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Response to the UK government white paper, *A pro-innovation approach to AI regulation*

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BUILDING THE FOUNDATIONS FOR TRUSTED ARTIFICIAL INTELLIGENCE

RESPONSE TO THE UK GOVERNMENT WHITE PAPER, A PRO-INNOVATION APPROACH TO AI REGULATION

In March 2023, the UK government's Department for Science, Technology & Innovation published a white paper entitled *A Pro-innovation Approach to AI Regulation*. The white paper sets out the government's strategy for supporting innovation, while providing a framework to ensure that the risks associated with AI are identified, addressed and mitigated.

This paper, from ACCA and EY, is a response to that white paper. Our aim is to provide policymakers with a constructive critique of the white paper, informed by our positions within the accountancy and business ecosystem, and the access to feedback and inputs we have across our stakeholder bases.

For further information:



Narayanan Vaidyanathan,
Head of Policy
Development, ACCA



Dr. Ansgar Koene,
Global AI Ethics and
Regulatory Leader, EY

Forewords



Helen Brand OBE
Chief executive, ACCA

Not a day goes by without AI being in the news, and it features strongly in the public consciousness due to its potential to introduce both new opportunities and previously unseen risks. The release of the UK government's AI white paper has provided a timely opportunity to take stock.

As this paper notes, we're supportive of the overall pro-innovation approach, and the importance of multi-stakeholder feedback, such as capturing the voice of SMEs and the UK regions outside London. We also support the desire to build bridges internationally, which aligns strongly with ACCA's own global approach. We strongly endorse the explicit reference to the role of audit and assurance and related tools as a key part of the solution to ensure an AI ecosystem that is underpinned by ethical practices.

A flexible approach to manage the fast pace of new development can help – the current wave of generative AI, for example, has exploded quite recently. However, further, more prescriptive guidance may be needed to establish clarity on where accountabilities lie in some instances.

Overall, we see this as the start of a multi-year process and look forward to collaborating with and supporting UK government in this important endeavour in any way we can.



Professor Michael Mainelli
FCCA, Chairman, Z/Yen Group,
Senior Independent Director,
United Kingdom, Accreditation
Service, Senior Alderman Below
the Aldermanic Chair, City of
London Corporation, and Head
of the Ethical AI Initiative

The government's AI white paper lays out a proportionate and 'pro-innovation' approach to AI regulation. A British strength in regulatory frameworks has been a bias towards the use of industry or community 'standards markets', where industry standards and assurance processes provide 'accredited conformity assessment'. Standards markets based on proportionate and pro-innovation business ecosystems ranging from safe gas boiler supplies to fire prevention, aircraft certification, or shipping safety.

Standards markets should provide accreditation and certification such that people can place appropriate reliability on the assessed products and services. This paper notes the opportunity to use such standards, particularly existing ISO standards, for inspection and testing to provide appropriate assurance on AI products and services. This combination of minimal regulation with maximal use of standards markets can provide a middle path between two extremes: a completely unregulated approach leaving a tangle of confusion to the legal system and an overly regulated approach where nothing can move until permission is granted.

Those of us with decades of experience in the fields of AI have long recognised the need for standards. These ISO standards have not just 'popped out of the woodwork' due to recent media attention; rather they have been the result of years of concerted work to reach international agreements. This paper contends that it is now appropriate to push firmly towards their use in accredited UK conformity assessment.



Shawn Maher
EY Global Vice Chair –
Public policy

Driven by accelerating development and adoption of AI-enabled solutions, policymakers across the globe are confronting the challenges of formulating a regulatory approach to this rapidly advancing technology that will mitigate the potential harms of AI while simultaneously enabling its social and economic benefits.

The AI governance landscape is evolving rapidly and is likely to continue to be in flux for several years to come. Within this context, the UK government's AI white paper has proposed a 'pro-innovation' approach that focuses on the role of existing regulatory bodies in developing an AI regulatory framework underpinned by principles of responsible development and use.

Regulatory approaches to AI – if they are to be effective – must operate in a global market and be comparable across jurisdictions in order to ensure rules that mitigate risk and allow for responsible innovation and use. The UK's alignment of its AI regulatory principles with those of the OECD and G20 is an encouraging sign that it is committed to be a leader in efforts to develop sensible rules for AI's progress. We support this role and urge other nations to continue to work together to develop rules that are effective on a global as well as local basis.

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Executive summary

1. The UK government white paper, *A Pro-innovation Approach to AI Regulation*, has been long awaited and its publication is welcome. It adopts a flexible, common-sense approach to the regulation of artificial intelligence (AI) and aligns with other principles such as the values-based AI principles propounded by the Organisation for Economic Co-operation and Development (OECD).
2. Given the pace of change and new scenarios thrown up by AI, the white paper's approach appears well suited to 'unknown-unknown' AI risks. The approach of learning through watching and waiting recognises that AI is changing fast and that some risks may be better assessed and defined as the technology evolves. At ACCA and EY, we are supportive of regulating outcomes rather than the technology itself. This aligns with the principles-based approach to regulation for the accountancy profession in the UK.¹
3. We agree with the white paper's desire to build on the UK's thriving AI ecosystem and welcome the UK government's commitment to international cooperation – something we'd be keen to support where possible.
4. We are highly supportive of the role that the white paper describes for effective oversight tools, and that of audit and assurance, for supporting the long-term sustainable development of the AI ecosystem. We believe that the accountancy profession has a key role to play in driving trust in, and the ethical deployment of, AI.
5. We welcome the white paper's specific emphasis on considering the role of AI across all regions and nations of the UK. Nearly two-thirds of the UK's AI industry ecosystem is based in London (Business Wire 2021). While this concentration is helping to make London the AI capital of Europe and must be supported, ACCA and EY operate across the regions and nations of the UK, and we see the potential for AI to drive economic opportunity in support of levelling-up across the UK.
6. Effectively engaging with existing codes and standards specific to individual sectors and domains – including their evolution and future direction – is fundamental to the approach proposed by the white paper. Accordingly, the paper explores a few of these existing codes and standards in the context of AI-relevant considerations.
7. There are, however, other aspects worth noting to ensure that the ambitions of the white paper are realised as intended. Some key considerations from our perspective are as follows:
 - a. The government will not put its cross-cutting principles on a statutory footing initially but has left the door open for placing a statutory duty on regulators later. So there could be a considerable delay in deciding between AI-specific mandatory requirements linked to implementing the white paper principles, on one hand, and relying on self-regulation or suggested guidance on the other. Organisations value regulatory certainty. A long, uncertain waiting period risks delays to upskilling and preparation for future compliance, particularly among small- and medium-sized entities (SMEs), which will be less likely to commit cost or effort without certainty.
 - b. Issues of accountability, ethics and trust require careful consideration, particularly in the absence of a designated entity responsible for AI oversight. The current approach may well be workable, but stakeholders would benefit from additional support to help them navigate the different bodies relevant to their AI compliance obligations. Some areas pertinent to AI (such as data protection) have extensive pre-existing regulation and guidance, while others (such as explicability of AI systems) are less mature. Also, consideration is needed for foundational models such as large language models (LLMs)² that do not neatly fall into the remit of any one existing regulator.
 - c. The concept of central support functions could be effective and innovative, but the white paper would benefit from further detail on how these will be implemented in practice: how they will be resourced, the mechanism through which they will gather inputs from market participants, and how they will be coordinated across sector regulators.

¹ Call to action #10 in ACCA's report on Risk Culture <<https://www.accaglobal.com/gb/en/professional-insights/risk/risk-culture.html>>, notes that "Further cooperation between our professions and regulators will be beneficial for all", which is based on the 'Framework for meaningful engagement' <<https://ecnl.org/publications/framework-meaningful-engagement-human-rights-impact-assessments-ai>>.

² A machine learning model that uses natural language processing (NLP).

- d. It would be good to understand if there is any thinking within government on the need for more prescriptive requirements that build on the white paper principles. Some regimes are, of course, taking a more prescriptive approach. This doesn't necessarily make that the preferred choice, but the risk to consider is that UK organisations operating across boundaries will default to the most prescriptive regime across their regions of activity – for operational ease and to reduce risk of non-compliance. The consideration here is that this might inadvertently make UK organisations rule-takers of other regimes. There is a balance to consider in relation to maintaining a pro-innovation approach – for example, this may mean more prescriptive requirements for the riskiest use cases rather than across the board.
 - e. As the white paper takes a context-specific approach to regulation, existing sector regulators will need to provide their own guidance on the use of AI. While it is good to learn from those with greater expertise, it would be helpful to have an explanation of how the proposed approach would support less-mature sectors as they upskill on AI.
 - f. There is a huge difference between the capabilities, resources and requirements of the large technology companies and those of SMEs. The white paper's approach of carrying on within existing regulatory ambits, needs care to avoid – despite best intentions – entrenching power imbalances. Those holding customer channels, access to training data and research budgets may tend increasingly and irreversibly to pull away from the pack. Consideration is needed to avoid creating monopolies and stifling the very innovation that is sought. It is also important to be sensitive to blind spots in innovation, because truly disruptive – as opposed to incremental – change often comes from SMEs and AI innovation is ripe for exactly this type of transformative change.
 - g. Leaders across business, from board level downwards, are at the early stages of clarifying where accountability, contestability and redress would reside in relation to AI systems. It would be helpful, possibly via the central support functions, to provide a forum for sharing examples of how this can be done. Such a forum could help define the role and legal liability of not just of board members, and C-suite, but also lenders and investors.
 - h. It would be helpful for further policy work to set out the government's view of the environmental impact of AI, for example, its measurement, monitoring, or mitigation of harm. This is particularly needed as foundational AI and generative models drive ever-higher complexity, data and energy consumption. There are also social considerations, particularly in relation to the often-mentioned area of jobs displacement, which are important for the responsible deployment of AI.
8. Overall, we welcome this white paper as part of a dialogue through which the UK AI regulatory regime can be continually refined and positioned as progressive, innovative and responsible.

AT ACCA AND EY, WE ARE SUPPORTIVE OF REGULATING OUTCOMES RATHER THAN THE TECHNOLOGY ITSELF. THIS ALIGNS WITH THE PRINCIPLES-BASED APPROACH TO REGULATION FOR THE ACCOUNTANCY PROFESSION IN THE UK.



Recommendations for policymakers

- 9. Act fast on the detail.** AI is rapidly developing; it is the subject of intense media interest and is prominent in the public consciousness. Conversations on AI regulation are constantly evolving, with regimes around the world working fast to stake their place in the debate. Whether one is regulating too much or too little – prioritising consumer protection and unrestricted innovation – is an important issue but delaying is just as damaging as getting this wrong. Business dislikes regulatory uncertainty and it is critical that the details are fleshed out as soon as possible to operationalise the white paper's approach.
- 10. Align internationally, coordinate domestically.** ACCA's and EY's stakeholders operate internationally and, while they acknowledge geo-political factors, they would welcome as much harmonisation as possible across regimes to support interoperability. This reduces costs, complexity and risk. At the same time, it is vital to avoid the fatal flaw of allowing major issues to fall into the gaps between the accountabilities of different sector regulators, or their duplication of the same preparatory work.
- 11. Seek multi-stakeholder feedback and involvement.** AI uses citizens' data, directly or indirectly, and its outputs affect these citizens' lives. It is imperative that its developmental trajectory is not informed by a narrow inner coterie of influencers. Those across the regions of the UK, across the full socio-economic spectrum, across sectors/industries and in SMEs as well as larger organisations, need to be involved.
- 12. Champion an ecosystem for trustworthy AI.** It is necessary to create/reinforce pathways for sharing knowledge, tools and experience. The accountancy profession has skills for assessing risks and controls, frequently faces situations requiring ethical judgement and seeks to uphold the public interest. An environment that leverages and proactively involves the mature UK accountancy sector (eg education and awareness aspects of the central support functions, partnering to share key messages internationally) would bolster its global reputation as a trusted home for responsible AI.



Introduction

13. Over the coming years, AI will completely transform a wide range of sectors, including agriculture, communication, education, healthcare, manufacturing and transportation. As a result, it is set to boost the global economy, with economists predicting that AI could eventually boost annual gross domestic product (GDP) by 7% (Briggs and Kodnani 2023).
14. AI technologies could also bring enormous social and environmental benefits, such as helping us to combat child abuse and cybercrime and providing critical insights that can be used to mitigate climate change. Yet while AI can potentially be a tremendous force for good, it also presents some significant threats to society.
15. If used inappropriately, AI could exacerbate existing inequalities, damage public trust through the spread of misinformation, and be harmful to the physical and mental health of individuals. AI technologies threaten jobs and livelihoods and are at risk of being exploited by cyber attackers. And while AI can be a powerful tool in the fight against climate change, its use is itself a considerable source of carbon emissions.
16. Despite its far-reaching implications for society, AI is poorly understood by most and its use remains largely unregulated. Such is the level of concern about the potentially detrimental impact of AI on society that over 1,000 technology leaders and researchers have called for a pause on AI development, citing 'profound risks to society and humanity' (Open Data Science 2023).
17. Aware of both the opportunities and challenges that AI presents, numerous jurisdictions around the world are exploring the possibility of regulating AI. One of these jurisdictions is the UK, which is positioning itself to become a global leader in the regulation and governance of AI technologies.
18. The UK's ambitions in the regulatory space are well-founded, given that it is already the AI capital of Europe and a recognised leader in the development and application of AI technologies. The country ranks third on the Global AI Index produced by Tortoise Media, behind the US and China, measured on its level of investment, innovation, and implementation of AI (Tortoise Media 2021). It is also home to around one-third of Europe's AI start-ups (Kelnar 2019).
19. In March 2023, the UK government's Department for Science, Innovation and Technology (DSIT) published a white paper entitled *A Pro-innovation Approach to AI Regulation*. The white paper sets out the government's strategy for supporting innovation, while providing a framework to ensure that the risks associated with AI are identified, addressed and mitigated.
20. This paper, from ACCA and EY, is a response to that white paper. Our aim is to provide policymakers with a constructive critique of the white paper, informed by our positions within the accountancy and business ecosystem, and the access to feedback and inputs we have across our stakeholder bases.

What is AI?

21. There is no single, commonly agreed definition of AI. Nevertheless, AI is often described as the simulation of human intelligence by computer systems, whereby AI algorithms, ie sets of instructions, are programmed to make decisions and solve problems using large volumes of structured (eg figures in rows and columns) and unstructured (eg textual, vocal, image) data.
22. AI can be broadly categorised into narrow AI (where a model is trained to perform a single task, such as recognising faces or translating text into another language) and general AI (where a model is trained to learn, behave and perform actions in the same way that humans would do). In both cases, the models are trained using data.

Foundation models

23. So-called ‘foundation models’ are an emerging type of general-purpose AI. These powerful models are trained on broad data sets, often taken directly from the internet rather than using curated training data sets, and with minimal human supervision. They use machine learning to apply what they have learned about one situation to another.
24. Large Language Models (LLMs) are a specific type of foundation model that are trained on large amounts of text data. LLMs are powering generative AI models, which include ChatGPT and Google’s Bard.
25. The ‘generative AI’ that is enabled by foundation models can produce novel outputs derived from the simple inputs that it receives. As well as generating vast swathes of text and data, generative AI can create complex imagery, videos and music. It can generate this content from a short prompt, rather than having to be trained specifically to perform the task in question. This is different from machine learning techniques, such as classification, which simply map new information onto existing categories depending on how they were trained.
26. Foundation models are at the centre of much of the current public debate on AI because they are developing at a rapid rate, outpacing the ability of both governments and regulators to keep up with them. As they can be used for many different purposes, foundation models could have a potentially transformative effect on business ecosystems. But the complexities associated with foundation models makes them very challenging to regulate.

Benefits of AI

27. AI technologies – and foundation models, in particular – have the potential to be hugely beneficial to both the economy and society. As the UK prime minister has said: ‘Harnessing the potential of AI provides enormous opportunities to grow our economy, create better-paid jobs, and build a better future through advances in healthcare and security’ (UK Government 2023).
28. From an economic perspective, AI technologies can boost efficiency and productivity (a priority for the UK), reduce operational costs, and enable consumers to enjoy a wider choice of personalised products.
29. AI technologies can take over dangerous, boring and repetitive tasks from humans, freeing up people to perform safer and more interesting work. They can also minimise, and potentially even eliminate, the risk that human error undermines critical business processes.
30. AI technologies may be increasingly able to power smart cities that use cutting-edge applications to manage their resources, maintain their infrastructure, and lessen their environmental impact.
31. AI applications can also play an important role in promoting cybersecurity and guarding against cyberattacks. They can analyse millions of cyber events at high speed, looking for patterns and trends, enabling them to predict the next attack and detect phishing and malware.

FOUNDATION MODELS COULD HAVE A POTENTIALLY TRANSFORMATIVE EFFECT ON BUSINESS ECOSYSTEMS. BUT THE COMPLEXITIES ASSOCIATED WITH FOUNDATION MODELS MAKES THEM VERY CHALLENGING TO REGULATE.

Risks of AI

- 32. While AI brings many potential benefits, it also presents some significant ethical, legal, reputational and practical risks. The existence of these risks explains why there are increasing calls for greater regulation of AI. A few often-cited headline risks are given below to set the scene.**
- 33. Bias and discrimination.** AI models learn how to make decisions by using training data that may be subject to human bias or reflect historical social inequities. As a result of these biases, AI models that are used for specific decision-making purposes, such as granting credit, may discriminate against people from certain social groups. This, in turn, can breach human rights.
- 34. Copyright.** Generative AI can present a copyright threat to creators in industries such as journalism, illustration, music, photography, film and television. In a paper published in April 2023, a group of authors, performers and copyright holders appealed to the European Commission to include safeguards on generative AI in the European AI Act (Initiative Urheberrecht 2023). They highlight that AI is trained using text, images and videos that are subject to copyright: ‘often without consent, without remuneration and not always for legitimate uses’. The authors warned: ‘The unauthorised usage of protected training material, its non-transparent processing, and the foreseeable substitution of the sources by the output of generative AI raise fundamental questions of accountability, liability and remuneration, which need to be addressed before irreversible harm occurs’.
- 35. Cybersecurity.** AI tools can be powerful weapons if harnessed by cyberattackers. For example, generative AI models could be trained to write convincing phishing emails. AI technologies can also be used by attackers to break through defences and develop mutating malware that is able to change its structure to avoid detection.
- 36. Disinformation.** AI technologies can be used to create ‘disinformation’ – information that appears genuine, but that is fake and is created for the specific purpose of misleading. Disinformation generated by AI could therefore damage public trust. Systems such as ChatGPT can be used by malicious actors to provide false information based on model outputs, in a convincing and confident way. This may or may not have happened with the express intent of misleading but has the same effect of spreading inaccurate information.
- 37. Environment.** As AI models rely on large amounts of data and computational power, they can consume significant amounts of electricity and therefore also emit high volumes of greenhouse gas. In fact, a study by the University of Massachusetts found that training a large AI model to handle human language can lead to emissions of nearly 300,000 kilograms of carbon dioxide equivalent (Ekin 2019).
- 38. Health.** AI models can potentially be damaging to human physical and mental health. For example, an AI assistant might recommend that an individual undertakes a dangerous activity. Alternatively, someone’s mental health might suffer if they are the victim of deepfake video content produced by generative AI.
- 39. Inaccurate and unreliable output.** Data quality is critical to the performance of AI models. If the quality of the underlying data is poor, the model will generate unreliable outcomes. Unreliable outcomes will not only undermine the usefulness of the AI model, but they could also potentially be damaging to people’s physical and mental well-being.
- 40. Privacy.** As AI is used to process personal data, there is a risk of privacy breaches if individuals’ data falls into the wrong hands. This risk will be heightened as more people make use of connected devices in the home – devices that gather their personal data.
- 41. Transparency.** AI has what has been termed a ‘black box’ problem. In other words, there is a lack of understanding about how AI models work in practice and whether they are still operating in the way originally intended when they were built. This challenge is exacerbated by the complex and constantly evolving nature of AI models.
- 42. Unknown unknowns.** As the application of AI is still in its infancy, we don’t yet know what the true commercial performance of AI technologies will be like, or what risks will emerge as AI is used at increasingly greater scale. The increasing prevalence and application of foundation models, in particular, is likely to have unexpected consequences. For example, there may be systemic risks where many front-end AI products and applications are linked to a relatively small number of foundational AI back-end models.

AWARE OF BOTH THE OPPORTUNITIES AND CHALLENGES THAT AI PRESENTS, NUMEROUS JURISDICTIONS AROUND THE WORLD ARE EXPLORING THE POSSIBILITY OF REGULATING AI. ONE OF THESE JURISDICTIONS IS THE UK, WHICH IS POSITIONING ITSELF TO BECOME A GLOBAL LEADER IN THE REGULATION AND GOVERNANCE OF AI TECHNOLOGIES.

Response to the UK government white paper

43. AI regulation, although jurisdiction specific, is often aligned to a greater or lesser extent with core principles such as the OECD AI Principles mentioned earlier. These cover inclusive growth, sustainable development and well-being; human-centred values and fairness; transparency and explicability; robustness, security and safety; and accountability.

44. Generally, AI regulation should seek to balance supporting innovation to reap the benefits, with protecting citizens against risks and harms.

45. The EU has proposed its Artificial Intelligence Act, which will be the first comprehensive horizontal law on AI by a major regulator. The Act, which proposes that AI systems be classified according to risk, primarily focuses on strengthening rules on data quality, human oversight and accountability.

AI regulatory developments in the UK

46. The UK seeks to become a global leader in the regulation and governance of AI, seeing this as a way to further its ambition of becoming a science and technology superpower by 2030. With that objective in mind, the government launched a white paper entitled *A Pro-innovation Approach to AI Regulation* in March 2023.

47. Subsequently, the UK Competition and Markets Authority announced that it was launching a review of AI models, including foundation models, to see how the markets for those models are developing and what principles need to be in place to ensure that competition is working effectively, and consumers are being protected.

48. The UK also has an initiative to promote algorithmic transparency by public-sector bodies. This initiative, one of the first of its kind globally, is the *Algorithmic Transparency Standard*, first published in 2021. The standard 'provides a framework that will enable public-sector bodies to share information on their use of algorithmic tools with the public and interested stakeholders'.

49. In 2020, the Digital Regulation Cooperation Forum was formed to further cooperation among sector regulators on digital issues, including the regulation and audit of algorithms and AI. The forum brings together four leading UK regulators: the Information Commissioner's Office (ICO), the Competition and Markets Authority, the Office of Communications and the Financial Conduct Authority (FCA).

50. The UK does not have a specific horizontal regulation (ie applicable across all uses and sectors) covering AI, but it does have several existing regulatory and governance mechanisms relevant to its responsible deployment. These include sector regulators (eg the Financial Conduct Authority (FCA) for financial services) as well those focusing on aspects such as data and information, such as the ICO.

What does the UK government white paper propose?

51. The UK government's white paper lays out a proportionate and 'pro-innovation' approach to AI regulation. Rather than targeting specific sectors or technologies, it focuses on the context in which AI is deployed and the outcomes that are likely to be generated by certain applications. For example, the white paper points out that an AI-powered chatbot used by an online clothing retailer presents fewer social risks than a similar application used as part of a medical diagnostic process.

52. The white paper sets out a regulatory framework that is underpinned by a set of five values-focused, cross-cutting principles.³ The aim is to drive consistency across regulators while giving individual regulators the flexibility to issue their own sector-specific guidance.

53. Regulators will be expected to 'apply the principles proportionately to address the risks posed by AI within their remits, in accordance with existing laws and regulations'. The white paper does not propose the introduction of new legislation, but instead empowers sector-specific regulators to take a lead on regulating the use of AI within their domains.

³ The five principles that underpin the framework are: safety, security and robustness; appropriate transparency and explicability; fairness; accountability and governance; and contestability and redress.

- 54.** The white paper does not propose the creation of a new AI-specific, cross-sector regulator, saying this ‘would introduce complexity and confusion, undermining and likely conflicting with the work of our existing expert regulators’ (Department for Science, Innovation & Technology 2023).
- 55.** It does, however, propose central support functions: ‘to make sure that the overall framework offers a proportionate but effective response to risk while promoting innovation across the regulatory landscape’. This is to include a monitoring function that will: ‘provide a real time assessment of how the regulatory framework is performing’.
- 56.** The paper supports the concept of a regulatory sandbox for AI, which would ‘bring together regulators to support innovators directly and help them get their products to market’.
- 57.** The paper essentially reflects the UK government’s desire to build a ‘brand’ for its progressive, innovation-friendly regulatory approach to AI, with an outward-looking stance for global engagement, seeking alignment on underpinning values and supporting interoperability across regulatory regimes.
- General reactions to the white paper**
- 58.** ACCA’s and EY’s views are informed by our positions within the accountancy and business ecosystem. This AI white paper has been long awaited, and its publication is very welcome. It adopts a flexible, common-sense approach to the regulation of AI and aligns with the OECD’s values-based AI principles, which promote the ethical use of AI. The five horizontal principles in the white paper are domain-neutral, which enables them to be applied by regulators across sectors. Overall, we are supportive of the intentions expressed in this white paper: to avoid unreasonable regulatory burdens, to enable the UK to become a global AI innovation hub, and for the UK to lead on values-based, responsible AI deployment.
- 59.** The approach of the white paper appears well suited to the unknown-unknown AI risks noted earlier. The principle of learning through watching and waiting recognises that AI is changing fast and that some risks may be better defined as the technology evolves. We are supportive of the underlying philosophy that focuses on regulating outcomes rather than on the technology itself. This aligns with the principles-based approach to regulation for the accountancy profession in the UK.
- 60.** We are supportive of the white paper’s focus on building on the UK’s thriving AI ecosystem and welcome its commitment to greater international cooperation. We are pleased that the white paper outlines the UK’s commitment to ensuring that ‘proven, effective, and agreed upon assurance techniques and international standards play a role in the wider regulatory ecosystem’ (Department for Science, Innovation & Technology 2023).
- 61.** We are highly supportive of the role noted for effective oversight tools, and areas relevant to the accountancy profession such as ethical deployment, audit and assurance, risks, governance and controls for supporting the long-term sustainable development of the AI ecosystem. A few further comments in this regard follow later.
- 62.** There are, however, some considerations on how the relatively broad approach of the white paper will fare in relation to the need for more prescriptive guidance. Absent such prescription, the risk is that the ecosystem may default to other regimes that are more prescriptive because they will provide something concrete to align with and demonstrate compliance. This might create the risk of the UK becoming a rule taker – for example, an organisation operating across boundaries may for simplicity comply with the most prescriptive requirements across all jurisdictions in which it operates, to reduce the likelihood of non-compliance with any one regime. There may therefore be a need for balance between the desire to avoid over-regulating and to be pro-innovation – which are reasonable and desirable goals – and the ability to set clear direction and provide regulatory certainty.

OVERALL, WE’RE SUPPORTIVE OF THE INTENTIONS EXPRESSED IN THIS WHITE PAPER: TO AVOID UNREASONABLE REGULATORY BURDENS, TO ENABLE THE UK TO BECOME A GLOBAL AI INNOVATION HUB, AND FOR THE UK TO LEAD ON VALUES-BASED, RESPONSIBLE AI DEPLOYMENT.

Specific reactions to the white paper

- 63. We support the emphasis and desire to lead on AI and confirm our overall support for the broad themes in this white paper. The comments that follow are therefore intended as constructive input, where more definition would help to realise the white paper's aims.**
- 64. Intentions on a statutory footing.** The white paper does not propose specific AI legislation or a new AI-specific, cross-sector regulator. While no business seeks additional regulation, it is important that the current approach doesn't incorrectly risk a perception that there is no regulation at all governing AI. At the same time, uncertainty for businesses arises from the government's decision not to put its five cross-cutting principles on a statutory footing initially, while it is anticipated that there will be a statutory duty on regulators at a later date. It may be helpful to reduce the period of uncertainty as much as possible. A long, uncertain waiting period risks a sub-optimal situation whereby businesses lack regulatory certainty in the present and, as a result, ignore upskilling and preparation for future compliance. This is particularly a risk for SMEs, which understandably will be less likely to commit cost or effort without certainty.
- 65. Clarity on dedicated AI regulator.** Issues of accountability, and even ethics and trust, require careful consideration, particularly in the absence of a designated entity responsible for AI oversight. The current approach may well be very workable but would benefit from additional support to help stakeholders navigate the different bodies relevant to their AI compliance obligations. Some areas pertinent to AI (such as data protection) have extensive pre-existing regulation and guidance while others (such as explainability of AI systems) are less mature. Also, specific consideration is needed for foundational models such as LLMs that are unlikely to fall neatly into the remit of any one existing regulator. Ultimately, the risk to avoid is that the lack of a horizontal regulation that cuts across sectors creates uncertainty and inconsistency for businesses that want to apply AI models, thereby reducing confidence and stifling innovation.
- 66. Operationalising the central support functions.** While the concept of central support functions could be powerful, there is an urgent need for further detail on how these will be implemented in practice. How they will be resourced, the mechanism through which they will gather inputs from market participants, and how they will be coordinated across regulators are all important. The ability to predict systemic or cross-sectoral risks depends on this, as does the ability to incorporate futures/ horizon-scanning work (though there is a precedent for the latter within UK government). Also, organisations such as ACCA and EY will have perspectives on supporting aspects of the role of central support functions linked to education and awareness, and it would be helpful to understand what, if any, interventions would be helpful in this context.
- 67. Balancing the interests of sector regulators.** Given that the white paper takes a context-specific approach to regulation, individual regulators will need to provide their own guidance on the use of AI. While some regulators have a good understanding of how AI is being used within their domains, other regulators have limited AI expertise. Certain sectors, such as financial services, have mature regulatory environments, while aspects of others, eg recruitment, are only partially regulated or not at all. While it is good to learn from those with greater expertise, it would be helpful to understand how the proposed approach would support sectors where existing regulations are more indirectly impact the use of AI (e.g., Equality Act 2010, Unfair Trading Consumer Protection Act 2008, Modern Slavery, Gangmasters Regulations), considering their needs, rather than defaulting to approaches used in other sectors that may not be transferable.
- 68. Consideration of SMEs.** The white paper notes that it is important to ensure that 'regulatory burdens do not fall disproportionately on smaller companies, which play an essential role in the AI innovation ecosystem and act as engines for economic growth and job creation'. There is a huge difference between the capabilities, resources and requirements of the large tech companies and those of SMEs. Despite best intentions, care is needed to avoid inadvertently entrenching power imbalances. Those holding customer channels, access to training data and research budgets may increasingly and irreversibly tend to pull away from the pack. This risks ultimately feeding monopolies and stifling the very innovation that is sought. It also risks creating blind spots in innovation because truly disruptive – as opposed to incremental – change often comes from SMEs and AI innovation is ripe for exactly this type of transformative change.
- 69. Legal liability.** Leaders across business, from board level downwards, are at the early stages of clarifying where legal liability would reside for AI systems. For example, when does it lie with the organisation that developed the system and when with the organisation that uses it? A lot of this may be linked to the nature of the contract between the supplier and the user, but how the data is accessed and used can be a significant consideration. Foundation models, for example, can train on freely available data from the internet and this data may later be combined with proprietary data for specific use cases. The UK has a mature health and safety ecosystem, and existing regulations can be leveraged in most scenarios. But it would be helpful, possibly via the central support functions, to create platforms for sharing examples that necessitate further consideration.

70. AI and 'levelling up'. Nearly two-thirds of the UK's AI industry ecosystem is based in London (Business Wire 2021). While this concentration is helping to make London the AI capital of Europe, it would be a missed opportunity if a high-growth industry such as AI is not used to further the development of regions across the UK. As part of informing aspects of this paper, we participated in an AI roundtable in Manchester hosted by the UK accountancy regulator and the University of Manchester, which reinforced the vibrant innovation ecosystem that operates outside London. The role of 'participatory governance' (Jae Moon 2023) has been noted as relevant to an inclusive approach to AI for the social good. 'Levelling up' is a practical manifestation of the need to ensure that the development and governance of AI is informed by the needs and experiences of stakeholders across the country. The white paper and the future approach are important enablers that should bring in a wider array of inputs and feedback.

71. Environmental impact. The amount of data produced is increasing exponentially, and more complex (particularly foundation) AI models will consume ever larger amounts of energy in processing this data. Nonetheless, the white paper does not mention how the environmental impact of AI should be measured, monitored or mitigated. This is despite the UK's target of net zero by 2050. This would appear to be a critical area for urgent consideration.

72. Jobs displacement. The social impact of AI has been raised in public discourse for some time. More widespread implementation of AI models is set to transform the labour force, leading to the disappearance of certain job roles and the creation of others. Some estimates suggest that 18% of work globally could be automated by AI (Briggs and Kodnani 2023). This is an evolving picture with shifting narratives – for example, the received wisdom has been that the threat was solely to routine tasks, though with generative systems this hypothesis may at least need to be tested afresh, even if it is still found to hold true. The white paper does not advance views or recommendations for managing job displacement, supporting people who lose their jobs or for workforce planning.

Tools for trustworthy AI and ethical use

73. If the public is to trust AI, they need more information on the AI models being used. The audit and assurance profession can help to provide that information and play a vital role in building trust. It can advocate that organisations and boards set the right tone at the top on AI adoption (considering issues such as fairness and transparency) and that they deploy AI models that deliver sustainable, long-term value. Auditors also play a role in ensuring that organisations are complying with regulation and ethics policies and managing their data appropriately.

74. The white paper highlights that assurance techniques and technical standards can support the development and implementation of trustworthy AI, alongside regulation. It calls for a 'toolbox of assurance techniques to measure, evaluate and communicate the trustworthiness of AI systems across the development and deployment life cycle'. These techniques include impact assessment, audit, and performance testing, as well as formal verification methods (Department for Science Innovation & Technology 2023).

75. We concur with this view. We believe that the accountancy profession can play an important role in providing assurance to businesses that develop and deploy AI models. Research by ACCA and Chartered Accountants Australia & New Zealand, *Ethics for Sustainable AI Adoption: Connecting AI and ESG*, has revealed that the accountancy and finance profession is beginning to engage actively with AI and that this trend is set to intensify (ACCA & Chartered Accountants Australia & New Zealand 2021).

76. An assessment of ways in which assurance approaches need to adapt to emerging technologies, and the steps assurance leaders should take to achieve this in their organisations, was made in EY's 2018 report on Assurance in the age of AI. Such considerations have led to the creation of a new AI Assurance Framework specific to the auditor's responsibilities related the entity's use of AI within their financial reporting processes, which builds on EY's established [Trusted AI Framework](#).

IF THE PUBLIC IS TO TRUST AI, THEY NEED MORE INFORMATION ON THE AI MODELS BEING USED. THE AUDIT AND ASSURANCE PROFESSION CAN HELP TO PROVIDE THAT INFORMATION AND PLAY A VITAL ROLE IN BUILDING TRUST.

Existing codes and standards relevant to professional accountants

- 77.** We are highly supportive of the efforts of the UK's *AI Standards Hub*, which is helping to build a community supporting AI standards by facilitating knowledge sharing, capacity building and research.
- 78.** The UK government's white paper offers a principles-based framework with the assumption that existing regulators support innovation in AI while ensuring that risks are identified and addressed. For the ecosystem to operationalise this approach, an understanding of existing codes and standards in various sectors/ domains, when viewed against the needs of AI, is required. Reflections on a few examples are noted below in this context.

UK Corporate Governance Code and UK Companies Act

- 79.** The UK Corporate Governance Code sets out principles of good practice for listed companies in several key areas: board leadership and company purpose; division of responsibilities; board composition; succession and evaluation; audit, risk and internal control; and remuneration. The code is not law, but companies are expected to 'comply [with it] or explain [why not]'⁴.
- 80.** AI is relevant to the code's principles on audit, risk and internal control. For example, it requires boards to present a 'fair, balanced and understandable assessment of the company's position and prospects'. For many boards, particularly at smaller organisations, even the relatively mature area of cybersecurity may not always be a standard part of the agenda. So complying with the code in respect of an educated, meaningful understanding of AI's impact on the company's position and prospects will require a journey.
- 81.** The code requires boards to undertake robust assessments of the company's emerging and principal risks and identify how these are being managed and mitigated through risk management and internal controls. The aim of these assessments is to establish whether a company is a going concern and can continue to operate for the next 12 months. The central support functions identified in the white paper, for example, in respect of risk management (including across sectors) and horizon-scanning/futures work, can be an important source for two-way collaboration with business – both to identify where there are gaps and to improve by drawing on the repository of learnings that the central support functions can provide. Organisations such as ACCA and EY, alongside other interested partners such as the Institute of Directors, are actively helping to support board awareness through their resources.⁵

- 82.** The UK Companies Act places several duties on directors. Section 172 notes the duty of a director to promote the success of the company by considering wider stakeholder impact on the 'community and the environment'. The discussion of AI goes well beyond considerations of the customers of the product, and, for compliance, a nuanced understanding of how multi-stakeholder engagement and feedback informs the design and deployment of the AI application would be needed.

- 83.** This is alongside the ability of directors to satisfy themselves that the company has suitable commercial contracts and licensing arrangements, is protecting intellectual property, and understands the implications for the business model's long-term impact, relationships with suppliers and customers, and business conduct.

- 84.** Understanding the company's level of AI-risk exposure can be a challenge for boards and directors since risks posed by AI models may be invisible or manifest as critical incidents from existential threats or as black-swan events. At the heart of all this are ethics, trust and reputation, for which directors, guided by codes and standards, are the stewards.

ISO standards

ISO/IEC 23894:2023

- 85.** ISO/IEC 23894, developed by the International Organization for Standardization (ISO), is a new risk-management standard, released in 2023, which offers strategic guidance to companies on how they can manage the risks connected to the development and use of AI. It builds on the general risk-management principles, frameworks and processes outlined in ISO/IEC 31000:2018, explaining specifically how companies can integrate risk management into their AI-driven activities.
- 86.** Boards should consider implementing this voluntary standard as part of their overall governance and accountability approach to AI. Implementing the voluntary standard could also be a good way for companies to prepare for mandatory requirements in AI regulation, which may be imposed at a later stage.
- 87.** ISO/IEC 23894 – in combination with ISO/IEC 31000:2018 – provides more detailed guidance for companies planning to manage the risks associated with AI. The standard also draws attention to the negative environmental impact of AI, which is important for boards to consider as part of the overall approach to environment, social and governance

⁴ Changes may result from FRC/ARGA's current consultation on Corporate Governance Code revisions, the first in five years <<https://www.frc.org.uk/consultation-list/2023/corporate-governance-code-consultation>>.

⁵ A report by the Institute of Directors includes a reflective checklist for guidance on how board members can discharge their responsibilities in relation to AI (Norstrom n.d.)

(ESG) issues. Some specifics that the standard highlights include the following.

- When engaged in AI, organisations should consider relevant legal requirements as well as guidelines on the ethical use and design of AI and domain-specific guidelines and frameworks.
- AI can have an impact on an organisation's culture by shifting current, and introducing new, responsibilities, roles and tasks.
- AI raises issues and opportunities in relation to intellectual property.
- Stakeholder perceptions can be affected by AI-related issues such as a lack of transparency and bias.
- The use of AI systems can increase the complexity of interdependencies and interconnections.
- Organisations should implement a risk-based approach to identifying, assessing and understanding the AI risks to which they are exposed and take appropriate mitigation measures according to the level of risk.
- Organisations should take reasonable steps to understand uncertainty in all parts of the AI system.
- The organisation's AI capacity, knowledge level and ability to mitigate realised AI risks should be considered when deciding its AI risk appetite.

ISO/IEC DIS 42001:2022

- 88.** In keeping with the white paper approach, the document refers to the context of use and focuses on "guidance for establishing, implementing, maintaining and continually improving an AI management system".
- 89.** It covers, among other things planning, documentation, operational review and high-level implementation guidance for AI control.

ISO/IEC TR 24368:2022

- 90.** This provides a "high-level overview of AI ethical and societal concerns". The document is "not intended to advocate for any specific set of values (value systems)". It includes an "overview of International Standards that address issues arising from AI ethical and societal concerns".
- 91.** As such it addresses a range of areas including ethical frameworks, human rights practices, aligning internal processes to AI principles, and use case examples.

Enterprise risk management

- 92.** The Enterprise Risk Management (ERM) Framework is a voluntary framework that can be helpful for boards as a basis for identifying and managing AI-specific risks. In a paper published in 2021, COSO, which oversees the Framework, emphasised that governance plays a key role in the oversight of AI initiatives, particularly for the collection and use of data and the application of AI to decision-making (Calagna et al. 2021). This paper makes a number of recommendations for establishing a trustworthy AI programme, such as establishing a governance structure led by a senior executive, undertaking a risk assessment for every AI model used by the organisation, evaluating how the algorithm manages and uses data (including unintended bias), portfolio view of risks and opportunities for AI initiatives, laying out an approach to managing AI risks and reporting transparently to stakeholders.
- 93.** AI will have a transformative impact on the business landscape in future. So, it is essential that boards have a high awareness of both the opportunities and risks posed by AI. They can achieve this by ensuring that all board members receive training in AI, including at the induction stage. They should also recruit members with in-depth expertise in areas such as data governance, ethics, cybersecurity and regulation.
- 94.** Boards do not need to be experts in AI, but they do need to have sufficient knowledge of the topic to be able to challenge management and ask considered questions of external experts. They should also ensure that they understand the full social and environmental impact of AI models used by their company and that there are processes in place to test whether new AI models contribute to making AI trustworthy and support beneficial societal outcomes. Furthermore, they should consider how they can work with management teams to ensure the workforce is equipped with the skills to deploy and monitor AI effectively.
- 95.** Boards may not be aware of the AI-related risks that may arise where a company buys in third-party products or services with AI system components, such as biometric security applications, chatbots and decision-support systems. So, they should ensure that they understand whether such products comply with the appropriate standards, are responsibly developed, meet ethical sourcing requirements and are fit for their intended purpose. They can ensure that checks are embedded as part of the company's supplier, goods and services approval processes, and comply with ISO standards.

International Ethics Standards Board for Accountants

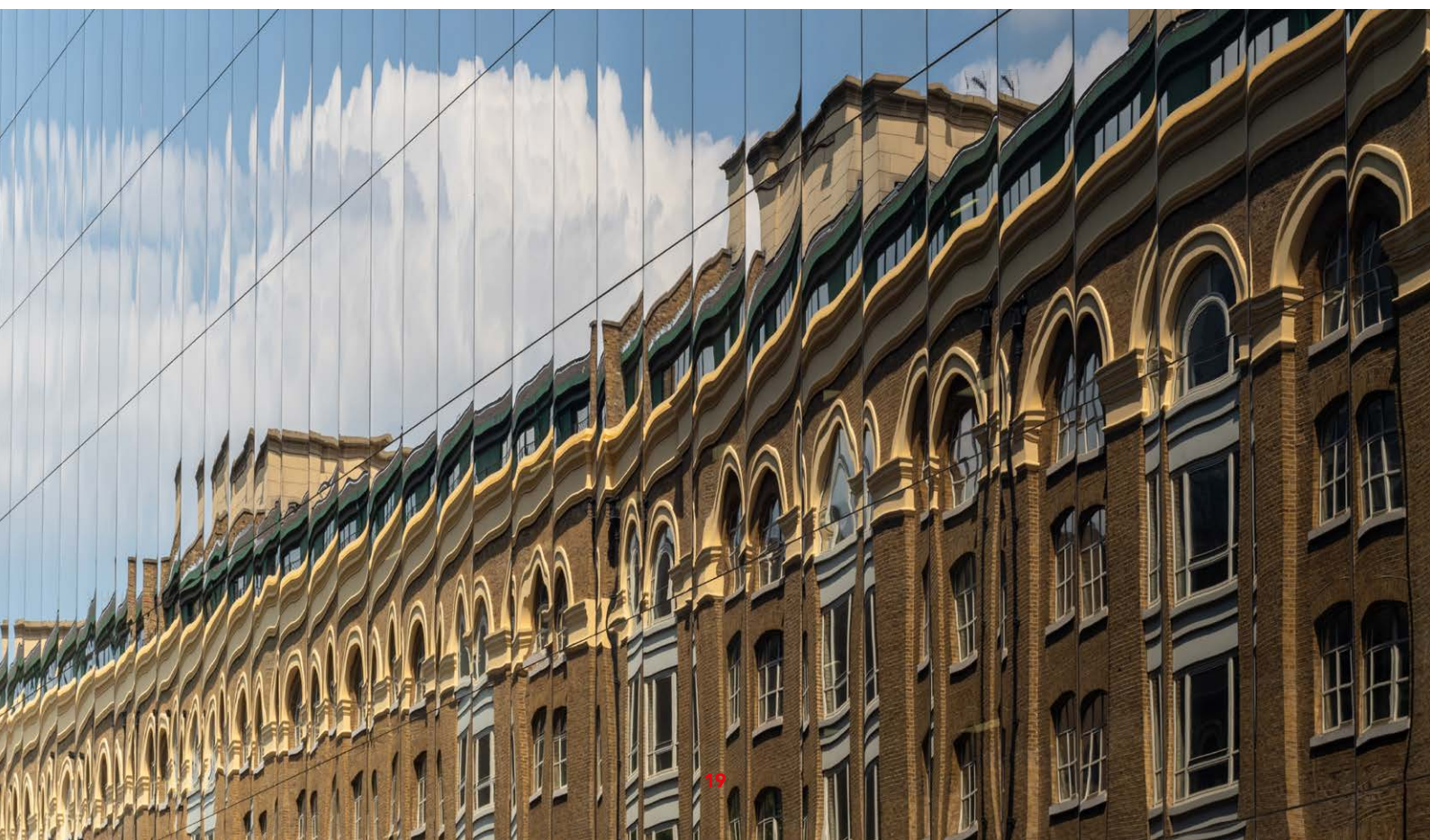
96. The International Ethics Standards Board for Accountants (IESBA, <<https://www.ethicsboard.org/>>) has a Technology Working Group that has been exploring the potential impact of technology on professional accountants and whether technological developments require the revision of IESBA's International Code of Ethics for Professional Accountants (including its International Independence Standards). The focus areas for the project included AI, among others such as robotic process automation, cloud computing and data governance.

97. Since IESBA establishes the ethics standards informing the ethics codes for professional accountants globally, including in the UK, its views are pertinent. Overall, we support the aims of the recommendations made by IESBA's working group. These are also aligned with providing the sector-/domain-specific detail (in this case, the accountancy sector) that is at the heart of the approach taken by the UK government's white paper.

Some recommendations of the Working Group (Friedrich et al. 2022) included the following.

- The code should be revised to clarify whether firms and organisations may use client or customer data for internal purposes, such as training AI models, and, if so, what parameters should be in place, eg prior, informed consent.
- Further guidance should be developed on the importance of transparency and explainability, specifically when a professional accountant relies on, or uses, transformative technologies such as AI.
- The code should be revised to address the ethics implications of a professional accountant's custody of financial or non-financial data belonging to clients, customers or other third parties.
- The concepts of transparency and accountability should be strengthened to encourage professional accountants to communicate meaningfully with boards about technology-related risks and exposures.

THE CODE SHOULD BE REVISED TO CLARIFY WHETHER FIRMS AND ORGANISATIONS MAY USE CLIENT OR CUSTOMER DATA FOR INTERNAL PURPOSES, SUCH AS TRAINING AI MODELS, AND, IF SO, WHAT PARAMETERS SHOULD BE IN PLACE, EG PRIOR, INFORMED CONSENT.



Conclusion

- 98.** It is essential that policymakers act quickly to refine and implement a regulatory framework for AI in UK. Not only are AI technologies developing rapidly, but AI has also become a subject of intense media interest and is increasingly prominent within the public consciousness. Conversations about how AI should be regulated are evolving constantly.
- 99.** The regulatory framework is just one – albeit very important – element of a business environment that supports the development and application of trustworthy AI. Along with regulation, there is a need for tools, assurance, technical standards, accreditation of AI professionals, ethical debate, public education and skills development.
- 100.** The UK has an important opportunity to establish a progressive AI regulatory regime that will support the country's position as an AI leader, bringing far-reaching benefits to its economy and society. This white paper marks an important milestone in this journey, and we look forward to collaborating with policymakers and the wider ecosystem to support these aims.



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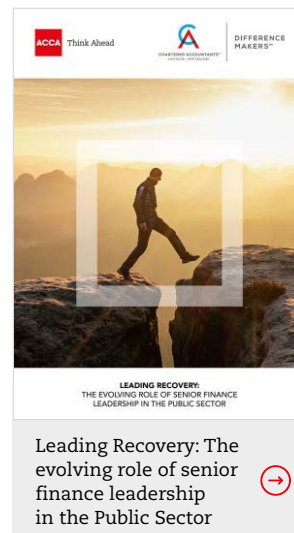
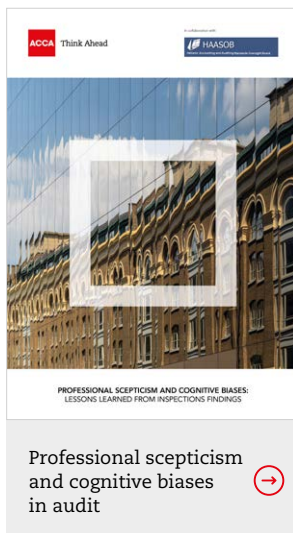
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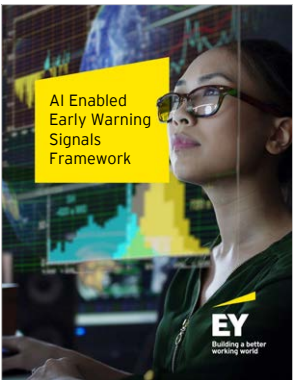
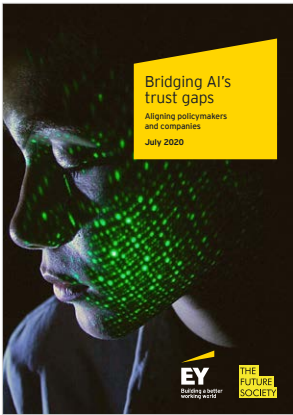
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Past papers from ACCA



Past papers from EY



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