

TECHNOLOGY POSITION

Catalog of Issues and Possible Actions

Version 1.0 (MAY 2025)

The Catalog of Issues and Possible 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 web 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>	<u>Source of insight</u>	<u>Possible actions</u>	<u>Possible standards</u> ¹	<u>Prioritization (High, Medium, Low) and details about possible actions</u>
	Including basis for concluding that it is an issue	About the issue	<ul style="list-style-type: none"> Standard-setting actions Non-authoritative materials Further information gathering 	That may be impacted if standard setting occurs	Prioritization was based on the five criteria on page 6 of the IAASB's Framework for Activities
Theme#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 will contribute to enhanced clarity and consistency 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 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 and developing a definition or description of the term that addresses what types</p>

¹ This column refers to existing standards at the time an issue was added to the Catalog that could be impacted if the Board were to decide that standard setting is an appropriate action. Decisions about appropriate actions will be informed by information-gathering and outreach activities. If standard setting is appropriate, final scoping decisions will be made within the context of specific standard-setting projects. Such projects may impact existing standards, or result in new standards, that differ from those initially identified.

² The 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 about the appropriateness of technology-related terminology used throughout the ISAs as described in the Prioritization column.

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>meeting for a comprehensive description about technology-related feedback received on ED-500.</p> <p>Regarding terminology specifically, some 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 Microsoft Excel 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>of technologies are within the scope of that term.</p>
Theme#2: Conceptual Framework					
2(a)	<p>Inherent limitations of an audit</p> <p>As described in ISA 220 (Revised),³ technology-enabled procedures may enhance the quality of audits by allowing 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. Similarly, the use of technology by entities in their information systems and financial reporting processes may enhance the quality of their financial reporting by, for example, enhancing the quality of their automated controls.</p> <p>As the growing use of technology continues to evolve among auditors and entities, there is an opportunity to re-examine how the inherent limitations of an audit are described and contextualized throughout the ISAs and ISQMs. For example, the use of emerging technologies by entities in their financial reporting processes may introduce new</p>	<ul style="list-style-type: none"> • Guiding Action #4 • Academics • Audit regulators 	<ul style="list-style-type: none"> • Further information gathering 	<ul style="list-style-type: none"> • TBD 	<p>Low</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

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>challenges for the auditor to take into account in designing and performing audit procedures (see also Issue 6(b)).</p> <p>The Technology Team performed a preliminary review of the references to inherent limitations throughout the ISAs. None of the references appear to be inappropriate or 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 references to inherent limitations of an audit in the IAASB's standards need to be modernized, while reinforcing the auditor's responsibility to obtain sufficient and appropriate audit evidence.</p>				
2(b)	<p>Impact of the growing use of technology-enabled procedures on expectations about the use of technology in audits and the concept of reasonable assurance</p> <p>How the auditor obtains 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 <i>more persuasive</i> audit evidence than manual audit procedures. This may, in turn, create an expectation by stakeholders that auditors should be using technology to enhance the quality of their audits and elevate expectations about what reasonable assurance is in an audit.</p> <p>Certain stakeholders have identified a need for the IAASB to monitor evolving expectations by users of financial statements and other stakeholders, such as regulators and preparers, based on the increased availability of cost-effective technologies for auditors and whether and, if so, how that impacts key concepts in the IAASB's standards.</p>	<ul style="list-style-type: none"> Stakeholder Advisory Council Academics 	<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" first emerged in the late 1980s. The first formal guidance on continuous auditing, often called the Red Book, was published jointly by the Canadian Institute of Chartered Accountants (CICA) and the American Institute of Certified Public Accountants (AICPA) in 1999. It defines continuous auditing as a methodology that</p>	<ul style="list-style-type: none"> Guiding action #1 Guiding action #2 Academics Practitioners 	<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 Component 3 of the IAASB's Technology Position.</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

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>enables auditors to obtain near-real-time assurance through reports issued simultaneously with, or shortly after, relevant events (CICA/AICPA, 1999).</p> <p>Advancements in technology have made continuous auditing increasingly feasible. For example, cloud computing now provides the necessary infrastructure, enabling automated data collection and analysis of client financial data without the need for the auditor to be physically present at the entity.</p> <p>The standards do not contemplate a continuous audit approach. Therefore, it is worthwhile for the IAASB to monitor adoption rates for continuous reporting by entities and continuous auditing by assurance providers as that may eventually require more extensive revisions to the IAASB's standards than those currently considered in this Catalog.</p>	<ul style="list-style-type: none"> National Standard Setters (NSS)⁵ 			
Theme#3: Quality Management					
3(a)	<p>Firm-level approval of technological resources used in engagements</p> <p>Significant advancements in the sophistication of technological resources used in engagements since International Standard on Quality Management 1 (ISQM 1)⁶ became effective have given rise to the need for additional information gathering, including engagement with practitioners, regulators, and other stakeholders. Further information gathering would seek to understand how the standard's principles-based requirements and application material are being applied and whether further guidance would be beneficial, in particular on managing quality risks associated with new and emerging technologies.</p> <p>Several firms have recently started to deploy more complex technological resources, including artificial intelligence applications (AI) powered by neural networks, in their assurance practices. Some of these technological resources are generally considered to be "black-box" systems, which creates challenges in understanding how the system is arriving at its conclusions/outputs (see also Issue 6(b)).</p>	<ul style="list-style-type: none"> Guiding action #1 Guiding action #5 Guiding action #7 Stakeholder Advisory Council Practitioners NSS 	<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 to understand how relevant quality management principles in ISQM 1 are being applied at the firm level and stakeholder views about the need for any additional principles or guidance to support quality management in addressing the risks and opportunities associated with emerging technologies (e.g., the clarity, relevance and consistency of firm-level quality management considerations). Also refer to Issues 3(b) and 3(c) below for related</p>

⁵ Jurisdictional and National Auditing Standard Setters (NSS) that form part of the IAASB-NSS liaison group (see information on the [About IAASB](#) webpage)

⁶ 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	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	The IAASB understands that there also is a growing focus on data privacy and security risks that need to be considered and managed by firms, particularly as much of the data that assurance practitioners use is proprietary client data.				engagement-level quality management considerations.
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, so that 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 Practitioners NSS 	<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 to understand how relevant quality management principles in ISA 220 (Revised) are being applied at the engagement level and stakeholder views about the need for any additional principles or guidance to support quality management in addressing the risks and opportunities associated with emerging technologies (e.g., the clarity, relevance and consistency of engagement-level quality management considerations). 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 third parties (which ISQM 1 refers to as “service providers”) which the firms 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 (i.e., “in-house”) while smaller firms tend to acquire or license a greater proportion of their technological resources from service providers.</p>	<ul style="list-style-type: none"> Guiding action #1 Guiding action #7 Audit regulators Service providers Practitioners NSS 	<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 how the quality management principles in ISQM 1 or ISA 220 (Revised), or additional quality management principles, apply or should apply with respect to the use of</p>

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>However, service providers will typically limit the amount of information they share with firms —the detailed specifications about how the technological resource was developed— in order to protect their intellectual property. This creates quality management challenges for firms in ascertaining whether the technological resources are operating as intended when approving the technological resources for use in their assurance practices.</p> <p>Based on our outreach, the IAASB understands that the issue is disproportionately impacting smaller firms making leaders at those firms reluctant to acquire or license third-party developed technological resources to avoid regulatory scrutiny.</p> <p>In this context, it is worth exploring whether ISQM 1 and ISA 220 (Revised) may better facilitate the use of technological resources developed by service providers, while maintaining the same level of quality expectations as tools developed internally (as contemplated under Issues 3(a) and (b)).</p>				<p>technological resources developed by service providers.</p>
Theme#4: Determining whether to perform technology-enabled procedures					
4(a)	<p>Exploring introducing explicit requirements and application material about determining whether technology-enabled procedures are required to achieve engagement objectives</p> <p>There are no explicit 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>Based on outreach undertaken, the IAASB understands that there may be circumstances when it will be challenging, or in some cases impracticable, for auditors to obtain sufficient appropriate audit evidence to address financial-statement or assertion-level risks without using technology-enabled procedures. Some examples that stakeholders have provided include:</p>	<ul style="list-style-type: none"> • Guiding action #3 • Guiding action #7 • Practitioners • Academics 	<ul style="list-style-type: none"> • Standard-setting actions 	<ul style="list-style-type: none"> • ISA 315 (Revised 2019)⁷ • ISA 330⁸ • 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 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>

⁷ ISA 315 (Revised 2019), *Identifying and Assessing Risks of Material Misstatement*

⁸ ISA 330, *The Auditor's Responses to Assessed Risks*

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<ul style="list-style-type: none"> Audits of entities with crypto-asset activities (e.g., crypto miners, companies that hold crypto-assets, etc.) may require the use of “block explorers” to verify sales and purchases of crypto-asset on the applicable blockchains. Audits of online gaming entities to, for example, test amortization of “game props” or to assess user lifecycles. Responding to assessed risks in expected credit loss (ECL) estimates at larger financial institutions involving complex estimation methods and dependances on significant data inputs from several IT systems. <p>Some stakeholders have also suggested that the auditor may need to design and perform technology-enabled procedures to adequately audit the financial statements of entities with fully digitalized information systems or when responding to risks arising from the use of sophisticated IT applications by entities, including artificial intelligence, in their financial reporting processes.</p>				
4(b)	<p>Challenges 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 whose financial statements are being audited 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. 	<ul style="list-style-type: none"> 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>High¹⁰</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2 in the project proposal).</p>

¹⁰ This prioritization applies to potential standard-setting actions. The IAASB believes it is premature to assign a priority to the possible development of non-authoritative materials as a means of addressing the issue. The relevant project teams will be better positioned—through continued information gathering and related activities—to determine which aspects of the issue are most appropriately addressed incrementally through non-authoritative materials

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	The Pre-finalization Holding Package of Proposed ISA 500 (Revised) ⁹ includes application material highlighting these matters as areas for auditors to be aware of when planning to obtain evidence using technology-enabled procedures.				
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 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 Board will determine whether the IAASB should develop content addressing "best practices" for stakeholders, as well as the appropriate timing and scope of such content.</p>	<ul style="list-style-type: none"> Guiding action #1 Technology Position Statement Practitioners 	<ul style="list-style-type: none"> Non-authoritative materials 	n/a	<p>Low</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 non-authoritative materials. These materials may be developed by the IAASB directly or the IAASB may facilitate the development of such materials by working with NSS or other parties.</p>
Theme#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 need for enhanced clarity about how the auditor addresses such risks in their further audit procedures.</p> <p>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</p>	<ul style="list-style-type: none"> Guiding action #4 Guiding action #5 Practitioners 	<ul style="list-style-type: none"> Standard-setting actions Non-authoritative materials 	<ul style="list-style-type: none"> ISQM 1 ISA 315 (Revised 2019) ISA 330 Pre-finalization Holding Package of 	<p>High</p> <p>The considerations 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 project proposal).</p>

⁹ 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	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>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>There may be a need to enhance principles or provide further guidance on the auditor's identification, assessment, and responses to assessed risks arising from the use of emerging technologies by entities.</p>			Proposed ISA 500 (Revised)	<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)	<p>Impact on the audit when entities use service organizations that use emerging technologies</p> <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 402.¹¹</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"> Guiding action #2 Guiding action #3 Feedback on the IAASB's Strategy and Work Plan for 2024-2027 	<ul style="list-style-type: none"> Further information gathering 	<ul style="list-style-type: none"> ISA 402 	<p>Medium</p> <p>The IAASB did not prioritize revising ISA 402 as a proposed project for its 2024-2027 Work Plan. This was based on balancing the feedback from respondents across stakeholder groups, using the criteria as outlined in the public agenda papers for the Strategy and Work Plan and the consideration of available resources.</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</p>

¹¹ ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization*

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
					develop non-authoritative materials on this topic.
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, 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) appropriately 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 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.</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 proposes that this should be pursued in non-authoritative materials.</p>
Theme#6: Performing technology-enabled procedures					
6(a)	<p>Exploring introducing explicit 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 three areas. Specifically, auditors are not consistently:</p> <ul style="list-style-type: none"> Considering the reliability and relevance of the data inputs, Determining whether the technology-enabled procedure operate as designed, and 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) have previously been presented to the Board that aim to address 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</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"> ISA 220 (Revised) ISA 315 (Revised 2019) ISA 330 Pre-Finalization Holding Package of Proposed ISA 500 (Revised) 	<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 project proposal).</p>

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	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.				
6(b)	<p>Interpretability or explainability associated with how a technology-enabled procedure arrives at its outputs</p> <p>A lack of interpretability or explainability¹² associated with a technology-enabled procedure makes it challenging or, in some cases impracticable, for firms or auditors to understand how the technology is transforming inputs into outputs.</p> <p>This issue is becoming critical as the use of black-box technologies, including some artificial intelligence (AI) applications including Gen AI, are likely to become ubiquitous in engagements and systems of quality management.</p> <p>It is in this context that the IAASB should consider the implications of the standards requiring firms and auditors to understand the logic and processing of technology-enabled procedures in all circumstances—or whether in certain cases it may be sufficient for the auditor to focus instead on evaluating the usefulness of the outputs (see also Issue 6(a)). Furthermore, these considerations must include the appropriate division of responsibilities of the firm (i.e., for quality management) and the engagement team.</p>	<ul style="list-style-type: none"> Guiding action #2 Guiding action #6 Technology experts ED-500 feedback Academics Practitioners NSS 	<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 Package of Proposed ISA 500 (Revised) 	<p>High¹³</p> <p>The issue is in scope of the Audit Evidence and Risk Response project (refer to Issues #13 and #17 in the project proposal).</p>
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, or both; 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). 	<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 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issues #14 and #15 in the project proposal).</p>

¹² [Link to resources from IBM](#) on explainable AI, including the difference between the interpretability and explainability of an AI system

¹³ See footnote 10.

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<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> <p>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.</p>			<p>ISA 500 (Revised)</p> <ul style="list-style-type: none"> ISA 520¹⁴ 	
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 ISAs, including 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 (refer to the IAASB’s Technology Page to access the FAQ on The Use of Automated Tools and Techniques in Performing Audit 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 <p>NSS</p>	<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 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>	<ul style="list-style-type: none"> Guiding action #2 Audit regulators Practitioners ED-500 feedback 	<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 	<p>High¹⁵</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #16 in the project proposal).</p>

¹⁴ ISA 520, *Analytical Procedures*

¹⁵ See footnote 10.

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<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 “unsee” what they’ve seen and that it would be inappropriate to ignore the outputs of a technology-enabled procedure.</p>			ISA 500 (Revised)	
6(f)	<p>Appropriate use of technology-enabled procedures for confirmations</p> <p>ISA 505,¹⁶ 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. 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>Modernization of the principles and guidance in ISA 505 is appropriate in view of the widespread adoption of technology-enabled confirmation procedures that introduce unique risks, opportunities, and considerations. Examples include auditors' control over the automated confirmation process, evaluation of the reliability of audit evidence obtained</p>	<ul style="list-style-type: none"> • Guiding action #2 • Guiding action #3 • Guiding action #5 • Guiding action #7 • Audit regulators • Practitioners • NSS 	<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>

¹⁶ ISA 505, *External Confirmations*

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	electronically, and ensuring the security of communication channels to verify that confirmations are sent to and received from the appropriate third party.				
6(g)	<p>Appropriate use of technology-enabled procedures in inventory counts</p> <p>ISA 501¹⁷ 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, “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 a requirement for auditors to perform alternative procedures if attending the physical inventory counts is impracticable (paragraph 7). 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.). Additionally, the increasing use by entities of automated warehouses powered by emerging technologies (e.g., a fleet of fully autonomous robots and AI-powered software) that operate with minimal human access has also made physical attendance by auditors impracticable.</p> <p>These examples have raised questions among regulators and practitioners about how the use of those technologies by auditors and entities maps to ISA 501.</p>	<ul style="list-style-type: none"> Guiding action #2 Guiding action #3 Guiding action #5 Audit regulators Practitioners NSS 	<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>
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 (refer to the IAASB’s Technology Page to access the FAQ on Audit Documentation when Using Automated Tools and Techniques). However, questions persist.</p> <p>Clarification is sought on documentation considerations, including:</p> <ul style="list-style-type: none"> Whether the data used as an input into the technology-enabled procedure needs to 	<ul style="list-style-type: none"> ED-500 feedback Audit regulators 	<ul style="list-style-type: none"> Standard-setting actions Non-authoritative materials 	<ul style="list-style-type: none"> ISA 230 ISA 315 (Revised 2019) ISA 330 Pre-finalization Holding Package of 	<p>High¹⁹</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #12 in the project proposal).</p>

¹⁷ ISA 501, *Audit Evidence—Specific Considerations for Selected Items*

¹⁹ See footnote 10.

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>be retained.</p> <ul style="list-style-type: none"> 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. Whether the documentation requirements are different when a technology-enabled procedure is intended to be a risk assessment procedure or a further audit procedure or both. What information should be retained at the engagement level versus what documentation could be retained at the firm level. <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” requirement in ISA 230.¹⁸ 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? 			<p>Proposed ISA 500 (Revised)</p> <ul style="list-style-type: none"> ISA 520 	
Theme#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 620²⁰ 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</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</p>

¹⁸ ISA 230, *Audit Documentation*, paragraph 8

²⁰ ISA 620, *Using the Work of an Auditor’s Expert*

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
	<p>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 may lack 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>				<p>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> <p>Because reserve topics in the Work Plan could be elevated to projects based on, for example, changes in the environment relating to emerging issues, the Technology Team will continue to monitor this topic, including the need to develop non-authoritative materials.</p>
7(b)	<p>Evaluating the work of a management’s expert</p> <p>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.</p> <p>The same challenges that are described in Issue 7(a) may also apply to this issue.</p>	<ul style="list-style-type: none"> Guiding action #2 Guiding action #4 Technology experts 	<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>Medium²¹</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2, #13, and #17 in the project proposal).</p>
7(c)	<p>Experts are presumed to be humans in the standards</p> <p>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.</p> <p>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. The Board should continue 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.</p>	<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 	<p>Low</p> <p>This is a low 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.</p>

²¹ See footnote 10.

#	Issue	Source of insight	Possible actions	Possible standards ¹	Prioritization (High, Medium, Low) and details about possible actions
Theme#8: Technological Resources and Professional Skepticism					
8(a)	<p>The impact of using technology-enabled procedures on the exercise of professional skepticism</p> <p>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.</p> <p>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.</p> <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 highlighted the benefits of using technology-enabled procedures as a means of enhancing the exercise of professional skepticism – see paragraph A9 of ISA 240 (Revised)²² that was approved at the March 2025 IAASB meeting.</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>	<ul style="list-style-type: none"> Guiding action #1 Guiding action #5 Guiding action #6 ED-500 feedback Stakeholder Advisory Council Practitioners 	<ul style="list-style-type: none"> Further information gathering Standard-setting actions Non-authoritative materials 	<ul style="list-style-type: none"> ISQM 1 ISA 200 ISA 220 (Revised) ISA 300 ISA 315 (Revised 2019) ISA 330 Pre-finalization Holding Package of Proposed ISA 500 (Revised) ISA 520 ISA 530²³ 	<p>High</p> <p>This is in scope of the Audit Evidence and Risk Response project (refer to Issue #2 and #3 in the project proposal).</p> <p>Medium</p> <p>The Technology Team will continue to monitor emerging issues with respect to professional skepticism, which may inform ongoing or future standard-setting projects.</p> <p>The IAASB may also develop non-authoritative materials that address relevant matters.</p>

²² ISA 240 (Revised), *The Auditor’s Responsibilities Relating to Fraud in an Audit of Financial Statements*

²³ 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 under revision when the search was performed		
	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	Appendix 3 Appendix 5 Appendix 6	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

Through intellectual property and service level agreements, the International Federation of Accountants manages requests to translate or reproduce IAASB and IESBA content. For permission to reproduce or translate this or any other publication or for information about intellectual property matters, please visit [Permissions](#) or contact Permissions@ifac.org.

The IAASB[®], the International Foundation for Ethics and Audit[™] (IFEA[™]) and the International Federation of Accountants[®] (IFAC[®]) do not accept responsibility for loss caused to any person who acts or refrains from acting in reliance on the material in this publication, whether such loss is caused by negligence or otherwise.