

TECHNOLOGY POSITION

Gap Analysis: Catalog of Issues and Proposed Actions

The Catalog of Issues and Proposed Actions, beginning on page 2, is informed by the IAASB’s Technology Position Statement. Below is an abridged version of this Statement. For the complete Technology Position, including the full Technology Position Statement adopted by the IAASB in September 2024, please visit the IAASB’s [Technology page](#).

IAASB’s Technology Position Statement

Commitment: The IAASB is committed to actively facilitating and, where appropriate, encouraging the appropriate use of technology in engagements and systems of quality management (SOQMs) through developing new and revised standards. The IAASB will also develop, or facilitate the development of, non-authoritative materials and foster ongoing engagement around relevant insights about opportunities and risks associated with the use of technology with the IAASB’s broader stakeholder community.

Guiding Actions to Deliver on the Commitment:

- 1) Embrace technology-driven innovations
- 2) Remove barriers in the standards, real or perceived, to practitioners using technology
- 3) Explore and then introduce, as appropriate, principle-based requirements and application material relating to using technology in engagements
- 4) Address the impact of technology used by reporting entities
- 5) Strike the right balance when referring to opportunities and risks associated with technology
- 6) Align with principles of ethics and ethical requirements
- 7) Ensure scalability and proportionality
- 8) Convene stakeholders and foster ongoing engagement

#	<u>Issue</u> Including basis for concluding that it is an issue	<u>Source of insight</u> About the issue	<u>Proposed actions</u> • Standard-setting actions • Non-authoritative materials • Further information gathering	<u>Possible standards</u> That may be affected by the proposed standard-setting action ¹	<u>Prioritization (High, Medium, Low) and details about proposed actions</u> Prioritization was based on the five criteria on page 6 of the IAASB’s Framework for Activities
1. Terminology					
1(a)	<p>More clarity needed in technology-related terminology</p> <p>As the IAASB embarks on delivering on the Technology Position it adopted at the September 2024 IAASB meeting, it is crucial that the terms the IAASB uses to refer to technology (e.g., in its standards and other communications) are internally consistent and understandable.</p> <p>Stakeholders have asked for more clarity about the meaning of technology-related terms used in standards (including standards that are currently under revision) and non-authoritative materials. This perceived lack of clarity is causing confusion about what auditors should be considering when using technology to perform audit procedures (i.e., technology-enabled procedures).²</p> <p>The IAASB received a significant amount of feedback about technology-related issues relating to a number of standards, including about technology-related terminology, in comment letters on Exposure Draft (ED-500): Proposed International Auditing Standard (ISA) 500 (Revised), <i>Audit Evidence and Proposed Conforming and Consequential Amendments to Other ISAs</i>. Refer to Agenda Item 8-B for the December 2023 IAASB</p>	<ul style="list-style-type: none">• Guiding action #2• ED-500 feedback• Audit regulators	<ul style="list-style-type: none">• Standard-setting actions	<ul style="list-style-type: none">• The standards which contain references to “automated tools and techniques” and other technology-related terminology. See Appendix 1 for more information.	<p>High</p> <p>A deeper dive is needed to address the terminology concerns.</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to the first Proposed Action that deals with Issue #13 in the proposed project proposal).</p> <p>The Audit Evidence and Risk Response Project Team, in consultation with the Technology Team, may consider, for example, replacing the term “automated tools and techniques” with a new term, develop a definition of the term, and</p>

¹References to standards in this column reflect the existing standards at the time the issue was added to the Catalog. Final scoping decisions, however, will be made within the context of specific standard-setting projects. These projects may impact existing standards or result in new standards that differ from those initially identified.

²The term “technology-related procedures” is used throughout the Catalog to maintain consistency with terminology used in the IAASB’s Technology Position. However, this term does not appear in the ISAs. The use of this term is not meant to prejudice the outcome of work that will be carried out by the Audit Evidence and Risk Response project team to clarify technology-related terminology used throughout the ISAs as described in the Prioritization column.

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>meeting for a comprehensive description about technology-related feedback received on ED-500.</p> <p>Regarding terminology specifically, respondents on ED-500 recommended that the IAASB:</p> <ul style="list-style-type: none">• Provide a definition for the term “automated tools and techniques”, particularly if the IAASB intends to add requirements related to this term.• Consider replacing the word “automated” in the term “automated tools and techniques” with another term. <p>We have also heard that it is unclear what the term “automated tools and techniques” is meant to apply to. For example, does the term also refer to auditing software used to compile audit documentation (i.e., the audit platform), or when Microsoft Excel is used to perform routine calculations?</p> <p>See Appendix 1 for an inventory of technology-related terms used in the standards (e.g., technological resources, automated tools and techniques, computer-assisted audit techniques).</p>				<p>describe what types of technologies are within the scope of that term.</p>
2. Conceptual Framework					
2(a)	<p>Inherent limitations of an audit</p> <p>As described in ISA 220 (Revised),³ technology-enabled procedures may allow the auditor to evaluate large amounts of data more easily to, for example, provide deeper insights, identify unusual trends or more effectively challenge management’s assertions, which enhances the ability of the auditor to exercise professional skepticism.</p> <p>The use of technology in audits, including robotic process automation, is also enhancing the efficiency of audits by, for example, reducing or eliminating more manual procedures.</p> <p>Accordingly, the growing use of technology-enabled procedures is raising questions about whether the inherent limitations of an audit that are described throughout the ISAs and ISQMs remain appropriately described, contextualized, and relevant today.</p> <p>The Technology Team performed a preliminary review of the 31 references to inherent limitations throughout the ISAs. None of the references appear to be inappropriate or</p>	<ul style="list-style-type: none">• Audit regulators	<ul style="list-style-type: none">• Further information gathering	<ul style="list-style-type: none">• TBD	<p>Medium</p> <p>Additional information gathering will include outreach with stakeholders, including representatives from academia, to further investigate the matter.</p>

³ ISA 220 (Revised), *Quality Management for an Audit of Financial Statements*, paragraph A64

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	irrelevant within the context of the prevailing level of technologies in use today. However, a deeper dive will be required on whether any of the current references to inherent limitations of an audit need to be modernized, which may include introducing new inherent limitations in the standards that have arisen because of the use of emerging technologies by entities and auditors.				
2(b)	<p>Possible impact of the growing use of technology-enabled procedures on expectations about the sufficiency and appropriateness of audit evidence</p> <p>How the auditor chooses to obtain audit evidence, including whether technology-enabled procedures are used to obtain such evidence, does not change the underlying objective of an audit which is to obtain reasonable assurance by obtaining sufficient appropriate audit evidence to reduce audit risk to “an acceptably low level”.⁴</p> <p>Yet, technology-enabled procedures may enable auditors to obtain significantly <i>more</i> audit evidence or <i>more persuasive</i> audit evidence in the same amount of time used to perform traditional audit procedures (e.g., manual audit procedures). This may change the public’s perceptions (e.g., stakeholders of the audit) of what is considered to be sufficient and appropriate audit evidence that the auditor uses to draw reasonable conclusions on which to base the auditor’s report.</p> <p>The IAASB should explore whether there are in fact evolving expectations by users of financial statements and other stakeholders, including regulators, based on the increased availability of cost-effective technologies to auditors and whether and, if so, how that impacts key concepts in the IAASB’s standards, including the concept of sufficient appropriate audit evidence.</p>	<ul style="list-style-type: none"> Guiding action #2 	<ul style="list-style-type: none"> Further information gathering 	<ul style="list-style-type: none"> ISA 200 	<p>Low</p> <p>Additional information gathering will include outreach with stakeholders, including representatives from academia, to further investigate the matter.</p>
2(c)	<p>Auditing framework for continuous auditing</p> <p>The concept of “continuous auditing” of financial statements first emerged in the late 1980s. With advancements in technology and the adoption of enterprise resource planning (ERP) systems, continuous auditing is now seen as increasingly feasible.</p>	<ul style="list-style-type: none"> Guiding action #1 Guiding action #2 	<ul style="list-style-type: none"> Further information gathering 	<ul style="list-style-type: none"> TBD 	<p>Low</p> <p>Continuous auditing, including whether it gains widespread adoption, will be monitored as part of</p>

⁴ ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*, paragraph 17

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	<p>In 2015, the American Institute of Certified Public Accountants (AICPA) published <i>Audit Analytics and Continuous Audit: Looking Toward the Future</i>, a collection of essays by subject matter experts. A recurring theme in the essays is the need for global auditing standards to evolve to support continuous auditing practices.</p> <p>The first guidance on continuous auditing, often called the Red Book, was published jointly by the Canadian Institute of Chartered Accountants (CICA) and the AICPA in 1999. It defines continuous auditing as a methodology enabling auditors to provide near-real-time assurance through reports issued simultaneously with, or shortly after, relevant events (CICA/AICPA, 1999).</p> <p>This topic has been included in this Catalog for ongoing monitoring. A substantial shift to continuous auditing by assurance providers may give rise to the need for more extensive revisions to the IAASB's standards than is currently contemplated in proposed actions of this Catalog.</p>				Component 3 of the IAASB's Technology Position.
3. Quality Management					
3(a)	<p>Firm-level approval of technological resources used in engagements</p> <p>Advancements in the sophistication of technological resources used in engagements since International Standard on Quality Management 1 (ISQM 1)⁵ became effective have given rise to the need for additional information gathering to evaluate whether the standard's principles-based requirements and application material remain sufficient to guide firms on how to manage risks associated with emerging technologies.</p> <p>For example, we understand that several firms have recently approved generative artificial intelligence (Gen AI) for use by their assurance practices in engagements. One notable risk is the explainability of Gen AI resources. Gen AI is generally regarded as a black-box system, and this creates difficulties for assurance practitioners who need to understand and validate Gen AI-driven outputs. There are also significant data privacy and security concerns that also need to be considered and managed by firms, particularly as much of the data that assurance practitioners use is proprietary client data.</p>	<ul style="list-style-type: none">• Guiding action #1• Guiding action #2• Guiding action #5• Guiding action #7• Stakeholder Advisory Council• NSS developments	<ul style="list-style-type: none">• Further information gathering	<ul style="list-style-type: none">• ISQM 1	<p>High</p> <p>The Technology Team recommends further information gathering about whether the relevant principles in ISQM 1 remain sufficient and whether more principles-based specificity may be appropriate with respect to firm-level quality management considerations, including around emerging technologies (also refer to Issues 3(b) and 3(c) below for related engagement-level quality management considerations).</p>

⁵ ISQM 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements*

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
3(b)	<p>Engagement-level approval of technological resources</p> <p>The considerations for firm-level approval of technological resources also apply when engagement teams independently obtain or develop technological resources that have not been pre-approved by the firm. As these resources become increasingly accessible and cost-effective, engagement teams may introduce their own technological resources for use in performing technology-enabled procedures in engagements. Accordingly, the same issue described in Issue 3(a) above also applies here.</p> <p>The quality management principles governing firm-level approval of technological resources should similarly apply to engagement teams, ensuring any independently acquired or developed technological resources used in technology-enabled procedures, meet the same quality standards.</p>	<ul style="list-style-type: none"> • Guiding action #1 • Guiding action #3 • Guiding action #5 • Guiding action #7 • Stakeholder Advisory Council 	<ul style="list-style-type: none"> • Further information gathering 	<ul style="list-style-type: none"> • ISA 220 (Revised) 	<p>High</p> <p>The Technology Team recommends further information gathering about whether the relevant principles in ISA 220 (Revised) remain sufficient and whether more principles-based specificity may be required (also refer to Issue 3(a) above for related firm-level quality management considerations).</p>
3(c)	<p>Technological resources used in engagements which are developed by service providers</p> <p>Many firms acquire or license technological resources from service providers which they then approve and roll out for use by their practitioners in their assurance engagements. Larger firms tend to develop a greater proportion of their technological resources themselves while smaller firms tend to acquire or license a greater proportion of their technological resources from service providers.</p> <p>However, service providers limit the amount of information (e.g., the detailed specifications) they are able to share with firms in order to protect their intellectual property. This creates quality management challenges for audit firms who are unable to obtain a sufficient understanding of the logic and processing of those technological resources before they are rolled out to their audit practices.</p> <p>The IAASB has received feedback that firms are sometimes reluctant to use third-party developed technological resources to avoid regulatory scrutiny. In this context, there could be standard-setting opportunities to ensure ISQM 1 and ISA 220 (Revised) do not unnecessarily stifle innovation in engagements by acting as a barrier to the use of technological resources developed by service providers.</p>	<ul style="list-style-type: none"> • Guiding action #1 • Guiding action #2 • Guiding action #7 • Audit regulators • Service providers 	<ul style="list-style-type: none"> • Further information gathering 	<ul style="list-style-type: none"> • ISQM 1 • ISA 220 (Revised) 	<p>High</p> <p>The Technology Team recommends further information gathering about whether ISQM 1 or ISA 220 (Revised) need targeted technology-related revisions around the use of technological resources developed by service providers.</p>

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	The IAASB may also develop non-authoritative materials on how the assurance market is dealing with these challenges. For example, the non-authoritative material may describe the efforts by service providers to help firms comply with their quality management obligations including independent reviews of the logic and processing of the technological resources by independent third parties.				
4. Determining whether to perform technology-enabled procedures					
4(a)	<p>Exploring introducing requirements and application material about determining whether technology-enabled procedures are required to achieve engagement objectives</p> <p>There are no specific requirements in the standards for practitioners to determine whether technology-enabled procedures are required to achieve engagement objectives. Guiding action #3 of the Technology Position Statement states the Board will explore the need to introduce such principles-based requirements and application material in its standards.</p> <p>We understand that there are audits that cannot be done without the use of technology-enabled procedures. For example, audits of entities with crypto-asset activities (e.g., crypto miners, companies that hold crypto-assets, etc.) require the use of “block explorers” to interrogate the applicable blockchains.</p> <p>There may also be other circumstances when it will be impracticable for auditors to obtain sufficient appropriate audit evidence to address assertion-level risks without using technology-enabled procedures. For example, expected credit loss (ECL) estimates at bigger financial institutions typically involve very complex estimation methods and auditors often find it necessary to design and perform technology-enabled procedures to evaluate the reasonableness of management’s ECL estimates.</p> <p>Some stakeholders have also suggested that the auditor may need to design and perform technology-enabled procedures to appropriately respond to risks arising from the use of</p>	<ul style="list-style-type: none"> • Guiding action #3 • Guiding action #7 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 315 (Revised 2019)⁶ • ISA 330⁷ • ISQM 1 • ISA 220 (Revised) 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #13 in the proposed project proposal).</p> <p>There may also be firm-level or engagement-level quality management implications that should be considered (see also Issues 3(a)–3(c) above for more information).</p>

⁶ ISA 315 (Revised 2019), *Identifying and Assessing Risks of Material Misstatement*

⁷ ISA 330, *The Auditor’s Responses to Assessed Risks*

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	sophisticated IT applications by entities, including artificial intelligence, in their financial reporting systems.				
4(b)	<p>Barriers to using technology-enabled procedures that arise because of how data is produced and maintained by entities</p> <p>The ability of auditors to use technology-enabled procedures in their audits depends on whether the entities under audit have digitalized information systems and the availability, form, or restrictions around the data from those systems.</p> <p>Specifically, the following factors apply:</p> <ul style="list-style-type: none"> • Availability of data in a usable form, and of sufficiently high quality; • Limitations in accessing information, whether due to restrictions imposed by data privacy laws or regulations, or to entities’ concerns about data security once transferred to the auditor; and • Challenges with collecting, extracting, storing, transferring, and transforming data from entities’ systems, to be usable by the auditor. <p>The Pre-finalization Holding Package of Proposed ISA 500 (Revised)⁸ includes application material highlighting these matters as areas for auditors to be aware of when planning to obtain evidence using technology-enabled procedures.</p>	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #4 • ED-500 feedback 	<ul style="list-style-type: none"> • Standard-setting actions • Non-authoritative materials 	<ul style="list-style-type: none"> • Pre-finalization Holding Package of Proposed ISA 500 (Revised) 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2 in the proposed project proposal).</p>
4(c)	<p>The IAASB’s role in promoting best practices</p> <p>With the adoption by the IAASB of its Technology Position at its September 2024 meeting, the Board has formally recognized technology’s transformative potential to improve audit and assurance quality. It was in this context that the IAASB has committed in its Technology Position Statement to facilitate and, where appropriate, encourage the use of technology in engagements and SOQMs.</p> <p>Audit regulators worldwide have more recently started to feature in their inspection reports observations about best practices they are observing in their inspections of audits, including how technology-enabled procedures used in audits have improved audit quality. This was a</p>	<ul style="list-style-type: none"> • Guiding action #1 • Technology Position Statement 	<ul style="list-style-type: none"> • Non-authoritative materials 	n/a	<p>Medium</p> <p>The Technology Team believes the IAASB has a role to play in promoting best practices. While there is some room for integrating considerations about best practices in the standards, this may be more effectively pursued in the IAASB’s non-authoritative materials.</p>

⁸ The latest version of proposed ISA 500 (Revised), *Audit Evidence*, that was presented to the Board at its March 2024 meeting has been referred to as the Pre-Finalization Holding Package of Proposed ISA 500 (Revised).

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>strategic shift by audit regulators to elevate audit quality at the firms by being deliberate about balancing positive and critical feedback relating to audit work (i.e., audit findings).</p> <p>The question for the Board is whether it advisable for the IAASB to also develop content that deals with “best practices” for our stakeholders.</p>				
5. Entities’ use of technology					
5(a)	<p>Identifying, assessing, and responding to risks arising from the use of IT by entities</p> <p>As described in guiding action #4 of the IAASB’s Technology Position Statement, the IAASB will address the impact of technology used by reporting entities.</p> <p>ISA 315 (Revised 2019) introduced a strong foundation to guide an auditor’s identification and assessment of risks arising from the use of IT by entities. However, stakeholders have expressed a lack of clarity about how the auditor addresses such risks in their further audit procedures. Additionally, a publication (April 2024) by The Center for Audit Quality (CAQ) called: Auditing in the Age of Generative AI refers to a survey that found that one in three audit partners see companies in their primary industry sector deploying or planning to deploy AI in their financial reporting processes. The CAQ goes on to describe several new risks that emerge from the use of Gen AI by entities.</p> <p>The emergence of a new class of risks associated with the use of AI by entities raises questions about whether the ISAs continue to provide a robust foundation to guide an auditor’s identification, assessment, and responses to assessed risks arising from the use of emerging technologies by entities, including the use of Gen AI.</p>	<ul style="list-style-type: none"> • Guiding action #4 • Guiding action #5 	<ul style="list-style-type: none"> • Standard-setting actions • Non-authoritative materials 	<ul style="list-style-type: none"> • ISA 315 (Revised 2019) • ISA 330 • Pre-finalization Holding Package of Proposed ISA 500 (Revised) 	<p>High</p> <p>The consideration related to the impact of entities’ use of IT on auditor’s responses to risks of material misstatement, and on their evaluation of audit evidence is in scope of the Audit Evidence and Risk Response project (refer to Issues #9 and #17 in the proposed project proposal).</p> <p>Medium</p> <p>The Technology Team will continue to monitor emerging issues that are impacting the financial reporting ecosystem, which may inform ongoing or future standard-setting projects.</p> <p>The IAASB may also develop non-authoritative materials that address relevant matters.</p>
5(b)	Impact on the audit when entities use service organizations that use emerging technologies	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #3 	<ul style="list-style-type: none"> • Further information gathering 	<ul style="list-style-type: none"> • ISA 402 	<p>Low</p> <p>The IAASB did not prioritize revising ISA 402 as a proposed project for its</p>

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>Like in issue 5(a) above, which deals with the increasing sophistication of technologies used by entities under audit, service organizations that provide services to user entities may also be using sophisticated technologies to perform their services. This may also give rise to risks from the use of IT at service organizations that need to be identified, assessed, and responded to by auditors of user entities (i.e., user auditors).</p> <p>User auditors typically rely to some extent on the work performed by auditors of the service organizations' controls (i.e., service auditors) to identify, assess, and respond to risks of material misstatement arising from the outsourced services provided by service organizations as addressed in ISA 402.⁹</p> <p>Challenges faced by service auditors to support their Type 2 reports, as contemplated in ISA 402, because of the increasingly sophisticated technologies used by service organizations to perform their services, will also create challenges for user auditors.</p> <p>For example, the IAASB has received feedback that this challenge has been particularly pronounced in audits of entities with crypto-asset activities. These user entities typically rely on service organizations to custody their crypto-assets and, in some cases, keep a record of their crypto-asset holdings.</p>	<ul style="list-style-type: none">• Feedback on the IAASB's Strategy and Work Plan for 2024-2027			<p>2024-2027 Work Plan. This was based on balancing the feedback from respondents across stakeholder groups, using the criteria as elaborated in the public agenda papers for the Strategy and Work Plan.</p> <p>However, the Technology Team will continue to monitor emerging technologies used by entities, including service organizations, that the Board may consider in any decision to adjust the Work Plan (or for a future Wok Plan). The Technology Team will also consider the need to develop non-authoritative materials on this topic.</p>
5(c)	<p>Identifying opportunities associated with the use of technology by entities</p> <p>As described in guiding action #5 of the IAASB's Technology Position Statement, the IAASB will strike the right balance when referring to opportunities and challenges associated with the use of technology by practitioners and entities. This guiding action recognizes the potential of the use of technology to enhance the quality of financial reporting and assurance engagements.</p> <p>However, with regard to entities' use of technology, the auditing standards are not designed to deal with <i>opportunities</i> associated with the use of technology by entities. Rather, ISA 315 (Revised 2019) requires the auditor to identify and assess risks of material misstatement, including risks arising from the use of IT by the entity. The auditor then designs and</p>	<ul style="list-style-type: none">• Guiding action #1• Guiding action #5	<ul style="list-style-type: none">• Non-authoritative materials	<ul style="list-style-type: none">• n/a	<p>Low</p> <p>The Technology Team believes the IAASB has a role to play in describing how the use of technology by entities may enhance the quality (e.g., reliability) of their financial reporting, which may, in turn, lead to opportunities for auditors to enhance the quality and efficiency of their work. However, the Technology Team</p>

⁹ ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization*

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	performs further audit procedures, in accordance with ISA 330 and other ISAs, to respond to assessed risks, including risks arising from the use of IT by the entity.				proposes that this should be pursued in non-authoritative materials.
6. Performing technology-enabled procedures					
6(a)	<p>Exploring introducing requirements and application material about considerations for the appropriate use of technology-enabled procedures</p> <p>Designing and performing technology-enabled procedures gives rise to unique challenges that need to be carefully managed by practitioners. Audit regulators are raising inspection findings that point to deficiencies in the following three areas:</p> <ul style="list-style-type: none">• Auditors not considering the reliability and relevance of the data inputs,• Auditors not determining whether the technology-enabled procedure operate as designed, and• Auditors not determining whether the outputs meet the purpose for which the technology-enabled procedure is designed to address. <p>A requirement (paragraph 10A) and application material (paragraphs A65A–A65M) in the Pre-Finalization Holding Package of Proposed ISA 500 (Revised) has previously been presented to the Board aim to capture the areas described above.</p> <p>Further to the objective of the Board to temporarily pause the revision of Proposed ISA 500 (Revised) in order to facilitate an integrated approach to Audit Evidence and Risk Response, including with respect to technology-related matters, the Board should consider whether the requirement described above, or elements of the requirement and application material, appropriately belong in the proposed Audit Evidence standard.</p>	<ul style="list-style-type: none">• Guiding action #3• Guiding action #7• ED-500 feedback• Audit regulators	<ul style="list-style-type: none">• Standard-setting actions	<ul style="list-style-type: none">• Pre-Finalization Holding Package of Proposed ISA 500 (Revised)• ISA 315 (Revised 2019)• ISA 330	<p>High</p> <p>This issue is in scope of the Audit Evidence and Risk Response project (refer to Issue #13 and #17 in the proposed project proposal).</p>
6(b)	<p>Interpretability or explainability associated with how a technology-enabled procedure arrives at its outputs</p> <p>A lack of interpretability or explainability¹⁰ associated with a technology-enabled procedure (e.g., how the technology-enabled procedure arrives at its outputs, how inputs lead to</p>	<ul style="list-style-type: none">• Guiding action #2• Guiding action #6• Technology experts• ED-500 feedback	<ul style="list-style-type: none">• Standard-setting actions• Non-authoritative materials	<ul style="list-style-type: none">• ISQM 1• ISA 220 (Revised)• Pre-finalization Holding	<p>High</p> <p>The issue is in scope of the Audit Evidence and Risk Response project (refer to Issues #13 and #17 in the proposed project proposal).</p>

¹⁰ [Link to resources from IBM](#) on explainable AI, including the difference between the interpretability and explainability of an AI system

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	<p>outputs) makes it challenging or, in some cases impracticable, for firms or auditors to comply with certain aspects of the IAASB's standards.</p> <p>This issue is becoming critical as the use of black-box technologies, including some artificial intelligence (AI) applications including Gen AI, is likely to become ubiquitous in engagements and systems of quality management.</p> <p>It is in this context that the IAASB should consider whether it remains appropriate for the IAASB's standards to require firms or auditors to understand the logic and processing of technology-enabled procedures in all circumstances, or whether it may be sufficient, under certain circumstances, for the auditor to engage directly with the outputs (see also Issue 6(a)).</p> <p>Some experts believe that auditors should focus on the outputs of a technology-enabled procedure rather than its logic and processing. They note that requirements to understand the logic and processing of technology-enabled procedures may stifle innovation. They believe that auditors can still effectively evaluate whether a technology-enabled procedure meets the intended purpose of the procedure without understanding how it arrived at its outputs.</p>			Package of Proposed ISA 500 (Revised)	
6(c)	<p>Categorization of technology-enabled procedures</p> <p>We've heard feedback that it is becoming increasingly more challenging to understand how technology-enabled procedures should be categorized, including:</p> <ul style="list-style-type: none"> • Whether they are risk assessment procedures or further audit procedures; • Whether they are tests of controls or substantive procedures or both (i.e., dual-purpose tests); and • Relating specifically to substantive procedures, whether they are tests of details (ToD) or substantive analytical procedures (SAP). <p>The categorization issue was described as a barrier to practitioners using technology in the Technology Position Issues Paper presented to the Board at its June 2024 meeting (see Agenda Item 5).</p>	<ul style="list-style-type: none"> • Guiding action #2 • ED-500 feedback • Practitioners • Audit regulators 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 315 (Revised 2019) • ISA 330 • Pre-finalization Holding Package of Proposed ISA 500 (Revised) • ISA 520¹¹ 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issues #14 and #15 in the proposed project proposal).</p>

¹¹ ISA 520, *Analytical Procedures*

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	Some of these categorization issues have been addressed in the IAASB’s non-authoritative materials. However, some stakeholders would like to see some of this non-authoritative material integrated, as appropriate, into the IAASB’s standards.				
6(d)	<p>Challenges associated with the use of technology-enabled substantive analytical procedures (SAP)</p> <p>The increased use of “data analytics” is giving rise to questions about how these technology-enabled procedures map to the requirements in ISA 520 which deals with the auditor’s use of analytical procedures as substantive procedures.</p> <p>The IAASB has issued non-authoritative materials to address questions of interpretation about the requirements in the ISAs relating to using automated tools and techniques (ATT) in performing audit procedures including Substantive Analytical Procedures. However, questions continue to be raised on this topic, indicating that there is a need for additional clarity, including standard-setting on this topic.</p>	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #3 • Audit regulators • Practitioners • ED-500 feedback • Strategy and Work Plan 2024-2027 feedback • NSS developments 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 330 • ISA 520 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issues #11 and #15 in the proposed project proposal).</p>
6(e)	<p>Testing outliers and exceptions in the output of a technology-enabled procedure</p> <p>The standards do not provide guidance on considerations relating to testing outliers and exceptions identified by a technology-enabled procedure.</p> <p>The IAASB has issued non-authoritative materials to address this matter (refer to the IAASB’s Technology Page to access the FAQ on Investigating Exceptions & Relevance of Performance Materiality when Using ATT). In responding to feedback on ED-500, the Audit Evidence Task Force also leveraged this FAQ to develop related application material in the Pre-finalization Holding Package of Proposed ISA 500 (Revised).</p> <p>However, this guidance has been challenged by audit regulators. Specifically, some audit regulators believe that Notes 6 and 7 of the FAQ suggest that auditors can choose to ignore the outliers or exceptions identified by a technology-enabled procedure and revert to “alternative procedures” to test the underlying population. Their concern is that this could be interpreted to mean, for example, that auditors can choose to ignore an inordinately large number of outliers or exceptions when more “traditional procedures” (e.g., sampling) of the underlying population is more efficient. Audit regulators have noted that auditors cannot</p>	<ul style="list-style-type: none"> • Guiding action #2 • Audit regulators • Practitioners • ED-500 feedback 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 315 (Revised 2019) • ISA 330 • Pre-finalization Holding Package of Proposed ISA 500 (Revised) 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #16 in the proposed project proposal).</p>

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	“unsee” what they’ve seen and that it would be inappropriate to ignore the outputs of a technology-enabled procedure.				
6(f)	<p>Appropriate use of technology-enabled procedures for confirmations</p> <p>ISA 505,¹² which deals with the auditor’s use of external confirmation procedures to obtain audit evidence, is scheduled for revision as part of the project, “Modernization of Other Targeted Standards in the ISA 500 Series” in the Work Plan for 2024-2027, including technology-related revisions.</p> <p>This standard was last revised prior to 2009 and the auditing environment and methods of communication with confirming parties have evolved significantly since then. ISA 505 addresses traditional confirmation methods, such as postal services and fax. Today, auditors use various electronic means for confirmations, including one or more of the following:</p> <ul style="list-style-type: none"> • electronic means like email or e-fax; • firm-acquired or developed automated tools that enable secure communication, such as robotic process automation (RPA)-enabled platforms and Application Program Interfaces (APIs); and • third-party intermediaries, like confirmation.com or shared-service centers, which use automated platforms to facilitate confirmation requests. <p>The widespread adoption of technology-enabled confirmation procedures introduces unique risks, opportunities, and considerations not covered in extant ISA 505. Examples include auditors’ control over the automated confirmation process, evaluation of the reliability of audit evidence obtained electronically, and ensuring the security of communication channels to verify that confirmations are sent to and received from the appropriate third party.</p>	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #3 • Guiding action #5 • Guiding action #7 • Audit regulators • Practitioners • NSS developments 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 505 	<p>High</p> <p>Prioritized as per the IAASB’s Strategy and Work Plan for 2024-2027.</p>
6(g)	<p>Appropriate use of technology-enabled procedures in inventory counts</p> <p>ISA 501¹³ deals with, among other matters, specific considerations in obtaining audit evidence relating to inventory. This standard is scheduled for revision as part of the project,</p>	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #3 • Guiding action #5 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 501 	<p>High</p> <p>Prioritized as per the IAASB’s Strategy and Work Plan for 2024-2027.</p>

¹² ISA 505, *External Confirmations*

¹³ ISA 501, *Audit Evidence—Specific Considerations for Selected Items*

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>“Modernization of Other Targeted Standards in the ISA 500 Series” in the Work Plan for 2024-2027, including technology-related revisions.</p> <p>ISA 501 includes requirements for auditors to attend physical inventory counts in person unless impracticable (paragraph 7). However, business interruptions during the COVID-19 lockdown made physical attendance of inventory counts impracticable in some cases, leading auditors to leverage technology to attend inventory counts remotely (e.g., location cameras, drones, etc.). The use of technology in these cases offered benefits, but also challenges, including challenges in evaluating the condition of the inventory (e.g., whether any of it is obsolete) and not having visibility over the entire facility.</p> <p>The use of remote inventory count technologies has raised questions among regulators and practitioners about how the use of those technologies maps to the auditing standards.</p>	<ul style="list-style-type: none"> • Audit regulators • Practitioners • NSS developments 			
6(h)	<p>Documentation requirements when performing technology-enabled procedures</p> <p>The growing use of technology in audits is giving rise to questions about what auditors should be documenting when designing and performing technology-enabled procedures. The IAASB issued non-authoritative materials to address some of these questions (see the FAQ: Audit Documentation when Using Automated Tools and Techniques). However, questions persist.</p> <p>Specifically, clarification is sought on the following:</p> <ul style="list-style-type: none"> • Whether the data used as an input into the technology-enabled procedure needs to be retained; • Whether each successive set of refinements being made to the parameters used in a technology-enabled procedure needs to be documented, or whether documenting only the final set of parameters is sufficient; • Whether the auditor needs to retain the data output from the technology-enabled procedure or simply a description of the identifying characteristics of the output; and • Whether the documentation requirements are different when a technology-enabled procedure is intended to be a risk assessment procedure or a further audit procedure. 	<ul style="list-style-type: none"> • ED-500 feedback • Audit regulators 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 230 • ISA 315 (Revised 2019) • ISA 330 • Pre-finalization Holding Package of Proposed ISA 500 (Revised) • ISA 520 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #12 in the proposed project proposal).</p>

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>There is a further question of clarifying how auditors determine the sufficiency of their documentation related to technology-enabled procedures using the “experienced auditor” test in ISA 230.¹⁴ Specifically:</p> <ul style="list-style-type: none">• Is the “experienced auditor” from a similar jurisdiction, with similar expertise and technological access?• Is the “experienced auditor” an individual that has experience with the specific technology-enabled procedure used?				
7. Using the work of a (management’s or auditor’s) expert					
7(a)	<p>Evaluating the work of an auditor’s expert</p> <p>ISA 620¹⁵ deals with the auditor’s responsibilities relating to the work of an auditor’s expert when that work is used to assist the auditor in obtaining sufficient appropriate audit evidence.</p> <p>The increasing sophistication of technologies used by auditors’ experts to perform their work, including Gen AI, may make it more challenging for auditors to comply with the ISA 620 requirements. Specifically, the auditor is required to understand and evaluate the adequacy of the expert’s work (see paragraphs 12–13 and A32–A40) and that may become more challenging when the auditor’s expert is using technology that lacks interpretability or explainability (also see Issue 6(b) above).</p> <p>This may exacerbate concerns by audit regulators who find that auditors are not consistently evaluating the relevance and reasonableness of the findings or conclusions of an auditor’s expert (as required by paragraph 12(a) of ISA 620).</p> <p>There is an opportunity for the Board to clarify how auditors may satisfy their responsibilities in evaluating the adequacy of the expert’s work when emerging technologies, including Gen AI, are used by the experts.</p>	<ul style="list-style-type: none">• Guiding action #2• Guiding action #6• Audit regulators	<ul style="list-style-type: none">• Standard-setting actions• Non-authoritative materials	<ul style="list-style-type: none">• ISA 620	<p>Medium</p> <p>ISA 620 was classified as a “reserve topic” in the IAASB’s Strategy and Work Plan for 2024-2027 because, although the IAASB did receive feedback on revising this standard, other candidate topics for the Work Plan were considered to be higher priorities at the time (using the criteria as elaborated in the public agenda papers for the Strategy and Work Plan).</p>

¹⁴ ISA 230, *Audit Documentation*, paragraph 8

¹⁵ ISA 620, *Using the Work of an Auditor’s Expert*

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
7(b)	Evaluating the work of a management’s expert Like in Issue 7(a) which deals with the auditor’s expert, ISA 500 (paragraph 8) and the Pre-finalization Holding Package of Proposed ISA 500 (Revised) (paragraph 11) also require, depending on the significance of the management expert’s work for the auditor’s purposes, the auditor to obtain an understanding of the work done by the expert and to evaluate the appropriateness of that work. The same challenges that are described in Issue 7(a) may also apply to this issue.	<ul style="list-style-type: none"> Guiding action #2 Guiding action #4 Technology experts 	<ul style="list-style-type: none"> Standard-setting actions 	<ul style="list-style-type: none"> Pre-finalization Holding Package of Proposed ISA 500 (Revised). 	High This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2, #13 , and #17 in the proposed project proposal).
7(c)	Experts are presumed to be humans in the standards ISA 620 which deals with the auditor’s expert, ISA 500, and the Pre-finalization Holding Package of ISA 500 (Revised) either explicitly refer to the expert as human or imply it. However, new technologies, including artificial intelligence and robotic process automation are, in some ways, designed to reduce, and in some cases eliminate, the need for human involvement. During the Technology Position session of the June 2024 IAASB meeting, a Board member asked the Board to consider whether the assumption in the IAASB standards that experts must be humans, or at least involve human interaction (i.e., human-in-the-loop), remains valid today.	<ul style="list-style-type: none"> Guiding action #1 Guiding action #2 Technology experts 	<ul style="list-style-type: none"> Further information gathering 	<ul style="list-style-type: none"> ISA 500 ISA 620 	Medium This is a medium priority issue because the IAASB has not heard a lot of feedback on this matter. The Technology Team proposes that further information gathering be undertaken to further explore the issue.
8. Technological Resources and Professional Skepticism					
8(a)	The impact of using technology-enabled procedures on the exercise of professional skepticism The IAASB was asked by members of the Stakeholder Advisory Council in a meeting in November 2024 how the IAASB’s standards relating to professional skepticism are impacted by the increasing use of technology-enabled procedures in engagements. The IAASB also received feedback from other stakeholders, including on ED-500, that the IAASB should not overemphasize the challenges associated with using technology-enabled procedures as that type of messaging may serve to unintentionally stifle innovation.	<ul style="list-style-type: none"> Guiding action #1 Guiding action #5 Guiding action #6 ED-500 feedback Stakeholder Advisory Council 	<ul style="list-style-type: none"> Further information gathering Standard-setting actions Non-authoritative materials 	<ul style="list-style-type: none"> ISA 200 ISA 220 (Revised) ISA 300 ISA 315 (Revised 2019) ISA 330 Pre-finalization Holding Package of 	High This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2 and #3 in the proposed project proposal). Medium The Technology Team will continue to monitor emerging issues with respect to professional skepticism, which may

#	Issue	Source of insight	Proposed actions	Possible standards	Prioritization (High, Medium, Low) and details about proposed actions
	<p>The IAASB’s Technology Position Statement’s Guiding Action #5 now directs the Board to appropriately balance references to challenges and opportunities associated with using technology-enabled procedures in engagements.</p> <p>To act on Guiding Action #5, the Fraud Task Force is proposing changes to paragraph A9 of the Proposed ISA 240 (Revised) that will be presented to the Board at the December 2024 IAASB meeting to highlight the benefits of using technology-enabled procedures as a means of enhancing the exercise of professional skepticism.</p> <p>The Audit Evidence Task Force also addressed feedback on ED-500 by relocating application material that referred to automation bias in the Pre-finalization Holding Package of Proposed ISA 500 (Revised) to follow the description of the benefits of using technology. This was intended to offer a balanced perspective.</p> <p>There may be other opportunities throughout the standards to consider whether matters related to professional skepticism remain appropriately balanced within the context of the growing use of technology in engagements. Also, additional matters may need to be highlighted from a professional skepticism perspective.</p>			<p>Proposed ISA 500 (Revised)</p> <ul style="list-style-type: none">• ISA 520• ISA 530¹⁶	<p>inform ongoing or future standard-setting projects.</p> <p>The IAASB may also develop non-authoritative materials that address relevant matters.</p>

¹⁶ ISA 530, *Audit Sampling*

Appendix 1– Inventory of references in ISAs and ISQMs to technology used in audits and systems of quality management

This inventory was created through a key word search of the following terms in the ISAs and ISQMs: automated tools and techniques (ATT), computer-assisted audit techniques (CAAT), technology, and technological resources.

	ISQMs and ISAs									ISAs currently under revision		
	ISQM 1	ISA 200	ISA 220 (Revised)	ISA 300	ISA 315 (Revised 2019)	ISA 330	ISA 550	ISA 600 (Revised)	ISA for LCE	Proposed ISA 240*	Proposed ISA 500**	Proposed ISA 570***
Requirements:	32F	None	None	None	None	None	None	None	None	None	10A	None
Application material:	A47	A73	A19	None	A21	A16	A36	A68	2.3	A9	A2A	A12
	A72		A35		A31	A27		A129	6.2.3	A28	A4	A36
	A86		A60		A35				6.3.8	A35	A18	A38
	A98		A64		A57				6.7	A36	A42	
	A99		A65		A137				7.3.16	A51	A65A – A65M	
	A100		A66		A161					A64		
	A101		A67		A203					A114		
	A103		A68							A116		
	A104		A72							A117		
	A105									A133		
	A107									A135		
	A108									A139		
										A143		
Other:	None	None	None	Appendix	None	None	None	None	None	None	Appendix 1 Appendix 2	None

* Per [Agenda Item 8-A](#) of the September 2024 Board Meeting papers
** Per [Agenda Item 5-A](#) of the March 2024 Board Meeting papers
*** Per [Agenda Item 3-C](#) of the September 2024 Board Meeting papers