but is not supported as an additional Claim Quality Factor or Indicator.

12.3 Uncertainty

Uncertainty may arise in determining the original Quality Object, in forming the Claim, or in determining the Quality of the Claim itself.

These forms of Uncertainty should not be treated as interchangeable.

Uncertainty concerning the original Quality Object

The Findings concerning the original Quality Object may contain material Uncertainty.

That Uncertainty can constrain what the later Claim may responsibly communicate.

If the Claim communicates greater certainty than the Findings support, the issue is visible through Substantive Support.

If material Uncertainty necessary to the Claim's Intended Function is omitted, the issue is visible through Material Information Sufficiency.

Uncertainty concerning Claim Quality

A later Quality Determination of the Claim may itself contain Uncertainty.

For example, available Evidence may not be sufficient to establish whether a particular recipient could reasonably understand a communication, whether a supporting relationship was available at the relevant time, or whether a Contextual condition materially affected applicability.

Such Uncertainty constrains what can be established about the Claim's Quality State.

It does not automatically establish non-realization of the applicable Factor or Indicator.

Uncertainty as a cross-cutting concept

Uncertainty therefore performs at least two different functions:

- it may be part of the determined basis that the Claim must preserve or materially communicate; and
- it may constrain the later determination of the Claim's own Quality State.

Neither function requires a separate universal Uncertainty Factor or Indicator.

Creating such an Indicator would risk combining Uncertainty concerning the original object with Uncertainty concerning determination of the Claim.

The proposed structure instead treats the effects of Uncertainty where they function:

- through Substantive Support where the Claim exceeds supported certainty;
- through Material Information Sufficiency where material Uncertainty is omitted; and
- through the Quality Determination process where Uncertainty constrains what can responsibly be established about Claim Quality.

12.4 Materiality

Materiality performs a central role in Claim formation and Claim Quality Determination.

WQI defines Materiality as:

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.

Materiality therefore helps distinguish what is necessary from what is merely available.

This is particularly important because Claim Quality does not increase simply through accumulation of information.

A Claim is not necessarily better because it is longer, more detailed, or accompanied by more records. Nor is a concise Claim necessarily deficient.

The relevant question is whether matters necessary to realization of the Claim's Intended Function are appropriately preserved and communicated.

Materiality and Support

Materiality affects which relationships, qualifications, conditions, or limitations must be preserved for a Claim to remain supportable.

A minor relationship with no material effect on meaning need not necessarily receive the same treatment as a relationship whose loss changes what the Findings support.

Materiality and Material Sufficiency

Materiality is fundamental to Material Information Sufficiency.

The Indicator does not require all available information.

It requires information material to realization of the Claim's Intended Function.

Materiality and Applicability

What is material may change with the intended recipient, purpose, and Context.

This does not make Materiality identical to Applicability.

Applicability helps establish the circumstances of intended use.

Materiality helps determine the significance of information and relationships within those circumstances.

Materiality and Communicative Realization

Materiality can also affect communication.

Information necessary for understanding the Claim's material meaning should not be obscured by presentation, organization, or other communication choices.

Materiality therefore operates across the proposed structure.

It helps determine the significance of conditions found within the Factors and Indicators but does not itself describe a separate principal dimension or recurring aspect of Claim Function Realization.

The research therefore does not support Materiality as an additional Quality Factor or Indicator.

12.5 Traceability

Traceability requires particularly careful treatment because it connects many parts of the Claim Quality determination.

WQI defines Traceability as:

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.

Traceability may connect:

- the Claim to applicable Findings;
- assertions to the Findings supporting them;
- a Conclusion or Refusal to the Synthesis of Material Findings;
- material qualifications to the matters they qualify;
- supporting information to the Claim;

- the Claim to its claimant;
- the Claim to its intended recipient or purpose where relevant;
- the determination to the Applicable Basis and Quality Outcome Criteria; and
- Findings concerning Claim Quality to the Evidence supporting those Findings.

These relationships demonstrate why Traceability cannot be reduced to simple availability of records.

The function is to allow material relationships to be followed and understood.

Traceability and Support

Determining Substantive Support may require the relationship between an assertion and the applicable Findings to be traceable.

Preservation of Material Relationships may similarly depend upon the ability to follow relationships among Findings, qualifications, conditions, Synthesis, and the resulting Claim.

Traceability and Material Sufficiency

Where material supporting information is not reproduced directly within the Claim, Traceability may help establish whether that information is appropriately accessible and connected to the Claim.

Traceability and Applicability

Where recipient, purpose, Context, or Applicable Basis materially affects the Claim, Traceability may be necessary to establish those relationships.

Traceability and the Quality Determination

Traceability also operates at the level of the Quality Determination itself.

Findings concerning Claim Quality should be capable of being followed to the relevant Evidence, Quality Outcome Criteria, methods, and other applicable basis for the determination.

This function is not a characteristic of the Claim alone.

It is part of the methodological integrity of the determination.

Classification of Traceability

The analysis therefore supports the conclusion reached provisionally in Section 9:

Traceability is a cross-cutting methodological capability and, where applicable, a necessary functional characteristic of particular relationships involving the Claim.

It is not supported as a separate universal Claim Quality Factor.

Nor is it supported as a single universal Claim Quality Indicator.

Its necessary functions should instead be incorporated into the applicable Quality Outcome Criteria and determination requirements for the Factors and Indicators whose evaluation depends upon Traceability.

This treatment preserves Traceability without duplicating the substantive functions already represented in the four-Factor and seven-Indicator structure.

12.6 Distinguishing Supporting Concepts from Factors and Indicators

The analysis in this section supports a general methodological distinction.

A concept can be indispensable to Quality Determination without being a Quality Factor or Quality Indicator of the Quality Object being determined.

For Claim Quality, the distinction can be summarized as follows:

Quality Factors

Principal dimensions of Claim Function Realization:

- Support;
- Material Sufficiency;
- Applicability; and
- Communicative Realization.

Quality Indicators

Distinct recurring aspects through which realization or non-realization of those Factors is determined:

- Substantive Support;
- Preservation of Material Relationships;
- Material Information Sufficiency;
- Recipient Applicability;
- Purpose Applicability;
- Context Applicability; and
- Intelligibility.

Supporting and cross-cutting methodological concepts

Concepts necessary to establish, interpret, constrain, or connect the determination include:

- Evidence;
- Evidence Quality;
- Uncertainty;
- Materiality;
- Traceability;
- Applicable Basis;
- Quality Outcome Criteria;
- Boundary;
- Interfaces; and
- Critical Conditions.

These concepts do not all perform the same function.

They should not be combined into one category for purposes beyond this distinction.

Their common feature here is narrower:

Their necessity to responsible Claim Quality Determination does not, by itself, justify classifying them as additional Claim Quality Factors or Indicators.

Section Conclusion

The analysis does not reveal a missing Claim Quality Factor or Indicator among Evidence Quality, Uncertainty, Materiality, or Traceability.

Instead, it confirms that each performs an essential but different methodological function.

Evidence supports Findings about the Claim's actual condition.

Evidence Quality concerns the degree to which that Evidence realizes its Intended Function of supporting those Findings.

Uncertainty constrains what can responsibly be established or communicated where certainty is limited.

Materiality identifies the significance of Findings, conditions, relationships, limitations, and other matters to Synthesis, Conclusion, or the information necessary for the Claim to realize its Intended Function.

Traceability allows material relationships connecting the determination and Claim to their relevant methodological and evidentiary basis to be followed and understood.

None of these functions requires expansion of the proposed four-Factor and seven-Indicator structure at the present Methodological Resolution.

The distinction also protects the separation between the Quality State of the Claim and the means by which that Quality State is determined.

The next stage is therefore a direct Missing-Function Review of the proposed structure as a whole.

13. Missing-Function Review

The preceding sections have progressively derived, reduced, and tested a proposed structure of four Quality Factors and seven Quality Indicators.

The structure has survived:

- functional derivation;
- Failure-Mode testing;
- distinction testing;
- removal testing;
- absorption testing;
- cross-context and cross-domain stress testing; and
- examination of Evidence Quality, Uncertainty, Materiality, and Traceability.

A final completeness question remains:

Is there a necessary function of a Quality Claim that is not adequately represented by the proposed Factors and Indicators?

This question differs from asking whether additional desirable characteristics can be identified.

A missing function exists only where a recurring and material mode of non-realization of the Claim's Intended Function would remain inadequately visible under the proposed structure.

The review therefore returns to the general Intended Function established in FTA16:

At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

Each functional component of this statement is examined against the proposed structure.

13.1 Communication of What Has Been Established

A Quality Claim communicates what has been established about the Quality State of the original Quality Object.

Several possible failures arise.

The Claim may communicate something that was not established.

This is represented by:

1.1 Substantive Support.

The Claim may preserve individual assertions but alter their meaning by losing or distorting material relationships.

This is represented by:

1.2 Preservation of Material Relationships.

The Claim may express a Conclusion or Refusal inconsistent with the Synthesis of Material Findings.

This is represented within:

1.1 Substantive Support.

The Claim may communicate greater certainty, broader scope, or fewer conditions than the Findings support.

This is also represented by:

1.1 Substantive Support.

No additional function is identified at this stage.

13.2 Material Sufficiency

The general Intended Function requires materially sufficient communication.

A Claim may omit:

- a material Finding;
- a material condition;
- a material limitation;
- material Uncertainty;
- a material qualification;
- a material dependency;
- material scope information; or
- another matter necessary for realization of its Intended Function.

These failures are represented by:

2.1 Material Information Sufficiency.

Where material information is not reproduced directly but must remain available through an Interface, the question of necessary access is also represented within Material Information Sufficiency.

Use of an Interface to provide access to material supporting information does not reduce the requirement for Material Information Sufficiency. Information may be provided through an Interface only where that mode of access is consistent with the Claim's Intended Function, recipient, purpose, Context, Applicable Basis, and applicable Quality Outcome Criteria.

The review does not identify a recurring category of material omission that requires a second universal Material Sufficiency Indicator.

Materiality determines what information matters.

The Indicator determines whether materially necessary information is provided.

No additional function is identified.

13.3 The Recipient

The general Intended Function expressly identifies the recipient.

A Claim may contain supportable and materially sufficient information yet be unsuitable for the person or organization for whom it is intended.

This failure is represented by:

3.1 Recipient Applicability.

The recipient may affect what information is material, what level of explanation is necessary, what terminology is suitable, and what form of communication is appropriate.

Those effects may also influence Material Information Sufficiency and Intelligibility.

Such interaction does not reveal a missing function.

No additional recipient-related Indicator is identified.

13.4 Purpose and Specific Intended Function

A Quality Claim is not made without an intended communicative function.

A Claim may be suitable for its recipient but unsuitable for the purpose for which it is intended.

This failure is represented by:

3.2 Purpose Applicability.

The review considers whether a separate Indicator is needed for usefulness, decision support, or actionability.

These concepts may be important in particular applications.

However, as universal concepts they do not identify a function clearly separate from Purpose Applicability and Communicative Realization.

Where a Claim is substantively unsuitable for an intended use, Purpose Applicability is affected.

Where its communication form prevents reasonable use of its material meaning, Intelligibility and applicable communication Quality Outcome Criteria may be affected.

Where a particular decision, action, or operational use requires additional information, Material Information Sufficiency may also be affected.

The research therefore does not support a separate universal usefulness, actionability, or decision-support Indicator.

13.5 Context

A Claim may be supportable, materially sufficient, and suitable for a particular recipient and purpose while nevertheless being unsuitable under the circumstances in which it is used.

This failure is represented by:

3.3 Context Applicability.

The review considers whether timing should be a separate Indicator.

Timing may be critical for some Claims.

A Claim may become outdated, be communicated too late, or refer to conditions no longer applicable.

However, timing does not appear to constitute an independent universal dimension of Claim Quality.

Where timing affects suitability for the circumstances of use, it is represented through Context Applicability.

Where it changes what information is material, Material Information Sufficiency may also be affected.

Where an Applicable Basis establishes a specific timeliness requirement, that requirement may be expressed through applicable Quality Outcome Criteria.

Timeliness therefore does not require a separate universal Indicator.

13.6 Communication

A Claim must communicate its material meaning.

The proposed structure represents this through:

4.1 Intelligibility.

The review therefore asks whether other communication characteristics require separate universal Indicators.

Possible candidates include:

- clarity;
- organization;
- readability;
- accessibility;
- format;
- terminology;
- level of detail;
- language; and
- presentation.

Each can materially affect a particular Claim.

However, these characteristics describe possible means through which the communication becomes intelligible or fails to become intelligible.

Their appropriate form depends strongly upon recipient, purpose, Context, communication medium, and Applicable Basis.

Treating each as a universal Indicator would therefore risk converting application-specific means of communication into invariant dimensions of Claim Quality.

The research does not support their separation from Intelligibility at the present Methodological Resolution.

13.7 Accuracy

Accuracy may initially appear to be a missing universal function.

A Quality Claim should not communicate inaccurate information.

However, the term can refer to several different failures.

If the Claim communicates something inconsistent with what the Findings establish, Substantive Support fails.

If it changes a material relationship among Findings, Preservation of Material Relationships fails.

If it omits information necessary to prevent a materially misleading interpretation, Material Information Sufficiency may fail.

If a numerical, technical, or descriptive accuracy requirement is established by an Applicable Basis, it may be expressed through applicable Quality Outcome Criteria.

A separate universal Accuracy Factor or Indicator would therefore substantially duplicate functions already represented by Support and Material Sufficiency.

Accuracy is not added as a separate Indicator.

13.8 Consistency

Consistency may also appear to require independent treatment.

A Claim may contain internal contradictions, inconsistent terminology, conflicting statements, or inconsistent treatment of Findings.

However, the Quality significance of inconsistency depends upon its function.

Where inconsistency causes the Claim to exceed or contradict the Findings, Substantive Support is affected.

Where it changes material relationships, Preservation of Material Relationships is affected.

Where it prevents reasonable understanding, Intelligibility is affected.

Where it creates a material omission or ambiguity, Material Information Sufficiency may be affected.

Consistency is therefore not supported as an additional universal Indicator.

13.9 Attribution and Authority

Attribution was retained as an unresolved research input until Section 9.

The present review confirms the earlier distinction.

A Quality Claim is, by definition, an attributable communication by a claimant.

The ability to establish a claimant therefore belongs to identification of the communication as a Quality Claim.

Where claimant identity, role, authorization, competence, or authority is material to the Claim's Intended Function, those matters may affect Material Information Sufficiency, Applicability, Traceability, or applicable Quality Outcome Criteria.

Authority itself is not universal in form.

Different Claims may be made by individuals, organizations, professional bodies, assessment entities, service providers, operators, or other claimants under different Applicable Bases.

The research therefore does not support Attribution or Authority as an additional universal Factor or Indicator.

13.10 Traceability and Verifiability

A recipient or later evaluator may need to understand how a Claim relates to its Findings, Evidence, methodology, or Applicable Basis.

Traceability addresses the ability to follow and understand these material relationships.

Section 12 established that Traceability operates across the determination rather than as one independent dimension of Claim Function Realization.

The Missing-Function Review does not change that conclusion.

A related candidate is verifiability.

A Claim may need to permit examination or verification of its support.

However, universal verifiability would exceed what is required for every Claim.

Some Claims may legitimately depend upon Evidence or records that cannot be provided directly to every recipient because of confidentiality, legal restriction, security, privacy, proprietary limitations, or other applicable conditions.

What is required is not universal direct verification by every recipient.

What is required is sufficient support and, where applicable, sufficient Traceability and access to establish the Claim responsibly under its Applicable Basis.

Verifiability is therefore not added as a universal Indicator.

13.11 Independence, Impartiality, and Objectivity

Some Quality Claims may require independence, impartiality, or specified forms of objectivity.

These characteristics can be essential in particular professional, regulatory, certification, inspection, assurance, or assessment Contexts.

The question is whether they are universal characteristics of Quality Claims as a class.

The research does not support that conclusion.

A service provider may responsibly make a Quality Claim concerning its own service.

An operator may make a Claim concerning infrastructure it operates.

An organization may make an internal Claim for management purposes.

Other applications may require an independent third party.

The requirement therefore depends upon the Claim's Applicable Basis, recipient, purpose, and Context.

Where independence or impartiality is required, it may become a Quality Outcome Criterion or Critical Condition within the applicable determination.

It is not supported as a universal Claim Quality Factor or Indicator.

13.12 Currency and Continuing Validity

A Claim concerns what has been established within defined circumstances.

The underlying Quality State may later change.

New Evidence may emerge.

The Applicable Basis may change.

A Claim may therefore cease to be suitable for a later use even though it was supportable when made.

This raises a possible missing function concerning currency or continuing validity.

The research does not support a universal requirement that every Claim remain valid indefinitely.

Instead, relevant time or period forms part of the Claim's conditions, Context, Boundary, Findings, or applicable scope.

Where later use falls outside those conditions, Context Applicability may fail.

Where the Claim omits a material temporal limitation, Material Information Sufficiency may fail.

Where it represents an earlier Finding as establishing a present condition without support, Substantive Support may fail.

Currency therefore does not require an additional universal Indicator.

13.13 Completeness of the Proposed Structure

The Missing-Function Review has considered recurring candidate functions including:

- communication of what has been established;
- substantive accuracy;
- preservation of relationships;
- material completeness;
- recipient suitability;
- purpose suitability;
- Context suitability;
- intelligibility;
- usefulness and actionability;
- timeliness;
- communication form;
- consistency;
- attribution;
- authority;
- Traceability;
- verifiability;
- independence and impartiality; and
- currency and continuing validity.

Some of these functions are already represented directly by the proposed Factors and Indicators.

Others are represented through interaction among them.

Others operate as supporting methodological concepts.

Still others depend upon the Applicable Basis and should be established through application-specific Quality Outcome Criteria rather than incorporated into the universal structure.

At the present Methodological Resolution, the review does not identify a recurring and material mode of Claim Function non-realization that requires an additional universal Quality Factor or Quality Indicator.

Section Conclusion

The Missing-Function Review supports the present completeness of the proposed structure:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

This conclusion does not establish that the structure is permanently closed.

It establishes that, at the present Methodological Resolution and on the basis of the functions and Failure Modes examined, no additional universal Factor or Indicator has been shown to be necessary.

Future applications may reveal a recurring material function not adequately represented by the present structure.

Such a finding would justify reconsideration through the same functional, distinction, removal, absorption, failure-mode, and cross-context tests used in the present research.

Conversely, future research may show that an existing element can be simplified without loss of a necessary determination function.

The appropriate conclusion is therefore not that the structure is final in an absolute sense.

It is that the proposed four-Factor and seven-Indicator structure is presently supported as necessary and sufficiently complete for further methodological development.

14. Necessary but Not Closed

The preceding analysis supports four Quality Factors and seven Quality Indicators as necessary and sufficiently complete for determining Claim Quality at the present WQI Methodological Resolution.

That conclusion should not be interpreted as establishing a permanently closed structure.

A methodological structure can be sufficiently complete for present use while remaining open to controlled revision where later research demonstrates that revision is necessary.

Openness, however, does not justify adding new Factors or Indicators whenever a new characteristic, requirement, Failure Mode, professional practice, or domain-specific concern is identified.

Nor does methodological economy justify removing or combining an existing element merely because a smaller structure appears simpler.

Revision should be functional.

A proposed expansion should demonstrate that a necessary and recurring aspect of Claim Function Realization is not adequately represented by the existing structure.

A proposed simplification should demonstrate that an existing Factor or Indicator can be removed, combined, or reclassified without making a necessary and recurring aspect of Claim Function Realization inadequately visible.

The structure is therefore treated as necessary but not closed.

14.1 Conservative Expansion

Expansion of the structure should occur only where a proposed additional Factor or Indicator performs a necessary function that the existing structure cannot adequately perform.

The discovery of a new requirement does not by itself justify expansion.

A requirement may instead represent:

- a Quality Outcome Criterion;
- a Critical Condition;
- a requirement of the Applicable Basis;
- a Context-specific implementation requirement;
- a particular form of Evidence;
- an Evidence Quality requirement;
- a Traceability requirement;
- a communication method;
- a Failure Mode already visible through an existing Indicator; or
- another supporting condition rather than a new dimension of Claim Function Realization.

Before a new Factor or Indicator is introduced, the proposed element should therefore be tested against the existing structure.

The analysis should ask:

- What necessary function does the proposed element perform?
- What recurring and material mode of Claim failure would remain inadequately visible without it?
- Can that failure already be determined through an existing Factor or Indicator?
- Can the proposed function be absorbed without material loss?
- Is the function common to Quality Claims as a class, or does it arise only under a particular Applicable Basis, recipient, purpose, Context, domain, or type of Claim?
- Does the proposed element remain necessary when materially different Claims and Quality Objects are considered?

A new Factor should require a stronger justification than a new Indicator because it asserts the existence of a new principal dimension of Claim Function Realization.

A new Indicator should likewise require more than identification of a useful characteristic.

It should identify a distinct recurring aspect of realization or non-realization within a Factor.

Expansion should therefore be conservative.

The objective is not to protect the present number of Factors or Indicators.

The objective is to prevent duplication, uncontrolled accumulation, and conversion of Context-specific requirements into universal methodological elements.

14.2 Conservative Simplification

The same discipline applies in the opposite direction.

A Factor or Indicator should not be retained merely because it has already been published, named, or used.

If later research demonstrates that its function can be fully absorbed elsewhere without important loss, simplification may be justified.

The relevant questions include:

- Does removal make a recurring material mode of Claim failure invisible or inadequately visible?
- Does another Factor or Indicator perform the same function?
- Can the element be absorbed without obscuring a necessary distinction?
- Does combining elements preserve the ability to determine materially different forms of Function Realization and non-realization?
- Does simplification remain valid across materially different Claims, recipients, purposes, Contexts, and classes of original Quality Objects?

Simplification should not be based solely upon reducing the number of elements.

A smaller structure is not inherently better.

If combining two elements obscures materially different determination functions, the apparent simplicity would reduce methodological resolution.

Conversely, maintaining two elements that perform the same function would create unnecessary duplication.

The appropriate structure is therefore neither the largest nor the smallest possible structure.

It is the structure that preserves the necessary distinctions for responsible Quality Determination without unnecessary duplication.

Balance between stability and revision

The principle of necessary but not closed provides a balance between methodological stability and methodological development.

The present four-Factor and seven-Indicator structure should be treated as the supported structure unless later Evidence and analysis justify revision.

Revision should use the same types of tests applied in the present research rather than a lower threshold simply because the structure is already in use.

This allows the structure to remain stable enough to support a Claim Quality Standard — Core and subsequent applications while remaining capable of controlled improvement.

The result is therefore neither permanent closure nor continuous redesign.

It is a presumption of stability subject to justified revision.

15. Conditions for Controlled Revision

The proposed Claim Quality structure should remain stable unless subsequent research provides a justified basis for revision.

Controlled revision may involve:

- adding a Quality Factor or Quality Indicator;
- removing a Quality Factor or Quality Indicator;
- combining existing Factors or Indicators;
- separating an existing Factor or Indicator into distinct elements;

- reclassifying an element between Factor, Indicator, supporting methodological concept, or application-specific requirement; or
- refining the definition or Boundary of an existing Factor or Indicator where its function remains substantially unchanged.

These forms of revision do not require identical evidence.

Adding a new principal dimension of Function Realization, for example, requires a different justification from clarifying the Boundary between two existing Indicators.

In every case, however, revision should respond to an identified methodological need rather than preference, terminology, symmetry, or a desire to reproduce the structure of a particular domain.

The purpose of controlled revision is to preserve the ability of the structure to make necessary dimensions of Claim Function Realization visible while avoiding unnecessary instability.

15.1 Candidate Conditions for Revision

The present research identifies several conditions that may justify reconsideration of the structure.

Discovery of an unrepresented recurring Failure Mode

Revision may be justified where application of the structure reveals a recurring and material form of Claim non-realization that cannot be adequately determined through any existing Factor or Indicator.

An isolated unusual condition is not sufficient by itself.

The question is whether the condition reveals a function that the existing structure systematically fails to represent.

Failure of cross-context or cross-domain applicability

Revision may be justified where a Factor or Indicator that appears necessary in one class of Claims repeatedly loses its function when materially different Claims, recipients, purposes, Contexts, or original Quality Objects are examined.

Conversely, a new function repeatedly observed across materially different applications may support expansion.

The relevant issue is functional invariance rather than frequency within one domain.

Demonstrated redundancy

Revision may be justified where later analysis shows that two Factors or Indicators perform the same determination function and that one can be fully absorbed into the other without important loss.

Overlap alone is insufficient.

Interaction is expected within the structure.

Redundancy exists only where the supposedly separate function adds no necessary determination capability.

Persistent ambiguity of Boundary

Revision may be justified where the Boundary between Factors or Indicators cannot be applied consistently even after their definitions and applicable Quality Outcome Criteria are clarified.

Such ambiguity may indicate that:

- two elements should be combined;
- one element should be divided;
- an element has been placed at the wrong methodological level; or
- its definition requires refinement.

Terminological similarity alone does not establish a Boundary problem.

Misclassification

Application may show that an element classified as a Factor or Indicator actually operates primarily as:

- a supporting methodological concept;
- a Quality Outcome Criterion;
- a Critical Condition;
- a requirement of the Applicable Basis;
- a Context-specific requirement;
- a determination method; or
- another type of methodological element.

The reverse may also occur.

A matter initially treated as Context-specific may later prove to represent a common and necessary aspect of Claim Function Realization across materially different applications.

Such evidence may justify reclassification.

Change in Methodological Resolution

WQI Methodological Resolution may develop as the methodology is applied and researched.

A higher resolution may reveal distinctions that were previously combined.

A justified simplification may show that a distinction previously maintained does not provide additional determination value.

Change in Methodological Resolution can therefore justify reconsideration, provided that the change is functionally demonstrated rather than assumed.

A change in Methodological Resolution does not by itself justify structural revision. It may reveal a previously unresolved distinction, redundancy, or missing function, but any resulting proposal to add, remove, divide, combine, or reclassify a Factor or Indicator remains subject to the same functional and cross-context tests applied in this research.

Accumulated application Evidence

Repeated application may provide Evidence not available during initial derivation.

Such Evidence may reveal:

- recurring failures not adequately represented;
- elements that are consistently unnecessary;
- interactions that were previously misunderstood;
- unexpected Critical Conditions;
- persistent problems in applying an Indicator; or
- stable distinctions that require clearer representation.

Application experience should therefore inform revision.

It should not, however, be converted directly into revision without methodological analysis.

Development of the Applicable Basis

New laws, regulations, standards, professional practices, technologies, or institutional requirements may affect particular Quality Claims.

Such changes do not automatically justify revision of the common Factor and Indicator structure.

They may instead require revision of:

- the Applicable Basis;
- Quality Outcome Criteria;
- Critical Conditions;

- Context-specific requirements;
- Evidence requirements; or
- determination methods.

Revision of the universal structure is justified only where the development reveals a previously unrepresented common function of Quality Claims or demonstrates that an existing universal element is no longer methodologically supportable.

15.2 Revision Principles

Where one or more candidate conditions for revision arise, the following principles should govern reconsideration.

Functional justification

Every substantive revision should be justified through the function performed by the affected element.

The principal question remains:

What necessary aspect of Claim Function Realization becomes more accurately or sufficiently represented through the proposed revision?

Evidence before structural change

Structural revision should follow Evidence and analysis.

It should not precede them.

A proposed revision should therefore identify the observations, Findings, Failure Modes, cross-context results, or other methodological basis that makes reconsideration necessary.

Reapplication of the derivation tests

A proposed new or revised element should be subjected, as applicable, to the same tests used in the present research:

- Functional Derivation;
- Failure-Mode Test;
- Distinction Test;
- Removal Test;
- Absorption Test;
- Missing-Function Test; and
- Cross-Context and Cross-Domain Stress Test.

An element should not enter the common structure through a lower evidentiary or methodological threshold than that applied to the present Factors and Indicators.

Preservation of necessary distinctions

Revision should not simplify the structure by eliminating distinctions necessary to determine materially different forms of Function Realization or non-realization.

Where two elements interact but perform different functions, their interaction is not sufficient reason to combine them.

Avoidance of unnecessary duplication

Revision should likewise not preserve or introduce separate elements where their functions can be fully represented elsewhere without material loss.

The structure should remain sufficiently differentiated, but not repetitive.

Separation of universal and application-specific requirements

A recurring challenge in revision is the movement of requirements from a particular application into the common structure.

A requirement should not become a universal Factor or Indicator merely because it is important, mandatory, or critical within one domain.

The analysis must establish that the underlying function belongs to Quality Claims as a class.

Preservation of Non-Compensability and Critical Conditions

Revision should not create a structure in which materially different necessary functions are collapsed into a scoring or weighting arrangement that permits one to compensate automatically for another.

Any revised structure should continue to permit Critical Conditions and material non-realization to remain visible during Synthesis.

Traceability of revision

A substantive revision should be traceable to the reason for the change.

The revision record should make it possible to understand:

- what was changed;
- what methodological problem prompted reconsideration;
- what Evidence or analysis supported the change;
- which tests were applied;
- why the revised treatment was selected; and
- what consequences the revision has for related WQI publications or applications.

Traceability of revision supports both methodological continuity and later reconsideration.

Controlled propagation

A change to the Claim Quality Factors or Indicators may affect later documents that depend upon them, including a Claim Quality Standard — Core and any Context-specific applications.

Such changes should therefore be propagated deliberately.

Revision of the research basis should be distinguished from consequential revision of a Core, Context Guide, Quality Outcome Criteria, or other dependent publication.

This prevents a methodological change from being introduced inconsistently across related documents.

Revision without retrospective distortion

Later revision should not cause earlier research conclusions to be presented as though the revised structure had always existed.

Earlier editions should remain understandable in their own methodological Context.

A revision may supersede an earlier structure without erasing the reasoning through which the earlier structure was reached.

This is especially important where WQI methodology develops through successive Methodological Resolution.

Section Conclusion

Controlled revision provides a mechanism for development without making the Claim Quality structure continuously provisional in ordinary use.

The present four-Factor and seven-Indicator structure should therefore remain the supported structure unless subsequent Evidence and analysis establish a justified reason for reconsideration.

Neither novelty nor domain-specific importance is sufficient.

Revision should respond to a demonstrated functional need and should be subjected to appropriate derivation, distinction, removal, absorption, missing-function, and cross-context testing.

The same discipline applies to expansion, simplification, reclassification, and refinement.

This establishes a stable but revisable methodological basis from which the research can now state its principal conclusions and proposed Claim Quality structure.

16. Research Conclusions and Proposed Structure

The research began with the proposition established in WQI FTA16 that a Quality Claim can itself be treated as a Quality Object.

From that proposition, the present article asked what common dimensions of Function Realization must be examined to determine the Quality of a Quality Claim.

The research did not assume that the constituent parts identified during development of FTA16 were already Quality Factors or Quality Indicators.

Instead, those elements were treated as research inputs and subjected to functional derivation, Failure-Mode testing, distinction testing, removal testing, absorption testing, missing-function review, and cross-context and cross-domain stress testing.

The analysis also examined interaction, Critical Conditions, Non-Compensability, Non-Substitutability, Evidence Quality, Uncertainty, Materiality, Traceability, and the conditions under which later revision may be justified.

At the present WQI Methodological Resolution, the research supports a common structure of:

- four Quality Factors; and
- seven Quality Indicators.

The supported Factors are:

1. Support;
2. Material Sufficiency;
3. Applicability; and
4. Communicative Realization.

The supported Indicators are:

- 1.1 Substantive Support;
- 1.2 Preservation of Material Relationships;
- 2.1 Material Information Sufficiency;
- 3.1 Recipient Applicability;
- 3.2 Purpose Applicability;
- 3.3 Context Applicability; and
- 4.1 Intelligibility.

The structure is derived from the general Intended Function of the Quality Claim rather than from the requirements of a particular domain.

It is therefore proposed as the common Factor and Indicator structure for Quality Claims as a class of Quality Objects.

16.1 Supported Claim Quality Factors

Factor 1 — Support

Support concerns the degree to which the Claim preserves a supportable relationship between what it communicates and what has been established through the applicable Quality Determination.

Support is necessary because a Claim cannot realize its Intended Function by communicating substantive meaning that exceeds, contradicts, or materially distorts what the applicable Evidence-Supported Findings establish.

Support is not equivalent to completeness.

A Claim may communicate only supportable statements while omitting information material to its Intended Function.

Support is also not equivalent to intelligibility.

A Claim may be clearly expressed while communicating something that the Findings do not support.

The research therefore supports Support as a distinct Quality Factor.

Factor 2 — Material Sufficiency

Material Sufficiency concerns the degree to which the Claim provides the material information necessary for realization of its Intended Function.

The Factor does not require maximum information.

It requires sufficient material information.

What is material may vary with the Claim's specific Intended Function, recipient, purpose, Context, Applicable Basis, and applicable Quality Outcome Criteria.

A Claim may satisfy Support while failing Material Sufficiency where all communicated statements are supportable but a material Finding, limitation, condition, Uncertainty, qualification, dependency, or other necessary matter is omitted.

The research therefore supports Material Sufficiency as a distinct Quality Factor.

Factor 3 — Applicability

Applicability concerns the degree to which the Claim is suitable for its intended recipient, purpose, and Context in relation to the Applicable Basis.

The same Evidence-Supported Findings may support different Claims where legitimate differences in recipient, purpose, or Context affect what communication is necessary.

Such differences do not permit the Claim to exceed the Findings.

They affect how the supportable determined basis must function within a particular application.

A Claim may therefore be supportable and materially sufficient yet fail to realize its Intended Function because it is unsuitable for the recipient, purpose, or Context for which it is made.

The research supports Applicability as a distinct Quality Factor.

Factor 4 — Communicative Realization

Communicative Realization concerns the degree to which the Claim communicates its material meaning in a form through which the intended recipient can reasonably understand it.

A Quality Claim is an attributable communication.

The existence of supportable and materially sufficient information is therefore not alone sufficient where the material meaning cannot reasonably be understood by the intended recipient.

The practical means through which intelligibility is realized may vary substantially across applications.

Terminology, explanation, organization, language, format, presentation, technical detail, and other communication characteristics may be relevant.

These means do not require separate universal Factors.

The research supports Communicative Realization as a distinct Quality Factor.

Factor-level conclusion

The four Factors represent different principal dimensions of Claim Function Realization.

Each performs a necessary function.

Each can fail while another succeeds.

Removal of any one would make a recurring and material form of Claim non-realization inadequately visible.

None can be fully absorbed into another without loss of a necessary determination function.

The research therefore supports all four Factors at the present Methodological Resolution.

16.2 Supported Claim Quality Indicators

Factor 1 — Support

1.1 Substantive Support

Substantive Support concerns whether the substantive assertions of the Claim remain within what the applicable Evidence-Supported Findings establish.

The Indicator includes, where applicable, whether:

- assertions remain within supported scope;
- certainty is not increased beyond what the Findings support;
- conditions and qualifications affecting substantive meaning are preserved;
- conditional Findings are not converted improperly into unconditional assertions; and
- any expressed Conclusion or Refusal to Express a Conclusion remains consistent with the Synthesis of Material Findings.

Conclusion Consistency was considered as a separate candidate Indicator but was absorbed into Substantive Support because its necessary function can be preserved without creating a separate universal Indicator.

1.2 Preservation of Material Relationships

Preservation of Material Relationships concerns whether relationships necessary to preserve the supportable meaning of the Findings remain intact in the Claim.

Individual assertions may each be accurate while their combined presentation changes what the Findings collectively establish.

This Indicator therefore addresses a failure not fully represented by examining individual assertions alone.

The research supports its retention as a distinct Indicator beneath Support.

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

Material Information Sufficiency concerns whether information material to realization of the Claim's Intended Function is communicated or, where appropriate and necessary, made accessible through the Claim's Boundary or Interfaces.

Material information may include, depending upon the application:

- Findings;
- conditions;
- limitations;
- Uncertainty;
- qualifications;
- dependencies;

- scope information; and
 - other matters whose omission would materially affect the meaning or use of the Claim.
- Accessibility of Material Supporting Information was considered as a separate candidate Indicator.

The research found that accessibility is one possible means through which material information may be provided rather than a separate universal determination function.

Its necessary function is therefore incorporated within Material Information Sufficiency.

Factor 3 — Applicability

3.1 Recipient Applicability

Recipient Applicability concerns whether the Claim is suitable for the recipient for whom it is intended.

The recipient may affect what information is material, what explanation is necessary, what terminology is appropriate, and what level of detail is required.

Recipient needs do not expand what the Findings support.

The Indicator concerns suitability of the supportable Claim for the intended recipient.

3.2 Purpose Applicability

Purpose Applicability concerns whether the Claim is suitable for its intended purpose or specific Intended Function.

The same recipient may require different Claims for different legitimate purposes.

The same Findings may likewise support different communications where their intended functions differ, provided that each Claim remains supportable and materially sufficient.

Purpose Applicability is therefore retained as a distinct Indicator.

3.3 Context Applicability

Context Applicability concerns whether the Claim is suitable for the circumstances in which it is intended to function.

Relevant circumstances may include timing, institutional setting, dependencies, applicable conditions, or other Contextual matters.

The research found that recipient, purpose, and Context are related but not interchangeable.

Each can change while the others remain substantially the same.

The three Applicability Indicators are therefore retained separately.

Factor 4 — Communicative Realization

4.1 Intelligibility

Intelligibility concerns whether the material meaning of the Claim can reasonably be understood by its intended recipient.

The Indicator does not establish universal requirements for writing style, format, terminology, language, presentation, or level of detail.

Those requirements may vary with recipient, purpose, Context, medium, and Applicable Basis.

Usability for Intended Purpose was considered as a separate candidate Indicator.

The research found that its substantive function is represented through Purpose Applicability, while its communication-related function is represented through Intelligibility and applicable Quality Outcome Criteria.

It is therefore not retained separately.

Indicator-level conclusion

The seven supported Indicators represent distinct recurring aspects through which realization or non-realization of the four Factors can be determined.

The reduction from the initial ten candidate Indicators to seven was not based upon a preferred number.

It resulted from the Distinction and Absorption Tests.

No additional universal Indicator was supported by the subsequent Missing-Function Review.

16.3 Relationships Among Factors and Indicators

The supported structure can be represented as follows:

QUALITY CLAIM

Intended Function

↓

Function Realization

↓

Quality Factors

↓

Quality Indicators

↓

applicable Quality Outcome Criteria

Factor 1 — Support

↓

1.1 Substantive Support

1.2 Preservation of Material Relationships

Factor 2 — Material Sufficiency

↓

2.1 Material Information Sufficiency

Factor 3 — Applicability

↓

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

↓

4.1 Intelligibility

The hierarchy should not be interpreted as four isolated pathways.

The Factors and Indicators interact.

A single condition may affect more than one Indicator where different functions are materially affected.

For example, omission of material Uncertainty may affect Material Information Sufficiency and may also affect Substantive Support where the resulting Claim communicates greater certainty than the Findings support.

Interaction does not eliminate distinction.

The supported Factors and Indicators remain Non-Substitutable.

One does not perform the determination function of another merely because both may be affected by the same condition.

They are also Non-Compensable in the sense established in Section 10.

Strength in one Factor or Indicator does not, by itself, compensate for material non-realization of another necessary dimension.

This does not mean that every deficiency is a Critical Condition or that every deficiency supports a Negative Conclusion.

Materiality, applicable Quality Outcome Criteria, Critical Conditions, Evidence, Evidence Quality, Uncertainty, and Synthesis remain necessary to determine what Conclusion is supported.

Supporting methodological concepts

The research also confirms that several concepts essential to Claim Quality Determination should not be converted into additional Factors or Indicators merely because they are important.

These include:

- Evidence;
- Evidence Quality;
- Uncertainty;
- Materiality;
- Traceability;
- Applicable Basis;
- Quality Outcome Criteria;
- Boundary;
- Interfaces; and
- Critical Conditions.

Their functions remain necessary.

Their classification remains different.

Attribution

Attribution also remains necessary because a Quality Claim is an attributable communication by a claimant.

The research does not support Attribution as a separate universal Factor or Indicator.

Where claimant identity, role, authority, or other attribution-related information is material, its treatment should be established through the applicable Factor, Quality Outcome Criteria, Traceability requirements, or Applicable Basis.

16.4 Limits of the Present Justification

The present research supports the proposed four-Factor and seven-Indicator structure at the current WQI Methodological Resolution.

Several limits should nevertheless be stated explicitly.

The cross-context and cross-domain testing performed in this research is methodological rather than an empirical validation study based on a statistically representative corpus of Quality Claims. Its result

supports the proposed structure at the present WQI Methodological Resolution but does not establish universal empirical completeness.

The research does not establish universal Quality Outcome Criteria

The Factors and Indicators identify what dimensions and aspects of Claim Function Realization should be examined.

They do not establish identical criteria for every Quality Claim.

Quality Outcome Criteria may vary with the Claim's specific Intended Function, recipient, purpose, Context, Applicable Basis, and other applicable conditions.

The research does not establish a universal scoring system

No universal numerical weights, point values, averaging method, pass/fail percentage, or composite Claim Quality score is established.

Context-specific quantitative methods may be used where justified by the Applicable Basis, but they should not be treated as universal properties of the Claim Quality structure.

The research does not determine the Quality of any particular Claim

The article develops and justifies a structure for Quality Determination.

Application to an individual Claim requires applicable Evidence, Evidence Quality, Quality Outcome Criteria, Materiality, consideration of Uncertainty, and the other methodological elements necessary for that determination.

The research does not redetermine the original Quality Object

Determination of Claim Quality concerns the Claim as a separate Quality Object.

It does not replace or repeat the Quality Determination through which Findings concerning the original Quality Object were established.

The research does not make the structure permanently closed

The four Factors and seven Indicators are supported as necessary and sufficiently complete at the present Methodological Resolution.

The research does not establish the Claim Quality Standard — Core

This distinction is particularly important.

The present article establishes the research and justification for a proposed common structure of Claim Quality Factors and Indicators.

A Claim Quality Standard — Core would perform a different function.

It would convert the supported methodological structure into controlled requirements for determining Claim Quality.

Development of that Core therefore requires a separate step.

The research article should remain available as the methodological basis explaining why the Factors and Indicators were selected, why alternative classifications were not retained, how the structure was tested, and under what conditions later revision may be justified.

Section Conclusion

The research supports, at the present WQI Methodological Resolution, four Quality Factors and seven Quality Indicators for Quality Claims as a class of Quality Objects:

Support

- Substantive Support
- Preservation of Material Relationships

Material Sufficiency

- Material Information Sufficiency

Applicability

- Recipient Applicability
- Purpose Applicability
- Context Applicability

Communicative Realization

- Intelligibility

The structure is functionally derived, reduced through distinction and absorption testing, tested against recurring Failure Modes, examined across materially different Contexts and domains, subjected to Missing-Function Review, and retained subject to controlled revision.

This provides the methodological basis for the next step: determining what the research supports for development of a Claim Quality Standard — Core.

17. Implications for the Claim Quality Standard — Core

The present research provides a methodological basis for subsequent development of a Claim Quality Standard — Core.

It does not itself establish that Core.

This distinction is necessary because the two publications perform different functions.

The present article records the derivation, testing, justification, reduction, and limits of the proposed Claim Quality structure.

A Claim Quality Standard — Core would use the supported structure to establish controlled common requirements for determining the Quality of Quality Claims.

The transition from research to Core should therefore preserve the results of the research without transferring into the Core all of the explanatory reasoning through which those results were reached.

The research supports a common structure of four Quality Factors and seven Quality Indicators:

Factor 1 — Support

1.1 Substantive Support

1.2 Preservation of Material Relationships

Factor 2 — Material Sufficiency

2.1 Material Information Sufficiency

Factor 3 — Applicability

3.1 Recipient Applicability

3.2 Purpose Applicability

3.3 Context Applicability

Factor 4 — Communicative Realization

4.1 Intelligibility

These Factors and Indicators provide the supported starting structure for development of the Core.

17.1 What the Research Supports for the Core

The research supports carrying the four Quality Factors and seven Quality Indicators into development of the Claim Quality Standard — Core as the common structure for determining Claim Quality.

The Core should preserve the functional distinctions established by the research.

Support

The Core should require determination of whether the Claim remains supportable by what has been established through the applicable Quality Determination.

This should include examination of:

- Substantive Support; and
- Preservation of Material Relationships.

The Core should preserve the distinction between support of individual substantive meaning and preservation of relationships necessary to prevent distortion of the determined basis.

Material Sufficiency

The Core should require determination of whether information material to realization of the Claim's Intended Function is provided.

This should be addressed through:

- Material Information Sufficiency.

The requirement should not be converted into a universal demand for maximum information or a fixed list of information applicable to every Claim.

Materiality remains necessary to determine what information must be communicated or made appropriately accessible in a particular application.

Applicability

The Core should require determination of whether the Claim is suitable for:

- its intended recipient;
- its intended purpose or specific Intended Function; and
- its Context.

These functions should remain separately visible through:

- Recipient Applicability;
- Purpose Applicability; and
- Context Applicability.

The research does not support collapsing these three Indicators into one general requirement for relevance or suitability.

Communicative Realization

The Core should require determination of whether the material meaning of the Claim can reasonably be understood by its intended recipient.

This should be addressed through:

- Intelligibility.

The Core should establish the function to be realized without prescribing one universal communication form, writing style, terminology, language, or level of detail for all Quality Claims.

Relationship to the general Intended Function

The Factors and Indicators should remain connected to the general Intended Function of a Quality Claim:

At the general level, the Intended Function of a Quality Claim is to provide its recipient with a supportable and materially sufficient communication of what has been established about the Quality State of the original Quality Object, for the purpose and within the Context for which the Claim is made.

The Core should therefore not treat the Factors and Indicators as an independent checklist detached from Function Realization.

They are the supported structure through which realization or non-realization of the Claim's Intended Function is determined.

Quality Outcome Criteria

The research supports the use of applicable Quality Outcome Criteria applied in relation to the Factors and Indicators.

The Core may establish common Quality Outcome Criteria where the research and later Core development demonstrate that such criteria are invariant across Quality Claims.

Where criteria depend upon a particular recipient, purpose, Context, domain, Applicable Basis, or type of Claim, they should not be presented as universal merely for the sake of completeness.

The relationship should remain:

Intended Function

↓

Quality Factors

↓

Quality Indicators

↓

applicable Quality Outcome Criteria

Supporting methodological concepts

The Core should also preserve the methodological roles of concepts necessary to responsible Quality Determination without converting them automatically into additional Factors or Indicators.

These include, as applicable:

- Evidence;
- Evidence Quality;
- Uncertainty;
- Materiality;
- Traceability;
- Applicable Basis;
- Boundary;
- Interfaces; and
- Critical Conditions.

Their roles should be incorporated where necessary to make the Core operational while preserving the classifications established in the present research.

Conclusion logic

Determination of Claim Quality should remain subject to applicable WQI conclusion logic.

Failure to establish a Positive Conclusion is not equivalent to establishing a Negative Conclusion.

Insufficient Evidence, inadequate Evidence Quality, an Evidence gap, or unresolved Uncertainty should not be converted automatically into a Negative determination of Claim Quality.

The Core should preserve the distinction among:

- Positive Conclusion;
- Conditionally Positive Conclusion;

- Negative Conclusion; and
- Refusal to Express a Conclusion.

Refusal should remain separate from the substantive Conclusion forms.

Critical Conditions and Non-Compensability

The Core should preserve the possibility that a Critical Condition may arise within any Factor or Indicator.

It should not assume that all deficiencies have equal significance.

The Core should also preserve Non-Compensability and Non-Substitutability.

Strength in one Factor or Indicator should not automatically compensate for material non-realization of another necessary dimension.

No universal weighting, averaging, or composite scoring system is supported by the present research.

17.2 What Remains Context-Specific

A common Core should establish what remains invariant across Quality Claims.

It should not attempt to make every application identical.

The research identifies substantial matters that may vary legitimately across applications.

Specific Intended Function

The general Intended Function applies to Quality Claims as a class.

A particular Claim may have a more specific Intended Function.

That specific function may affect:

- what information is material;
- which Quality Outcome Criteria apply;
- what communication form is suitable;
- what Evidence is necessary; and
- what Critical Conditions may arise.

The Core should therefore permit specific Intended Functions without allowing them to expand what the applicable Findings support.

Recipient

Recipients may differ substantially in knowledge, authority, responsibilities, information needs, and intended use.

The Core should establish Recipient Applicability as a common Indicator.

It should not establish one universal recipient profile.

Purpose

Different Claims may support different legitimate purposes.

The Core should preserve Purpose Applicability while allowing the Applicable Basis and application-specific Quality Outcome Criteria to establish what suitability requires for a particular purpose.

Context

Context may include circumstances of use, timing, dependencies, institutional conditions, communication environment, and other relevant matters.

The Core should preserve Context Applicability without attempting to enumerate every possible Contextual condition.

Applicable Basis

The Applicable Basis may differ among Claims and domains.

It may include, as applicable:

- laws;
- regulations;
- standards;
- contractual requirements;
- professional requirements;
- accepted methods;
- organizational requirements; and
- other authoritative or justified bases.

The Core should establish the role of the Applicable Basis without replacing those application-specific sources.

Reference Layer

The future Core should preserve the distinction between Applicable Basis and Reference Layer. Applicable Basis establishes or justifies what applies to the Quality Claim and its determination. Reference Layer identifies the sources used to establish or justify applicable Quality Outcome Criteria. The particular Reference Layer may vary by Claim type, recipient, purpose, Context, and application.

Evidence and Evidence Quality requirements

The Evidence necessary to determine Claim Quality may differ according to the Claim, its Boundary and Interfaces, the applicable Quality Outcome Criteria, and the circumstances of the determination.

Evidence Quality requirements may likewise vary.

The Core should preserve the requirement for adequate Evidence and Evidence Quality without assuming that the same Evidence is appropriate for every Claim.

Material information

The Core should not prescribe a universal list of material information for all Claims.

Materiality depends upon the significance of a Finding, condition, relationship, limitation, or other matter to the Synthesis, Conclusion, or information necessary for the Claim to realize its Intended Function for its recipient.

Application-specific requirements may therefore identify different material information while using the same Material Information Sufficiency Indicator.

Communication requirements

The Core should establish Intelligibility as the common Indicator.

Specific requirements concerning:

- terminology;
- language;
- format;
- organization;
- level of detail;
- accessibility;
- presentation; or
- communication medium

may vary according to recipient, purpose, Context, Applicable Basis, and communication method.

These should not become universal requirements unless later research demonstrates that a particular function is invariant across Quality Claims.

Traceability requirements

Traceability remains necessary to follow and understand material relationships connecting a Quality Determination and, where applicable, a Quality Claim to their relevant methodological and evidentiary basis.

The extent and form of Traceability required may differ across applications.

The Core should preserve the function without assuming one universal documentation system.

Critical Conditions

Some Critical Conditions may be common.

Others may arise from the Applicable Basis or the circumstances of a particular Claim.

The Core should therefore establish the methodological role of Critical Conditions without attempting to predetermine every condition that may become critical.

17.3 Separation of the Justification Article from the Core Standard

The research and justification article and the Claim Quality Standard — Core should remain separate publications.

The separation is functional rather than merely editorial.

Function of the research and justification article

The present article explains:

- why a Quality Claim can be treated as a Quality Object;
- how the general Intended Function provides the starting point for derivation;
- what research inputs were inherited from FTA16;
- how candidate dimensions were identified;
- how candidate Factors and Indicators were derived;
- why some candidate elements were retained;
- why others were combined, absorbed, or reclassified;
- how the structure was tested against Failure Modes;
- how interaction, Critical Conditions, Non-Compensability, and Non-Substitutability were treated;
- how the structure was stress-tested across Contexts and domains;
- why Evidence Quality, Uncertainty, Materiality, and Traceability were not converted into additional Factors or Indicators;
- how the Missing-Function Review was performed; and
- under what conditions later controlled revision may be justified.

These functions require explanation and research reasoning.

Function of the Core

The Core should perform a different function.

It should establish the common controlled requirements necessary to determine Claim Quality using the supported Factor and Indicator structure.

Its principal purpose should therefore be application rather than reproduction of the full derivation history.

The Core may refer to the present article as its methodological justification without repeating the entire research process.

Why separation matters

Combining the full justification with the Core would create several problems.

First, explanatory research material could obscure the requirements intended for application.

Second, later refinement of explanatory reasoning could appear to change requirements even where the Core remains unchanged.

Third, Context-specific applications would become unnecessarily dependent upon a long derivation narrative.

Fourth, the distinction between methodological justification and normative requirements would become less clear.

Separate publications allow:

- the justification to remain available and traceable;
- the Core to remain focused;
- revisions to each document to be controlled according to its own function; and
- later Context-specific applications to use the Core without reproducing the full research article.

Relationship between the publications

The relationship can therefore be represented as:

FTA16

From Quality Conditions to Claims

↓

establishes the Quality Claim as a Quality Object and the general Intended Function

Research and Justification of Quality Claim Factors and Indicators

↓

derives and justifies the common Factor and Indicator structure

Claim Quality Standard — Core

↓

establishes common requirements using the supported structure

Context-specific applications, where needed

↓

establish application-specific Quality Outcome Criteria, Applicable Basis, Evidence requirements, Critical Conditions, and other necessary requirements

Controlled continuity

The Core should remain traceable to the present research.

If later controlled revision changes the supported Factor or Indicator structure, the effect on the Core should be considered explicitly rather than introduced indirectly.

Conversely, revision of a Context-specific application should not be treated automatically as evidence that the common Core or its research basis requires revision.

Each level should be revised according to the function it performs.

Section Conclusion

The present research supports development of a Claim Quality Standard — Core based upon four Quality Factors and seven Quality Indicators:

Support

- Substantive Support
- Preservation of Material Relationships

Material Sufficiency

- Material Information Sufficiency

Applicability

- Recipient Applicability
- Purpose Applicability
- Context Applicability

Communicative Realization

- Intelligibility

The Core should preserve these functional distinctions, connect them to the general Intended Function of the Quality Claim, and establish controlled common requirements for their application.

It should also preserve the roles of Evidence, Evidence Quality, Uncertainty, Materiality, Traceability, Applicable Basis, Quality Outcome Criteria, Boundary, Interfaces, Critical Conditions, and applicable WQI conclusion logic without unnecessarily converting those concepts into additional Factors or Indicators.

Application-specific requirements should remain application-specific unless later research demonstrates that they represent invariant functions of Quality Claims as a class.

The research and justification article should remain separate from the Core so that the methodological basis and the controlled requirements retain distinct and traceable functions.

With this separation, the present research provides the justified methodological basis for subsequent development of the Claim Quality Standard — Core.

References

- [1] Whole Quality Institute (WQI). WQI_FTA16 — From Quality Conditions to Claims: The Claim as a Quality Object. Foundational Article 16, First Edition, 2026.
- [2] Whole Quality Institute (WQI). WQI_VOC1 — Whole Quality Root Vocabulary Standard. Revision 2.5, October 2026.
- [3] Whole Quality Institute (WQI). WQI_EQJ1 — Justification of the WQI Core Evidence Quality Factors and Indicators. Article, September 2026.

Copyright and Use Notice

© 2026 Whole Quality Institute (WQI). All rights reserved.

This document is a WQI methodological research and justification article prepared for development, review, research, education, and standards-development purposes. No part of this document may be represented as an independently issued WQI standard unless formally designated and published as such by WQI.

References to WQI, WQI_VOC1, FTA16, Quality Factors, Quality Indicators, Quality Outcome Criteria, and related Whole Quality terminology are used within the WQI methodological framework. Cross-context and cross-domain analysis is included to derive and stress-test the proposed Claim Quality structure; it does not establish legal, regulatory, certification, contractual, or domain-specific requirements.

Where this article is revised, the revision should preserve Traceability to FTA16, WQI_VOC1, the future Claim Quality Standard — Core where applicable, and the methodological basis supporting the derivation and testing presented here.