KPMG

AI and Internal Audit-

Adding Value through Governance, Risk Management, and Controls

May 2024

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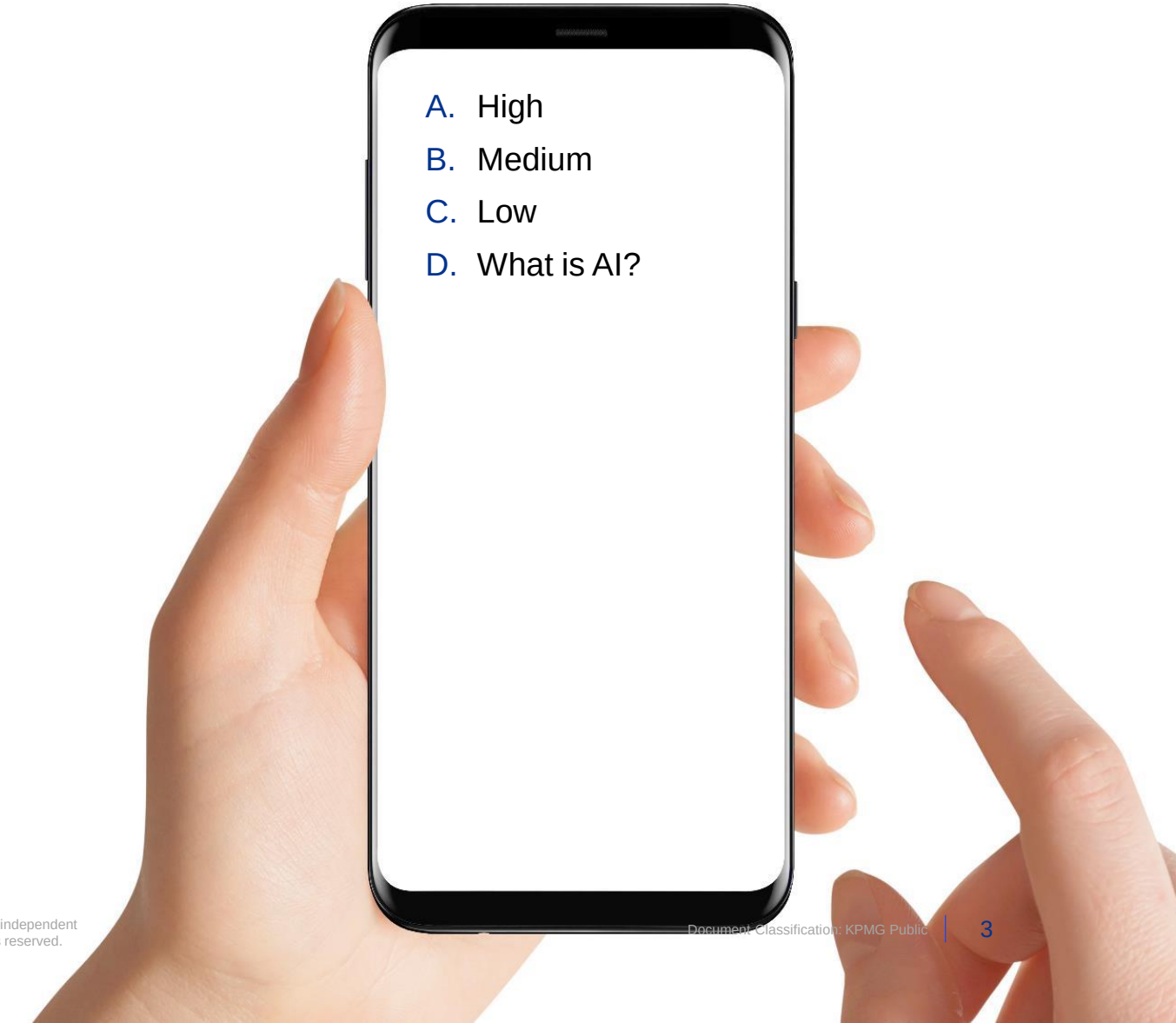
Question #1: What is your level of familiarity with Artificial Intelligence (AI)?

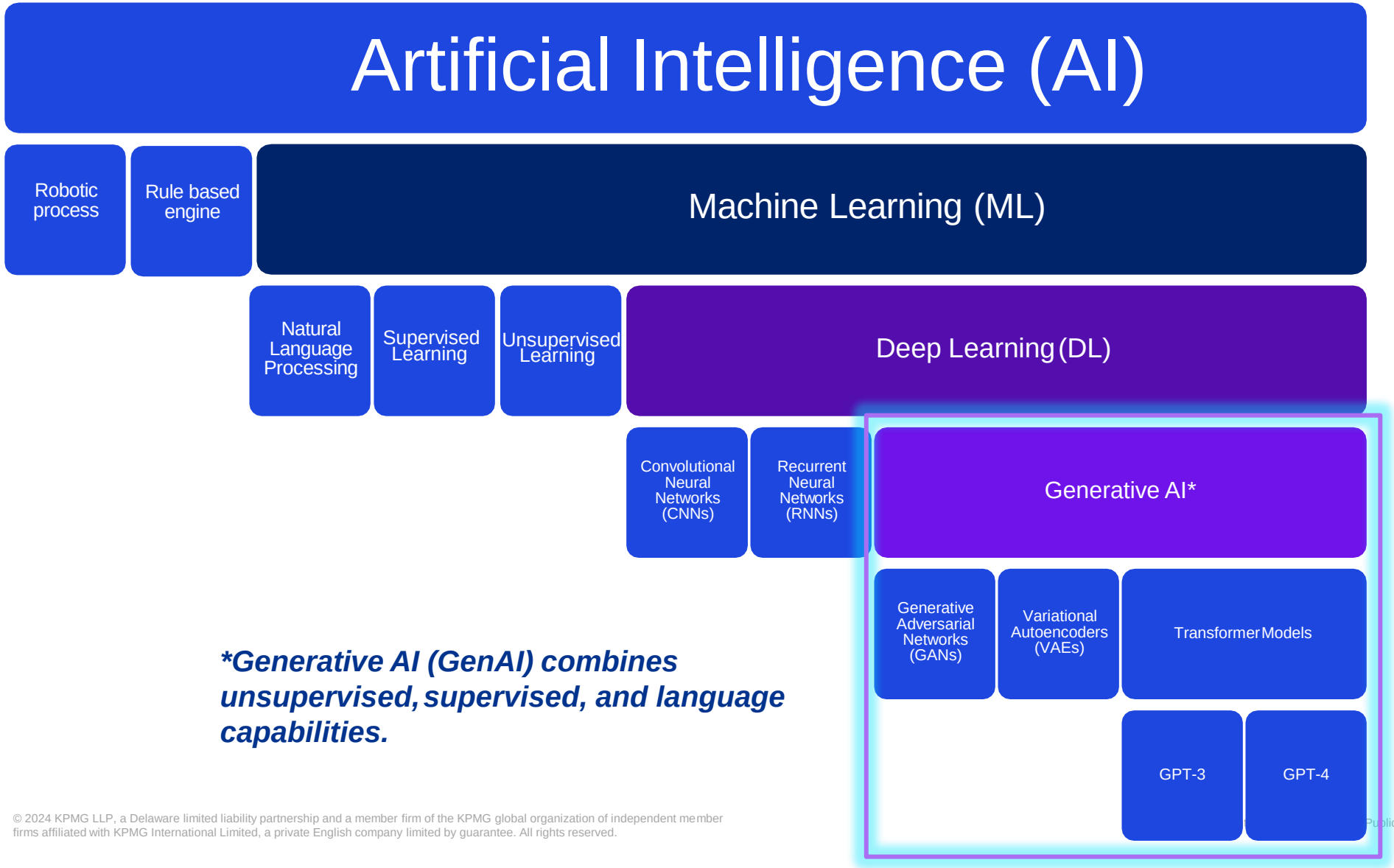


01

AI Basics

Level set on terminology before we go on

"AI" is an umbrella term that encompasses different techniques



Generative AI (GenAI) combines unsupervised, supervised, and language capabilities.

Gen AI is different from traditional AI

GenAI, short for Generative Artificial Intelligence, refers to a branch of AI that focuses on creating new content, data, or creative text formats. It utilizes machine learning algorithms to analyze vast amounts of existing data and then generate entirely new outputs that mimic human-like creativity.

02

Risks and Challenges

Scaling AI has also introduced a growing number of challenges

Security and privacy

The use of Generative AI poses security and privacy risks, which could result in data breaches, reputational damage, or privacy regulation violations. Increasing sophistication from threat actors and velocity of malware and cyber attacks.

Data quality, integrity, and bias

Generative AI presents potential risks to data quality, integrity, and bias. If not managed properly, it could result in inaccurate or biased outcomes, leading to legal liabilities, loss of client trust and reputational damage.

Intellectual property

Lack of legislation defining ownership of AI generated content may result in the inability to obtain copyright of content produced. Additionally, unclear terms of use may result in unintended violation of intellectual property rules.

Regulatory and professional standards

Regulators have not provided clear guidance on the use of Generative AI. Navigating regulatory requirements and adhering to our professional standards may pose challenges due to unclear guidance.

Policy

Organizations must amend existing IT policies by identifying scenarios for use, aligning with data governance and ethical standards, and provide adequate training to users. Failure to do so may result in policy violations, legal liabilities, and ethical concerns.

Brand and marketing

May perpetuate or amplify existing biases in the marketing and branding. Can result in negative impact on brand image and market share. An overreliance on AI generated content may lead to a lack of creativity and originality in marketing campaigns.

Global regulatory guidelines for AI are complex and evolving rapidly

Canada

Bill C-27, 2022 The Digital Charter Implementation Act includes the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act, and the Artificial Intelligence & Data Act (AIDA)
GC Directive on Automated Decision-Making
Law 25 amending Quebec's **Act respecting the protection of personal information in the private sector** introduces new automated decision-making rules (s. 12.1) (Quebec).
An Act to establish a legal framework for information technology (Quebec, biometrics rules).

Africa and Middle East

Kenya: Blockchain and AI taskforce (2018)
Tunisia: AI Task Force (2018)
South Africa: Sector specific initiative launched by Government for AI (2018)
Dubai – AI Ethics Principles and Guidelines (2018)

Europe

EU: EU Artificial Intelligence Act (2023), Digital Services Act & Digital Markets Act
Finland: Released three reports 2017-19; last report focusses on ethics
Sweden: National Approach for AI (2018); launched national centre for AI innovation (2019)
Denmark: Strategy for Digital Growth (2018); National AI Strategy (2019)
The UK: AI Sector Deal in (2018)
Germany: National AI strategy (2018)
France: AI for humanity (2018)
Austria: Council on Robotics and AI (2017)
Spain: RDI Strategy in Artificial Intelligence (2019)
Italy: 'AI at the Service of Citizens' (2018); lab for AI created (2018)
Poland: 'Roundtable on AI strategy (2018)
Malta: Malta AI strategy Public Consultation (2019)
Estonia: Kraft Report (2019); AI taskforce (2018)
Netherlands: General Principles for the use of AI in Financial Sector (2019)

US

Biden Executive Order (2023)
NIST AI Risk Management Framework (2022)
US AI Bill of Rights (2022)
State and Local policies
DOD AI Strategy (2019)
NYC AI Hiring Act (2023)

Japan

Japan: AI Technology Strategy (2017) (part of Japan's Society 5.0 initiative); AI made a part of integrated innovation strategy (2018)

Australia

Publication: AI Ethics Framework Discussion Paper (2019)

Latin America

Mexico: 'Towards an AI Strategy in Mexico' white paper released (2018); no dedicated strategy yet; also has IA2030 Coalition that works with the government on AI
Brazil -E-Digital Strategy, digital transformation strategy addresses AI (2018);
Brazil, Argentina, Peru, Colombia, Costa Rica follow OECD principles on AI (2019)

Asia

Singapore: Principles to promote FEAT in the use of AIDA in Singapore's financial sector (2018)
China – Beijing AI Principles Publication (2019)
Hong Kong – Ethical Accountability Framework Publication (2018)

International

OECD – The OECD council recommendations on Artificial Intelligence. Global governance framework signed by 42 countries and non-OECD members Brazil, Argentina and Romania (2019)

Common challenges the C-suite at our clients are facing

How do organizations safely and responsibly unlock value from AI - and achieve their business ambitions?

Secure our models from adversarial attacks

Ensure compliance with global AI regulations

Harness the value of our AI at scale and responsibly

Protect ourselves from financial and reputational risks

Enhance the trust of our consumers (internal, external)

Drive accountability and transparency

03

Internal Audit's dual roles

Internal audit's dual roles: Consulting and assurance services

Internal Audit can take a two-pronged approach to working with the organization by providing both consulting and assurance services, depending on the needs of the organization at the given time.

Consulting services

Provide "advisory and related client service activities, the nature and scope of which are agreed with the client*, are intended to add value and improve an organization's governance, risk management, and control processes without the internal auditor assuming management responsibility. "#

If your organization is **just beginning** its AI program, internal audit may begin with an "in-flight" or "pre-assurance" assessment to provide valuable insights while the program, governance functions or a particular use case is still being established (i.e., consulting with the second line of defense as they set standards for the program).

Assurance services

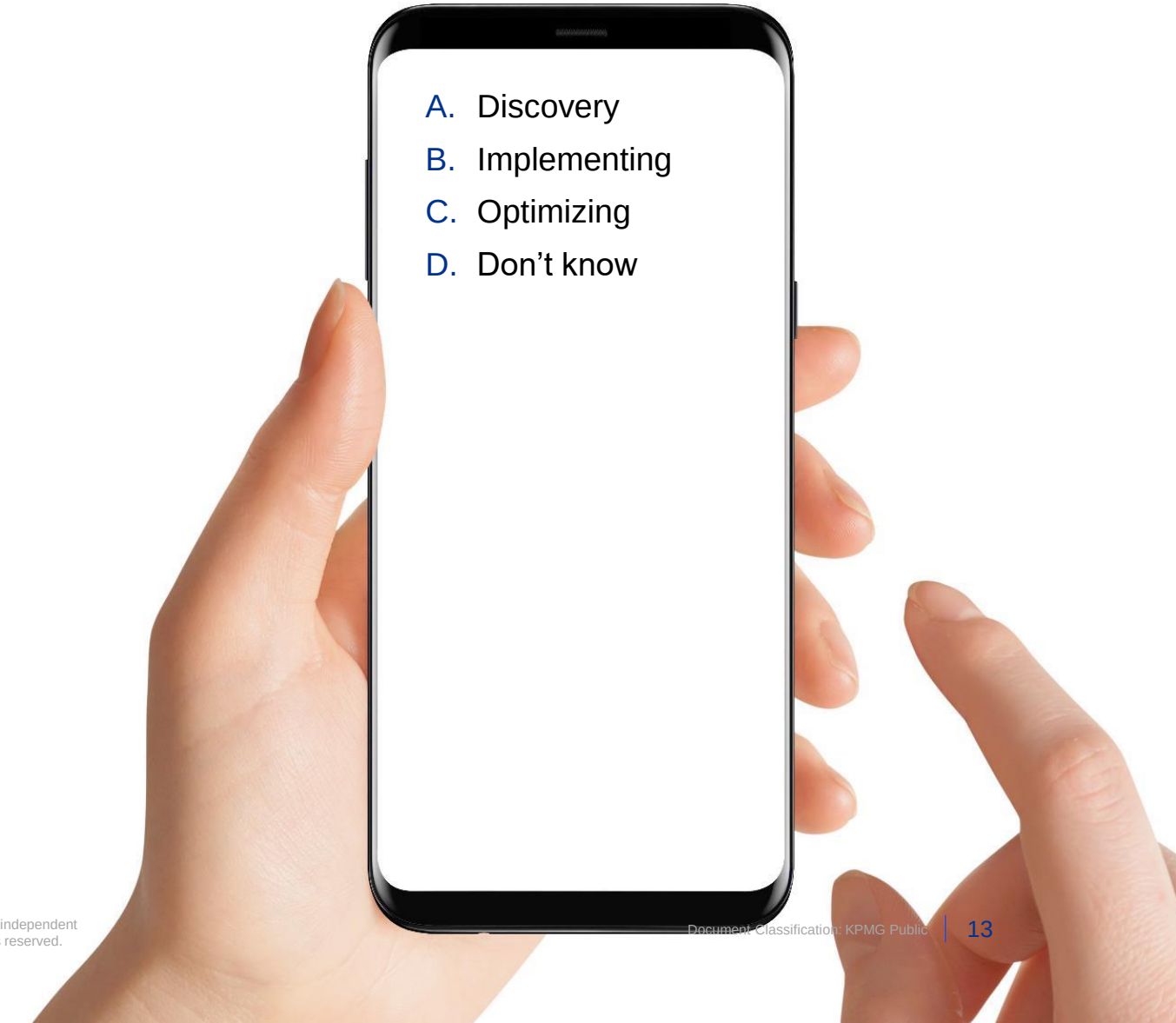
Provide "an objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization."#

If your organization is **further** along in its AI journey, internal audit can expand its focus to include assurance activities to audit the overall program and effectiveness of the related controls and processes.

- The Institute of Internal Auditors, Standards Glossary

• - The "client" for consulting services can be any key stakeholder, such as the business owner, process owner, control owner, etc.

Question #2: Where is your organization in the AI journey?



04

Adding value

Adding value at each component of the AI Target Operating Model (TOM)

Governance

Establishing AI principles, policies, standards, guidelines, risk management and organizational structure; prioritize data privacy, model security and regulation adherence

Performance insights and data

Defining, monitoring and optimizing Critical Success Factors (CSF), Key Risk Indicators (KRIs) and Key Performance Indicators (KPIs) for AI technology performance; establish and monitor business impact and role value for all adopting user populations

Technology

Technology and tooling to enable the data supply chain, build LLMs, create, prompt tune, or fine tune Ai models, user interfaces, seamlessly integrate AI solutions into existing systems.

Functional process

Establishing business goals and a scalable framework for leveraging AI technology, opportunity prioritizing of technology enhancements, protecting organizational data and business unit adoption.

People & Culture

Cultivating collaboration and a culture across participating business units and functions, track key values and activities supporting AI adoption, maintain behavioral adoption and skilling plans for all populations adopting AI technologies

Service delivery model

Streamlining end-to-end AI service management, ensuring seamless integration, optimal performance to revolutionize employee and customer experiences and drive growth and efficiencies.

Governance

The governance component is crucial for aligning AI initiatives with business objectives, managing risks, ensuring compliance with regulations, promoting ethical practices, and maintaining accountability. It fosters continuous improvement and stakeholder engagement, ensuring responsible, transparent, and effective AI deployment.

Consulting

- Assist in defining clear set of ethical principles to guide use and monitoring of AI
- Provide input on the need to develop robust policies and standards that direct the use of AI, maintaining data privacy, and ensuring algorithmic fairness.
- Provide input to the redefinition of risk appetite and threshold as a result of introduction of new technology

Assurance

- Ascertain the degree to which AI operations adhere to these principles through its independent assessments.
- Assess whether the organizational strategy is coherent and whether AI initiatives are working towards strategic objectives.
- Test the effectiveness of the controls in place and provide an independent opinion on the organization's risk management efforts.
- Evaluate the AI training program's effectiveness, ensuring that personnel are adequately equipped to execute and oversee AI initiatives.

Performance insights and data

Enables continuous monitoring and evaluation of AI systems, ensuring they meet performance expectations and compliance standards. This component provides actionable insights that drive optimization, transparency, and accountability, fostering trust and improving decision-making within the organization.

Consulting

- Provide guidance on aligning success factors with organizational goals and AI objectives.
- Offer guidance on metric standardization and benchmarking
- Provide best practices for effective communication of AI performance and risk insights.

Assurance

- Verify the integrity and reliability of KPI data and reporting.
- Assess the appropriateness and comprehensiveness of KRIs.
- Assess the reporting mechanisms to ensure they accurately, fairly, and completely reflect the performance of AI systems.

Functional Processes

Ensure the AI systems function effectively and are aligned with business objectives. It also establishes the essential processes for continuous monitoring and improvement, enabling the AI system to adapt to changing needs or conditions and maximize its value to the organization.

Consulting

- Offer guidance on the strategic planning and design of AI models aligned with organizational objectives.
- Advise on establishing robust data governance and management systems to support the AI initiative.
- Provide guidance on comprehensive testing methodologies to ensure the accuracy of AI outputs.
- Advise on methodologies and measures for ensuring continuous improvement of AI models.

Assurance

- Provide assurance on the data management processes including data quality, privacy, and security.
- Evaluate the effectiveness and efficiency of the AI development processes and validate they follow best practices.
- Verify that AI models have been properly tested and perform as expected under different scenario conditions.
- Assess the deployment process, identify potential issues, and provide assurance that the AI system performs as expected once deployed.

Technology & Tooling

Provides the necessary infrastructure and tools to develop, deploy, and maintain AI systems efficiently. This component ensures that the AI initiatives are supported by robust, scalable, and secure technological solutions, enabling effective implementation and continuous improvement of AI capabilities.

Consulting

- Advise on aligning AI technology strategy with organizational goals and industry best practices.
- Recommend data management frameworks to ensure the quality, availability, and governance of data.
- Suggest frameworks for continuous evaluation and iterative improvement of AI models and systems.

Assurance

- Audit the design and planning processes to ensure they meet best practices and compliance standards.
- Assess the effectiveness of data governance and management practices.
- Verify the adequacy and effectiveness of testing methodologies and tools.
- Review deployment processes for security, efficiency, and compliance with organizational policies.

Service delivery model

Ensures the effective and efficient provision of AI services, aligning AI capabilities with business needs and operational goals. This component facilitates seamless integration, consistent performance, and responsiveness to evolving requirements, thereby maximizing the value derived from AI initiatives.

Consulting

- Suggest criteria for vendor performance assessment and risk management.
- Recommend best practices for categorizing and managing AI services
- Suggest improvements in service design to enhance usability and effectiveness.
- Offer advice on establishing governance structures and compliance frameworks for AI.

Assurance

- Review the design process to ensure it incorporates user requirements and adheres to best practices.
- Evaluate the smoothness of the transition process and the readiness of the operational environment.
- Evaluate vendor selection processes and contract management practices.
- Evaluate the adequacy and competency of the AI workforce.

People & Culture

Ensures that the workforce is equipped with the necessary skills and mindset to effectively implement and utilize AI technologies. It fosters a supportive and innovative environment that encourages continuous learning, adaptability, and collaboration, which are essential for the successful assimilation of AI into business processes.

Consulting

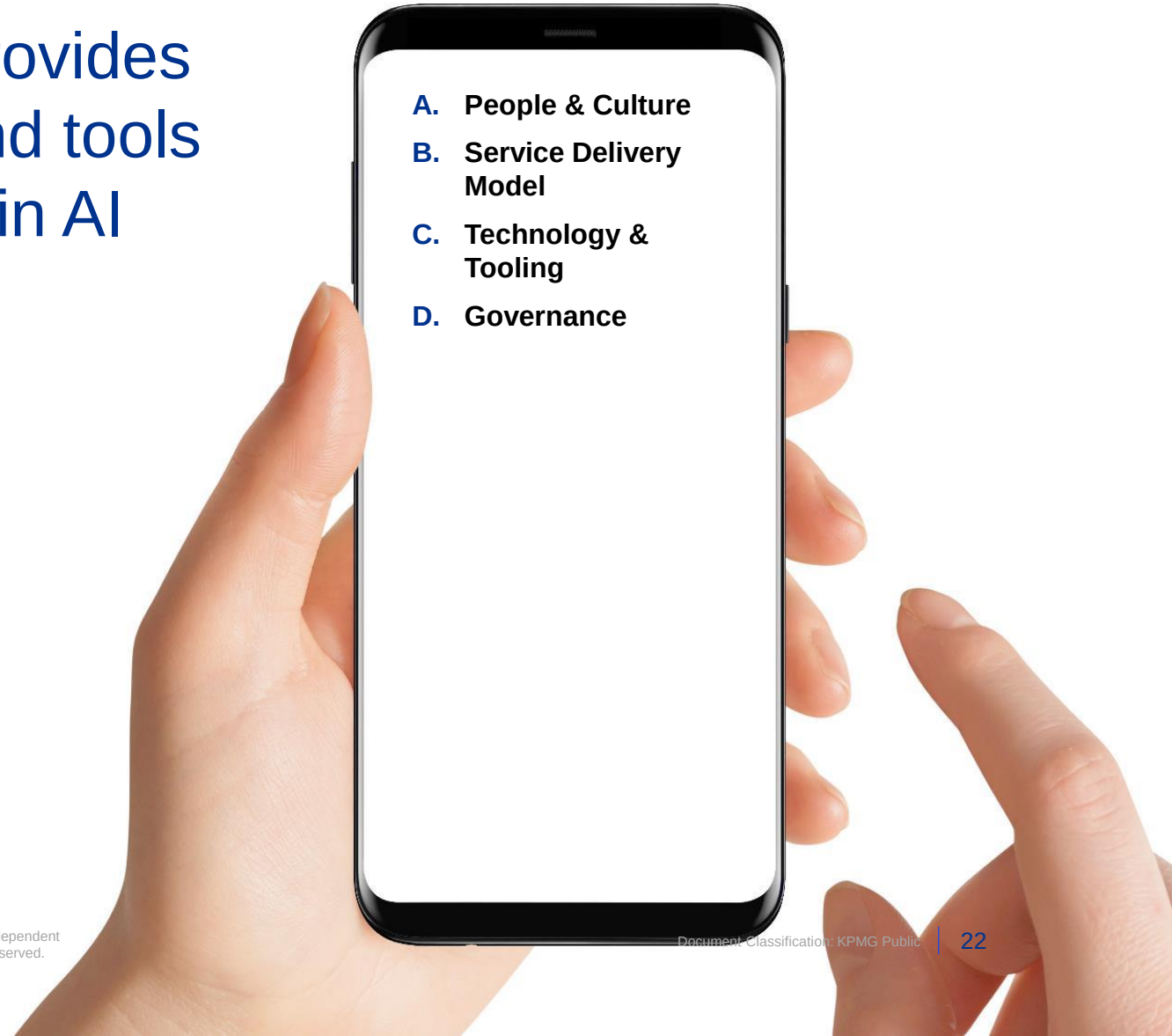
- Internal audit can guide on identifying skills gaps and developing training programs for AI-related competencies.
- Advise on strategies to foster a culture supportive of AI adoption, including change management.
- Suggest strategies to promote diversity and inclusion in the AI team.
- Assist in forming ethical guidelines for AI usage.
- Recommend methods to improve employee engagement and involvement in AI initiatives.

Assurance

- Assess the effectiveness of initiatives aimed at promoting a culture of continuous learning and innovation.
- Ensure compliance with established ethical guidelines and review adherence in AI projects.
- Assess the effectiveness of leadership initiatives in promoting AI governance and strategic alignment.
- Evaluate the effectiveness of communication strategies in raising awareness and understanding of AI initiatives.

Question #3: Select the right answer:

What TOM component layer provides the necessary infrastructure and tools to develop, deploy, and maintain AI systems efficiently?



05

Key Takeaways

Focus areas to add value

Intelligent automation requires new considerations for governance and controls to manage risk. Internal audit should work with the organization to:

Strategic Advisory and Governance Support

Assist in developing AI governance frameworks, align AI initiatives with organizational goals, and provide guidance on ethical AI practices to enhance governance and strategic alignment.

Proactive Risk Management and Control Validation

Identify and assess AI-related risks, validate controls, and establish continuous monitoring mechanisms to mitigate potential issues and ensure compliance.

Performance Measurement and Continuous Improvement

Develop and monitor AI-specific performance metrics, conduct periodic audits, and establish feedback loops to ensure optimized performance and foster continuous improvement.

06

Q&A

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities

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