Subject: IAASB’s Request for Input: Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics

Dear Sir,

Accountancy Europe is pleased to provide you with its comments on the IAASB’s Request for Input: Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics.

(1) We support the IAASB’s efforts to embrace technological innovation within their suite of International Standards on Auditing (ISAs), which, as you note, were written in a different technological era.

(2) The IAASB has considered a number of important circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit.

(3) The list of standard-setting challenges is well thought out and presents a good summary of the main challenges encountered by the auditor. We have identified in the Appendix a few other areas the IAASB could have referred to or emphasised in the paper.

(4) While considering the relevance and reliability of external data, the standards identify third party evidence as being a better source of evidence than an inquiry of management or an observation of the application of a control. On one level, this assumption might well be worth revisiting. Regardless of where the data originates from, data should require validation of completeness, accuracy and reliability.

(5) It is important to prioritise the standard-setting challenges; the IAASB will not be able to find solutions to all the challenges in the short-term. For instance, for many firms the main priorities will be for the IAASB to provide guidance on how to deal with outliers or how to confirm that the population is in fact 100 percent. Equally, practitioners question the fundamentals of what kind of audit evidence data analysis provides and how underlying principles such as inherent and control risks are affected.

(6) It is also expected that the issue will become more acute as the nature and extent of testing based on data analytics increases and becomes more complex because the amounts of data rapidly increases.
We agree that the journey is evolutionary and that audit data analytics is still a ‘work-in-progress’. It is
though being used in earnest right now. There are already major questions arising, some of these such
as whether the risk-based approach is still valid, whether risk assessment is now so precise and
comprehensive as to effectively giving some assurance, and how the substantive analytical procedures
can be adapted to recognise an iterative approach. These questions are all so fundamental to the
foundational premise of ISA that we encourage early consideration.

Not all companies are ready to undergo a data analytics audit. Also, data analytics should not become
the sole way of approaching an audit. From a standards’ and regulator’s perspective, it is important
to consider the implications in certain areas of an audit performed with the use of data analytics and
an audit that is not. For instance, there will be audits where the auditor may be able to extract and
validate all the raw data needed to perform the work via data analytics techniques but may choose to
test a sample of the full population instead. It would be therefore useful if the IAASB develops some
criteria to help the auditor identify when it will be appropriate to use or to choose not to use data
analytics.

The approach taken by the IAASB is critical. We doubt whether a strategy of solely revising ISAs would
be sufficient; even if such revisions were taken forward as a matter of urgency, the lead time - from
initial conception of revisions to finalisation and issuance - would not meet stakeholders’ expectations.
As already noted, data analytics is being used in practice right now and auditors find themselves in
situations where technology is rapidly outpacing the development of standards and guidance on how
technology impacts their work and in particular the testing of transactions.

Taking the above into account, we encourage the IAASB to progress the project with energy and open
mind and to focus attention in the short-term. Providing guidance - through the development of non-
authoritative material, including staff papers and international auditing practice notes (IAPNs) will
enable the DAWG to recommend an appropriate way forward to address the main challenges posed.
Such guidance will definitely help the practitioners and also enhance the confidence of the regulators
that high quality external audits are performed under ISAs.

If such a strategy is pursued, the IAASB should also ensure the ISAs remain sufficiently principles-
based to facilitate the application of various techniques and tools by the audit firms. It is urgent to apply
this strategy; if the IAASB does not embrace the challenges presented today, it will lead to other bodies
taking the agenda forward, which risks being counterproductive for the profession as a whole.

The IAASB is not operating in a vacuum. Monitoring and influencing initiatives and related work
performed by other standard setters, regulators and audit firms in the area of audit analytics is
beneficial. In particular, we highlight the impact of regulators on the development of data analytics and
their involvement on the subject matter, i.e. for example the UK FRC’s Thematic Review.

Notwithstanding our view expressed above, we recognise that the IAASB has reached some initial
conclusions. The first is the assertion that being able to test 100 percent of a population does not imply
that the auditor is able to provide more than a reasonable assurance opinion or that the meaning of
‘reasonable assurance’ changes. We agree: the definition of reasonable assurance is very unlikely to
warrant change, regardless of developments in data analytics. Nevertheless, what users understand
by ‘reasonable assurance’ will certainly change (as indeed perhaps it should) in line with improvements
to audit quality brought about by the use of data analytics and other significant technological
developments. In light of this, the IAASB should consider how the enhanced value of the audit brought
about by data analytics can be reflected in auditing standards, and in turn, stakeholder perceptions
about the value of an audit.
(14) Auditors aside, there is also a growing interest from businesses to analyse their own data in a similar manner. The paper does not make reference to the audited entity’s use of data analytics; however, this will have a direct impact on the work of the auditor. Another challenge is therefore posed where the internal audit function of the audited company or the management have integrated data analytics tools into their processes. Management’s expectations might increase in relation to the focus and scope of external audit. The auditor may also encounter difficulties upon evaluating if and how the work of internal auditors is reliable and can be used as audit evidence or if data protection and independence issues are faced. The effectiveness of their work could be determined predominantly by the quality of the information that has been reviewed by the management.

(15) In addition, management may, for perceived cost-saving reasons, pressurise audit firms to apply data analytics even when the internal use may not be optimal or warranted in terms of audit quality. This type of situations may become more pronounced due to increased tendering activity. The IAASB ought to develop criteria to guide the application of data analytics i.e. what are the pre-requisites from the audit client for applying data analytics.

(16) The need to enhance education and skillset of professional accountants and auditors is equally valid for regulators’ skills to develop alongside. From a Small and Medium Practice (SMP) perspective, access to IT specialists (who also understand assurance needs) may be the issue at present too. Regulators have also significant influence on how audit practice develops. Given this influence, the ideal solution is for audit professionals to be fully confident that regulators, in the public interest, understand the issues, follow the innovations at the same pace as audit practices and encourage this innovation in order to progress audit quality.

(17) For further information on this letter, please contact Eleni Ashioti on +32(0)28933387 or via email at elenia@accountancyeurope.eu or Noémi Robert on +32(0)28933380 or via email at noemi@accountancyeurope.eu.

Kind regards,

On behalf of Accountancy Europe,

Edelfried Schneider                    Olivier Boutellis-Taft
President   Chief Executive

ABOUT ACCOUNTANCY EUROPE

Accountancy Europe represents 50 professional institutes of accountants and auditors from 37 European countries, with a combined membership of almost 1 million professional accountants working in different capacities. As the voice of the European profession, Accountancy Europe recognises the public interest.

Accountancy Europe is in the EU Transparency Register (No 4713568401-18).
ANNEX 1 – RESPONSES

Question 1

a) Have we considered all circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit?

(1) The IAASB has considered a lot of important circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit. We list below some additional thoughts.

(2) We fully support the statement in paragraph 6: “The quality of a financial statement audit can be enhanced by the use of data analytics”. However, it should be tempered. Although there is a great deal of upside potential for the correct use of data analytics, it is in reality merely a tool. There is also the potential of inappropriate application, overconfidence, overreliance, false interpretation etc. which could negate any intended enhancement in audit quality. Skilled and experienced auditors are a pre-requisite for data analytics to enhance audit quality.

(3) As an example, the paper notes that the use of data analytics offers opportunities for auditors to obtain a more effective and robust understanding of the entity (according to paragraph 7 on page 7). This is certainly true. However, if data analytics effectively, and perhaps mechanically, tests 100 percent of the population, there is a risk that this reduces the interaction between the auditor and the client about the nature of some of the operational day to day activities - and hence actually reduces the auditor’s understanding of the entity.

(4) The phrase “testing 100% of the population” needs to be used with caution as it can be misleading. Although 100 percent of the transactions might be subject to ‘analysis’ there is a sequence of logic to conclude that this is “100% tested”. It can also lead to a false sense of security or, as paragraph 8(d) states, “overconfidence”.

(5) As acknowledged, the use of data analytics examining 100 percent of a population “does not imply that the auditor is able to provide something more than a reasonable assurance opinion or that the meaning of “reasonable assurance” changes”. While the definition of reasonable assurance will probably not change - irrespective of any advances in data analytics - what users understand by ‘reasonable assurance’ will change corresponding to developments to the underlying audit and improvements to audit quality brought about by data analytics. Auditing standards should ponder the enhanced value, and the stakeholders’ perceptions about the value of an audit.
The reliability of the data being tested and the reliance placed on the IT system being used to produce the data are two strategic dimensions. Although the responsibility lies with the engagement partner, it is likely that IT specialists within the audit firms have a key role, exercising judgement in determining that the IT and application controls are adequate to enable the auditor to place reliance on outputs. But do they understand the needs of the auditor in this respect? Do the IT specialists and the audit engagement team speak the same language? There are training implications both for the non-audit specialist in terms of audit methodology and for the auditor in terms of IT training. The Institute of Chartered Accountants of Scotland (ICAS) and The Financial Reporting Council (FRC) audit skills research papers¹ and Steering Group report² have discussed this issue.

The IAASB’s paper tries to be generic in nature regarding data analytics. A certain degree of colour could be added from explicitly stating examples of the data analytics tools it refers to. It is not evident if the scope of the paper comprises the more advanced tools such as the cognitive technology that integrates artificial intelligence (AI). It could mention the desired features that an analysis tool should have.

Additionally, the paper would benefit from recognising that the use of different tools by various firms could cause complications during auditor rotation if access to these tools is refused. For instance, if the previous auditor denies access to the newly appointed auditor, would the successor auditor need to carry out work in the prior year figures as well? Although this has been an issue in the audit world pre-data analytics, the complexities of tools and methodology relating to data have the potential to significantly elevate this risk associated with auditor rotation, should the issue not be addressed.

In relation to data acquisition mentioned in paragraph 18(a), it will also be worth considering practical issues such as the audited company being reluctant to give direct admission to live operational systems. As a consequence, the auditor or IT specialist might have to spend time negotiating with the IT department of the client for access to certain data. There might also be reluctance by other firms (such as component auditors) in a group audit to provide access to the infrastructure of their tools. In addition, there are difficulties in compatibility between the clients’ and the audit firms’ systems because these are configured differently.

b) Is our list of standard-setting challenges accurate and complete?

(10) The list of standard-setting challenges is in our opinion accurate and presents a good summary of the main challenges encountered by the auditor. We have identified below other areas where the IAASB could have referred to or clarified in the paper.

(11) Any future guidance should provide a clear explanation of what is meant by data analytics. The basic definition is what many of the smaller firms will struggle with. For example, something as basic as exporting information from an accounting software package into an excel file and using it to sort by value, date etc. is an example of data analytics in its simplest form.

(12) Data analytics is being used in practice now, but the current auditing standards predate this time and understandably did not anticipate the extent to which technology might evolve or how quickly. Consequently, the auditors and regulators find themselves in a situation where technology is rapidly outpacing the development of standards and guidance on how technology impacts upon their work and in particular the testing of transactions. With this in mind, we consider the approach the IAASB takes critical and, for instance, we doubt whether a strategy of solely revising ISA is sufficient; even if such revisions are taken forward as a matter of urgency, this will not meet stakeholders’ expectations in terms of timing.

(13) When reflecting how guidance and standards might develop it is necessary to be clear as to the different types of data analytics that are being considered. e.g. journal entry analysis, data mining, three-way match analysis, process mining etc. All have different implications vis-à-vis auditing standards and guidance.

(14) Certain data analytics makes performance of the (traditional) audit procedures easier or perhaps facilitates higher coverage, whereas others actually introduce new possibilities not readily available in a manpowered audit (e.g. data mining) and these are the ones not currently envisaged by current auditing standards. For example, whilst auditors have manually matched sales orders to shipping documents and then to invoices for relatively small sample sizes, three-way match analysis can now be done efficiently on a far larger scale; however, the question needs to be asked as to whether these tests are as effective e.g. what is the qualitative value of a human evaluating a signature on a good dispatched note. Conversely, other techniques such as data mining, text mining and cluster analysis can go far beyond this, and may open up a level of sophistication and possibilities not previously featuring in the audit. All these examples and more will pose new challenges to standard setters. Auditors will still need to plan the procedures and so they will need to understand how to integrate appropriately the increased coverage potential as well as such new possibilities into audit planning and performance. Otherwise, auditors run the risk of overemphasising the data that is available over the data that ought to be there.

(15) In paragraph 19(b) on page 12, the paper discusses the challenge of carrying out audit procedures using the majority of data as produced by the entity. The paragraph could also explicitly refer to the issue with validating the data used for analytics. Audit analytics do not generally rely on reports produced by the system; they use and rely on data which is extracted through the underlying databases.

(16) The discussion paper would perhaps also benefit from elaborating on the use of regression analysis. There are challenges when performing this kind of analysis, including to what extent the auditor needs to consider whether prior years’ data are relevant and reliable for use to predict the future; whether they are enough data points being used and how this would pick up unexpected but still valid occurrences.
While considering the relevance and reliability of external data in paragraph 19(c), the standards identify third party evidence as being a better source of evidence than an inquiry of management or an observation of the application of a control. On one level, this assumption might well be worth revisiting; for example, we are aware of many instances of data on pricing of investments obtained from reputable third parties that turned out to be of poor quality. Regardless of where the data originates from, data should require validation of completeness, accuracy and reliability consummate to its use in the audit. As such, the work to be performed will depend on where it originates from, the level of significance of the evidence to the particular procedures audited and what the auditor intends to do with this evidence. For example, where the audit evidence is obtained from many and multiple sources of information, it might be valid to wonder the extent of testing necessary to rely on it.

The paper also discusses in paragraph 19(e) on page 13 how data analytics should be classified in relation to obtaining sufficient audit evidence and whether these procedures represent substantive audit tests or tests of controls. Although one can consider audit analytics fitting into all the categories of audit evidence, we wonder if it actually eliminates the need for such prescriptive classifications. Also, do some of the inherent limitations of certain tests highlighted in the ISAs still hold true? e.g. if they are classified as substantive, does that require further tests of controls on a sample of the population to satisfy the regulator even though 100 percent of the population is already considered? Correspondingly, where the auditors are expected to analyse 100 percent of the population but turns out that they are not able to do so i.e. because of hurdles in getting the right data format form the client, we wonder what percentage will be considered reasonable for the auditor to obtain confidence that the audit evidence is sufficient. Also, we should consider whether the client is hiding something in such cases – prima facie this is a scope limitation for the auditor.

With regard to the storage and retention of data as referred to in the paper in paragraph 19(i) on page 14, we note that there are both logistical and data protection implications which need to be considered.

Auditors aside, there is also a growing interest from businesses to analyse their own data in a similar manner. The paper does not make reference to the audited entity’s functional use of data analytics; however, this will have a direct impact on the work of the auditor. Another challenge is therefore posed where the internal audit function of the audited company or the management have integrated data analytics tools into their processes. Management’s expectations might increase in relation to the focus and scope of external audit. The auditor may also encounter difficulties upon evaluating if and how the work of internal auditors is reliable and can be used as forms of audit evidence or face data protection and independence issues.

In addition, management may, for perceived cost saving reasons, pressurise audit firms to apply data analytics even when the internal use may not be optimal or warranted to drive the audit. This type of situations may become more pronounced due to increased tendering activity. The IAASB ought to develop criteria to guide the application of data analytics i.e. what are the pre-requisites from the audit client for applying data analytics.

It is also worth noting that not all companies are ready to adopt and undergo a data analytics audit. We should consider the implications of an audit performed with the use of data analytics and an audit that was not. There is a danger that one is seen as a higher quality audit than the other one.

A further challenge identified is the extent to which the use of data analytics produces information other than audit evidence. Techniques that are currently in use certainly add to the audit evidence but also frequently help the auditor provide valuable insight to the client’s management at the same time. This raises questions such as how might this create a threat to independence?
Question 3

c) To assist the DAWG in its ongoing work, what are your views on possible solutions to the standard-setting challenges?

The challenges listed in the paper reinforce the need for the IAASB to ensure its suite of auditing standards remain suitably principles-based so that auditors, whatever their location and environment, can scale their procedures to the audited entity’s circumstances, firm’s audit methodology as well as the degree of technology available. Neither are all entities that are subject to audit worldwide nor all audit firms at the same level of sophistication as far as the use of technology is concerned. With the possibilities that data analytics are increasingly opening up, there is a need for standard setters to ensure flexibility in audit standards rather than prescribing e.g. specific sets of procedures.

Moreover, deliberations such as whether the extant risk-based audit approach could be replaced by a fully substantive approach seem to be missing the point for the majority of audits around the world today. The auditor’s knowledge of the client’s business and operating environment as well as ability to exercise professional judgement remains critical in designing and applying the use of data analytics in the most appropriate manner - irrespective of whether data analytics are applied in this context or not. Education and IT skills will evolve but ultimately the auditor’s assurance skillset, professional judgement and professional scepticism make the difference between an audit adhering to the letter of the standards and the execution of a high quality audit. The auditor will also need to be able to properly understand where and how technology can be applied in the audit. The auditor will also need to understand and interpret the resulting analyses in reaching conclusions and forming an audit opinion.

As noted earlier, the IAASB’s strategy for producing standards and guidance is critical. We doubt whether a strategy of solely revising ISAs would be sufficient; even if such revisions were taken forward as a matter of urgency, the lead time - from initial conception of revisions to finalisation and issuance - would not meet stakeholders’ expectations. Considering that the IAASB will not be able to find solutions for all of the challenges in the short-term, we list below the key priorities that need to be addressed:

- How to confirm that the population is in fact 100 percent i.e. it should not just be an assumption. How to deal with outliers?
- What kind of audit evidence does data analysis provide, i.e. which further substantive audit procedures / control tests have to be performed beyond data analysis i.e. when do we determine that audit evidence obtained is enough?
- Consider data analytics impact on the thinking underlying the concepts of inherent and control risk.

The IAASB has recognised it is not operating in a vacuum and that is beneficial to monitor and influence initiatives and related work performed by other standard setters, regulators and audit firms in the area of audit analytics. We reinforce the importance of this. In particular, we highlight the impact of regulators on the development of data analytics and their involvement on the subject matter, for example the UK FRC’s Thematic Review³.

Question 4

d) Is the DAWG’s planned involvement in the IAASB projects currently underway appropriate?

(28) With respect to professional scepticism, data analytics is capable of providing results and information that is free from human bias (although bias of another type may well be introduced, especially as AI develops). However, it is important, from a human factor point of view, to look at the way tools are used by practitioners before presuming that the process is bias free. While the techniques used for data analytics are no more prone to error than the traditional techniques, any inappropriate use of judgement and professional scepticism will certainly introduce bias consistently and potential for significant error.

(29) If we were to help focus the DAWG’s activities further, we suggest that involvement in the ISA 540 project should be given less priority over other standards. This standard is currently not impacted to a great extent as it is linked to the need for the auditor to exercise appropriate professional judgement. This will undoubtedly be more relevant in the future when cognitive technology develops further.

(30) We would rather suggest that the DAWG is involved in the revision of the standard dealing with audit evidence (ISA 500) as the ISA 500 project would likely include data analytics according to the IAASB Work plan 2017-2018. In our response to the IAASB’s Work Plan, we mention that ISA 500 should be confined to changes resulting from developments in the data analytics project.

(31) We agree with paragraph 42 that the IAASB will need to be careful not to prematurely commence standard setting activities. We refer to our earlier comments regarding the need for guidance and the ongoing need for principles rather than rules-based approach to standard setting.

(32) Although some application guidance is needed as a matter of urgency, as tools and techniques mature, there will ultimately be a need for a more detailed review of the standards themselves.

Question 5

e) Beyond those initiatives noted in the Additional Resources section of this publication, are there other initiatives of which we are not currently aware of that could further inform the DAWG’s work?

(33) We are aware of some related work driven by Rikke Ryttergaard Andersen, an academic from Copenhagen Business School, that could inform the DAWG’s work further in this area.

(34) We are also aware of the ACL’s report ‘White Paper: Best Practices for the Use of Data Analysis in Audits’ that could inform the DAWG’s work further. The paper discusses the evolving role of audit analytics, the best practices for audit analytics and suggests seven practical steps to establishing best practices for audit analytics.

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5 http://www.dataconsulting.co.uk/Files/wp_best_practices.pdf
Question 6

(f) In your view, what should the IAASB’s and DAWG’s next steps be? For example, actions the IAASB and DAWG are currently considering include:

(i) Focusing attention on revisions, where appropriate, to ISAs affected by the IAASB’s current projects.

(ii) Exploring revisions to ISA 520.2

(iii) Hosting one or more conferences with interested stakeholders to collectively explore issues and possible solutions to the identified challenges.

(iv) Continuing with outreach and exploration of issues associated with the use of data analytics in a financial statement audit, with a view towards a formal Discussion Paper consultation in advance of any formal standard-setting activities

Question F (i)

(35) The approach the IAASB takes is critical. We doubt whether a strategy of solely revising ISA would be sufficient; even if such revisions were taken forward as a matter of urgency the lead time would not meet stakeholders’ expectations. As already noted, data analytics is being used in practice right now and auditors find themselves in a situation where technology is rapidly outpacing the development of standards and guidance on how technology impacts upon their work and in particular the testing of transactions. It is difficult to see how this can be resolved in the short term given the lead time from initial conception of revisions to auditing standards to their finalisation and issue.

(36) Taking the above into account, we encourage the IAASB to progress the project with energy and open mind and to focus attention in the short-term with providing guidance - through the development of non-authoritative material, including staff papers and international auditing practice notes (IAPNs), to enable the DAWG to recommend an appropriate way forward to address the main challenges posed. Such guidance should definitely help the practitioners and also enhance the confidence of the regulators that high quality external audits are performed under ISAs.

(37) If such a strategy is pursued, then the IAASB should also ensure the ISAs are sufficiently principles-based as to facilitate the application of various techniques and tools in the audit. It is urgent to apply this strategy as we fear that if the IAASB does not embrace the challenges presented, this will lead to other bodies taking the agenda forward, which risks being counterproductive for the profession as a whole.

Question F (ii)

(38) Performing an analysis of ISA 520 could be a logical first step.

(39) However, another critical aspect lies with ISA 500 Audit Evidence and ISA 230 Documentation and whether these standards are still fit for purpose.
Question F (iii)

We view face to face consultation as valuable and efficient. The IAASB could also host one conference with interested stakeholders to collectively explore possible solutions to the identified challenges. Once a preliminary plan has been established, there may be a need in some jurisdictions (also for professional institutes) to set up dialogue with regulators (workshops and roundtables) to present the solutions and obtain feedback. The IAASB could also host smaller focused groups amongst the audit firms and the regulators to discuss practicalities and help find possible solutions to the standard-setting challenges.

Question F (iv)

A form of stock-taking exercise amongst interested parties will be helpful at this stage. A discussion paper would be useful in this regard. However, the main question seems to be whether a shorter term solution (e.g. guidance material on how data analytics fits into the suite of ISAs) or a longer term solution (revision of the entire suite of ISAs) should be pursued at this time. The IAASB has recently consulted on its strategy and work plan, which also has to factor into any decision in this area.

In any case, we encourage the IAASB to monitor the initiatives and related work performed by other standard setters, regulators and audit firms in the area of audit analytics because any developments will have a global impact on our profession.

Question 7

Please provide any other views that the IAASB has not yet considered in relation to the use of data analytics in a financial statement audit

Auditors, audit oversight authorities, standard setters and other stakeholders need to work together in exploring how the use of data analytics could support enhanced audit quality. In particular, there would be considerable benefit for the IAASB and national Institutes if the IAASB were to collaborate in the development of further guidance with professional bodies and other organisations that have similar perspectives on using audit data analytics.

Education is needed during professional studies or even at the university level. For example, the American Institute of Certified Public Accountants (AICPA) has announced the next version of the CPA examination launched in 2017 will include testing of data analytics such as containing tasks about understanding the role of big data. The IAASB could draw attention to the significant need for the profession to develop skills in this area and to the need for assurance practitioners to decide on when and how to apply data analytics. From an SMP perspective, access to IT specialists (who also understand assurance needs) may be the issue at present too. Besides the necessary education the young professional accountants and junior auditors need to develop, there is a need for the experienced professionals and the regulators to be educated on the use of data analytics as well. We would therefore encourage the IAASB to have an information or education session depending on the particular topic to explain what the issues are. Such an initiative will enhance the regulators’ knowledge in understanding the work that has been performed within audit firms.

After all, regulators, in particular, provide an influential role in driving the evolution of auditing. Given this influence, the ideal solution would be to have the agreement from regulators that, in the public interest, the way forward is to encourage innovation in this area.