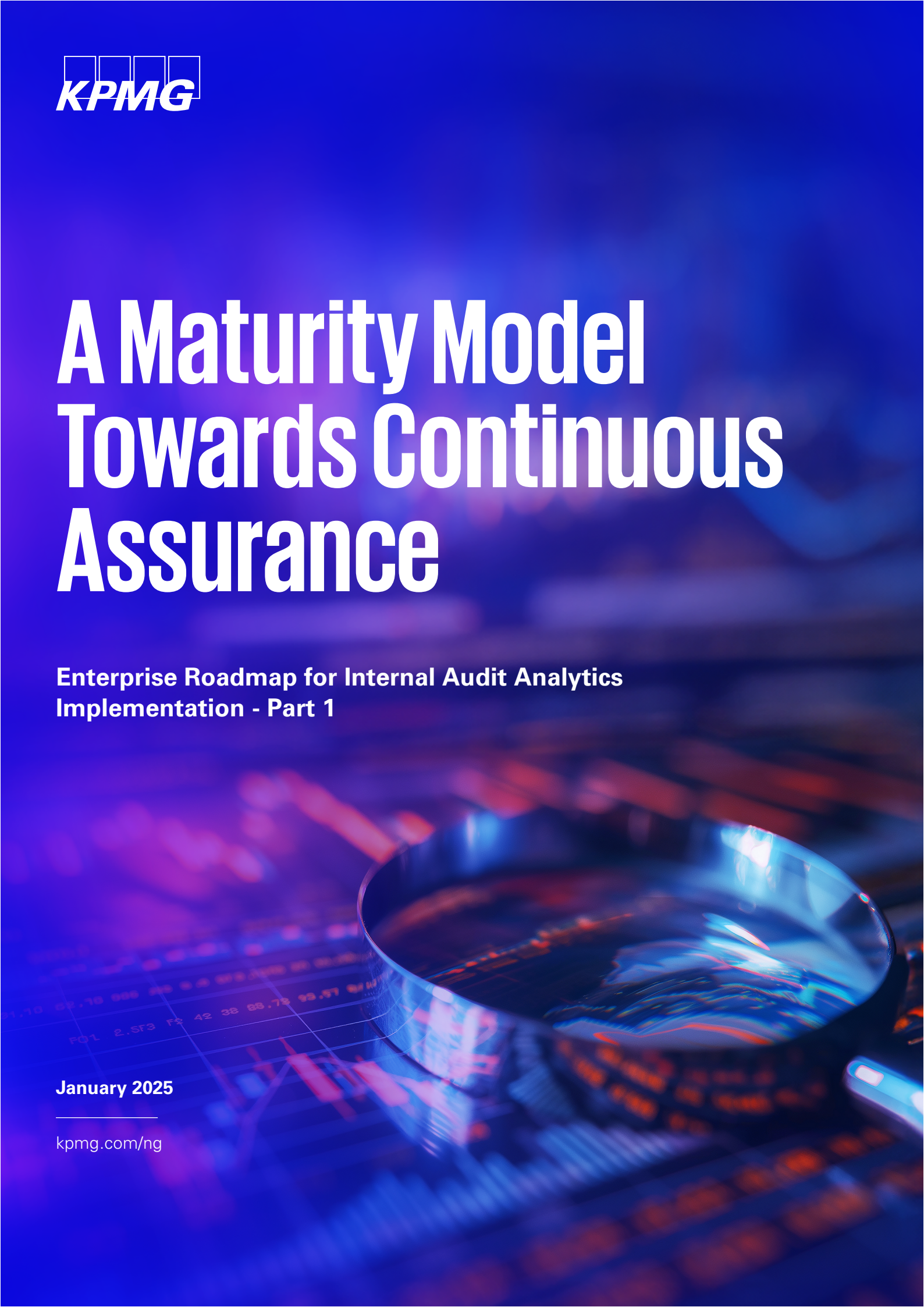
KPMG

A Maturity Model Towards Continuous Assurance

Enterprise Roadmap for Internal Audit Analytics Implementation - Part 1



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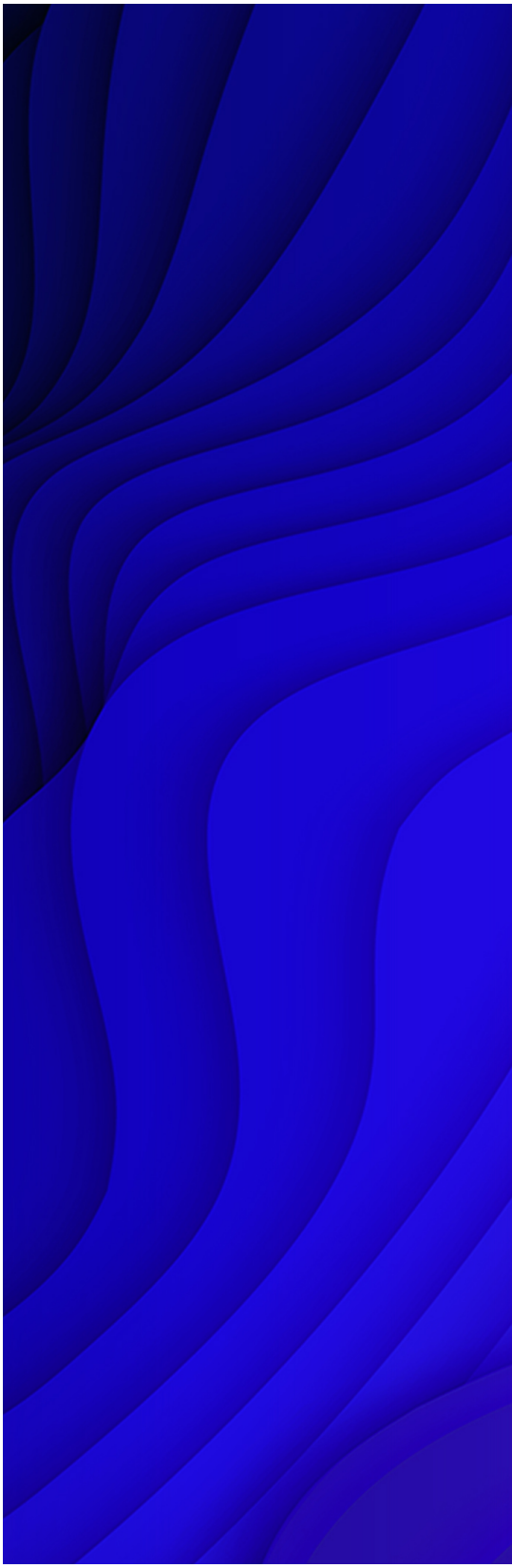
Glossary

BI	Business Intelligence
CA	Continuous Auditing
CAATs	Computer-Assisted Audit Techniques
CAE	Chief Audit Executive
CM	Continuous Monitoring
CA/CM	Continuous Auditing and Continuous Monitoring
CAATs	Computer-Assisted Auditing Techniques
DA	Data Analytics
DAeIA	Data Analytics Enabled Internal Audit
IA	Internal Audit
IC	Internal Control
IT	Information Technology
KPI	Key Performance Indicator(s)
KRI	Key Risk Indicators(s)
RPA	Robotic Process Automation
QAR	Quality Assurance Review



Introduction

The business landscape is changing...

…and Internal Audit must keep pace. In today's dynamic business landscape, organisations are constantly challenged to adapt and innovate in response to evolving market dynamics, regulatory requirements, and technological advancements.

Amidst this backdrop of change, the role of internal audit has become increasingly critical in safeguarding organisational assets, ensuring compliance, and driving operational excellence. **But traditional audit approaches are often ill-equipped to keep pace with the scale of change.** As a result of the challenge, organisations are turning to data analytics as a strategic lever to enhance the effectiveness, agility, and efficiency of their internal audit functions.

Often, as organisations embark on the journey to integrate data analytics into their internal audit processes, they are confronted with a myriad of complexities and considerations. From identifying opportunities for analytics implementation within the current audit programme to selecting the right analytics tools and upskilling audit staff, the path to successful implementation requires careful planning, resource allocation, strategic alignment, and a clear roadmap for execution.

KPMG has developed a four-part series that serves as a comprehensive roadmap to transforming Internal Audit by leveraging data analytics to enhance audit quality and deliver business value.

In this first part of our series, we unveil KPMG's Data Analytics maturity model from Traditional auditing to Continuous Assurance at all stages of the Internal Audit process.

To effectively embark on a transformation journey, the first step is to identify the function's Data and Analytics maturity level. **This guide will help you assess your function to determine your maturity stage within all parts of the internal audit process.** This is the critical first step in your journey towards Continuous Assurance.

Is your IA Function ready to take the leap?

Enjoy the read!

Bimpe Afolabi
Partner,
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Figure 1: Advantages of data analytics for the Internal Audit Function

1

Traditional Vs. Continuous Assurance/Tech-Enabled Audit

In today's rapidly evolving business landscape, organisations are moving away from traditional methods of auditing towards more advanced and integrated approaches. These shifts are driven by the need for greater efficiency and real time insights. To better understand this progression, it is essential to differentiate between the following key concepts.

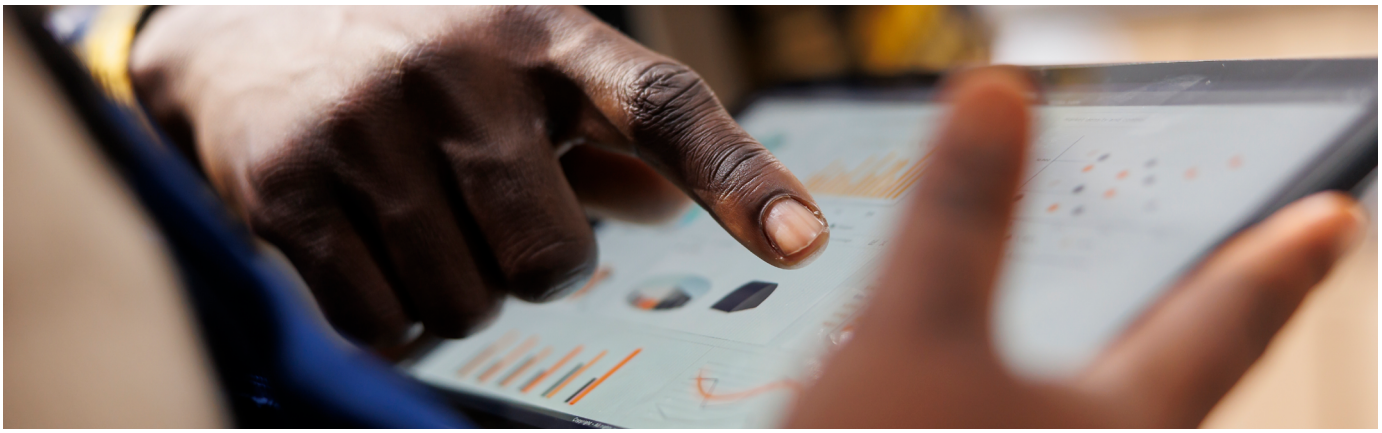
1. **Traditional auditing** refers to the conventional approach to conducting audits, which typically involves manual processes and sample-based and periodic reviews.

2. **Continuous auditing (CA)** is a method used by the IA function to perform control and risk assessments automatically on a more frequent basis. Technology is key to enabling this approach. Continuous auditing changes the audit paradigm from periodic reviews of a sample of transactions to ongoing audit testing of up to 100 percent of transactions. Continuous auditing enables internal audit to continually gather and evaluate data that supports auditing activities.

3. **Continuous monitoring (CM)** is closely related to continuous auditing but is primarily a management tool. It enables management to continually review business processes for adherence to and deviations from their intended levels of performance and effectiveness.

4. **Continuous assurance** is the highest level of maturity where continuous auditing and continuous monitoring (CA/CM) are integrated to provide real-time assurance on the overall risk management and control environment.

One goal of the IA Function should be to operate at a level that enables it to keep pace with the technological changes its organisation is facing or will face in the future. In this journey, the IA Function's pace should mirror the developments of the organisation itself to optimise the usage of technologies being implemented. The ultimate goal of the Internal Audit Function should able to mature through each stage till it reaches Continuous Assurance.



A comparison of traditional vs. Continuous Assurance/technology-enabled internal audit methods is described below.

Traditional	Continuous Assurance
Annual or long-term audit plans are hardly being updated based on emerging risks and developments that may arise.	Robust and dynamic planning **with data-driven feedback** loops between the IA Function and the Executive Board or Audit Committee (a more agile approach). The risk analysis involved in developing a robust and dynamic plan is carried out following intensive data analysis, resulting in a comprehensive and risk-based audit plan.
Level of assurance of internal audit is dependent on the judgmental or **statistical sampling** work of the audit team and most of the audit findings are based on partial observations.	The audit process is facilitated by **data analytics**, which enhances assurance and insights based on testing of the **entire population** and/or operating effectiveness of controls. Auditors are freed up to focus on the **quality** and more strategic parts of the audit.
IA Function deliverables consist of observations and conclusions that cover processes or topics, with a main focus on providing assurance or compliance with procedures.	The audits, including scoping and fieldwork, are focused on specific business areas and this ensures that the objectives are achieved earlier. The **added value** from data empowers the auditor to be a sparring partner and provide granular **business insights**.
Fixed written reporting format, with limited visuals.	**Dynamic** and relevant reporting in visualisation platforms, which leverages the powers of original presentation to convey large large information in concise manner. **Reporting** can be updated in real-time and form the basis of **continuous monitoring**.
Documents are stored on network drives with limited capability to prompt the auditpr or auditors of pedning actions..	Documents are appropriately managed with an **integrated workflow system** which can allocate activities to the relevant party. This can be done within an audit management tool, which ensures that the auditor and auditee are updated promptly.
Use of basic Computer-Assisted Audit Techniques (CAATs) to perform audit procedures for some confined areas.	CAATs are **integrated** in the audit, and are executed automatically and continuously. **Scalability**, as data analytics can be rapidly deployed to address specific issues.
Requesting and receiving reports from users with access to business systems for data analysis and fieldwork.	IA Function integrated with business systems and technology as well as the technology which supports the 1st and 2nd Lines of Defense (LoD) functions. This enables the function to leverage continuous monitoring techniques to improve planning by greater understanding prior to commencement of fieldwork.

Source: Leveraging Technology within Internal Audit Functions (2022 KPMG Advisory N.V)

The journey from Traditional Auditing to Continuous Assurance for an IA function's process is visualised below. As the function progresses towards Continuous Assurance, its focus shifts from routine transactions to non-routine and more judgmental transactions. This is facilitated by automation and enables auditors to focus on more strategic matters.

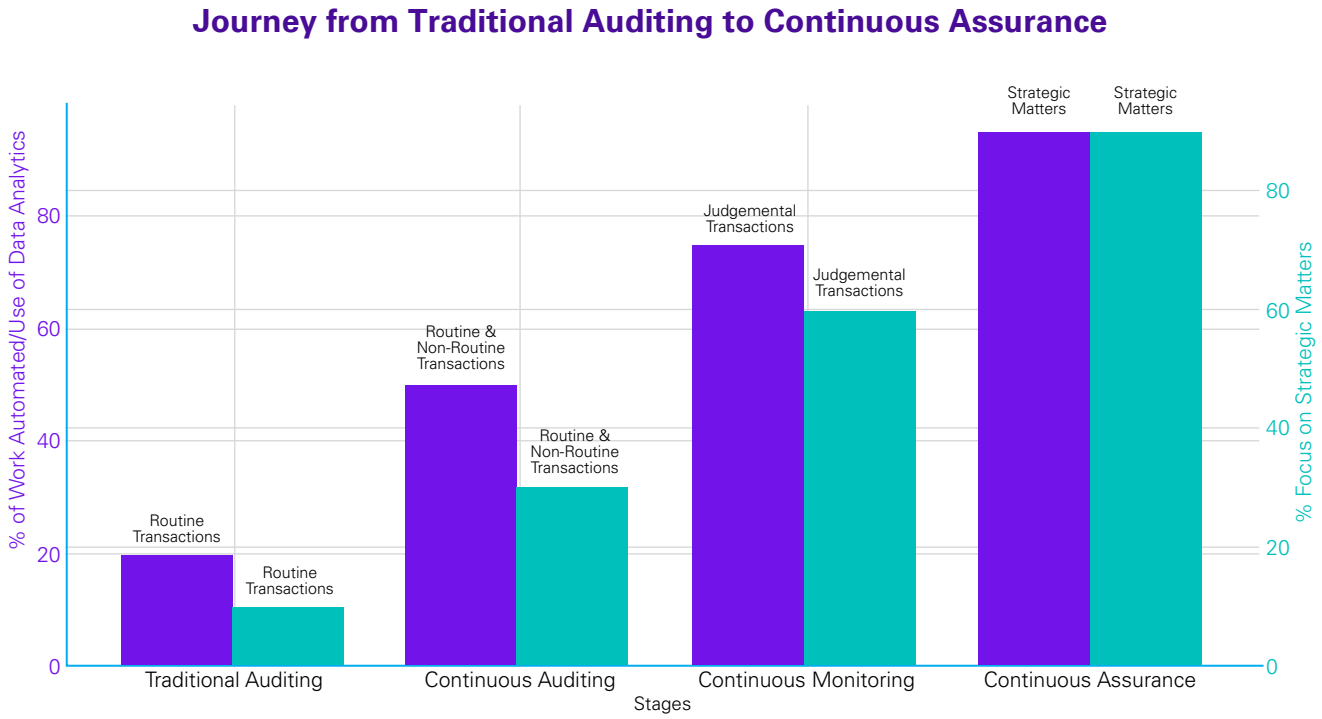


Figure 2: Journey towards Continuous Assurance

The Internal Audit Analytics Maturity Model

A maturity model provides a structured approach which organisations can adopt in the evolution from traditional auditing to Continuous Assurance.

> **The critical first step in implementing internal audit analytics is an assessment of the current internal audit landscape, a maturity assessment - the outcome of which will reveal how much data analytics is being effectively utilised in the internal audit process.**

Knowing your current maturity level is necessary to determine gaps within your current approach that need to be addressed to reach a desired future state.

It is worthy to note, however, that not every organisation requires the same level of maturity in their data analytics or continuous auditing processes, It depends on a number of factors, such as,

- the needs and goals of the organisation,
- the ambitions and authority of the chief audit executive,
- the quantity of automation and/or operational & financial data in the organisation
- the nature of the organisation's business, and
- the regulatory environment in which the organisation operates now and in the future.

To determine where your Internal Audit stands, you can compare it to a reference maturity model, which includes clear levels of maturity, for each phase of the audit process, considering factors like people, processes, and technology. The goal of this comparison is to find out where you want to be in the future, understand the gaps between your current state and that future state, and create a plan to reach your goals. The model also helps track your progress over time.

2

KPMG's Maturity Model for Analytics in Auditing

KPMG has developed the following maturity model rooted in most internal audit methodology. The model serves as a guide as to how data analytics can be used at different stages of the audit process and how these practices change at different maturity levels.

With our deep experience in this area, our maturity model helps guide organisations from traditional internal audit practices to more advanced levels, ultimately reaching continuous assurance of enterprise risk management.

Finding out where you are in this model is the first step in making a strategic plan to move from your current state to where you want to be.

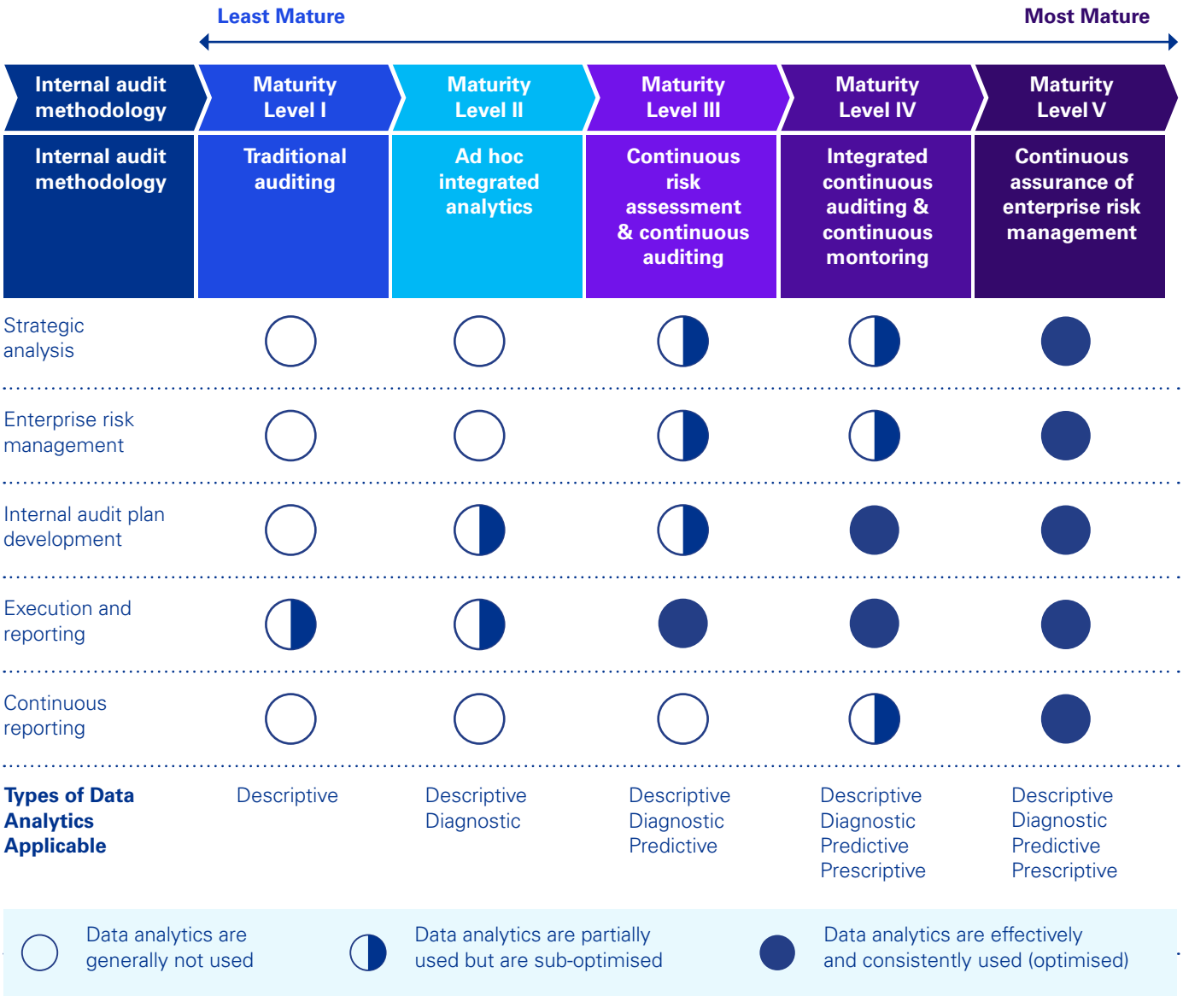


Figure 3: Data analytics maturity model

Descriptive, diagnostic, predictive and prescriptive – these analytics capabilities characterise the maturity scale and can be referred to as the data analytics development cycle. This cycle is described in stages: from descriptive **(what happened)**, to diagnostic **(why did it happen)**, to predictive **(what is likely to happen)**, and, finally, to prescriptive analytics **(what action is the best to take)**.

In general, most organisations and leading IA Functions currently find themselves in the descriptive and diagnostic stages.

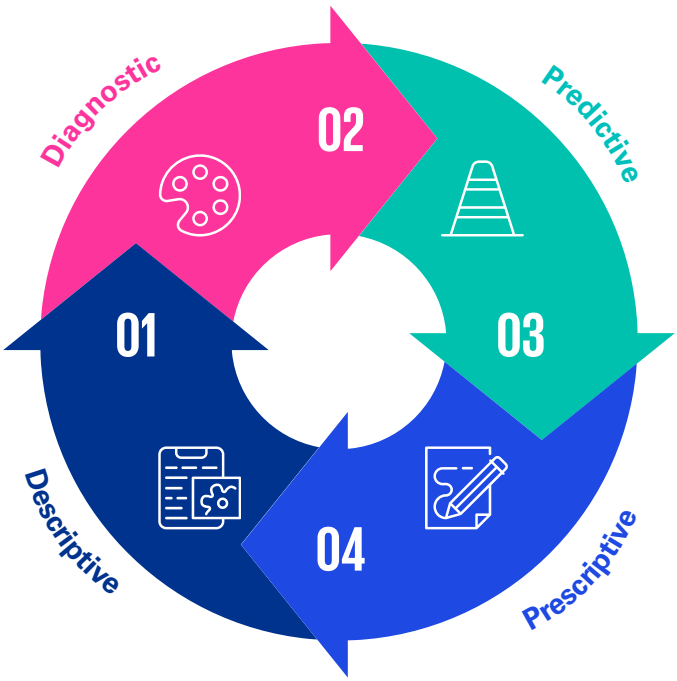


Figure 4: The Analytics Capabilities

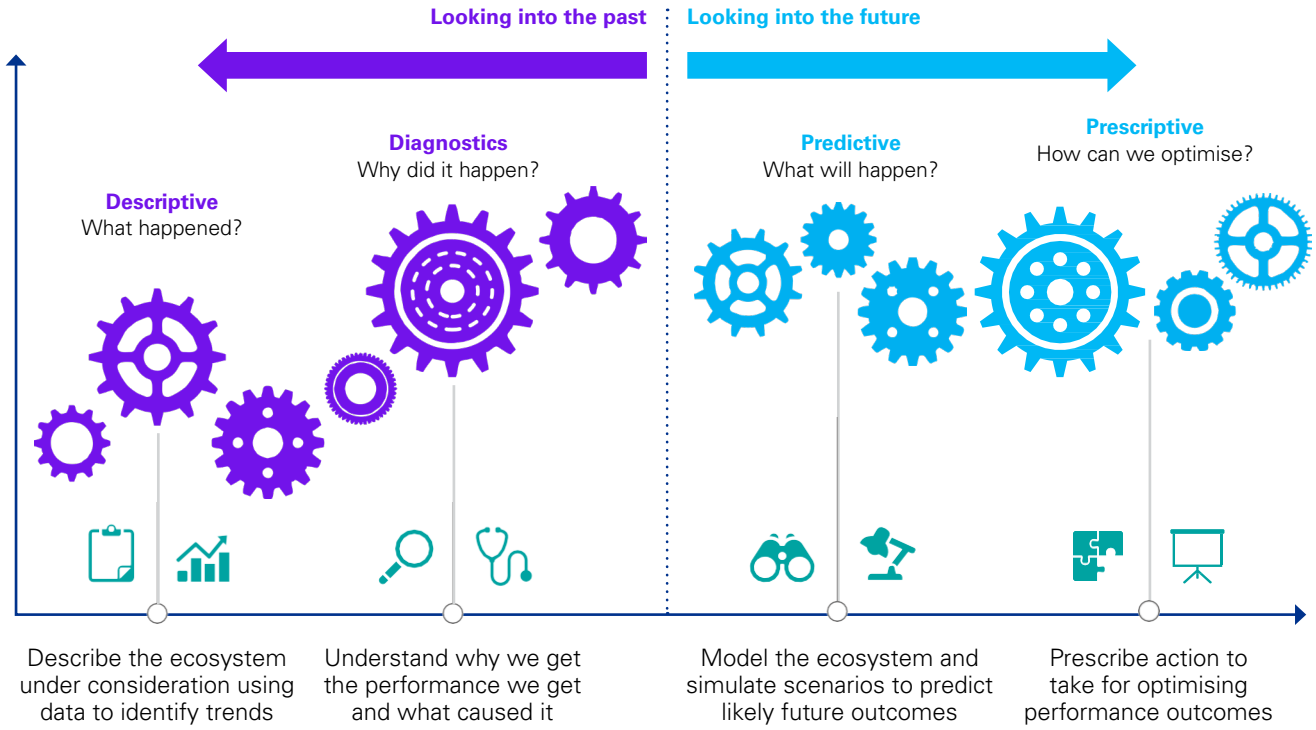


Figure 5: Descriptive, diagnostic, predictive and prescriptive analytics

3

Assessing Maturity levels within the Internal Audit Methodology

Using the maturity model to lay the groundwork, an IA Function will need to evaluate its current internal audit methodology for audit planning, execution, and reporting. The early phases of a typical internal audit methodology should include strategic analysis and enterprise risk assessment. Strategic analysis provides an initial understanding of the organisation's business from a top-down perspective and offers a framework to help identify organisational and industry issues, strategic objectives and challenges. Next, an enterprise risk assessment is necessary to gain insight into the risks that may threaten a company's achievement of business and strategic objectives.

To illustrate this, we will focus on two select phases of the internal audit methodology – the internal audit plan development and execution and reporting – to highlight the application of data and analytics within these phases as well as the characteristics relating to the integration of data analytics within the reference maturity model.

By reviewing the characteristics of each maturity stage within the Internal audit plan development and the execution and reporting phases, an Internal Audit Function can assess their maturity level.

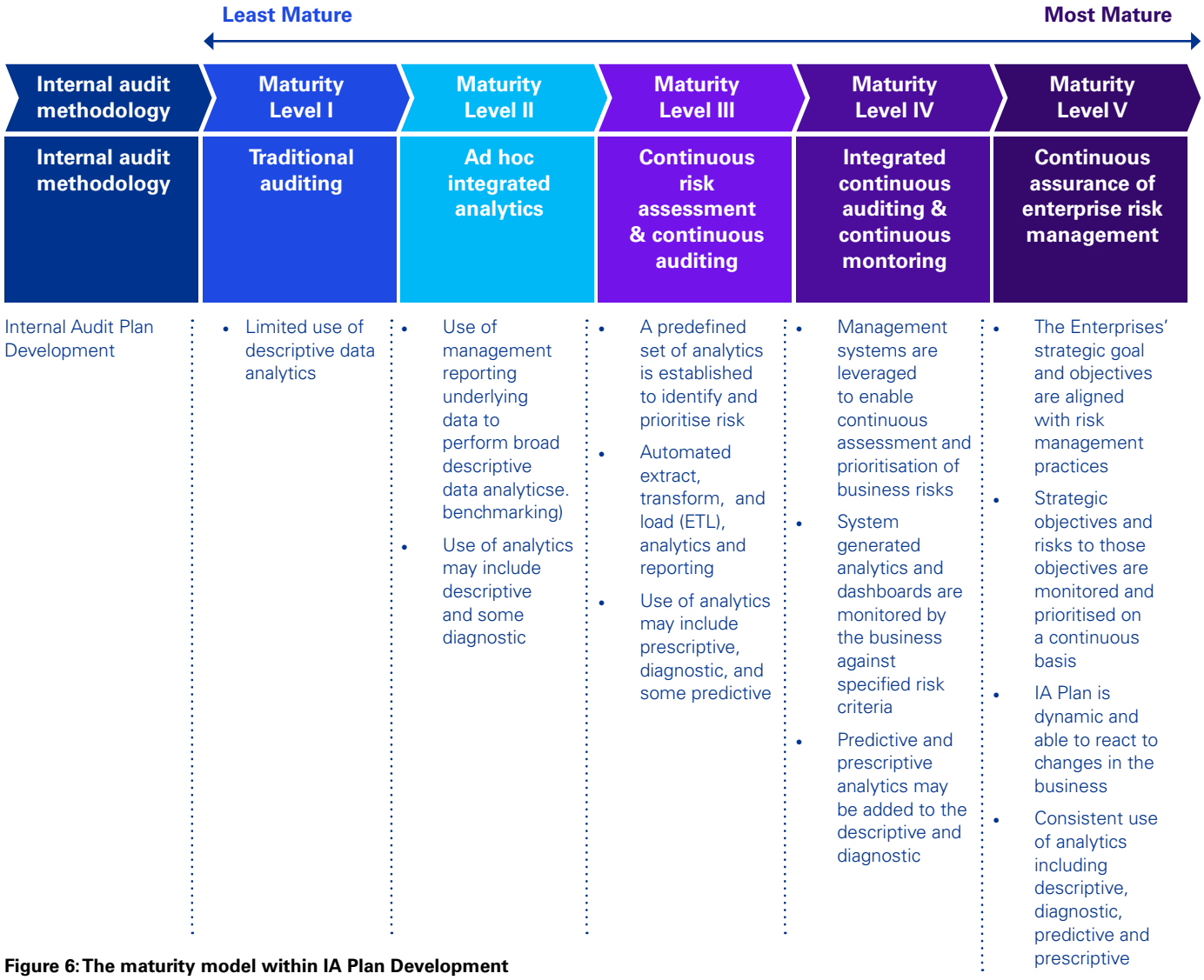


Figure 6: The maturity model within IA Plan Development

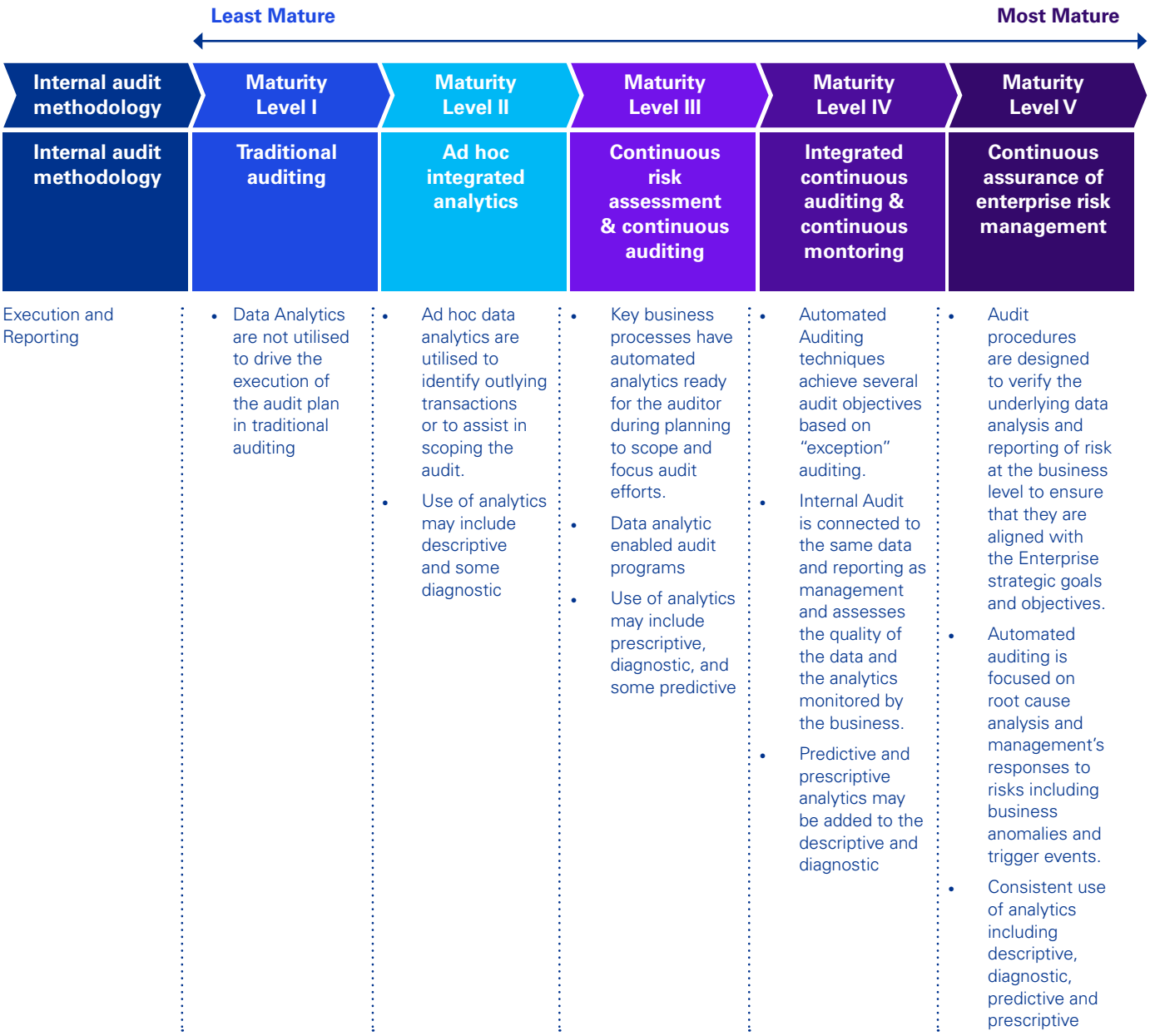


Figure 7: The maturity model within IA Execution and Reporting

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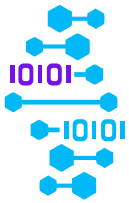
Outcomes of the Assessment Process



Key outcomes of the maturity assessment should include considerations of **positioning, people** and **process**. Leading Internal Audit Functions have adopted frameworks that address these three elements for the successful Data and Analytics enabled Internal Audit Function.

The **Positioning** aspect touches on the positioning of the IA Function within the organisation, its governance, mandate, independence, relationships, and importantly, access to structured and unstructured data. Some key questions to ask during the assessment of the positioning of the IA Function will include:

Governance, mandate, and relationships

- Is the IA Function characterised by strong relationships at the highest levels, and does it have a regular presence in major governance and control forums throughout the organisation while maintaining its independence and objectivity?
- Does the IA Function have a defined and documented brand that permeates all aspects of the internal audit department, IA Function strategy and is widely recognised and respected both internally and externally?
- How are data analytics and advanced technologies perceived in the organisation?

Sources, ownership and quality of audit data

- Is data readily available?
- Is it accurate, structured, complete and consistent?
- Are the data sources locally stored on-premise or on cloud?
- What are the current data collection and analysis methods, can up-to-date data be obtained when needed?

Reporting responsibilities

- What reports are issued? To whom?
- Are there specific, timebound, regulatory reporting requirements?
- Are these requirements high-value, low-complexity areas?

The **People** aspect looks at the competencies and the skills of those individuals within the internal audit team, or those individuals at the disposal of the internal audit team. Questions to ask during the assessment of the people within the IA Function will include:

Staff strength

- What is the current staff strength of the IA function?
- Are there enough staff to continue the traditional Internal Audit cycle while piloting the Internal Audit Analytics implementation?
- Are there any staff with requisite data analytics knowledge/skills?
- Is the IA Function willing to outsource some of the technical aspects of a project to a service provider?

Staff skills/competencies

- Are the internal auditors able to identify the opportunities to enhance existing services with tools available?

Culture

- Do the internal auditors possess the right capabilities and characteristics, which are essential to drive change initiatives in the department and organisation as a whole?

Lastly, but most importantly, the **Process** aspect considers the various tools, options and solutions that allows the IA Function to utilise data effectively and successfully as part of its risk-based internal approach and the audit methodology. Some key questions to ask during the assessment of the IA process should include:

Current work tools

- What are the current systems and technologies used for audit execution?
- Are these tools suitable for analytics at scale?

As an outcome of the assessment process, it will also be beneficial to Identify 'low-hanging' processes. This will involve developing a catalogue of processes categorised by their digital maturity (e.g., manual, sub-optimised or optimised. Manual processes can be further classified by ease of digitalisation to identify these low hanging fruits for digital transformation. The low hanging processes will be those which contain pain-points that require solutions of low complexity but high value addition.

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Conclusion

As organisations continue to adapt to the evolving digital landscape, embracing analytics will be essential for ensuring the relevance and effectiveness of the internal audit function in safeguarding organisational assets and promoting business growth. Integrating analytics into the internal audit function represents a significant opportunity for organisations to enhance audit effectiveness, improve risk management, and drive business value.

By assessing their maturity level using the reference model in this publication, IA Functions can set targets for a desired maturity state and navigate the complexities of analytics implementation to unlock the full potential of data-driven audit methodologies. KPMG has a group of expert professionals in analysis and interpretation of data focused on Internal Audit, connected to the global network of KPMG's best practices (Data & Analytics Global, External Audit Data & Analytics, Centers of Excellence).

We have transformed our Internal Audit practices to integrate Data and Analytics-enabled Internal Audit concepts. We have a library of best practices associated with staff training, templates, routines, frameworks of analysis and applications, among other things with which our professionals are constantly kept up-to-date on recent developments.

A DAeIA Function can contribute to the fundamental shift in perspective and understanding that a dynamic risk environment presents threats and challenges not just to the organisation itself, but to all the stakeholders who have an an interest in the organisation. KPMG collaborates with you to meet and overcome the disruptive challenges and dynamic risks of a volatile world. KPMG works with CAEs and audit committees in developing a DAeIA function that delivers strategic business assurance, identifies business opportunities, and enhances organisational value.

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How can KPMG help?

KPMG's highly experienced and industry-focused internal audit professionals drive meaningful insights by leveraging business and data analytics expertise. With deep technical skills, regulatory knowledge, and business acumen, we help our clients innovate approaches to achieve their strategic objectives while effectively assessing and managing business risk.

Achieving effective internal audit capabilities requires a significant level of investment in skilled resources, methods, training, and technical infrastructure. With organisations being driven to do more with less, the internal audit function has become a prime candidate for strategic sourcing. Our strategic sourcing service offerings are designed to assist organisations seeking to improve internal audit quality and oversight, increase value while optimising costs, enhance risk and controls management, and focus on core competencies.

Internal audit outsourcing services: We advise companies on identifying critical business risks, implementing effective controls and compliance processes, identifying better practices, reducing the cost of operations, and realising profit improvement opportunities. KPMG leverages progressive and innovative approaches to deliver cost-efficient assurance and tangible business improvement results, such as Dynamic Risk Assessments, industry-specific audit offerings, automation governance approaches and enablers, and data-driven auditing.

Internal audit co-sourcing services: Co-sourcing can provide the opportunity to tap into specific skill sets, industry knowledge and global resources on an as-needed basis. We can provide the specific skills needed on-demand — achieving a level of flexibility that can be critical in effectively dealing with a range of operational issues.

Data-enabled Internal Audit and Control Transformation: We assist Internal Audit and Control functions on their Data-enabled Internal Audit and Control transformation journey by establishing a framework and developing solutions that automate the tracking and reporting of prioritised controls and risk indicators. This would allow Internal Audit and Control functions to achieve in-depth and real-time coverage of process controls across various processes.

Internal Audit Management Solution Sourcing: We assist Internal Audit Functions embarking in transformation of their Internal Function in sourcing for Audit Management Solution tailored to the unique requirements of the Internal Audit Function. Our team of GRC tool experts assist conduct comprehensive global market scan, selecting best fit solutions, and provide implementation oversight, in line with the need and budget of the IA Function.

Training and Development of IA Teams: Empower your Internal Audit Team with the essential data analytics and automation skills needed to establish a robust, data-enabled internal audit function. Our tailored curriculum encompasses a comprehensive range of vital competencies, spanning from proficiency in off-the-shelf business intelligence tools and robotic process automation (RPA) to advanced analytics in Python and SQL. Facilitated by our team of expert instructors, our training programs are enriched with industry-specific use cases, equipping your internal audit team with the confidence and practical knowledge to seamlessly integrate analytics into their daily operations.

Contact us

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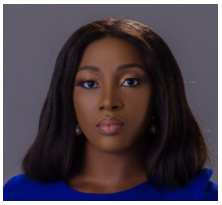

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