Audit Evidence – Question 4

4. Do you agree that ED-500 is appropriately balanced with respect to technology by reinforcing a principles-based approach that is not prescriptive but accommodates the use of technology by the entity and the auditor, including the use of automated tools and techniques?

Q04 - Agree

2. Regulators and Audit Oversight Authorities

Botswana Accountancy Oversight Authority (BAOA)

Yes, we do agree that the ED-500 strikes an appropriate balance with regards to technology because the standard endorses a principles-based approach that allows for the use of technology by both the entity being audited and the auditor.

The ED-500 acknowledges the significance of technology in the audit process and provides guidance on how auditors can utilize it to acquire and assess audit evidence. Rather than mandating specific technology or tools, the standard adopts a principles-based approach that enables flexibility and adaptability to suit the circumstances of each audit engagement.

Independent Regulatory Board for Auditors and Institute of Chartered Accountants of Namibia (IRBA & ICAN)

Yes. We commend the IAASB on the proposals to revise this audit evidence standard. Since the extant standard became effective in 2009, the world of business has changed significantly. Technology, changes in ways of working and other factors, such as fraud, have necessitated updates to the standard.

We support the project’s scope and also support its exclusion of how to design and perform audit procedures through the use of automated tools, as that is an area that is continuously evolving. For ISA 500 (Revised) to remain future-proof, it needs to maintain the principles rather than prescribe specific procedures. This approach aligns with the principles-based approach in making judgments about information that is intended for use as audit evidence.

3. National Audit Standard Setters

Federación Argentina de Consejos Profesionales de Cs. Económicas (FACPCE)

4. We agree. We consider that the use of technology, technology-based techniques (specific software) or technological tools (such as the use of drones for visual inspections) should not be required by the standards but should be applied according to the judgment of the professional.

Public Accountants and Auditors Board Zimbabwe (PAAB)

PAAB agrees that it is balanced because technology (automated tools and techniques) is varied and having a non-prescriptive approach will hence allow the auditor to choose that which suits their purpose and will maintain their competence and is also affordable to them.
5. Public Sector Organizations

**Provincial Auditor of Saskatchewan (PAS)**
Yes, the revisions address the changing technological environment but are not overly prescriptive. Application material accommodates the use of technology and provides good examples (e.g., remote observation tools such as a drone in A4).

**Swedish National Audit Office (SNAO)**
Yes.

6. Member Bodies and Other Professional Organizations

**Botswana Institute of Chartered Accountants (BICA)**
Paragraphs A3-A4 explains that the auditor may use manual or automated tools and techniques to perform audit procedures to obtain audit evidence. The emphasis on the mix of technology and manual is application is welcome.

**Chartered Accountants Ireland (CAI)**
We agree that the draft ISA is appropriately balanced with respect to technology.

**European Federation of Accountants and Auditors for SMEs (EFEAA)**
We agree that ED-500 is appropriately balanced.

We recognize that technological change is not new, but that the pace of that change is unprecedented and will only get faster. Furthermore, it's impossible to predict what new technologies will emerge. Hence, the need for a principles-based approach that can anticipate and accommodate change.

We recognize that technological change is not new but that the pace of that change is unprecedented and will only get faster. Furthermore, it’s impossible to predict what new technologies will emerge.

**Federation of Accounting Professions of Thailand (FAPT)**
Given the fast changing nature of technology, this level of principle-based guidelines are considered appropriate.

**Institute of Chartered Accountants of Nigeria (ICAN)**
We agree that ED-500 is appropriately balanced with respect to technology by reinforcing a principles-based approach.

**Institute of Internal Auditors (IIA)**
In addition, we support the modernized approach addressing the use of technology in the performance of audit procedures.

**Korean Institute of Certified Public Accountants (KICPA)**
The principles-based approach is expected to allow the auditor to apply auditing standards in an evolving audit environment driven by technological development, enhancing the scalability of standards.

**Malaysian Institute of Certified Public Accountants (MICPA)**
We agree that ED-500 promotes an appropriate balance with respect to the use of technology by reinforcing a principles-based approach that is not prescriptive. The linkage and examples with other ISAs explained in
the application materials provide clarity to auditors in designing and performing audit procedures on the use of automated tools and techniques to obtain sufficient and appropriate audit evidence. We noted that a set of non-authoritative support material related to the use of automated tools and techniques in performing audit procedures was issued in 2020, it would be good if the IAASB can make reference between the non-authoritative guidance and ED-500.

Pan-African Federation of Accountants (PAFA)

We support the principles-based approach that accommodates the use of technology, including automated tools and techniques and believe that the proposals in the standard are appropriately balanced without being too prescriptive. This will certainly be valuable considering the difference in technological advancements at both an auditor and auditees. We further support the inclusion of automation bias, the need for auditors to rely on specialists and emphasis on professional skepticism.

SRA

We studied the memorandum which provides background to en and an explanation of the Exposure Draft of proposed International Standard on Auditing.

We are glad to confirm that we agree with the proposals, as described in the above mentioned ED.

Wirtschaftsprüferkammer (WPK)

We agree.

7. Individuals and Others

Altaf Noor Ali (ANA)

4.1 Yes.

Q04 - Agree with comments

1. Monitoring Group

International Organization of Securities Commission (IOSCO)

Technology

We are supportive of the IAASB’s approach to follow a principles-based approach to enable the standard to be applied in an evolving environment with increasing use of technology by both the entity and the auditor. We recognize that the application material in ED 500 has been enhanced to illustrate how the principles-based requirements apply when using technology. We believe an opportunity exists to further expand on the incorporation of the use of technology in order to meet the stated objective of ISA 500 modernization. Some suggestions for your consideration include:

Providing more examples where technology is used in the performance of the various types of audit procedures in the Appendix. For example, the use of remote observation tools, performing recalculation procedures on 100 percent of populations, or the use of data analytics to perform risk assessment or substantive procedures to name a few.

Additional guidance may also be helpful in determining when an audit procedure is a test of details or substantive analytical procedure when using technology, as such determination may impact when the requirements within other ISAs become applicable e.g. ISA 520, Analytical procedures; ISA 530, Audit sampling; etc.
Expanding the guidance in ED 500.A32 or providing further example(s) of using automated tools and techniques to select items for testing. For example, establishing criteria to identify items for further investigation and factors for the auditor to consider when evaluating items identified.

Providing clarification of how auditors apply requirements in ED 500.14 and .A91 when using technology and the auditor has identified items that are inconsistent with expectations established or exhibit characteristics that are unusual for a population. For example, factors for auditors to consider whether those items provide audit evidence that contradicts the auditor’s risk assessment, indicates previously unidentified risks of misstatement, represents a misstatement or control deficiency, or indicates a modification to risk assessment or planned audit procedures is needed.

Providing guidance related to the unique risks related to digital information. For example, an entity’s data retention policies and availability of digital information, risks relating to the transformation of the information from its original form, or, where information is only in digital form, whether testing the operating effectiveness of IT related controls may be necessary.

As technology continues to advance at a rapid pace, become more complex, and impact the way business and audits are conducted, we encourage the Board to remain flexible by issuing practical application material upon the identification of key emerging issues related to technology in a timely manner. We also continue to encourage the Board to collaborate with the International Ethics Standards Board for Accountants (IESBA) as it relates to their technology-related projects to align associated outcomes, where relevant. One example where the Board can collaborate with the IESBA is on the consistency of terminology used related to technology and the need for consistency for users of the International Code of Ethics for Professional Accountants, including International Independence Standards (the Code) and the ISAs. For example, we observe that the IAASB utilizes the term “automated tools and techniques” within ED 500. However, it does not appear that the same term is referenced in the recently approved revisions to Part 3 of the Code applicable to Professional Accountants in Public Practice.

2. Regulators and Audit Oversight Authorities

Financial Reporting Council (FRC)

We are supportive of additional clarity being provided on the use of automated tools and techniques. However, the wording of A22 and the characterisation of automation bias should be considered again. Bias is an issue not just for information generated by “automated systems” but also for simpler tools or techniques such as data analytics. As such we suggest the following wording in to ensure that other systems are appropriately captured:

“Digital Information or information that has been generated by means of automated systems, or through the application of automated tools or techniques may give rise to a risk of automation bias”

Additionally, A23 does not mention training which is often the key factor in ensuring technology is deployed appropriately in audits. We suggest the IAASB considers adding in material on the importance of appropriate training to help avoid automation bias.

3. National Audit Standard Setters

Hong Kong Institute of Certified Public Accountants (HKICPA)

As elaborated further in our detailed response, there are several areas where we seek clarification from the IAASB or recommend inclusion of illustrative examples:
Paragraphs A3 and A4 clarify that the auditor may use manual or automated tools and techniques to perform audit procedures to obtain audit evidence. Paragraph A23 continues with possible actions that the auditor may take to mitigate the risk of automation bias when using automated tools and techniques, such as understanding the data inputs and processing steps.

To facilitate understanding and consistent application, we recommend that paragraph A23 be expanded with illustrative scenarios of possible actions in a manner similar to those in paragraphs A17, A24 and A42. We would suggest the IAASB to develop a non-authoritative guide relating to the use of automated tools and techniques under ED-500, in a way similar to the IAASB’s technology FAQ on the use of automated tools and techniques in a risk assessment under ISA 315 (Revised 2019).

To provide illustrative scenarios of possible actions to mitigate the risk of automation bias when using automated tools and techniques. We also urge the IAASB to develop a non-authoritative guide relating to the use of automated tools and techniques under ED-500.

Institut der Wirtschaftspruefer in Deutschland e.V. (IDW)

Given that the project to develop the draft did not intend to address how to design and perform audit procedures through the use of automated tools and techniques, we believe that the draft is appropriately balanced with respect to technology using a principles-based, non-prescriptive approach that accommodates the use of technology. However, we believe that a project in relation to the design and performance of audit procedures through the use of automated tools and techniques ought to be considered in future.

New Zealand Auditing and Assurance Standards Board (NZAuASB)

We note that while the proposed standard does not fully address the changes in technology in a detailed way, we nevertheless agree with the need of the standard to be principles based. Further illustrative guidance, providing examples of current technology, would be useful to support the standard. We also recommend that the board expedites the updating of the 500 series, as well as ISRE 2400, to take into account the changes relating to technology.

We note that while the proposed standard does not fully address the changes in technology in a detailed way, we nevertheless agree with the need of the standard to be principles based. For example, it was felt that auditors generally have a good understanding of the use of drones for inventory. Stakeholders felt that the application material needs to address more complex uses of technology such as data assurance. If this cannot be done in the standard, then the IAASB should consider providing non-authoritative guidance which can be updated more regularly to provide more detail about the use of technology in audit procedures.

We also recommend that the board expedites the updating of the 500 series, as well as ISRE 2400, to take into account the changes relating to technology. This includes providing more clarity that the use of technology is an audit procedure.

We note the positive move away from computer-assisted audit techniques to automated tools and techniques and changes of terminology from electronic media to digital media.

We note that automated tools and techniques are not defined in the standard, yet are defined in the Proposed ISA for LCE (para 2.3 of the Proposed ISA for LCE’s standard). We recommend that a definition is included in ED-500 (or other relevant standard) for consistency.
Royal Dutch Institute of Chartered Accountants (NBA)

The NBA agrees that the ISAs should not prescribe the use of technology in the entity as well as in the audit. Yet, ED-500 could do more to facilitate and encourage auditors to use technology in their audits, such as data analytics, visualization and process mining. The NBA is of the view that IAASB should offer more clarity on the use of audit tools and techniques, especially in case these, as alluded to in paragraph 36 of the explanatory memorandum, do not directly relate to one of the defined types of audit procedures. A clear example could provide meaningful guidance.

The NBA further notes that the first example of paragraph A23 on how to deal with the risks relating to automation bias, is unclear. We suggest to elaborate more on this example. Automation bias is also mentioned in paragraph A61, and we also seek further clarification there on how the auditor can overcome the risks resulting from these biases.

The NBA is of the view that further clarifications are needed on the use of audit tools and techniques, especially where these are not directly related to the defined types of audit procedures. Please refer to our response to Question 4 for more details.

4. Accounting Firms

Baker Tilly International (BTI)

Technology considerations could have been included more fully.

Technology could have been incorporated more fully into the proposed Standard. Whilst the IAASB has published some excellent non-authoritative guidance on the use of technology in audit, these publications are not widely publicised and the information therein is not reaching front line auditors. Being classed as guidance also results in divergent local practice and regulatory views.

Whilst we understand that it is difficult to incorporate technology guidance into the ISAs due to the fast-paced nature of technological development, a greater degree of authority for such guidance is nevertheless desirable. The IAASB might consider creating a separate section of application guidance that is annotated to say it will be updated at a faster pace than is normally the case with ISAs, but which has the requisite authority needed to promote global consistency of interpretation and practice.

Crowe Global (CROWE)

The recognition of the role of technology in obtaining audit evidence is important and welcome. This is a difficult area to achieve the right balance with because of the pace of change. We encourage the IAASB to use a Post Implementation Review to determine whether the approach adopted has proved to be appropriate, and to be open to supplementing the standard in recognition of the outcome of this review.

Crowe LLP (CROWE LLP)

A: What is provided in the Proposed Standard with respect to technology is sufficiently flexible for auditors to apply. While we appreciate the concepts included in the Proposed Standard related to technology, we encourage the IAASB to continue to advance its other projects related to technology, such as in the areas of audit data analytics and other automated tools and techniques. As previously noted, the issued standard should be future-proof to remain fit-for-purpose considering the continuous evolution in how technology impacts the sources and forms of audit evidence and the performance of audit procedures.

We believe that sufficient and appropriate audit evidence can be obtained both by the use of traditional audit procedures and via the application of technology in the audit. We agree that in some circumstances an
Automated tool and technique may be more effective or provide more persuasive audit evidence than manual procedures. For example, technology may allow the auditor to perform a more robust risk assessment or to efficiently apply further audit procedures to entire populations (vs. on a sample basis) to obtain more persuasive audit evidence. We note there is an emphasis on automation bias in the application guidance, over the other types of bias described in the Proposed Standard, based on the inclusion of additional paragraphs A22 and A23 specifically on automation bias. This emphasis may discourage the use of digital information or automated tools and techniques in the audit. In the Application Material, we recommend that risks discussed related to the use of technology in the audit (such as the risk of automation bias) be balanced with a similar amount of content explaining the benefits that can be obtained by the use of technology in an audit.

We agree there is an overarching need to modernize the audit evidence standard, in light of changes in the auditing environment and advances related to technology. It is important that the approved standard is flexible enough to support its continued application, even as forms and sources of audit evidence and ways to perform audit procedures evolve based on developed and emerging technology.

Ernst & Young Global Limited (EY)

As previously noted, we believe the requirements of ED-500 support a principles-based approach, and because of being principles-based, we agree that these requirements accommodate the use of technology. However, we do not believe that the application material in ED-500 has been modernized enough to reflect the application of the requirements to the effects of the advancements in entities’ technologies as well as the automated tools and techniques used by auditors. We have the following specific suggestions for further enhancements:

Paragraph A3 of ED-500 puts forth the concept that the use of automated tools and techniques may provide more persuasive audit evidence and that often the form of information (e.g., large volumes of data) will necessitate the application of these techniques to obtain audit evidence. We agree that automated tools and techniques are effective in analyzing, processing, organizing and structuring information. We also believe that with increased digitization and complexity of IT environments, the auditor will increasingly apply automated tools and techniques to process and understand information.

Automated techniques often involve the performance of certain of the types of audit procedures outlined in the Appendix to ED-500, including analytical procedures, recalculation and reperformance. It is generally straightforward for the auditor to execute these types of procedures using automated tools and techniques and apply the requirements of the related ISAs (i.e., ISA 330, ISA 500 and ISA 530). However, automated techniques applied to an entire population of data can also be executed using a type of audit procedure that is not clearly considered in the Appendix to ED-500. The ability to disaggregate, visualize, analyze and inspect an entire population of data from multiple perspectives (e.g., time, preparer, source), with general expectations as to how the data should behave given the auditor’s understanding of the entity’s business model and financial reporting processes, represents an interrogation of the population of items (e.g., “data interrogation”, “data mining”, “scanning”). While this type of audit procedure does not clearly align with the types of audit procedures within the Appendix to ED-500, we believe it is somewhat consistent with the description of inspection. As such, we encourage the IAASB to expand the description of an inspection procedure to include the disaggregation, visualization, analysis and inspection of data from multiple perspectives within the Appendix of ED-500. Additionally, we believe that the bullet on automated techniques in paragraph A29 should be expanded to explain that an inspection of an entire population of items can be performed through data analysis. At a minimum, we suggest data analysis as an audit...
procedure should be recognized in some manner in the Appendix of ED-500 with supporting explanation as to how it reconciles to the existing types of audit procedures.

We believe the guidance outlined in paragraphs A27 through A32 of ED-500 provides a useful explanation of the available approaches for identifying and selecting items for testing, including when using automated techniques. However, we believe that it is necessary to further clarify these paragraphs to expand upon the effects of the use of automated techniques as an inspection of an entire population, as explained in the previous bullet. We have the following specific suggestions to enhance the guidance in this section of application material:

Paragraph A30 of ED-500 notes that key items may be selected for testing based on unusual or anomalous characteristics. It is important for the standard to acknowledge that, when using automated techniques, this method of selecting key items is generally performed in conjunction with selecting all items for testing. In other words, the use of an automated technique that inspects the entire population of items can facilitate the auditor’s identification of key items.

Paragraph A31 of ED-500 then states that, “…selecting specific items from a population does not provide audit evidence concerning the remainder of the population”. Generally, we agree with this statement. However, we do not agree that this is the case when the selection of the specific items was made in combination with using an automated technique to inspect the entire population of items. When we determine appropriate criteria to identify key items in a population and systematically apply these criteria to the entire population, this analysis provides audit evidence for the items in the representative population (i.e., the entire population less key items) because we have determined that the anomalous characteristics are not present in the remaining population. Therefore, the risk of material misstatement in the remaining population has been reduced (i.e., detection risk can be reduced to an appropriately low level). It is important for the standard to acknowledge that, when using automated techniques applying an approach to select key items in combination with an inspection of the entire population, this can result in a strategy that leaves no untested portion of a population. To be designed appropriately, however, this testing approach needs to consider non-sampling risk (i.e., the risk that not all anomalous items have been identified and selected for key item testing).

As is relates to the consideration of automation bias in ED-500, we note the following:

There should be a clear distinction in the standard between the auditor’s use of automated techniques in obtaining audit evidence and the entity’s use of automated techniques within its financial reporting processes. Paragraph A22 of ED-500 recognizes that information generated by automated systems may give rise to a risk of automation bias. We believe that this refers to the entity’s information and its use of automated systems (i.e., this is a bias that can be inherent in the information obtained from the entity by the auditor). Paragraph A23 of ED-500 then considers bias that may result from the use of automated tools and techniques. We believe that this refers to the auditor’s use of automated tools and techniques to apply audit procedures to the entity’s information to obtain audit evidence. We believe these distinctions should be clarified.

Paragraph A23 of ED-500 acknowledges that automated techniques may provide more persuasive audit evidence, but then cautions against the risk of automation bias. It then states that a possible action to mitigate the risk of automation bias is to determine whether the auditor’s firm permits the use of the automated tool or technique and whether the firm has determined that the automated tool or technique is appropriate for use. We agree with this statement and the reference to International Standard on Quality Management (ISQM) 1. However, auditors may also use software to design automated tools or techniques
that are customized to obtain audit evidence for the particular audit engagement. In such instances, the engagement partner takes responsibility for the effective functioning of the custom solution, as required by paragraph 25 of ISA 220 (Revised). We believe that paragraph A23 of ED 500 should be expanded to address automated techniques developed at the engagement level with reference to ISA 220 (Revised) to refer to the engagement partner’s responsibility for the appropriate use of technological resources on the audit engagement. In either circumstance, however, whether an automated tool or technique is sanctioned by the firm or reliance is established by the engagement team, the important objective is that the auditor has established that it is appropriate to use the automated tool or technique in the audit because either the firm or the auditor has determined that it functions as designed and a basis has been established for relying on the information generated from its use.

Finally, while paragraph A23 of ED-500 describes a means by which to mitigate automation bias, the manner in which both paragraphs A22 and A23 are constructed appears to overemphasize automation bias (while other biases are not expanded upon) and that emphasis contradicts the objective of modernizing the standards. We believe that the inclusion of additional considerations of automated tools and techniques, as further expanded upon in this section, will balance the potentially negative connotation related to automation bias and prevent discouraging auditors from applying technology to enhance audit quality.

As emerging technologies become more mainstream (e.g., the entity’s use of RPA or machine learning), entities are applying these technologies in their financial reporting processes, which introduces new or changing risks of material misstatement to the financial statements. As the pace of change continues to accelerate, management, those charged with governance and auditors will need to have a clear understanding of the roles and responsibilities that govern an entity’s technology and innovation strategies and address the risks arising from the entity’s use of emerging technologies in the financial reporting processes. While we understand that these considerations are emerging, we believe the application material in ED-500 should include an acknowledgement of the challenges that the auditor can face in obtaining audit evidence when the entity employs emerging technologies in their financial reporting processes. The challenges involved will evolve over time and we would expect that many of the specific challenges may be best addressed through non-authoritative guidance, such as that resulting from the IAASB’s disruptive technologies initiative. Providing timely non-authoritative guidance that is also updated on an ongoing basis will assist auditors in dealing with the effects on the audit from the entity’s use of emerging technologies and advancements in those technologies.

We believe clarifications should be made to paragraph A42 in ED-500 to more accurately address the auditor’s responsibilities when the entity uses technology that learns and changes over time (i.e., applications that incorporate Artificial Intelligence) in the financial reporting processes. When the auditor identifies such an IT application as one that is subject to risks arising from the entity’s use of IT (as defined in ISA 315 (Revised 2019)), the auditor needs to consider the unique risks to the integrity of the information processed by this IT application, which in turn will affect how the auditor evaluates information from it that is intended to be used as audit evidence. Specifically, paragraph A42 of ED-500 states that “…the entity may use machine learning technology to predict the recoverability of accounts receivable, which is periodically updated (e.g., for changes in payment history, customer credit scores or economic factors). In this case, the auditor may need to perform the audit procedures close to the financial reporting date when the information generated is current, since performing audit procedures at an earlier or later date may render a different outcome”. We do not believe that adjusting the timing of procedures performed adequately addresses the risks introduced by the use of an application that learns and evolves over time (i.e., Artificial Intelligence or machine learning). We believe the example should be amended to instruct the auditor to consider the unique risks arising from the entity’s use of IT that affect the integrity of the information used by the IT.
application and the relevance and reliability of the output of the IT application over the audit period when designing audit procedures.

Further, in today's digital world, an increased reliance on data and the proliferation of automated tools and techniques are altering the financial reporting environment for the entity and the auditor. We agree that modernizing ISA 500 to better reflect the digital era is an important objective. While we support the principles-based approach that accommodates the use of technology, we believe that more clarity can be provided in certain areas to acknowledge the changing landscape, and the significant role that data and technology play, as the auditor considers audit evidence. Data as information, and the procedures applied to that data to obtain audit evidence using automated tools and techniques, need to be positioned as an integral part of the standard. Our responses to the specific questions below include suggestions for further enhancements to ISA 500 in this regard.

**KPMG International Limited (KPMG)**

**Use of Technology, Including Automated Tools and Techniques**

We recognise the IAASB’s aim, in modernising the standard for use in the digital environment, that the standard remains principles-based, in line with the fact that this is an overarching standard, rather than taking a more prescriptive approach. We also recognise the IAASB’s intention in taking this approach, that this helps to enable the standard to be applied and remain evergreen as the technology landscape continues to evolve, with increasing use made of automated tools and techniques by both entities and auditors, and as new tools and techniques are developed over time.

We consider that a number of the changes made to ED-500 are helpful in paving the way for auditors to make better use of technology in performing an audit, including the acknowledgement that the use of automated tools and techniques may be more effective or provide more persuasive audit evidence than performing an audit procedure manually. Please refer to our response to Question 4, in Appendix 1 to this letter, for more details.

We are supportive of the updates to ED-500 to move away from an emphasis on the classification of the different types of audit procedures that may be performed to obtain audit evidence (risk assessment procedures, further audit procedures and other audit procedures, as well as different types of further audit procedures), recognising that procedures performed using automated tools and techniques may fall within different types of audit procedures and/or may involve a blend of different types of procedures. Furthermore, we welcome the acknowledgement that the types of procedures described in ED-500 and other ISAs may not fully describe the procedure being performed when using automated tools and techniques.

However, in light of the fact that the IAASB states that appropriately modernising the standard with regard to the use of technology in an audit is a key objective of the IAASB in undertaking this project, we consider that, in general, the changes to the standard, both in terms of its tone, including the language used, as well as the more detailed considerations and examples set out, could go further in order to better achieve the IAASB’s stated objectives. We consider that the AICPA Statement on Auditing Standards (SAS) 142, Audit Evidence takes a somewhat more progressive tone overall in terms of the use of automated tools and techniques and it includes a comprehensive example at A69 Exhibit A — Using ADAs to Simultaneously Accomplish Multiple Audit Procedures, which illustrates in detail the use of an audit data analytic (ADA) that simultaneously accomplishes the objectives of both risk assessment and substantive audit procedures.
ED-500 includes an emphasis on automation bias, both in terms of information that has been generated by automated systems as well as when obtaining audit evidence using automated tools and techniques. The concept of automation bias is discussed as a pervasive theme throughout the application material. Whilst we agree that it is important to be aware of this form of bias, and that this emphasis is consistent with the greater emphasis on professional skepticism within the ED, we note that, as currently drafted, this may over-emphasise the risks of such bias in using electronic information, and when using automated tools and techniques to obtain audit evidence as compared to the potential risks and biases when performing a procedure using information generated manually and when executing a procedure using manual techniques. We therefore recommend a more balanced discussion of risks, including when performing procedures manually versus using automated tools and techniques, that would convey the relative pros and cons of each approach. We consider that balanced application material addressing the different risks and the forms of bias introduced at A19 would be better aligned with the principles-based approach of the ISA overall, and would better support the auditor in making judgements based on the circumstances.

We also highlight that there are certain challenges in the use of data and analytics tools in obtaining audit evidence, which it is important for the IAASB to consider further. We believe that changes to ISA 500, as the foundational standard, are not sufficient on their own to enable the broader use of data and analytics tools on the audit and we recommend that conforming changes to the more prescriptive requirements, set out in other standards, are necessary to address these challenges. These include:

Performance of risk assessment procedures and further audit procedures concurrently;
Substantive procedures;
Specific considerations for inventory; and
External confirmations.

Please refer to our response to Question 4, in Appendix 1 to this letter, for further details. We understand that these, and other, more granular concerns, in respect of different types of procedures are being explored by the IAASB Technology Consultation Group. We recommend that the work of that group be prioritised and the ISAs, including ED-500, be updated/expanded to address the output of that project and additional more detailed examples be provided in the form of supplementary materials to guide auditors when using D&A techniques.

We recognise the IAASB’s aim, in modernising the standard for use in the digital environment, that the standard remains principles-based, in line with the fact that this is an overarching standard, rather than taking a more prescriptive approach. We also recognise the IAASB’s intention in taking this approach, that this helps to enable the standard to be applied and remain evergreen as the technology landscape continues to evolve, with increasing use made of automated tools and techniques by both entities and auditors, and as new tools and techniques are developed over time.

We consider that a number of the changes to ED-500 are helpful in paving the way for auditors to make better use of technology in performing an audit. For example, paragraph A3 of ED-500 highlights that the use of automated tools and techniques may be more effective or provide more persuasive audit evidence than performing an audit procedure manually. It also notes that it may not be possible or practicable to perform an audit procedure manually, e.g., when analysing, processing, organising, structuring or presenting large volumes of data or information. Paragraph A17 expands on this concept, noting that an automated tool may enable the auditor to interrogate a large data set of transactions more easily, and that,
by doing so, the auditor may obtain a more granular or deeper understanding about the characteristics or composition of the transactions, which may result in more persuasive audit evidence.

We are supportive of the updates to ED-500 to move away from an emphasis on the classification of the different types of audit procedures that may be performed to obtain audit evidence (risk assessment procedures, further audit procedures and other audit procedures, as well as different types of further audit procedures), recognising that procedures performed using automated tools and techniques may fall within different types of audit procedures and/or may involve a blend of different types of procedures. Furthermore, we welcome the acknowledgement that the types of procedures described in ED-500 and other ISAs may not fully describe the procedure being performed when using automated tools and techniques. For example, A18 notes that the auditor may design and perform an audit procedure that achieves more than one purpose, e.g. substantive procedures or tests of controls in accordance with ISA 330 concurrently with risk assessment procedures in accordance with ISA 315, when efficient to do so. A18 highlights that in these circumstances, the auditor is required to comply with the requirements of the applicable ISAs that address the design and performance of such audit procedures.

However, in light of the fact that the IAASB states that appropriately modernising the standard with regard to the use of technology in an audit is a key objective of the IAASB in undertaking this project, we consider that, in general, the changes to the standard, both in terms of its tone, including the language used, as well as the more detailed considerations and examples set out, could go further in order to better achieve the IAASB’s stated objectives. We consider that the AICPA Statement on Auditing Standards (SAS) 142, Audit Evidence takes a somewhat more progressive tone overall in terms of the use of automated tools and techniques and it includes a comprehensive example at A69 Exhibit A — Using ADAs to Simultaneously Accomplish Multiple Audit Procedures, which illustrates in detail the use of an audit data analytic (ADA) that simultaneously accomplishes the objectives of both risk assessment and substantive audit procedures.

ED-500 includes an emphasis on automation bias, both in terms of information that has been generated electronically as well as when obtaining audit evidence using automated tools and techniques. The concept of automation bias is discussed as a pervasive theme throughout the application material, not only at A19, where it is described as an example of a bias, together with examples of confirmation bias, anchoring bias and availability bias, but also elsewhere, e.g. at A22 to A23, where it is described in more detail, together with actions that the auditor may take to mitigate the risk of such bias when using automated tools and techniques. A61 also describes this form of bias and encourages the auditor to consider this risk when evaluating the relevance and reliability of such information intended to be used as audit evidence. Whilst we agree that it is important to be aware of this form of bias, and that this emphasis is consistent with the greater emphasis on professional skepticism within the ED, we note that, as currently drafted, this may over-emphasise the risks of such bias in using electronic information, and when using automated tools and techniques to obtain audit evidence as compared to the potential risks and biases when performing a procedure using information generated manually and when executing a procedure using manual techniques. We therefore recommend a more balanced discussion of risks, including when performing procedures manually versus using automated tools and techniques, that would convey the relative pros and cons of each approach. We consider that balanced application material addressing a range of different risks and the forms of bias introduced at A19, would be better aligned with the principles-based approach of the ISA overall, and would better support the auditor in making judgements based on the circumstances.

In connection with this, we note that at times ED-500 co-mingles the concepts of electronic data, i.e. information that is developed and/or stored within an entity’s IT system or obtained electronically from an external source, and electronic documents, i.e. information which is obtained in electronic documentary
form. We recommend that the standard more clearly distinguish between the two and set out considerations with respect to each. We refer the IAASB to SAS 142, Audit Evidence, which defines electronic information separately and distinguishes between electronic documents and data at paragraph A11, and which provides further guidance regarding establishing the reliability of each, in a balanced way. It also addresses information that has been transformed from its original medium into an electronic format and discusses additional audit procedures to address reliability, e.g., testing controls over the transformation and maintenance of the information, at A28 and A29, which we consider would be helpful to include within ED-500.

We also highlight that there are certain challenges in the use of data and analytics tools in obtaining audit evidence, which it is important for the IAASB to consider further. We believe that changes to ISA 500, as the foundational standard, are not sufficient on their own to enable the broader use of data and analytics tools on the audit and we recommend that conforming changes to the more prescriptive requirements, set out in other standards, are necessary to address these challenges. These include:

Performance of Risk Assessment Procedures and Further Audit Procedures Concurrently

Although ED-500 (and the ISAs in general) describe that obtaining sufficient appropriate audit evidence is an iterative process, the concept of performing risk assessment procedures and then further audit procedures to respond to those risks identified is fundamental to the ISAs, with ‘bright lines’ remaining between the procedure types and an expectation overall of a sequential approach.

ED-500 is helpful in acknowledging that the auditor may take a concurrent approach, however, we believe that, without further clarification, auditors may lack the confidence to perform these procedures concurrently given it is unclear how compatible this is with the iterative, sequential approach to assessing the risks of material misstatement and then designing and performing further audit procedures to respond to assessed risks that is described in the requirements of the ISAs. We therefore recommend that consideration be given to clarifying how concurrent performance of risk assessment and further audit procedures is compatible with the requirements either within the ED or by updating other ISAs, e.g., ISA 315 (Revised); ISA 330, and ISA 520, Analytical Procedures, as part of this project.

We also recommend that the IAASB include a detailed example of the use of automated tools/techniques to concurrently perform risk assessment and substantive audit procedures, similar to that set out in SAS 142 at A69, as referred to above.

Substantive Procedures

There is a clear distinction within the ISAs, currently, between tests of details and substantive analytical procedures, but as lines become blurred between these types of procedures, in application, and as testing moves towards interrogating 100% of a population, this presents new challenges in designing and performing these procedures, and interpreting the results, as the ISAs direct the auditor to interpret the results differently, depending on the classification of the procedure. Furthermore, the role of controls testing comes into question in situations where the auditor is able to interrogate 100% of the population and/or is addressing risks of material misstatement more generally, rather than the distinct sub-components of “inherent risk” and “control risk” sequentially.

We therefore recommend that the IAASB explore conforming amendments to the more prescriptive requirements set out in ISA 315 (Revised); ISA 330, and ISA 520, and ISA 530, Audit Sampling, as part of the changes to modernise the ISAs as the IAASB appears to intend, to enable auditors to use automated tools and techniques to meet not only the objectives of those standards, but also to ensure that the more
prescriptive requirements/approach as currently set out in those standards are sufficiently flexible to permit the broader use of automated tools and techniques.

We also suggest that the standard explicitly recognise that the performance of substantive audit procedures using automated tools and techniques, in certain circumstances, may not clearly be substantive analytical procedures or tests of details, although they may contain elements of each, and are, rather, a different type of procedure to obtain audit evidence. Such explicit clarification would enable the auditor to focus on the results of such procedures and use these as audit evidence, without being constrained by the need to classify the procedure and follow the specific requirements of the ISAs in relation to each type. We highlight that the Explanatory Memorandum, at paragraph 36, notes that challenges in this area were identified during outreach activities “as the use of new audit tools and techniques may involve a blend of procedures, or the types of the procedures described in the ISAs may not fully describe the procedure being performed.” The IAASB also notes, in that paragraph, that they are “of the view that it is more important for auditors to focus on the appropriateness of the audit procedures in the circumstances… rather than the type of the procedure (i.e., which “category” the audit procedure falls into).” We recommend that this view be clearly stated in the revised standard itself, for example, by expanding the material currently set out at A18.

Specific Considerations for Inventory

We recognise that in describing how the form, availability, accessibility and understandability of the information intended to be used as audit evidence may affect the design and performance of the audit procedures in which the information will be used and may also affect the auditor’s evaluation of the relevance and reliability of the information, A42 of ED-500 provides an example of how the design of an audit procedure to inspect the physical condition of the entity’s inventories may differ based on whether the auditor plans to be physically present at specific locations or plans to obtain audit evidence through alternative means, such as remote observation techniques.

Whilst this is helpful, we recommend that the IAASB explore more comprehensive revisions to requirements relating to inventory. In light of the fact that an increasing number of entities use highly automated, continuous inventory systems, and the concept of observing the performance of a count at a particular point in time may be somewhat outdated in respect of obtaining audit evidence over the existence and condition of inventory at such entities, we believe it is timely to consider whether the requirements in ISA 501.4-8 and related application material need to be modernised. We acknowledge that the IAASB Proposed Strategy and Work Plan 2024-2027 includes a potential project to modernise ISA 501 to reflect current methods for obtaining sufficient appropriate audit evidence regarding the existence and condition of inventory and we would welcome such a project.

External Confirmations

We note that in addressing the use of external confirmations, ISA 505.7 requires the auditor to maintain control over external confirmation requests, including return information being sent directly to the auditor, and sending the requests to the confirming party. In connection with this, paragraph A11 of that standard explains that receipt of a response indirectly may indicate doubts about the reliability of a response, and paragraph A12 notes that responses received electronically may involve risks as to reliability, as proof of origin and authority of the respondent may be difficult to establish, and alterations may be difficult to detect.

Whilst we agree with the overarching messages in ISA 505, we note that certain external confirmations, e.g. bank confirmations, are now increasingly provided using electronic means, and ISA 505 has not been modernised to address these technology changes and the implications for the audit approach, including in respect of the requirement for the auditor to “maintain control” over the process. We recommend that, as
part of modernising ISA 500 to recognise the evolution in technology, the IAASB explore conforming amendments to ISA 505 as part of this project. We recognise that the IAASB Proposed Strategy and Work Plan 2024-2027 also includes a potential project to modernise ISA 505 to reflect technology-based confirmation processes and, again, we would welcome such a project.

We understand that these, and other, more granular concerns, in respect of different types of procedures are being explored by the IAASB Technology Consultation Group. We recommend that the work of that group be prioritised and the ISAs, including ED-500, be updated/expanded to address the output of that project and additional more detailed examples be provided in the form of supplementary materials to guide auditors when using D&A techniques. Supplementary guidance is preferable in certain circumstances as it allows the ISAs to remain evergreen, whilst detailed examples can be included in guidance that is adapted as technology solutions are developed, including considerations in terms of next-generation technology, such as AI and Blockchain. Furthermore, as innovative solutions are developed at pace, guidance solutions may be capable of faster development and delivery than regular re-opening of standards.

Lastly, we recommend that the standard include an example regarding the implications of data privacy laws and regulations with respect to using automated tools and techniques in obtaining audit evidence, when discussing access to information when designing audit procedures, given the significant implications and jurisdictional variations in these laws and regulations.

MNP LLP (MNP)

We support the principles-based approach regarding the reference to automated tools and technology. However, we believe the standard would benefit from more examples and/or application material regarding what automated tools and techniques are and how the auditor can obtain comfort over the relevance and reliability of audit evidence through the use of such tools.

Mo Chartered Accountants (MCA)

With technology being at the forefront of most organisations and nay in all our lives the mention of use of technology is necessary and relevant.

It has to be borne in mind that appropriate and correct methodologies should be used to obtain relevant and reliable audit evidence that is of a sufficient enough level of persuasiveness. This has to be at the core of the mission and objective of the audit team.

Technology is used to varying degrees at audit firms and the fact that its open and flexible is a positive knowing that the capacity to maintain and adopt technology is not at the disposal of all.

PKF International Limited (PKF)

We agree that the standard should not be prescriptive with respect to the use of technology and that the principles-based approach can be effectively applied to the use of technology.

However, we would challenge the IAASB to consider whether the ED-500 has gone far enough to actively promote and support the use of automated tools and techniques in performing procedures to collect audit evidence. There is no reference to automated tools or techniques within the main body of the standard itself with all references included in the application material and there are very few examples given.

The use and uptake of automated tools and techniques, as part of the audit process, continues to grow. However, adoption has not been universal, and some practitioners remain reluctant to shift away from traditional audit processes which do not make significant use of newer technologies. In our view, the IAASB should consider whether this reluctance could be partially attributable to the limited extent of promotion of
technologies within the ISAs, which might, in turn, cause a perception that regulators are not supportive to the use by practitioners of such tools for collecting audit evidence. In this regard, we would propose that the IAASB considers whether ED-500 could do more to alleviate such concerns that may still exist within the profession and support firms in adopting a new approach involving the use of automated tools and techniques.

For example, we would propose that the ‘Scope of the ISA’ includes a reference to automated tools and techniques, highlighting the use of and ‘acceptability’ of these technologies within ED-500. The following amendment could be made paragraph 1:

‘This International Standard on Auditing (ISA) deals with the auditor’s responsibilities relating to audit evidence when designing and performing audit procedures, including those procedures that involve the use of automated tools and techniques. (Ref: Para A1-A4)’.

We would also recommend that the IAASB includes more detailed examples that draw attention to or recognize the use of technology by the entity and by the auditor. References to automated technologies throughout the application guidance are general in nature, excluding the sections on auditor bias and automation bias. We would propose that different types of automated tools and techniques could be mentioned and demonstrated within the appendix when discussing the types of audit procedures.

PriceWaterhouseCoopers (PwC)

Technology is an integral part of the audit process, and it continues to change and disrupt the way information is obtained and validated and how audits are conducted. Many businesses today process large volumes of transactions in digital environments and information is often only available in electronic form with no physical version of the source information/data. Entities and auditors have to adapt in the current business and audit environment in order to keep pace with technological advancements and with the expectations of stakeholders.

We recognise the challenge in developing standards that strike a balance between reflecting how evolving technology may be used in the audit and developing content that risks rapidly becoming obsolete or appearing dated. It is also important that standards do not inadvertently inhibit innovations in how technology is used in an audit that enhance audit quality. Furthermore, we agree that not all of those expectations can be addressed through revision to this ISA alone.

We broadly support the limited guidance and examples that have been included within ED-500 that seek to explain that automated tools and techniques may be used to obtain audit evidence. However, in our view, to respond fully to the questions that are being faced in practice, a more holistic focus on how technology affects the audit is needed to fully modernise the ISAs in line with the IAASB’s stated objective. That includes addressing recurring questions such as how audit procedures can be designed and performed using automated tools and techniques, and how such tools and techniques can contribute directly to obtaining audit evidence.

In our recent response to the IAASB’s consultation on its “Proposed Strategy and Work Plan for 2024-2027” we strongly encouraged the IAASB to prioritise its potential “omnibus” project on technology. While we acknowledge the work performed by the IAASB’s Technology Consultation Group, the non-authoritative guidance published by this group does not appear to have gained much traction, resulting in questions persisting in practice.

As part of such an omnibus project, we urge the IAASB to explore ways in which the ISAs can more directly incorporate examples of how automated tools and techniques can be used to support effective and efficient
audit procedures and assist the auditor in obtaining relevant and reliable audit evidence. Such examples would include data analytics and visualisation tools, artificial intelligence, machine learning, remote observation tools, and robotic process automation. There are likely ways such guidance and examples can be incorporated into relevant ISAs that would allow the IAASB to refresh them on a more expedited basis to avoid the risk of the content becoming unduly out of date. For example, appendices to relevant ISAs could be more easily updated as part of a periodic technological update project without needing to re-open the body of the applicable standards.

Technology

We broadly support the limited guidance and examples that have been included within ED-500 that seek to explain that automated tools and techniques may be used to obtain audit evidence. We note, however, that such guidance is likely to fall short of many stakeholders’ expectations of what the revisions would achieve with respect to how technology can be used in the audit to obtain audit evidence. We recognise the challenge in developing standards that strike a balance between reflecting how evolving technology may be used in the audit and developing content that risks rapidly becoming obsolete or appearing dated. Furthermore, we agree that not all of those expectations can be addressed through revisions to this ISA alone. In our view, to respond fully to the questions that are being faced in practice, a more holistic focus on how technology affects the audit is needed to fully modernise the ISAs in line with the IAASB’s stated objective. That includes addressing recurring questions such as how audit procedures can be designed and performed using automated tools and techniques, and how such tools and techniques can contribute directly to obtaining audit evidence.

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RSM International Limited (RSM)

However, in our responses to the IAASB’s request for comments we make a number of suggestions for improving the drafting and adding clarity to the proposed requirements. The most significant of these is in response to Question 4 where, whilst we appreciate the modernisation of ISA 500 to incorporate the use of technology, we do consider that the IAASB could go further in redefining the types of audit procedures that are required by ISA 330. The use of technology has enabled auditors to perform more in-depth and sophisticated data analytics such that the requirement in ISA 330.21 to perform tests of details over significant risks where no tests of controls have been performed could result in duplication of effort in certain circumstances. We request the IAASB to consider whether a further consequential amendment could be made to ISA 330 in this regard.

Yes, ED-500 is appropriately modernised to include the use of emerging technologies and techniques.

The revisions clearly accommodate the use of technology and acknowledge that risk assessment procedures and further audit procedures can be performed concurrently, but guidance as to how this might operate in practice would be useful.

For example, technology may enable an auditor to identify the riskier items in a population (those that are suspicious, unusual, etc.) but it is not clear from paragraphs A30-31 whether it would be appropriate to test only those riskier items.
Another example would be how the increased use of technology might affect the requirement in ISA 330.21 to perform tests of details over significant risks where no tests of controls have been performed. It may be the case that technology enables the auditor to obtain sufficient appropriate audit evidence over the whole population by performing substantive analytics and therefore a test of details would be duplication of effort.

In this regard, we also encourage the IAASB to clarify in ISA 330 what qualifies as a test of details and a substantive analytical procedure when using technology. There may be a need to move away from categorising types of procedures at all so that the precise name given to the substantive technique employed to obtain the evidence becomes less relevant. This would enable auditors to apply the framework in the standard to determine whether they have obtained sufficient, appropriate audit evidence.

In addition, ED-500 does not discuss how the use of Artificial Intelligence (AI) could affect an audit. Given the speed at which AI is evolving, such guidance could perhaps be included in supporting documentation where it can be updated at a faster pace than an ISA.

5. Public Sector Organizations

Office of the Auditor General of Canada (OAG)

Yes, we agree that ISA 500 (Revised) accommodates the use of technology by the entity and the auditor. However, limited examples are provided on the use of technology. Additional examples of the use of technology in audit or non-authoritative guidance may be helpful.

U.S. Government Accountability Office (GAO)

Including automated tools and techniques in the application materials will help auditors identify considerations for the ISA’s use. It will also help them identify concerns to consider when evaluating information obtained using the tools and techniques. Specifically, the application materials covering information bias based on using automated tools is helpful.

6. Member Bodies and Other Professional Organizations

Consiglio Nazionale dei Dottori Commercialisti e Degli Esperti Contabili (CNDCEC)

4 – Partially agree. Regarding the use of technology, ED-500 is strongly principle based, and deals with to technology mostly in the application material (§A.3 e A.4). However, there is a slight lack of clarity on the procedures the auditor should perform with reference to the evaluation of the audit evidence obtained from the use of such technologies (data analytics, machine learning, AI, etc.) that are affecting, and will affect more and more in the future, the audit activity.

IFAC SMP Advisory Group (SMPAG)

We agree with the IAASB’s principles-based approach that accommodates the use of technology, including automated tools and techniques. We recognize the pace of change with technology developments and believe the Board has struck the right balance with the proposals, keeping to the principles-based approach and not being too prescriptive because of the range in entities being audited and technologies available for different audit firms. We support the inclusion of automation bias, the need for auditors to rely on specialists and emphasis on professional skepticism.

We welcome the IAASB expanding the information that could constitute audit evidence to include “digital information” (A41). However, there are concerns that “digital information” is not clearly articulated in the ED. Digital information could be broadly categorised to include:
Digital data – information that is developed and/or stored within an IT system or obtained electronically from an external source.

Digital documents – information, which is obtained in electronic format, for example an electronic confirmation.

Information that has been transformed from its original medium into an electronic format, for example, a scanned version of an executed contract.

Using different categories of digital information may require the auditor to perform different audit procedures to evaluate its reliability. For example, for digital data, the auditor may design audit procedures to test the effectiveness of controls over their accuracy and completeness. Whereas, inspecting underlying original documents to validate the authenticity of information in electronic form will be more appropriate as an audit procedure when evaluating the reliability of information that has been transformed from its original medium into an electronic format. We recommend the IAASB to provide the distinction of, and clarity around different audit procedures that may be required to evaluate the reliability of the different categories of “digital information”.

Feedback indicated that it could be useful for the Board to develop examples of what is sufficient and appropriate audit evidence when using technology, but this should be published outside of the standard and not included in application material.

In this context, we also refer to our comment letter in response to the IAASB’s consultation on its future strategy and work plan in which we expressed our support the Board continuing to monitor and assess developments in technology and its application in an audit.

We recognize the importance of the IAASB reacting to changes in the environment, including with advancements in different technologies being used both by auditors and entities they are auditing. This trend has accelerated with the Covid-19 pandemic, as auditors are generally using more automated tools and techniques, although it is also likely that such changes will be taking place more in large entities and large firms in the immediate future, not in the SME and SMP space.

Institute of Certified Public Accountants of Uganda (ICPAU)

We agree that the ED-500 is appropriately balanced with respect to the use of technology in audits. However, we recommend inclusion of additional application material in regard to the use of technology at each phase of audit. The principles-based approach would be further supported when auditors have a clear appreciation of an entity’s use of technology in the financial reporting processes.

Institute of Singapore Chartered Accountants (ISCA)

However, in terms of modernising the standard to accommodate the use of technology in audits, we feel that the standard can specifically elaborate on data analytics to support and facilitate its adoption. We share our views in this area in our responses to Questions 7 and 8.

We agree with the principles-based approach towards the use of technology in audits, considering the wide range of technological tools and techniques that can be employed.

Changes to other standards

The changes to ISA 500, as the foundational standard, however, may not be sufficient on their own to enable the broader use of technology in audits. We note that the IAASB Strategy and Workplan 2024–2027 includes a project to refresh the various standards under the ISA 500 series, with the focus on updates...
relating to the impact of technology. We are supportive of this project, which is timely and necessary to incorporate technology-related amendments to the various standards under the ISA 500 series.

We also note that various technology-related matters are being explored by the IAASB Technology Consultation Group. The findings from this consultation group can be incorporated into ISA 500 and other various standards in the ISA 500 series, with additional detailed examples provided in the form of supplementary materials to guide auditors.

Using technology in different phases of the audit

We note that the references and examples provided in the ED mainly relate to the usage of technology in substantive audit procedures. However, in practice, technology can be adopted in various phases of the audit, including test of controls (for example, to evaluate the operating effectiveness of identified controls). The usage of technology in risk assessment and test of controls are prevalent and critical for audits of entities that are in the IT sector or are IT-reliant, and should be emphasised in the standard. For a more comprehensive and holistic approach towards the usage of technology, it would be helpful for the standard to provide guidance on how technology can be considered at each phase of the audit. For example, the application of emerging technologies in financial reporting processes introduces new risks of material misstatement. Auditors will need to have a clear understanding of an entity’s technology strategy and address the risks arising from the entity’s use of emerging technologies in the financial reporting processes. It would be useful for the standard to clarify what constitutes sufficient appropriate audit evidence in the context of obtaining an understanding of the entity to address these risks.

The IAASB’s Frequently Asked Questions (FAQs) Regarding the Use of Automated Tools and Techniques in Performing Audit Procedures provide useful practical guidance to assist auditors in understanding whether a procedure involving automated tools and techniques may be both a risk assessment procedure and a further audit procedure. The standard can incorporate the principle that the application of technology can be multi-purpose and include the relevant considerations from the FAQs.

Whether data sets used in audit procedures constitute audit evidence

A pertinent consideration arising from the usage of technology is whether the raw data sets received from management would constitute audit evidence. With reference to the definition in paragraph 7(b), audit evidence is information, to which audit procedures have been applied, that the auditor uses to draw conclusions that form the basis for the auditor’s opinion and report. According to this definition, audit evidence should be the results that are drawn from applying the audit procedures, and not the raw data sets per se. It would be helpful for the standard to clarify this understanding.

On the same token, it may also be useful for the IAASB to consider corresponding clarifications to ISA 230 Audit Documentation, on the extent and form in which the data sets used need to be retained as audit documentation. One situation where such clarification would be helpful is whether the raw data sets received from management for the purpose of data analytics would be required to be filed as part of the audit documentation. Our view is that such raw data sets should not be filed because they are not considered audit evidence.

Some auditors are of the view that documentation on the parameters used for extraction, which would better inform on the nature, timing and extent of audit procedures performed, should be sufficient to meet the requirements of ISA 230. This would be consistent with the approach taken when audit procedures are performed using non-technological means (for e.g., manual vouching), where auditors are not required to retain copies of the entity’s accounting records but can document key attributes of the documents. If the
auditor chooses to retain the data sets in their raw form for ease of reference, these data sets can be maintained outside the audit working papers and not form part of audit documentation, since they do not constitute audit evidence.

To enhance consistency in market practice, it would be helpful for the standard to clarify what is expected of the auditor in terms of documentation in this regard.

Given the evolving business and audit environment, the enhancements proposed in the ED are timely and relevant. As businesses undergo digital transformation, accelerated by the pandemic, technology and data analytics become increasingly central to the audit process. This shift in audit landscape necessitates an update to the standard to allow auditors to properly leverage technology to supplement or replace more traditional audit methods where appropriate.

Instituto de Auditoria Independente do Brasil (IBRACON)

We believe that some improvements need to be made regarding the principles to what constitutes and how to evaluate audit evidence in this environment. The use of ATT can help design and perform an audit procedure that serves multiple purposes, since they often mix different kinds of audit procedures. The suitability of an audit procedure to achieve its intended purpose is more important than its specific type.

Malaysian Institute of Accountants (MIA)

We agree that ED-500 reinforces a principles-based approach with respect to the use of technology, thereby allowing auditors to elect whether to use manual procedures or automated tools and techniques to perform audit procedures. ED-500 emphasises that, regardless of which method is to be used, the objective of the auditors is to obtain sufficient appropriate audit evidence to support the audit opinion.

With the proliferation of technology, we continue to welcome the Board to further develop examples of what is sufficient and appropriate audit evidence when leveraging on technology. This could be published outside of the standard in a non-authoritative document.

We recognise the importance of the IAASB to address changes in the environment, including advancements in different technologies being used both by auditors and the entities they are auditing.

Nordic Federation of Public Accountants (NRF)

We believe ED-500 has succeeded in clarifying that the auditor may use manual or automated tools and techniques to perform audit procedures to obtain audit evidence.

We also find the explanation of how the use of automated tools and techniques may affect auditor bias, including automation bias, and the emphasis on using professional skepticism to be helpful guidance.

In our view ED-500 is appropriately balanced with respect to technology by reinforcing a principles-based approach. We understand the challenges of addressing technology developments and at the same time drafting the standard in a technology-neutral way to keep it sustainable over time.

In terms of examples, we especially welcome the acknowledgement of using technology for remote observation as audit procedures to inspect the physical condition of the entity’s inventories. In this regard we would also like to refer to our comment letter to the IAASB’s Strategy and Work Plan, where we suggest prioritizing a narrow-scope project regarding ISA 501.

In addition, we believe there is a strong need for concrete examples around how both the entity and the auditor can use technology. Such examples should however mainly be dealt with outside of the standard.
South African Institute of Chartered Accountants (SAICA)

A practical guidance document may assist the auditors in gathering audit evidence to address potential IT bias. The IAASB may provide further clarity on the following:

A42. Third bullet, it is not clear how doing this procedure closer to the reporting date will assist where AI is used. This evidence would need to come from controls. AI of this nature continuously changes and updates, therefore substantive evidence may be less effective.

A64. Third bullet under the example. It is not easy to follow the accuracy and completeness considerations. Is it the listing supporting the selections or the selection itself? This depends also in what context the journal is being tested. ISA 240 or substantive procedures addressing a specific assertion.

There is an opportunity to add further guidance on the rapidly changing IT environment as part of the application guidance. There are different types of complex technology aspects and changes that auditors need to consider in the complex IT environment as part of the audit process i.e., artificial intelligence (AI).

Yes, we agree that ED-500 is appropriately balanced with respect to technology by reinforcing a principle-based approach that is not prescriptive but accommodates the use of technology.

The evolving nature of technology and continuous drive for increased digital transformation within the work environment brings about the need to consider the use of technology by the entity and the auditor. ED-500 needs to be fit for purpose while addressing the evolution in technology.

Making ED-500 to be adaptable to the current business and audit environment, and to better reflect the digital era, while not being prescriptive with respect to the use of technology, but rather accommodating the use of technology by the auditor or the entity is a good balance.

ED-500 does not have some of the non-authoritative guidance previously provided by the IAASB on information technology. There are some stakeholders who had expectations that ED-500 would address some key questions driven by the increasing use of technology in the audit, including, amongst others, the nature and sufficiency of evidence obtained when testing entire populations using automated tools or techniques, and how to address outliers in such circumstances.

The IAASB has separately published non-authoritative guidance on the use of technology in the audit, which has, to some extent, sought to address these questions. The fact that ED-500, as an authoritative standard, does not address the questions raised on the non-authoritative guidance as part of the application material may be a disappointment to some stakeholders.

Another aspect which may be tied into the standard, not currently covered, is the auditor’s responsibility and safeguards for the use of Artificial Intelligence (AI) during the audit. The auditor will need to have a clear policy in place for the use of AI and establish procedures to verify authenticity of working papers and audit evidence.

We are of the view that the application material could be expanded to include examples of types of automated tools and techniques and how these can be used as part of obtaining audit evidence.

The Malta Institute of Accountants (TMIA)

Yes, however inclusion of examples relating to the use of automated tools and techniques will assist the auditor to put into practice the principles highlighted. One would expect that the revisions to ISA 500 would address some key questions driven by increasing use of technology in the audit, including, amongst others, the nature and sufficiency of evidence obtained when testing entire populations using automated tools or
techniques, and how to address outliers in such circumstances. In addition, Data Visualisation and Process Mining could potentially be included as audit techniques in the section Types of Audit Procedures in the appendix to the Proposed International Standard on Auditing 500 (Revised) Audit Evidence and Proposed Conforming and Consequential Amendments to Other ISAs - The Relationship of Proposed ISA 500 (Revised) to the Other ISAs and Examples of Types of Audit Procedures.

In addition, further guidance is required as to the distinguishing factors between “substantive analytical procedure” and “test of details” when it comes to audit procedures using technology.

**Q04 - Disagree**

3. National Audit Standard Setters

**American Institute of Certified Public Accountants (AICPA)**

Automated tools and techniques (see question 4)

As noted in our response to the IAASB’s consultation on its proposed strategy and work plan, the topic of automated tools and technology (including audit data analytics) is a current area in practice where we observe that financial statement auditors globally are increasingly in need of additional guidance in applying such techniques in performing their audit engagements. We believe a more holistic focus on how technology affects the audit, including how audit procedures are designed and performed using automated tools and techniques, is needed to fully modernize the proposed ISA in line with the IAASB’s stated objective. While we acknowledge the work performed by the IAASB’s Technology Consultation Group, the non-authoritative guidance it has published has not alleviated the questions that are being faced in practice and we believe a greater focus on technology within the standards is necessary. Accordingly, we ask that, as part of the IAASB’s proposed Strategy and Work Program, the Board address technology more holistically in a separate project.

Appendix B: Additional Application Material from SAS No. 142

We recommend the IAASB consider the following:

We are concerned that the proposed standard does not go far enough with regard to technology and could be unduly restrictive, or require subsequent revision as the IAASB considers the impact of technology more holistically, including how auditors use audit data analytics (ADAs) to design and perform audit procedures.

Auditors may use automated tools and techniques (ATT), such as automations and data analytics, for the purpose of planning or performing the audit. In SAS No. 142, data analytics is described as the analysis of patterns, identification of anomalies, or extraction of other useful information in data underlying or related to the subject matter of an audit through analysis, modeling, or visualization. Examples of other automated tools and techniques are artificial intelligence, machine learning, remote observation tools, and robotic process automation.

We recognize the IAASB’s objective of modernizing ISA 500 to be adaptable to the current business and audit environment, while considering the scalability of the standard to a wide variety of circumstances regarding the use of technology by the entity and the auditor. We appreciate that both ISA 315 (Revised) and the proposed standard acknowledge the use of ATT. However, we are concerned that, as currently drafted, the proposed standard is unduly limiting, in part because it does not define ATT or data analytics, and does not explain how using audit data analytics fits into the types of procedures that the auditor may perform. We believe that, while remaining principles-based, the proposed ISA could go further in explaining how auditors can use technology to obtain sufficient appropriate audit evidence.
We also have the following observations and recommendations:

The development of the LCE standard may open up the opportunity for the IAASB to provide more in-depth guidance about technology in the ISAs. The development of the LCE standard is meant to simplify and streamline the audit requirements relevant to less complex entities, whose management and auditors may not employ the use of technology as often or to the same degree as more complex entities. Therefore, there may be more leeway to expand on technology-related topics that are relevant to more complex entities in the suite of ISAs; for example, to explain how management’s use of technology affects how the auditor thinks about obtaining evidence or other examples of technology’s impact on the audit.

Including only the drawbacks related to automation in the proposed standard might be interpreted as being overly cautious or negative about the use of technology rather than appropriately facilitating the use of technology. For example, we believe that more advanced auditing techniques may provide more persuasive audit evidence that traditional audit approaches.

Application material should be added to note that auditors may consider whether there is a risk related to management not using technology; for example, in today’s environment, it might raise concerns for the auditor if information that was expected to be provided in a digital format was prepared manually.

As part of the IAASB’s proposed Strategy and Work Program, we recommend that the Board address technology more holistically in a separate project. We are concerned that the Board’s approach to technology is disparate and siloed.

The Board might consider modernizing the ISAs by addressing technology in each ISA, as appropriate, that it revises in the future.

We also recommend that the Board consult with national standard-setters about their initiatives related to technology.

Lastly, we think the Board could consider developing an International Auditing Practice Note (IAPN) as a possible path forward related to addressing technology.

A45. The auditor may use automated tools and techniques to process, organize, structure, or present data in a given context in order to generate useful information that can be used as audit evidence.

A47. The auditor may also use automated tools and techniques to obtain audit evidence about the operation of the entity’s internal control. For example, if management has controls over the sequential numbering of sales invoices, the auditor may be able to obtain corroborating audit evidence about the sequential numbering of sales invoices for the period by using automated tools and techniques to determine whether any gaps in numbering or duplicates exist, which may provide audit evidence about the controls over the completeness of invoices issued during the period.

A57. By using automated tools and techniques, auditors may be able to perform recalculation procedures on 100 percent of a population, for example, recalculating the gross margin for each product sold for an entity’s product line.

A61. Analytical procedures involve the auditor’s exercise of professional judgment and may be performed manually or by using automated tools and techniques. For example, the auditor may manually scan data to identify significant or unusual items to test, which may include the identification of unusual individual items within account balances or other data through the reading or analysis of entries in transaction listings, subsidiary ledgers, general ledger control accounts, adjusting entries, suspense accounts, reconciliations, and other detailed reports for indications of misstatements that have occurred. The auditor also might use
automated tools and techniques to scan an entire population of transactions and identify those transactions meeting the auditor’s criteria for a transaction being unusual. The identification of items that exhibit characteristics of risk of material misstatement through analytical procedures provides the auditor with audit evidence about those items. Analytical procedures also provide audit evidence about the items not exhibiting characteristics of risks of material misstatements because the auditor has determined, exercising professional judgment, that the items not selected for further audit procedures are less likely to be materially misstated.

**Australian Auditing and Assurance Standards Board (AUASB)**

Modernising and supporting a principles-based standard that recognises the evolution in technology

The AUASB acknowledges that the IAASB has taken a conceptual and scalable approach to the use of technology by the entity and the auditor, including the use of automated tools and techniques. However, the AUASB considers that ED ISA 500 does not fully address technology in a way that assists with the application of automated tools and techniques in the audit procedures. Further consideration around the use of appendices or other non-authoritative guidance to convey more complex and detailed examples and case studies on ‘how’ the application material may be applied in practice would be appropriate. Refer to Question 4 for further comments.

The AUASB acknowledges that the IAASB has taken a conceptual and scalable approach to the use of technology by the entity and the auditor, including the use of automated tools and techniques. These concepts are only dealt with in a number of application material paragraphs and not in the requirements. The AUASB notes that there are more prevalent forms of technology used in current practice to undertake audit procedures (e.g., artificial intelligence), which should be acknowledged in paragraph A17 where examples have been provided.

The AUASB also suggests that the IAASB may consider the use of appendices or other non-authoritative guidance to provide more complex examples or case studies on how the application material may be applied around the use of automated tools to undertake audit procedures (e.g., data assurance) under ED ISA 500. Providing some form of non-authoritative guidance which can be updated more regularly to provide the most current uses or types of technology that could be applied in audit procedures may be most useful for auditors.

**Austrian Chamber of Tax Advisors and Public Accountants (KSW)**

No. The question is whether this was the aim of this project? Application materials could arguably be improved to address the use of technology by the auditor and how to deal with digital information provided by the entity Just para A3-A4 refer to automated Tools and Techniques.

Especially since the IAASB has identified the constant evolution of technology as one of the main factors justifying the need to improve ISA 500. Developments in technology have affected how audits are performed, for example, use of automated tools and techniques, such as data analytics, robotics, machine learning and artificial intelligence (AI).

The IAASB will ultimately need to go further in providing guidance on the robustness and value of audit evidence obtained through AI:

When is it sufficient?
When is it appropriate?

etc…
We also believe that in some audit procedures using technology is now more difficult to clearly categorize as a “substantive analytical procedure” or a “test of details”. This can create challenges for engagement teams using extant ISA 500. We would therefore encourage the IAASB, in collaboration with the IAASB Technology working group, to further explore how to provide more guidance in this area.

**Canadian Auditing and Assurance Standards Board (AASB)**

Add a definition for “automated tools and techniques”

As noted in the Overall Comments (section A), we believe a definition for “automated tools and techniques” should be added to ED-500. Currently, this term is used in application material in ED-500 and in other ISAs. However, the term is not defined in the Handbook. To promote a consistent understanding of this term, especially if the IAASB agrees to add a new requirement that refers to this term, a definition is needed.

The definition could be based on the description contained on the IAASB’s Technology Focus page. It provides clarity on what automated tools and techniques are but also remains flexible as technology evolves. It states:

“What are Automated Tools and Techniques?

Automated tools and techniques is a broad term describing the tools and techniques used by auditors in performing audit procedures. The term is deliberately broad because technologies and related audit applications will continue to evolve, such as artificial intelligence applications, robotics automation processes and others.”

If the term is not defined in the standard, at a minimum, the term should be described in the first application material paragraph where it is used.

**Technology**

A specific requirement to address the use of automated tools and techniques

ED-500 is technology neutral. By adopting this neutral approach, the requirements are not explicitly clear on what is expected when auditors use automated tools and techniques to perform procedures. Just as there is an explicit requirement when using information prepared by a management’s expert, there should be an explicit requirement when the auditor plans to use an automated tool and technique. While this may be implicitly covered by the proposed requirements in ED-500, having an explicit requirement will help to build consistent practice and address or mitigate common deficiencies noted by regulators.

With adding an explicit requirement, we believe ISA 500 (Revised) can still be technology neutral as the requirement would only be applicable when the auditor plans to use an automated tool and technique. We suggest a requirement, such as the following, which we based on the guidance in ISQM 1, paragraph A100:

Sub-heading: When Using Automated Tools and Techniques

When the auditor plans to use an automated tool and technique, the auditor shall:

a. consider the need for specialized skills to utilize the automated tool and technique effectively, including the training of individuals who will use the automated tool and technique;

b. in accordance with paragraph 9, as part of the auditor’s evaluation of the relevance and reliability of the information intended to be used as audit evidence, consider:

  i) the data inputs to the automated tool and technique; and
ii) whether the automated tool and technique operates as designed and achieves the purpose for which it is intended; and

c. in accordance with paragraph 13(a), evaluate whether the outputs of the automated tool and technique meet the intended purpose of the audit procedure.

Add a definition for “automated tools and techniques”

Currently, the term “automated tools and techniques” is used in application material in ED-500 and in other ISAs. However, the term is not defined in the Handbook. To promote a consistent understanding of this term, it should be defined in ISA 500 (Revised), especially if the IAASB agrees to add a new requirement that refers to this term, as recommended above.

We believe the description contained on the IAASB’s Technology Focus page could be used as the starting point for this definition. It provides clarity on what automated tools and techniques are but also remains flexible as technology evolves. It states:

“What are Automated Tools and Techniques?

Automated tools and techniques is a broad term describing the tools and techniques used by auditors in performing audit procedures. The term is deliberately broad because technologies and related audit applications will continue to evolve, such as artificial intelligence applications, robotics automation processes and others.”

If the term is not defined in the standard, the term should be described in the first application material paragraph where it is used.

Non-authoritative guidance related to technology

We heard in our outreach that effective implementation of ED-500 requires timely non-authoritative guidance to accompany the final standard. In particular, in addition to the need for a specific requirement to address the use of automated tools and techniques, auditors need practical guidance for how to apply the standard based on common technology tools used by entities and auditors today.

We believe the IAASB should commit to developing this non-authoritative guidance. Such guidance would support consistency across all jurisdictions and assist practitioners in the effective and efficient application of the standard. This will require the IAASB to dedicate additional resources and time to developing this material, since the current and future workplan does not identify any such activities, and this endeavor is different from what we understand is contemplated for the technology omnibus project.

The non-authoritative guidance should address topics such as:

- evaluating relevance and reliability when entities or auditors use technology such as machine learning, blockchain, cloud computing, or reliance on service providers;
- what audit procedures may be appropriate if a System and Organization Controls (SOC) Report is not available or if the service organization has outsourced the relevant processes to another service organization;
- what audit procedures may be appropriate if the auditor is using audit software, such as MindBridge;
- examples of specific tools or technologies used by entities;
- examples of specific tools or technologies that could be used by auditors at various phases of the audit to gather and evaluate audit evidence, especially for practitioners in small to medium-sized practices;
examples of how the auditor may deal with testing exceptions; and
examples that would be relevant to IT auditors, and in particular general IT controls and information processing controls since they are an integral part of the financial statement audit.

We recognize that some of the topics mentioned above also link to other recent projects, such as ISQM 1 when evaluating audit software, and ISA 315 when discussing risks arising from the use of IT and general IT controls. These topics have been summarized here because they culminate in obtaining audit evidence that is sufficient and appropriate to support the auditor’s conclusion. In addition, these topics also directly link to the key public interest considerations identified for this project, in particular:

Responding to changes in the information that is being used by auditors, including the nature and source of the information; and

Modernizing and supporting a principles-based standard that recognizes the evolution in technology.

By developing this non-authoritative guidance outside of the standard, it could be revisited every 3-4 years to update it as technology evolves and trends change. The non-authoritative guidance can also present more detailed examples and case studies to help practitioners understand how the principles in ED-500 would be operationalized.

We support a principles-based approach to address technology in ED-500. While we agree that the standard should not mandate the use of technology, the standard should recognize the evolution in the business and audit environment towards an increasing use of technology. To modernize the standard for the digital era, we have identified a number of areas where further requirements and guidance are needed.

A specific requirement to address the use of automated tools and techniques

We believe an explicit requirement on what is expected when the auditor plans to use automated tools and techniques is required. Just as there is an explicit requirement when using information prepared by a management’s expert, there should be an explicit requirement when the auditor plans to use an automated tool and technique. This will help to build consistency in practice and to mitigate common deficiencies noted by regulators. For example, the Canadian Public Accountability Board noted in their 2022 inspection results report that a common inspection finding for all firms was “insufficient testing of the data inputs and outputs of automated tools used to evaluate revenue”.

We suggest a requirement, such as the following, which we based on the guidance in ISQM 1, paragraph A100:

Sub-heading: When Using Automated Tools and Techniques

When the auditor plans to use an automated tool and technique, the auditor shall:

a. consider the need for specialized skills to utilize the automated tool and technique effectively, including the training of individuals who will use the automated tool and technique;

b. in accordance with paragraph 9, as part of the auditor’s evaluation of the relevance and reliability of the information intended to be used as audit evidence, consider:

  i) the data inputs to the automated tool and technique; and

  ii) whether the automated tool and technique operates as designed and achieves the purpose for which it is intended; and
c. in accordance with paragraph 13(a), evaluate whether the outputs of the automated tool and technique meet the intended purpose of the audit procedure.

With the addition of this requirement, we believe a definition for the term “automated tools and techniques” should also be added to the standard. See our comments in response to question 6 for more detail on this recommendation.

Non-authoritative guidance related to technology

In addition to the need for a specific requirement to address the use of automated tools and techniques, we also believe non-authoritative guidance is needed to explain how to apply the standard when technology is used by the audited entity or the auditor. In our outreach, we have heard a consistent appeal for more detailed examples of obtaining audit evidence using various technology tools. We recognize that this type of guidance would not be suitable in the standard, but most appropriate for non-authoritative guidance.

In the IAASB’s Framework for Activities (May 2021), the IAASB recognized that it “has a responsibility to help with facilitating that the changes from new and revised standard(s) are consistently and properly implemented”. As part of the Audit Evidence project, the IAASB contemplated the development of non-authoritative guidance to address technology (as discussed in IAASB papers for July 2021, March 2022, June 2022). Specifically, in March 2022, the issues paper noted:

“The Audit Evidence Task Force (AETF) intends to develop a non-authoritative publication that includes examples to more specifically address technology, i.e., how the principles of ISA 500 may apply when using technology. In particular, the AETF noted that locating such examples outside of the standard may be necessary because examples that refer to specific types of technology may easily become redundant or out of date. These examples will be explored further by the AETF in coordination with the Technology Consultation Group, taking into account the feedback from the Board in March 2022. The AETF intends to update the Board on its progress in June 2022. The AETF also notes that this non-authoritative support material falls under Component IV of the IAASB’s Framework for Activities and will coordinate with senior IAASB staff in terms of the process for the development and clearance for issuance of the technology examples in accordance with the Framework.”

This matter was unresolved in September 2022, when ED-500 was approved. We believe the IAASB is best positioned to develop non-authoritative guidance. Such guidance will support auditors around the globe in consistently interpreting the standard when using technology to gather and evaluate information to be used as audit evidence. As the pace of change related to technology is fast, we recommend the IAASB dedicate additional resources and time to develop this material and plan for regular updates to ensure it remains current and relevant.

The non-authoritative guidance should address topics such as:

- evaluating relevance and reliability when entities or auditors use technology such as machine learning, blockchain, cloud computing, or reliance on service providers;
- what audit procedures may be appropriate if a System and Organization Controls (SOC) Report is not available or if the service organization has outsourced the relevant processes to another service organization;
- what audit procedures may be appropriate if the auditor is using audit software, such as MindBridge;
- examples of specific tools or technologies used by entities;
examples of specific tools or technologies that could be used by auditors at various phases of the audit to
gather and evaluate audit evidence, especially for practitioners in small to medium-sized practices;
examples of how the auditor may deal with testing exceptions; and
examples that would be relevant to IT auditors, and in particular general IT controls and information
processing controls since they are an integral part of the financial statement audit.

Although some of the topics mentioned above also link to other recent projects (such as ISQM 1 when
evaluating audit software, and ISA 315 when discussing risks arising from the use of IT and general IT
controls) they all culminate in obtaining audit evidence that is sufficient and appropriate to support the
auditor’s conclusion. These topics also directly link to the key public interest considerations identified for this
project, in particular:

Responding to changes in the information that is being used by auditors, including the nature and source of
the information; and

Modernizing and supporting a principles-based standard that recognizes the evolution in technology.

By developing this non-authoritative guidance outside of the standard, it could be revisited every 3-4 years
to update it as technology evolves and trends change. The non-authoritative guidance can also present
more detailed examples and case studies to help practitioners understand how the principles in ED-500
would be operationalized.

Comments related to application material

In addition, we recommend revisions to the following application material in ED-500:

While we agree that paragraphs A22-A23 should highlight automation bias when using technology in the
audit, these paragraphs may be interpreted as discouraging the use of technology. We suggest the
following revision to paragraph A23 to balance the content:

A23. Paragraphs A3-A4 explain that the use of automated tools and techniques may be more effective or
provide more persuasive audit evidence than performing audit procedures manually. However, the use of
automated tools and techniques may also give rise to a risk of unconscious biases, including automation
bias. The auditor considers the benefits of using automated tools and techniques and through awareness of
possible biases, takes Possible actions that the auditor may take to mitigate the risks, such as the following
to address of automation bias when using automated tools and techniques include:

The machine learning example provided in paragraph A42, 2nd bullet does not align with the statement that
it is meant to support. We suggest the following revisions to add an appropriate example for the current
statement, and an additional statement to explain the current example:

A42. 2nd bullet:

Information may be available only at certain points or periods in time, or it may be destroyed after a specific
period of time. The auditor may need to design and perform the audit procedures at particular points in time
or request retention of some information to facilitate the performance of audit procedures. For example, the
entity may overwrite log files after a certain period or, the entity may use technology that adapts over time,
such as machine learning technology to predict the recoverability of accounts receivable, which is
periodically updated (e.g., for changes in payment history, customer credit scores or economic factors). In
these cases, the auditor may need to perform the audit procedures close to the financial reporting date
when the information generated is current, since performing audit procedures at an earlier or later date may
render a different outcome or the information upon which they are performing the audit procedures may not be relevant for the current audit period. For example, if the auditor is performing the procedures after year end, the log files or machine learning logic may no longer relate to the period being audited.

Paragraph A42 should also highlight an example of risks associated with using digital information. We suggest adding the following example:

A42. The form, availability, accessibility and understandability of the information intended to be used as audit evidence may affect the design and performance of the audit procedures in which the information will be used and may also affect the auditor's evaluation of the relevance and reliability of the information.

Examples:

Screenshots from IT applications provided by management may not be sufficient if the auditor cannot determine when the screenshot was taken.

Paragraph A56 lists authorization as a feature of authenticity. To highlight the risks related to this feature when considering authenticity of information coming from the IT environment, we recommend adding a new application material paragraph, as suggested below:

A57A. When considering authenticity as an attribute of reliability, the auditor may consider inquiring with the individual or organization providing the information or understanding controls over authorizing information.

Compagnie Nationale des Commissaires aux Comptes and Conseil National de l’Ordre des Experts-Comptables (CNCC & CNOEC)

However, we find the ED a bit disappointing on the issue of technology. The world has evolved with rapid changes in technology and in the types of information sources used by auditors since ISA 500 was last revised 12 years ago. We would have expected more guidance on how developments in technology have affected the way audits are performed, for example, use of automated tools and techniques, such as data analytics, robotics, machine learning and artificial intelligence and how the outputs of the use of such new tools can be considered and used as audit evidence.

We appreciate the IAASB's efforts in this regard, but we believe that this may not be enough.

Especially since the IAASB has identified the constant evolution of technology as one of the main factors justifying the need to improve ISA 500. Developments in technology have affected how audits are performed, for example, use of automated tools and techniques, such as data analytics, robotics, machine learning and artificial intelligence.

The ED could have gone further in providing guidance on the robustness and value of audit evidence obtained through AI. When is it sufficient? When is it appropriate? Etc.

We encourage IAASB to incorporate the content from recently published Non-Authoritative Guidances (NAG) on the technology topic

We believe that the following audit techniques could be added in the section Types of Audit procedures of the appendix “The Relationship of Proposed ISA 500 (Revised) to the Other ISAs and Examples of Types of Audit Procedures”:

Data Visualization,

Process mining.
They are helpful in particular to enhance the understanding and refine the risk assessment.

We also believe that some audit procedures using technology are now more difficult to clearly categorize as a “substantive analytical procedure” or a “test of details”. This can create challenges for engagement teams using current ISA 500; we would therefore encourage the IAASB to explore further how to provide more guidance in this area, in connection with the IAASB Technology working group.

**Japanese Institute of Certified Public Accountants (JICPA)**

11-9: Additional guidance (Use of Technology)

We expect that the use of technology in auditing will continue to spread out. Given this in mind, we suggest additional application materials or implementation guidance that provides considerations or examples of procedures by categorizing the use of technology in broad perspective. For example, it could be categorized as (1) use of technology by auditor (e.g., AI assisted audit procedures) and (2) use of technology by entity (e.g., trust services such as electronic seal) being subject to audit procedures. We believe this will be useful for audit practice.

11-10: Terminology (Automated Tools and Techniques: ATT)

Many of the technology related explanations or descriptions refer the term “automated tools and techniques (ATT)” and replacing words to “automated” are proposed often in the proposed conforming and consequential amendments to other ISAs. However, we are not certain whether all technology-based tools and techniques can be described as “automated” since they could also involve manual elements.

Therefore, we suggest reconsidering the appropriateness of using the term “automated” and possibly changing it to another term, such as “technology-utilized tools or techniques,” or clarifying the meaning of ATT in the standard. It is important to avoid misunderstanding that an audit procedure using ATT does not require auditor's professional judgment or any other involvement.

We believe that ED-500 is insufficient to reflect the use of technology and to make financial statement audits more effective and efficient. We suggest that other relevant standards related to the use of technology are to be revised in the future as well.

**4. Accounting Firms**

**BDO International (BDO)**

While we agree with having a principles-based framework for using automated tools and techniques, we do not consider that there is adequate guidance on what constitutes, and how to evaluate, audit evidence in such an environment. We appreciate that in such a rapidly changing area, it is difficult to provide guidance that remains fit for purpose. However, we believe that further guidance is required to assist the auditor in:

- designing and performing audit procedures through the use of automated tools and techniques;
- evaluating information intended to be used as audit evidence and audit evidence obtained using automated tools and techniques.

We recommend that the IAASB considers developing application guidance regarding application and documentation principles around automated tools and techniques. Specific areas for this guidance could include:

When further audit procedures using automated tools and techniques have been performed, guidance is needed on the factors that auditors need to consider to determine whether evidence obtained from using
automated tools and techniques constitutes sufficient appropriate audit evidence. Providing factors that auditors need to consider will help the auditors to make the judgments, for example, in the following situations:

When automated tools and techniques are applied to check 100% of a population of purchases to ensure that for every purchase invoice, there was a purchase order number and a goods received note (GRN) with no exception, in what circumstance can the auditor consider the result as sufficient appropriate ‘audit evidence’ without performing additional substantive procedures?

To verify the payroll expense in the financial statements, auditors may use automated tools and techniques to reconcile the amount paid recorded in the payroll system to the amount paid in the accounting system, with the results showing that the records in the two systems agree with each other. Could the result be considered sufficient appropriate audit evidence for verifying the payroll expense or is it merely a test to assess the completeness and accuracy of information intended to be used as audit evidence?

Considerations for evaluating the relevance and reliability of information intended to be used as audit evidence when automated tools and techniques are used in risk assessment procedures and for further audit procedures designed to respond to an assessed risk.

The documentation principles and how those principles are applied when automated tools and techniques are used in performing audit procedures to obtain audit evidence and in evaluating the relevance and reliability of information intended to be used as audit evidence.

Identifying those situations, industry sectors, certain significant classes of transactions, account balances and disclosures when use of automated tools and techniques is more likely to be an appropriate part of the auditor’s response to assessed risks.

Examples of circumstances when the use of automated tools and techniques may give rise to unconscious biases, including automation bias and the possible procedures the auditor can perform to avoid biases in such circumstances.

**Deloitte Touche Tohmatsu Limited (DTTL)**

The Board acknowledges within paragraph 36 of Section 2-F of Significant Matters in the Explanatory Memo that “the use of new audit tools and techniques may involve a blend of types of audit procedures, or the types of procedures described in the ISAs may not fully describe the procedure being performed.” Also, the Board’s view that “it is more important for auditors to focus on the appropriateness of the audit procedures in the circumstances (i.e., whether the audit procedures are appropriately designed to achieve their intended purpose and have been effectively applied by the auditor) rather than the type of audit procedure (i.e., in which “category” the audit procedure falls).” It is DTTL’s view that through evolving technology, the tools that auditors use will continue to improve. For this standard to remain adaptable, the language should reflect this emphasis on performing procedures that achieve their intended purpose, even if these procedures may not fall into a specific category of procedure as currently contemplated in the auditing standards. Therefore, DTTL believes that the proposed standard should be revised to make the Board’s views clear and has proposed revisions in our answer to question 4 included in the Appendix.

As noted above, the Appendix includes suggested edits to address the above matters, as well as other recommendations for the Board’s consideration.

Finally, DTTL recognizes that the adoption and adaptation of artificial intelligence is rapidly evolving and will have a profound impact on the future-state of information – both in terms of how it is produced and how it may be analyzed. DTTL suggests that the Board consider whether potential implications to the auditor’s
responsibilities in regard to artificial intelligence, either used by an entity subject to audit or used by the auditor in applying audit procedures, should be contemplated and incorporated into the proposed standard prior to finalizing this project.

DTTL believes the application material should be enhanced to reflect the Board’s position stated in paragraph 36 of the Explanatory Memorandum, that the use of new audit tools and techniques may involve a blend of types of audit procedures, as well as the Board’s stated view that “it is more important for auditors to focus on the appropriateness of those audit procedures” in the circumstances rather than “the type of audit procedure” specifically. DTTL recommends the following paragraph be added immediately following application material paragraph A18 to incorporate the Board’s stated position, which is integral to achieving an auditing standard that is future-fit:

A18. The auditor may design and perform an audit procedure that achieves more than one purpose. For example, ISA 315 (Revised 2019) explains that the auditor may perform substantive procedures or tests of controls in accordance with ISA 330 concurrently with risk assessment procedures, when it is efficient to do so. For an audit procedure to achieve more than one purpose, the auditor complies with the requirements of the relevant ISAs. For example, when an audit procedure serves as both a risk assessment procedure and a further audit procedure concurrently, the auditor is required to comply with the requirements of ISA 315 (Revised 2019) and ISA 330, and any other relevant ISAs (e.g., a topic-specific ISA, such as ISA 540 (Revised)) that deals with the design and performance of such procedures.

A18X. The use of automated tools and techniques may facilitate designing and performing an audit procedure that achieves more than one purpose, as such tools and techniques often blend types of audit procedures together. It is more important to focus on the appropriateness of an audit procedure to achieve its intended purpose rather than the type of audit procedure specifically.

However, several of the key views expressed by the Board in the Significant Matters section of the Explanatory Memo are not fully embodied in the language of the requirements or application material and DTTL believes their inclusion could further enhance the standard, including the following key views (see the Appendix for our specific recommendations for enhancements):

Grant Thornton International Limited (GT)

Modernizing and supporting a principles-based standard that recognizes the evolution in technology – we are of the view that the amendments to the standard have fallen short of the needs of the profession in this area with regard to understanding the different types of ATT, and specifically ADA, and how they may be used in an audit. We have elaborated on this further in our response to question 4.

Technology

We appreciate the enhanced guidance over the use of automated tools and techniques (ATT) in obtaining audit evidence, particularly the examples of how ATT may be used in an audit. However, we are of the view that ED-500 only addresses ATT and not audit data analytics (ADA), which we view as being a type of ATT. Accordingly, more is needed in ED-500 to provide guidance on how ADA are used in an audit engagement. For example, whether ADA may be used to inform risk assessment, as a risk assessment tool or as a substantive audit procedure, and if a substantive analytical procedure, the criteria that need to be satisfied for the ADA to provide substantive evidence. While we appreciate the recognition that technology is continually changing and that standards need to be principles-based, we recommend that consideration is given to including such guidance in an appendix to the proposed standard, given an appendix will likely be easier to update as technology progresses.
We agree that ED-500 reinforces a principles-based approach to the auditor’s use of technology by emphasising the importance and relevance of the use of ATT as a means to obtain evidence in an audit. We are also of the view that an appropriate balance is struck between the use of ATT and manual procedures in an audit by recognising that, depending on the form of the underlying information, ATT may provide more persuasive audit evidence or that it may not be possible to perform the audit procedures manually. We also find the examples such as the use of ATT to perform observation procedures during the physical inventory counting, to be helpful guidance as these techniques are becoming more prevalent in the current environment.

However, as we noted in our response to question 2 above, we are of the view that the proposed amendments fall short of the needs of the profession. In particular, we highlight the following:

ATT encompasses a broad range of procedures from the automation of audit procedures through to the performance of data analytics. In practice, ATT and ADA are often conflated. Guidance in the standard that explains the range and examples of procedures that comprise ATT would help alleviate this confusion. As such, we recommend that this is included in an appendix to the standard.

The use of ADA is becoming more prominent in an audit; however, some auditors are reluctant to use ADA given the lack of clarity about the type of procedure and the level of evidence obtained from its performance. For example, if an auditor performs an ADA and that ADA does not result in ‘notable items’ or ‘outliers’ being identified, it is unclear what evidence the auditor has obtained from the procedure and how this impacts the evaluation of whether sufficient appropriate audit evidence has been obtained. Clarity is needed as to whether ADA can be a risk assessment procedure, a substantive procedure, or both and, if both, the respective criteria it needs to satisfy. Additionally, examples about how ADA may be used as a risk assessment analytical procedure and as a substantive procedure would be helpful.

Mazars (MZ)

Although the application material includes some technology-based examples, and the IAASB has published staff alerts in relation to the use of technology, we are disappointed that the proposed revisions to ISA 500 do not go further in respect of the use of technology in audits. The revision of ISA 500 was an opportunity to really drive change in the use of technology in obtaining higher quality audit evidence by assessing/analysing entire populations and identifying outliers for further investigation rather than adopting traditional sampling techniques.

The standard could be enhanced by establishing the type of evidence that can be obtained from the use of technology. We are particularly disappointed that there is no explicit acknowledgement that the auditor may perform substantive procedures, including substantive analytical procedures, by using ATT. The lack of clarity in international standards makes it difficult for firms in international networks to consistently adopt and enhance the use of technology in their audit methodologies. This further runs the risk of fragmentation of the audit market, with the largest firms more willing and able to invest in technologies that the mid-tier and smaller firms may not consider owing to apparent restrictions in the auditing standards.

We note that automation bias is discussed in the application material, but note that as currently written, this may be interpreted as a barrier to the adoption of technology, rather than encouraging the use of ATT.

The IAASB may wish to consider whether more guidance can be provided on the use of technology, including techniques such as predictive analytics, process mining, data visualisation and whether such
guidance could form a further appendix to the standard or in further staff guidance. We also note the IAASB’s intention to undertake a technology omnibus project, of which this further guidance could be part.

We are, however, disappointed with the extent of revisions in respect of technology throughout the application material, also noting that the evolution of technology was identified as a key public interest issue in the Audit Evidence project proposal. As explained in our response to question 4, we encourage the IAASB to include an explicit acknowledgement that the auditor may perform substantive audit procedures, including substantive analytical procedures, by using ATT.

5. Public Sector Organizations

Office of the Auditor General of Alberta (OAGA)

ED-500 (Revised) should be improved by adding guidance dealing with exceptions identified through automated tools and techniques (ATT). For example, how many exceptions are required to be investigated? Are all exceptions investigated? What type of evidence is needed to support an exception or not? Are exceptions part of audit evidence? Can exceptions under a specific threshold be ignored or must they all be considered?

The IAASB’s non-authoritative guidance is not as strong as including specific guidance and examples in ISA 500 (Revised) on this issue.

The problem of exceptions found in ATT is exasperated by ISA 500 being silent on this matter. ED-500 may allow an auditor to argue the intended purposes of the ATT procedure was to show the control was working and not to identify all (each and every) instance where the control was not working, or that the intended purpose was only to show the class or transaction or account balance had only few errors, not many, and so ignore the ATT and not consider it evidence (corroborating or contradictory) because the intended purpose of the ATT was not met. ED-500 should include guidance on whether all exceptions need to be investigated further, when the ATT test can be ignored, when only a few of the exceptions need to be investigated, or perhaps they can be added together and recorded as an audit difference. IAASB should add a specific example of what the auditor does when an ATT identifies thousands of potential exceptions and give specific guidance of what the auditor then does, for when ATT is a control test and when the ATT is a substantive test.

6. Member Bodies and Other Professional Organizations

Accountancy Europe (AE)

No, we do not believe that the public interest objective of modernizing the ISA 500 to recognise the evolution in technology has been fully achieved.

Developments in technology have affected how audits are performed, for example, by increased use of automated tools and techniques, data analytics, robotic process automations, machine learning and artificial intelligence (AI). The IAASB will ultimately need to go further in clarifying what auditors are required to do for the evaluation of audit evidence obtained through these technologies. This can be accomplished by principles-based requirements and relevant application material leveraging on the recent non-authoritative material published by the IAASB.

In addition, some technology-enabled audit procedures cannot be categorised either as “substantive analytical procedures” or as “test of details”. This creates challenges for engagement teams applying ISAs. We would therefore encourage the IAASB to further explore how to provide more guidance in this area, in coordination with the IAASB Technology Working Group.
Finally, data visualization and process mining could be added to the Appendix of the ED-ISA 500 as types of audit procedures. These are particularly helpful for auditors to better understand the entity and to perform refined risk assessment.

We believe that the project has not fully achieved its public interest objectives. The evolution of technology in relation to audit evidence, in particular, has not been addressed properly and the project was a piecemeal revision rather than a comprehensive review of the audit evidence-related ISAs to in 500 series.

Center for Audit Quality (CAQ)

To meet the Board’s stated objective of modernizing ISA 500 to be adaptable to the current business and audit environment, and to better reflect the digital era, we believe a more holistic focus on how technology affects the audit, including how audit procedures are designed and performed using automated tools and techniques, is needed to fully modernize ISA 500. We believe that certain concepts included in the Explanatory Memorandum could be included in the requirements to better accommodate the use of technology by the entity and the auditor. Additionally, as discussed in our response to Q1(b) above, we believe that the objective cannot be effectively met through the amendment of ISA 500 in isolation without also amending ISA 330. Refer to our response to Q1(b), above.

For example, with the use of new automated tools and techniques, audit procedures may no longer neatly fit into the categories of risk assessment procedures, substantive analytical procedures, or tests of details. As paragraph 36 of the Explanatory Memorandum states, “Furthermore, input from the IAASB’s outreach activities indicated that the classification of audit procedures by nature and type was creating challenges in practice as the use of new audit tools and techniques may involve a blend of types of procedures, or the types of procedures described in the ISAs may not fully describe the procedure being performed. The IAASB is of the view that it is more important for auditors to focus on the appropriateness of the audit procedures in the circumstances (i.e., whether the audit procedures are appropriately designed to achieve their intended purpose, and have been effectively applied by the auditor) rather than the type of audit procedure (i.e., in which “category” the audit procedure falls).”

Therefore, the requirements and application material of the final ISA 500(R) should more explicitly address this concept. A suitable place to emphasize the views expressed in paragraph 36 of the Explanatory Memorandum may be in a new paragraph after paragraph A18, with a cross-reference to paragraph A25. To fully modernize ISA 500 with regard to technology in the audit, we also recommend that the final ISA 500(R) include more examples. As a point of reference, SAS 142, Audit Evidence, includes an example at A69 Exhibit A — Using ADAs to Simultaneously Accomplish Multiple Audit Procedures, which illustrates the use of an audit data analytic (ADA) that simultaneously accomplishes the objectives of both risk assessment and substantive audit procedures.

Additionally, we understand that it is important to acknowledge the risks associated with “automation bias;” however, we believe that, as currently written, ED-500 may dissuade auditors from using technology or automated tools and techniques in the audit in favor of traditional auditing techniques – even when more advanced auditing techniques may provide more persuasive audit evidence. For example, of the various types of bias included in paragraph A19 (i.e., confirmation bias, anchoring bias, availability bias, automation bias), automation bias is the only type of bias addressed in more detail in a separate section/paragraph. Further, paragraphs A22 and A23 do more to suggest factors an auditor considers which may dissuade them from using technology, than to facilitate the use of technology. We believe that the description of automation bias currently included in paragraph A19 is sufficient to acknowledge and allow an auditor to understand the risks associated with such bias. To further balance this, paragraphs A3 and A4 of the final
ISA 500(R) could more affirmatively state that there are circumstances in which the use of technology or automated tools and techniques in the audit may lead to deeper risk assessment and more tailored audit procedures that provide persuasive evidence to respond to the assessed risks of material misstatement.

To the extent paragraphs A22 and A23 are included in the final ISA 500(R), it is not clear what is intended by the last bullet in paragraph A23. While auditors often use automated tools and techniques that have been developed and approved at the firm level, for other tools or techniques, the review is at the engagement-level. Many firms encourage innovation and have developed protocols to help guide teams in making sure they apply the appropriate engagement-level supervision and review procedures over such audit procedures. As written, the last bullet within paragraph A23 could stifle innovation by dissuading auditors from using such methods, by requiring levels of review incremental to engagement team-level review, leading them to perform more traditional audit procedures which could provide lower quality audit evidence than what may otherwise be obtained through an engagement team-developed automated tool or technique. As such, we recommend that the Board remove the last bullet within paragraph A23 in the final ISA 500(R).

ED-500 could go further to accommodate the use of technology

The impact of technology is a key strategic driver in the IAASB’s current Proposed Strategy and Work Plan for 2024-2027. To fully realize the potential benefits that technology can have on enhancing audit quality, we believe the final ISA 500(R) could go further to accommodate the use of technology in the audit, as expanded upon in our response to Q4 below. While it is important to maintain a balanced standard that does not require the use of technology, the ED-500 does more to suggest factors an auditor considers which may dissuade them from using technology (e.g., automation bias considerations) than it does to facilitate the use of technology.

Chamber of Auditors of the Czech Republic (CA CR)

The issues related to use technology are addressed only in the application part. The principles described in the requirement part are valid and relevant whether technology is used or not.

However, as one of the key objectives for the revision of the standard was to reflect usage of technology (data analytics, visualization, AI, data mining etc.), we expect that the application part will provide more useful example of impact of using of such technology. For example, the appendix where types of audit procedures are listed lists only non-sophisticated procedures (mainly related to risk assessment) such as visualization or data analytics are listed. The standard does not elaborate on use of more advanced technology for substantive procedures.

We also believe that usage of AI in audit will increase and there is no guidance in application part how to work with the output provided by AI.

However, we believe that the current ED – ISA 500 does not fully meet one of the project objectives in respect of using automated tools and techniques by auditor and client.

Chartered Accountants Australia and New Zealand and the Association of Chartered Certified Accountants (CA ANZ & ACCA)

Use of technology

While we understand the challenge for the Board to develop a standard that is principles-based, future-proof, that is not prescriptive and at the same time accommodates the use of technology by the entity and the auditor, in our view the proposed ED-500 does not go as far as expected in relation to technology. Our
stakeholders noted that it seems that the Board appears too cautious in its approach when it comes to embracing technology.

We recognise that the application material was modernised to include examples such as the use of drone technology, however, it does not really address using technology in substantive procedures. Our stakeholders noted that the standard does not sufficiently address the use of technology in analytical procedures. There is also a lack of clarity as to what uses of technology constitute an audit procedure.

While we understand the challenge for the Board to develop a standard that is principles-based, future-proof and not prescriptive and at the same time accommodates the use of technology by the entity and the auditor, in our view the proposed ED-500 does not go as far as expected in terms of technology. Our stakeholders noted that it seems that the Board appears too cautious when it comes to embracing technology.

We recognise that the application material was modernised to include examples such as the use of drone technology, however, it does not really address using technology in substantive procedures. Our stakeholders noted that the standard does not sufficiently address the use of technology in analytical procedures. There is also a lack of clarity as to what uses of technology constitute an audit procedure.

In our view the IAASB needs to collect feedback from firms on the ways that they are using technology and provide examples as to how these techniques might be used in obtaining audit evidence during the various stages of the audit. Furthermore, we suggest looking at the guidance issued by NSS such as the UK FRC paper Addressing Exceptions in the use of Audit Data Analytics report Technological Resources, the Canadian Public Accountability Board paper CPAB Exchange: Technology in the Audit and the joint CPA Canada and AICPA paper The Data Driven Audit: How Automation and AI are Changing the Audit and the Role of the Auditor as examples that go further. Some of our stakeholders noted that many NSS have issued more detailed guidance on the use of technology and that this should be the role of the IAASB, not NSS. Where necessary, the IAASB could work together with NSS to produce guidance.

**CPA Australia (CPAA)**

ED-500 notes that, since the standard needs to withstand an evolving audit environment that includes increasing use of technology, it should accommodate, rather than being prescriptive about, the use of technology. Whilst we appreciate the rationale behind this approach, feedback we have received indicates that ED-500 has not dealt sufficiently with the use of technology in audit. We provide the following comments in this regard:

There is a lack of practical guidance to illustrate how different automated tools and techniques can be used to perform audit procedures that are commonly applicable to entities, depending on the size of the entity. If such guidance cannot be included in the standard and AM, we recommend developing and issuing non-authoritative guidance material that addresses the use of technology in obtaining audit evidence. This approach can facilitate more regular updates as technology and its use in audit evolves. For example, we see significant value in the non-authoritative support material, Investigating Exceptions and Relevance of Performance Materiality When Using Automated Tools and Techniques, that was issued recently by the IAASB.

We note that automated tools and techniques (ATT) are not defined in the ED-500, although a definition is included in the Proposed ISA for Audits of Financial Statements of Less Complex Entities (ISA for LCE). For consistency in understanding, we recommend that the definition for ATT be included in ED-500 and future revisions of other ISAs.
We welcome the proposal to expand the scope of information that could constitute audit evidence, to include ‘digital information’ (paragraph A41). However, our stakeholders advised us that they felt that the concept of ‘digital information’ is not clearly articulated in the ED. ‘Digital information’ could broadly be categorised to include:

Digital data – information that is developed and/or stored within an IT system or obtained electronically from an external source

Digital documents – information which is obtained in electronic format, for example, an electronic confirmation

Information that has been transformed from its original medium into an electronic format, for example, a scanned version of an executed contract.

Using different categories of digital information when obtaining audit evidence may require the auditor to perform different audit procedures to evaluate reliability. For example, with digital data the auditor may design audit procedures to test the effectiveness of controls over their accuracy and completeness. In contrast, inspecting underlying original documents to validate the authenticity of information in electronic form will be more appropriate as an audit procedure when evaluating the reliability of information that has been transformed from its original medium into a digital document. We recommend that the IAASB provides the distinction between, and clarity around, different audit procedures that may be required to evaluate the reliability of the different categories of ‘digital information’.

Institute of Chartered Accountants in England and Wales (ICAEW)

No, we are disappointed that the proposed revisions to ISA 500 do not go far enough to address the current issues surrounding the use of technology in audits, for example the type of evidence that can be obtained from technological sources or technology-based testing approaches. However, we note the high-quality technology-based examples and we further recommend including an additional appendix that deals specifically with the use of technology in audits. This would include examples of procedures and techniques etc., and could be updated regularly to keep up with evolving technology.

We acknowledge the Board’s work plan proposal to undertake a technology omnibus project, and we acknowledge the content within current staff guidance documents, but these are not visible enough. Therefore, we support work to constructively find a way to make this material more visible.

As the use of technology evolves, auditors are seeking increased direction from regulators and standard setters regarding the role of technology in obtaining audit evidence through international authoritative standards. By avoiding the issue, standard setters make auditors responsible for developing their own approaches and methodologies, or following conflicting local guidance, which leads to increased inconsistency across international networks.

Revising ISA 500 was intended to address the use of technology in obtaining audit evidence and we are disappointed this has not been included within the proposals, and therefore the revisions as a whole may not have met the initial intended objective. The proposals do not address the current issues surrounding the use of technology in audits, for example the type of evidence that can be obtained from technological sources or technology-based testing approaches. However, we note the high-quality technology-based examples given in the application guidance.
Institute of Chartered Accountants of Scotland (ICAS)

No, we do not agree. Technological innovation continues at pace and there is increased use by auditors of techniques such as data analytics, and machine learning. We therefore believe there is a need for the IAASB to better respond to the impact of such developments.

As we have highlighted in our response to the IAASB's proposed strategy and work plan for 2024 - 2027 we believe there is a need for a more comprehensive review of the ISA 500 series of standards to better take account of technological developments. The use of technology presents challenges to auditors as to what is expected of them in terms of evaluating audit evidence. There is more for the IAASB to do in this regard.

Instituto Mexicano de Contadores Publicos (IMCP)

We consider that it should address technology in greater depth; for example, including guidance on the expected audit documentation when an automated tool or technique is used to obtain audit evidence. We suggest the IAASB to explore the need/possibility of creating a specific standard addressing the use of technology in greater depth.

Q04 - Neither agree nor disagree

1. Monitoring Group

International Forum of Independent Audit Regulators (IFIAR)

We recommend that paragraph A22 relating to the risk of automation bias when evaluating the relevance and reliability of information intended to be used as audit evidence includes consideration of outputs generated by automated systems. In addition, we recommend that paragraph A23:

- Provide an example of instances or situations when vulnerability to automation bias may be greater; and
- Include the need for the auditor to assess whether the use of the ATT is appropriate in the circumstance to meet the intended purpose of the audit procedure, notwithstanding the fact that the ATT itself has been approved by the auditor’s firm.

Q04 - No specific comments

2. Regulators and Audit Oversight Authorities

Committee of European Auditing Oversight Bodies (CEAOB)

Irish Auditing and Accounting Supervisory Authority (IAASA)

6. Member Bodies and Other Professional Organizations

Accounting and Finance Association of Australia and New Zealand (AFAANZ)

We also do not comment on the effectiveness of the proposed standard in terms of facilitating the ever-increasing use of automated tools and techniques, but do note that reference to established and emerging technologies, including AI, is largely absent from the proposed standard.

We limit our comments to the questions for which we are of the view that the extant research literature may meaningfully contribute. Specifically, we comment on Questions 1, 2, 5, 6, 9, 10 and 11.

7. Individuals and Others

Shuichiro Tsumagari (ST)

Thomson Reuters (TR)