

### Technology Position: Preliminary Gap Analysis

#### Objective

The objective of the session is to gather the Board's input on a preliminary gap analysis of selected foundational International Standards on Audit (ISAs) and International Standards on Quality Management (ISQMs). The preliminary gap analysis is meant to identify technology-related enhancement opportunities in line with the IAASB's Technology Position Statement (the Statement) as a means of informing possible Work Plan decisions and decisions at the project level.

Specifically, input is sought from the Board on the approach taken in performing, and the outcome of, the preliminary gap analysis, including the usefulness of the insights that emerge as reflected in the identified enhancement opportunities.

#### Introduction

1. At its June 2024 meeting, the Board expressed its support for the progress made in developing the IAASB's Technology Position, including the proposed Statement (see [Agenda Item 5](#) of the June 2024 IAASB meeting). Beyond providing input on revisions to the Statement and other components of the IAASB's Technology Position, the Board directed Staff to begin work on the deliverables outlined in Component 2 of the Technology Position. This starts with a gap analysis of ISQM 1<sup>1</sup>, ISA 200<sup>2</sup>, ISA 220<sup>3</sup> (Revised), ISA 330<sup>4</sup>, and ISA 500<sup>5</sup> (in-scope standards).
2. Following the Board's direction, Staff has prepared the "preliminary gap analysis" contained in this agenda paper. This analysis outlines the approach taken to assess the in-scope standards and identifies proposed technology-related enhancements derived from the commitment and guiding principles set forth in the latest version of the Statement.<sup>6</sup>
3. The gap analysis presented here is labeled as "preliminary" to highlight that this is the first step in the Board's journey to operationalize the Statement. This analysis, along with other deliverables from the IAASB's Technology Position initiative, will evolve based on feedback from the Board and IAASB stakeholders.

#### Approach to the Preliminary Gap Analysis

4. The gap analysis involved a structured consideration of the objectives, definitions, requirements, and related application material of the in-scope standards to identify opportunities for enhancement or questions for further consideration as a consequence of acting on the commitments and guiding principles outlined in the most current version of the Statement.

<sup>1</sup> ISQM 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements*

<sup>2</sup> ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*

<sup>3</sup> ISA 220 (Revised), *Quality Management for an Audit of Financial Statements*

<sup>4</sup> ISA 330, *The Auditor's Responses to Assessed Risks*

<sup>5</sup> ISA 500, *Audit Evidence*

<sup>6</sup> The most current version of the Statement is contained in the version of the proposed Technology Position that has been proposed for "clearance" at the Board's upcoming September 2024 IAASB meeting (see [Agenda Item 4-A](#)).

5. Further to the Statement's commitment, the gap analysis sought to separately identify opportunities to actively facilitate and, where appropriate, encourage the use of technology:
  - (a) In performing engagements, and
  - (b) In designing, implementing and operating systems of quality management (SOQMs).
6. As alluded to in paragraph 3, this preliminary gap analysis is not intended to be a comprehensive identification of enhancement opportunities in the in-scope standards. It is an early attempt at a gap analysis intended to invite a discussion by the Board. It also is not designed to present proposed actions that address the enhancement opportunities. Actions will be formulated and executed at the project level based on the insights that emerge out of the gap analysis and the other deliverables of the IAASB's Technology Position.
7. For example, this preliminary gap analysis has identified opportunities to enhance ISA 500 and ISA 330. The Audit Evidence and Risk Response project team is responsible for considering the identified opportunities in this and future iterations of the gap analysis. That includes determining whether and how to act on the identified opportunities, including how the gap analysis informs their project proposal that will be presented to the Board for approval at the December 2024 IAASB meeting.
8. Similarly, where a proposed enhancement opportunity is better addressed outside of standard-setting (i.e., the IAASB's other related activities) a project team will be assigned the task of responding to the opportunity including, for example, the development of non-authoritative guidance by the Technology Consultation Group further to the protocols described in the IAASB [Framework for Activities](#).
9. Staff will continue to refine this preliminary gap analysis, based on feedback from the Board at the upcoming IAASB meeting in September 2024, for further consideration by the Board at the December 2024 IAASB meeting. For example, the next iteration of the analysis could integrate a consideration of the following:
  - (a) Technology that is, or is expected to be, used by firms, practitioners, and reporting entities.
  - (b) Regulatory expectations, including common inspection findings by audit regulators associated with the use of technology in audit engagements.
  - (c) Lessons learned from other industries, including, for example, prudential regulatory standards on model development and usage for banks (for more information, refer to theme 7 in **Agenda Item 5** of the June 2024 IAASB meeting).

## Summary of the Outcome of the Preliminary Gap Analysis

10. This summary section contains the following:
  - (a) Key insights relating to ordering of current and future projects
  - (b) Summary of enhancement opportunities identified
11. The [Appendix](#) includes the details related to:
  - (a) Rationale for selecting the in-scope standards

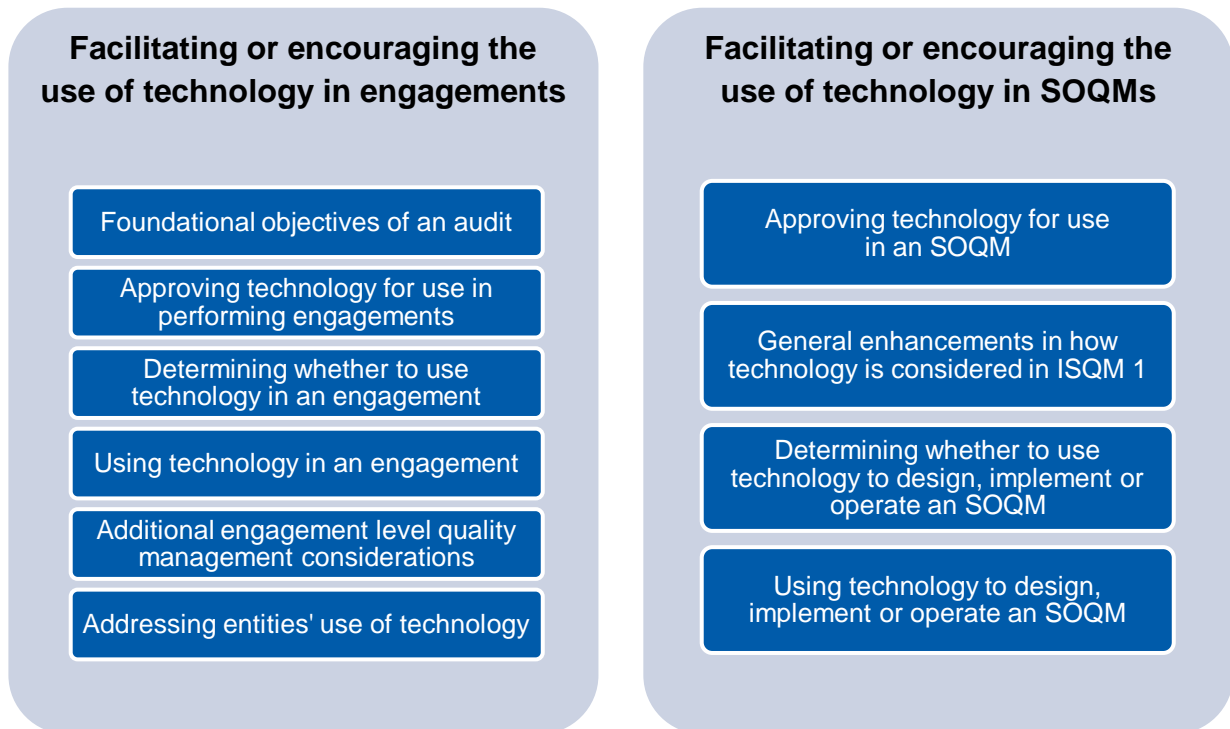
- (b) The analysis performed
- (c) Results of the analysis, including identified opportunities to enhance in-scope standards

### Key Insights Relating to Ordering of Current and Future Projects

12. Based on the preliminary gap analysis undertaken, Staff believe the analysis supports the following two key insights regarding the ordering of projects:
- (a) While the preliminary analysis does not indicate that in-scope standards are fundamentally flawed insofar as technology-related considerations, there are opportunities to enhance those standards, including adding specificity where appropriate, to better align with the commitment and guiding principles of the Statement.
  - (b) Any project that is endorsed by the Board to enhance quality management, for example, to augment the principles in ISQM 1 pertaining to technological resources, would not need to happen before technology-related enhancements are explored for the in-scope ISAs, including ISA 500 and ISA 330 by the Audit Evidence and Risk Response project team.

### Summary of Enhancement Opportunities Identified

13. The identified opportunities for technology-related enhancements that emerge from acting on the commitment described in the Statement (i.e., to facilitate and, where appropriate, encourage the use of technology in both engagements and SOQMs) have been grouped by theme. The themes are outlined in the table below.



14. Summarized below are the areas of focus in each theme. The [Appendix](#) includes, per theme, the detailed enhancement opportunities in each of the areas of focus.

**Summary Table A: Facilitating or encouraging the use of technology in performing engagements**

Themes	Areas of Focus where Enhancement Opportunities Were Identified (See the <b>Appendix</b> for the detailed enhancement opportunities in each area of focus)
1. Foundational objectives of an audit	<ul style="list-style-type: none"> <li>A. Obtaining reasonable assurance with technology</li> <li>B. Inherent limitations of an audit</li> </ul>
2. Approving technology for use in performing engagements	<ul style="list-style-type: none"> <li>A. Approval of technological resources for use in engagements at the firm level</li> <li>B. Approval of technological resources at the engagement level when it is not firm-approved nor prohibited by firm policies or procedures</li> </ul>
3. Determining whether to use technology in an engagement	<ul style="list-style-type: none"> <li>A. Firm policies or procedures requiring the use of technology in performing engagements</li> <li>B. The sufficiency and appropriateness of technological resources to achieve the objectives of the engagement</li> <li>C. The need for technology-enabled procedures to obtain sufficient appropriate audit evidence</li> </ul>
4. Using technology in an engagement	<ul style="list-style-type: none"> <li>A. Firm policies or procedures addressing how technological resources are to be used in engagements</li> <li>B. The role of the auditor in determining that the technological resource(s) is appropriate for its intended use in the circumstances</li> <li>C. The auditor's evaluation of (1) The relevance and reliability of information intended to be used as audit evidence obtained to perform technology-enabled procedures; and (2) Audit evidence obtained from performing technology-enabled procedures</li> <li>D. The use of technology in designing and performing test of controls</li> <li>E. The use of technology in designing and performing substantive procedures</li> <li>F. Documentation requirements when using technology</li> </ul>

Themes	Areas of Focus where Enhancement Opportunities Were Identified (See the <b>Appendix</b> for the detailed enhancement opportunities in each area of focus)
5. Additional engagement level quality management considerations	<p>A. Specificity of quality management considerations relating to the use of technology in performing an engagement</p> <p>B. Technology as a resource that can contribute to maintaining and achieving quality on audits</p>
6. Addressing entities' use of technology	<p>A. The impact of the entity's use of technology on the design and performance of further audit procedures<sup>7</sup></p>

**Summary Table B: Facilitating or encouraging the use of technology in SOQMs**

Theme	Areas of Focus where Enhancement Opportunities Were Identified (See the <b>Appendix</b> for the detailed enhancement opportunities in each area of focus)
1. Approving technology for use in a SOQM	<p>A. The firm's approval of technology for use in its SOQM</p>
2. General enhancements in how technology is considered in ISQM 1	<p>A. A SOQM that is responsive to the technological environment</p> <p>B. The prominence of technological resources as a component of a SOQM</p>
3. Determining whether to use technology to design, implement or operate a SOQM	<p>A. Areas of a firm's SOQM which may benefit from using technology</p>
4. Using technology to design, implement or operate a SOQM	<p>A. Operational responsibility for specific aspects of the SOQM</p> <p>B. Specificity of firm policies or procedures</p>

<sup>7</sup> There are also opportunities, under this theme, to clarify how an entity's use of technology impacts the auditor's design of risk assessment procedures and the auditor's risk assessment at the engagement level. However, as a detailed evaluation of ISA 315 (Revised 2019) was not in scope of this analysis, these have been omitted from the detailed analysis.

### **Matters for IAASB Consideration**

The Board is asked:

- (a) Whether the approach taken to this preliminary analysis, including its outcome, is appropriate to continue to pursue as a means that would inform possible Work Plan decisions or decisions at the project level in operationalizing the proposed Technology Position Statement?
- (b) Whether there are any other matters to be considered in relation to ISA 330 and ISA 500 to inform the project proposal for the Audit Evidence and Risk Response project, which is planned for approval in December 2024?

### **Way Forward**

- 15. Staff will consider the Board's observations and feedback on the preliminary gap analysis, including any further refinements necessary, and use it to inform future deliverables relating to operationalizing the Statement. Furthermore, future deliverables will continue to be informed through information-gathering and ongoing outreach to stakeholders.
- 16. Staff will engage in ongoing coordination with the Audit Evidence and Risk Response project team to ensure opportunities identified and questions asked within this paper are considered, as appropriate, as part of the Audit Evidence and Risk Response Project Proposal, which is planned for approval at the December 2024 IAASB meeting.

## Appendix

### Detailed Analysis of Selected Foundational Standards

#### Purpose of appendix

This Appendix contains details supporting the summary presented, including:

- a more detailed explanation of the rationale for focusing the preliminary analysis on ISQM 1, ISA 200, ISA 220 (Revised), ISA 330 and ISA 500,
- a procedural description of the approach taken to the analysis, and
- a detailed description of the enhancement opportunities identified under each theme.

#### Rationale for Priority Standards

1. The five in-scope standards were prioritized by the Board (based on direction provided at the June 2024 IAASB meeting) because of the significance of these foundational standards in a rapidly evolving technological landscape. Specifically:
  - (a) ISQM 1 and ISA 220 (Revised) are foundational quality management standards at the firm and engagement levels, respectively. The Board is interested in exploring whether the principles of those standards remain resilient to the adoption and usage of more sophisticated technology in engagements and SOQMs since these standards became effective.
  - (b) ISA 200 plays a critical role in establishing the framework for conducting an audit, including the overall objectives of an auditor. The standard was last revised in 2009, and the Board is interested in understanding whether applying the Statement reveals opportunities to modernize it.
  - (c) ISA 500 and ISA 330 are subject to revision, partly due to stakeholder demands for modernization to address technology-related matters. A project proposal, scheduled for approval in December 2024, is being developed to revise these standards concurrently, with insights from the gap analysis informing the proposal.
2. While Staff considered including ISA 315 (Revised 2019)<sup>8</sup> in the preliminary gap analysis (primarily because of the interrelationship between ISA 330 and ISA 315 (Revised 2019)), the decision was to exclude it because it only became effective relatively recently and has not yet undergone a post-implementation review.<sup>9</sup>
3. In including ISA 500 in the analysis, Staff also took into account the significant work performed by the Audit Evidence Task Force in proposing technology-focused revisions to the [Exposure Draft of Proposed ISA 500 \(Revised\), Audit Evidence, and Proposed Conforming and Consequential Amendments to Other ISAs \(ED-500\)](#). Specifically, this preliminary gap analysis considered both

<sup>8</sup> ISA 315 (2019), *Identifying and Assessing the Risks of Material Misstatement*

<sup>9</sup> ISA 315 (Revised 2019) is scheduled for a post-implementation review commencing in 2026 (see the IAASB's [Strategy and Work Plan for 2024-2027](#))

extant ISA 500 and the version of ED-500 presented to the IAASB in March 2024 as [Agenda Item 5-A](#).<sup>10</sup>

### The Analysis Performed

4. The preliminary gap analysis of the five in-scope standards was guided by the Statement's commitment and guiding principles. The analysis involved a structured review of the objectives, definitions, and requirements of each of the five in-scope standards. Application and Other Explanatory Material was also reviewed when opportunities or questions were identified in the associated requirement.
5. With reference to the Statement's guiding principles, it became apparent that some guiding principles had more prominence than others at informing the identification of opportunities for technology-related enhancements to in-scope standards. Specifically, the following guiding principles of the Statement were the most instrumental:
  - (a) **Principle 1:** Embracing Technology-Driven Innovations
  - (b) **Principle 2:** Removing Barriers in the Standards, Real and Perceived, to the Use of Technology by Practitioners and Firms
  - (c) **Principle 3:** Introducing Requirements and Application Material Relating to the Use of Technology
  - (d) **Principle 4:** Addressing the Impact of Technology Used by Entities, and
  - (e) **Principle 6:** Ensuring Scalability and Proportionality.
6. After initially annotating each in-scope standard for identified opportunities, Staff identified broad themes that linked the identified opportunities together. Reflecting the interrelated nature of the ISAs, and the requirement that the ISAs be considered as a collective whole, Staff found that in doing so:
  - (a) Some enhancement opportunities identified relate specifically to engagement teams' use of technology in engagements (addressing quality management and engagement performance aspects), while others relate to technology used by firms as part of their SOQMs
  - (b) Some enhancement opportunities relate to more than one standard and an opportunity prompted by the subject matter of one standard would not necessarily have to be addressed in that standard, and
  - (c) Certain enhancement opportunities could be addressed outside of standard-setting, including development of non-authoritative materials.
7. As a result, rather than presenting the opportunities by ISA or ISQM, staff collated them by identified theme related to either the use of technology in engagements or in SOQMs as inherent in the commitment set out in the Statement.

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<sup>10</sup> The March 2024 version of ED-500 is referred to as the "pre-finalization holding package" of ED-500. It reflects the result of the IAASB's cumulative work effort including deliberations and decisions until March 2024, based on feedback received from stakeholders on ED-500.



## Results of the Analysis

8. The two tables that follow describe the enhancement opportunities identified:
  - (a) **Table A:** Shows opportunities for the IAASB to actively facilitate and, where appropriate, encourage the use of technology in engagements, and
  - (b) **Table B:** Shows opportunities for the IAASB to actively facilitate and, where appropriate, encourage the use of technology in SOQMs.
9. The column denoted “relevant standards” primarily includes references to one or more of the five in-scope standards. Where an out-of-scope standard contained an interrelated requirement, that standard was analyzed in a more limited way (i.e., only related to the interrelated material) and has been referred to with the use of an asterisk (\*).<sup>11</sup> Additionally, as alluded to in paragraph 6 above, not all the opportunities identified necessarily require standard-setting actions and could instead be addressed through other related activities, including developing non-authoritative materials.

### A Note on Terminology

10. In addition to the enhancement opportunities outlined in two tables below, there is an opportunity to enhance the terminology the IAASB uses when referring to technology throughout its standards, ensuring that the language used throughout the ISAs and ISQMs is consistent and clear.

11. The analysis shows that currently:
  - (a) The term ‘Computer Assisted Audit Techniques’ (CAATs) was largely replaced with the term ‘Automated Tools and Techniques’ (ATT) upon issuing ISA 315 (Revised 2019). A suggested description of ATT is included in the holding package of ED-500, but it is not a defined term.<sup>12</sup>
  - (b) The term ‘technological resources’ as defined in ISQM 1, captures all forms of technology an auditor may use in an engagement – whether in performing procedures or in documenting their results or filing their working papers or in any other way – or that a firm may use in designing, implementing or operating their SOQM. The term has not been widely used in other standards.
  - (c) The term ‘technological tools’ appears in application material of ISA 220 (Revised) but is not described, and not otherwise used.
12. For consistency, the tables that follow use the following terms:

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<sup>11</sup> These standards include ISA 210, *Agreeing the Terms of Audit Engagements*; ISA 230, *Audit Documentation*; ISA 300, *Planning an Audit of Financial Statements*; ISA 520, *Analytical Procedures*; ISA 530, *Audit Sampling*

<sup>12</sup> Analyzing prior stakeholder feedback suggests some confusion about the term ATT, as it refers to both ‘tools’ (usually understood to be an IT application or [part of] the IT infrastructure) and ‘techniques’ (being ways of performing an activity) and refers to them as ‘automated’ (which may suggest an absence of human involvement). The latter may have the unintended consequence of implying that ATT only refers to sophisticated solutions based on emerging technologies like artificial intelligence, rather than including any technique requiring technology of any level of sophistication. Further, application material in ISA 330 still suggests that *‘the use of CAATs’* is itself intended to *be* a procedure, rather than describing the way a procedure is carried out.

(a) **‘Technological resources,’ or ‘technology’**

- (i) ‘Technological resources’ is used as described in ISQM 1, to include IT applications, supporting IT infrastructure and IT processes to the extent necessary for the applications to function, that are used in the performance of engagements, or in the design, implementation and operation of a SOQM.
- (ii) Thus, ‘technological resources’ includes both the IT applications used at the engagement level (such as applications with embedded libraries of work programs or audit procedures in which to conduct engagements and file engagement documentation), or applications used in the performance of audit procedures themselves (including both simpler applications, capable of organizing datasets and presenting them in visual formats, and more sophisticated applications that use artificial intelligence to ‘read’ and ‘document’ identifying characteristics of documents stored electronically). Where the context does not provide sufficient clarity about whether either or both of those applications are intended to be captured, clarification is added.
- (iii) Importantly, ‘technological resources’ refers to the underlying resource, or tool; not to the procedure performed with it. Additionally, the term ‘technology’ is used as shorthand for ‘technological resources’.

(b) **‘Technology-enabled procedures’:**

- (i) This term, taken from one of the guiding principles of the Statement, is used here as shorthand for “procedures performed during the conduct of an engagement, that use a technological resource”<sup>13</sup>, regardless of the level of sophistication of the application or infrastructure.
- (ii) Thus, it includes a range of activities, such as the use of a spreadsheet to visualize trends in a dataset; the use of a computerized random-number generator to determine which items to select from a population as a sample from that population; the use of an IT application that can generate graphs or visualizations of data in one-click; or the use of an AI-based platform to evaluate data inputs against criteria and flag unusual items for inspection; among others. In these examples, end-user IT applications like spreadsheets, IT applications that generate random numbers or generate visualizations with limited ability for the auditor to change parameters, or AI-based IT applications or platforms, are all considered to be ‘technological resources’, rather than ‘technology-enabled procedures,’ because they are the equipment used by the auditor to perform the procedures.

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<sup>13</sup> Notwithstanding that the term “procedures” may refer to any activity performed by an auditor during an engagement, and that this may include engagement-level activities, the term ‘technology-enabled procedures’ is not intended to include the engagement teams use of IT applications, infrastructure, and processes (e.g. the use of audit software).

**Table A**

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
<b>Theme 1: Foundational objectives of an audit</b>			
<b>Three core questions to contemplate in evaluating the opportunities in Themes 2 to 6 below</b>			
A	Obtaining reasonable assurance	ISA 200 ISA 220 (Revised) ISA 330 ISA 500	<ol style="list-style-type: none"> <li>1. To what extent is the auditor's judgment of what is considered sufficient appropriate audit evidence (i.e., to obtain reasonable assurance that financial statements are free from material misstatement) impacted by the use of technology?)</li> <li>2. Are there conditions under which audit evidence obtained without the use of technology may not provide sufficient appropriate audit evidence for the auditor to draw reasonable conclusions on which to base the auditor's opinion?</li> </ol> <p>These questions are to be interpreted in the context of widely available and cost-effective technological resources to firms (as relevant in a jurisdiction).</p>
B	Inherent limitations of an audit	ISA 200	<ol style="list-style-type: none"> <li>3. Do the inherent limitations of an audit as set out in ISA 200 need further contextualizing given the increased availability and use of technology?</li> </ol> <p>For this question, consider, for example, how the boundary of what a reasonable 'time' or 'cost' limitation of an audit is, is intended to be interpreted in the context of widely available and cost-effective technological resources (as relevant in a jurisdiction).</p>
<b>Theme 2: Approving technology for use in performing engagements</b>			

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
A	Approval of technological resources for use in engagements at the firm level	ISQM 1	<p>ISQM 1 outlines a list of matters that a firm may consider when obtaining, developing, implementing and maintaining technological resources that will be used in the performance of engagements. The list includes a consideration of whether the acquired or developed technology operates as designed and achieves the purpose for which it is intended.</p> <p>Questions have emerged about whether this list is sufficient to capture the increasing complexity of technology available for use in engagements (while retaining the scalability and proportionality of the standard).</p> <p>Enhancement opportunities, among others, may include:</p> <ul style="list-style-type: none"> <li>• Considerations relating to the use of generative AI and other black box technologies (i.e., when the internal working and decision-making processes inherent to the technology are not transparent).</li> <li>• Governance of technological resources, including inventory management of approved technological resources used in engagements, assigning owners to each technology, policies relating to each technology.</li> <li>• Technology validation and testing protocols.</li> <li>• Technology risk appetite and limits.</li> </ul>
B	Approval of technological resources at the engagement level when it is not firm-approved nor prohibited by firm policies or procedures	ISQM 1 ISA 220 (Revised)	<p><b><u>Firm-Level Quality Management</u></b></p> <p>ISQM 1 briefly deals with considerations for situations where a firm may prohibit the use of a particular technology in engagements. It also addresses where a firm allows engagement teams to develop or acquire their own technology for use in engagements as long as the engagement team follows the firm's policies or procedures.</p> <p>Enhancement opportunities, among others, may include:</p> <ul style="list-style-type: none"> <li>• Firm considerations for prohibiting the use of certain types of technologies or specific technologies in engagements.</li> </ul>

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
			<ul style="list-style-type: none"> <li>Considerations for engagement teams before approving a technology for use in an engagement (see 2.A. above).</li> </ul> <p><b><u>Engagement Level Quality Management</u></b></p> <p>How engagement teams might evaluate the appropriateness of technology that has not been firm approved. Among other matters, the following may be relevant:</p> <ul style="list-style-type: none"> <li>Competence and capabilities of those involved in approving technological resources at the engagement team level.</li> <li>Supervision and review of individuals deploying the resource for use.</li> <li>Other procedures or actions to mitigate against the risk that technological resources approved at the engagement level are of a different quality than those approved at the firm level.</li> </ul>
Theme 3: Determining whether to use technology in an engagement			
A	Firm policies or procedures requiring the use of technology in performing engagements	ISQM 1	<p>Being more robust about firm policies or procedures that require the use of certain IT applications in the performance of engagements, or relating to other aspects of the engagement, such as in archiving the engagement file; to achieve the quality objective that appropriate technological resources are obtained or developed, implemented, maintained, and used, to enable the performance of engagements.</p> <p>Additional considerations may include:</p> <ul style="list-style-type: none"> <li>IT applications to be addressed, including risks related to certain types of IT applications used at the engagement level or in performing procedures more broadly.</li> <li>Firm level activities that support the performance of procedures in an engagement, that are part of the firm's SOQM, such as IT applications involved in managing compliance with relevant ethical requirements.</li> </ul>

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
			<ul style="list-style-type: none"> <li>Retaining scalability and proportionality.</li> </ul>
B	The sufficiency and appropriateness of technological resources to achieve the objectives of the engagement	ISA 220 (Revised) ISA 210* ISA 300*	<p>Being more specific about determining the sufficiency and appropriateness of technological resources to perform an engagement. Among other matters, this may include:</p> <ul style="list-style-type: none"> <li>To the extent not already required by the firm's SOQM, the need for technological resources at the engagement level.</li> <li>The need to design and perform technology-enabled procedures to obtain sufficient appropriate audit evidence given the nature and circumstances of the engagement (see also 3.C below).</li> <li>The need to utilize a specialist, or ensuring engagement team members have appropriate training, when utilizing sophisticated technological resources.</li> <li>Implications for engagement acceptance and continuance considerations, and the terms of engagement.</li> <li>The iterative nature of determinations about technological resources, for example, a preliminary determination at the acceptance or continuance stage, and revisiting needs as new information becomes available to the engagement team.</li> <li>Retaining scalability and proportionality.</li> </ul>
C	The need for technology-enabled procedures to obtain sufficient appropriate audit evidence	ISA 220 (Revised) ISA 500 ISA 330	<p>Being more specific about the auditor determining whether technology-enabled procedures are necessary in the circumstances to obtain sufficient appropriate audit evidence (i.e., circumstances may indicate that the use of technology is necessary in designing and performing further audit procedures responsive to the assessed risks of material misstatement).</p> <p>Among other matters, the following may be relevant:</p> <ul style="list-style-type: none"> <li>The types of circumstances or factors that may be indicative of circumstances in which technology-enabled</li> </ul>

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
			<p>procedures are necessary to obtain sufficient appropriate audit evidence.</p> <ul style="list-style-type: none"> <li>• Implications for the sufficiency and appropriateness of technological resources for the engagement (see also 3.B above).</li> <li>• Implications for the direction, supervision and review of audit work.</li> <li>• Retaining scalability and proportionality.</li> </ul> <p>[Note, similar considerations may be applicable in the context of risk assessment procedures, but ISA 315 (Revised 2019) is not part of this analysis]</p>
<b>Theme 4: Using technology in an engagement</b>			
A	Firm policies or procedures addressing how technological resources are to be used in engagements	ISQM 1	<p>Being more robust about firm policies or procedures that set out:</p> <ul style="list-style-type: none"> <li>• How the technological resources for engagements are to be used.</li> <li>• How individuals should interact with an IT application.</li> <li>• The qualifications and training for individuals that utilize technology on an engagement.</li> <li>• The availability of support or assistance (e.g. utilizing a specialist) in using the technological resource.</li> </ul>
B	The role of the auditor in determining that the technological resource(s) is appropriate for its intended use in the circumstances	ISA 500 ISA 330 ISA 220 (Revised) ISA 300*	<ul style="list-style-type: none"> <li>• In the context of the determinations made as contemplated under 3.B and 3.C, above, and the firm's policies or procedures, the auditor's responsibility to determine that a technological resource(s) is appropriate for and is used as intended to achieve the purpose(s) of the procedures.</li> <li>• Other relevant matters include who utilizes a technological resource(s), how a technological resource(s) is applied, and how the results are evaluated.</li> </ul>

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
C	<p>The auditor's evaluation of:</p> <ul style="list-style-type: none"> <li>The relevance and reliability of information intended to be used as audit evidence obtained to perform technology-enabled procedures; and</li> <li>Audit evidence obtained from performing technology-enabled procedures</li> </ul>	<p>ISA 500</p> <p>ISA 330</p>	<ul style="list-style-type: none"> <li>The application of the proposed principles-based framework of attributes to evaluate the reliability of information intended to be used as evidence to information that is used to perform technology-enabled procedures.</li> <li>Implications for the auditor's evaluation above of the nature of the information that is available, and of information that is accessible only through the use of technology (and how this may differ from other information available through manual means).</li> <li>The application of extant principles to evaluating the results of – audit evidence from – technology-enabled procedures. Among other matters, this may include expectations about the results and meeting the intended purpose of the audit procedure(s).</li> <li>Implications for the auditor's evaluations above of the use of emerging or more sophisticated technologies. Relevant matters may include: <ul style="list-style-type: none"> <li>Application of relevant principles of 'model management' at the engagement level (see also 2.A above).</li> <li>Retaining scalability and proportionality, and appropriately 'future proofing' the standards.</li> </ul> </li> <li>Modernize the examples of types of procedures, to include more technology-enabled procedures.</li> </ul>
D	The use of technology in designing and performing test of controls	<p>ISA 330</p> <p>ISA 315 (Revised 2019)*</p>	<p>The implications of the use of technology for obtaining audit evidence from tests of controls. Among other, enhancement opportunities may include:</p> <ul style="list-style-type: none"> <li>How technology may be used to obtain evidence about the operating effectiveness of controls.</li> <li>Whether the use of technology to obtain evidence about the operating effectiveness of controls necessitates new principles or the enhancement of extant principles.</li> </ul>



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#	Area of Focus	Relevant Standards	Enhancement Opportunities
			<ul style="list-style-type: none"> <li>The nature and characteristics of the entity's controls, including the risks addressed by certain controls, that may influence the auditor's determination about whether to use technology to obtain evidence about the operating effectiveness of controls.</li> <li>Retaining scalability and proportionality.</li> </ul>
E	The use of technology in designing and performing substantive procedures	ISA 330 ISA 520* ISA 530*	<p>The implications of the use of technology for obtaining audit evidence from substantive procedures. Enhancement opportunities, among others, may include:</p> <ul style="list-style-type: none"> <li>How technology may be used to obtain evidence from substantive procedures.</li> <li>The objective of substantive procedures, including the categorization of substantive procedures as tests of details and substantive analytical procedures – whether this remains appropriate, and, if so, how technology-enabled procedures, and the nature and extent of evidence that may be obtained from such procedures, are accommodated within these categories.</li> <li>Determinations about the nature, timing and extent of substantive procedures, including whether the use of technology to obtain substantive audit evidence necessitates new principles or the enhancement of extant principles.</li> <li>Retaining scalability and proportionality.</li> </ul>
F	Documentation requirements when using technology	ISA 500 ISA 330 ISA 230*	The nature and extent of audit documentation necessary to enable an experienced auditor having no previous connection with the audit, to understand the nature, timing and extent of audit procedures performed when the auditor designs and performs technology-enabled procedures.
<b>Theme 5:</b> Additional engagement level quality management considerations			
A	Specificity of quality	ISA 220 (Revised)	The specificity of matters of relevance to the engagement partner, including for example:

Facilitating or encouraging the use of technology in performing <u>engagements</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
	management considerations relating to the use of technology in performing an engagement	ISQM 1	<ul style="list-style-type: none"> <li>The level of technological expertise necessary to obtain sufficient appropriate audit evidence and the use of a technology expert(s) in the engagement (appropriate collective competence and capabilities).</li> <li>Circumstances relating to the performance of technology-enabled procedures that may require consultation.</li> <li>Implications for direction, supervision and review of the use of sophisticated technology-enabled procedures.</li> </ul>
B	Technology as a resource that can contribute to maintaining and achieving quality on audits	ISA 220 (Revised)	The engagement partner's role, in demonstrating their overall responsibility for actions that reflect the firm's commitment to quality, to highlight how technology, and the use of technology-enabled procedures appropriate to the nature and circumstances of an engagement, may contribute to enhancing the quality of audits.
<b>Theme 6: Addressing entities' use of technology</b>			
A	<p>The impact of the entity's use of technology on the design and performance of further audit procedures</p> <p>[Limited coverage, since ISA 315 (Revised 2019) is not part of this analysis]</p>	ISA 500 ISA 330	<p>Robustness and specificity around the auditor's work effort in responding to assessed risks of material misstatement commensurate with ISA 315 (Revised 2019) relating to understanding and evaluating an entity's use of IT and the risks arising from the use of IT. Examples of specific matters include:</p> <ul style="list-style-type: none"> <li>The impact of different conclusions about an entity's IT environment or risks arising from the use of IT on the auditor's overall responses to risks of material misstatement at the financial statement level or on further audit procedures in response to assessed risks of material misstatement at the assertion level.</li> <li>The impact of the entity's use of IT (business model, IT environment, relevant components of internal control, availability of data) on the auditor's use of technology-enabled procedures (i.e., to appropriately 'match' an entity's use of IT).</li> </ul>

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			<ul style="list-style-type: none"> <li>The impact of the entity's use of IT on the auditor's design of further audit procedures, including how entities' increased use of technology influences decisions about controls testing (testing general IT controls and IT application controls).</li> </ul>

**Table B**

Facilitating or encouraging the use of technology in <u>SOQMs</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
<b>Theme 1:</b> Approving technology for use in a SOQM			
A	The firm's approval of technology for use in its SOQM	ISQM 1	<p>This relates to enabling a firm to design, implement and operate technology within its SOQM that mitigates risk, yet encourages innovation, in appropriate circumstances.</p> <p>The same enhancement opportunities, among others, that were outlined in Table A, 2.A. are also relevant here.</p>
<b>Theme 2:</b> General enhancements in how technology is considered in ISQM 1			
A	A SOQM that is responsive to the technological environment	ISQM 1	Consideration of matters that could be emphasized around the notion that a SOQM's responsiveness to the "nature and circumstances" of a firm and its engagements includes a responsiveness to developments in the external technological environment.
B	The prominence of technological resources as a component of a SOQM	ISQM 1	How to increase the prominence of technological resources within a SOQM, including the specificity and robustness of considerations relating to technological resources in a firm's SOQMs (i.e., addressing technological resources in parallel with its prominence in the business and audit environments).
<b>Theme 3:</b> Determining whether to use technology to design, implement or operate a SOQM			

Facilitating or encouraging the use of technology in <u>SOQMs</u>			
#	Area of Focus	Relevant Standards	Enhancement Opportunities
A	Areas of a firm's SOQM which may benefit from using technology	ISQM 1	<p>The specificity of considerations that may enable a firm to determine whether the use of technology could enhance their SOQM, and therefore contribute to achieving quality engagements.</p> <p>For example, this may relate to emphasizing how the use of technology within each of the different components of a firm's SOQM (in a manner scalable and proportional to the nature and circumstances of a firm and its engagements), may benefit the design, implementation and operation of an effective system.</p>
<b>Theme 4:</b> Using technology to design, implement or operate a SOQM			
A	Operational responsibility for specific aspects of the SOQM	ISQM 1	The appropriateness of considering technology as a specific aspect of the SOQM for which operational responsibility is to be assigned.
B	Specificity of firm policies or procedures	ISQM 1	<p>Firm policies or procedures that address matters such as:</p> <ul style="list-style-type: none"> <li>• The qualifications and training for individuals that utilize technology within the SOQM.</li> <li>• Oversight within the SOQM to provide appropriate governance over the design, implementation and operation of technology.</li> <li>• Access to programs, program development, program changes.</li> </ul>