



Sharing Session with *Jawatankuasa Pembangunan Kompetensi (JPK), Majlis Ketua-Ketua Audit Dalam (MKAD)* *Universiti Awam*

Group Internal Audit Department (GIAD)

Wednesday, 24 September 2025





OPENING REMARKS

Pn. Lizah Abd Wahab
(Chief Internal Auditor of TNB)



INTRODUCTION TO GIAD

INTRODUCTION

GIAD's Background

GIA's Reporting Structure



Lizah Abd Wahab

Chief Internal Auditor

BAC TNB

CEO TNB

GIA TNB



Functionally

Administratively

GIA reports functionally to Board Audit Committee (BAC) and administratively to the CEO of TNB.

Statement



Our Purpose

Strengthen TNB's ability to create, protect, and sustain value by providing Board Audit Committee (BAC) and management with independent, risk-based, and objective assurance, advice, insight, and foresight.

GIAD enhances TNB's :

- Successful achievement of its objectives.
- Governance, risk management, and control processes.
- Decision-making and oversight.
- Reputation and credibility with its stakeholders.
- Ability to serve the public interest.

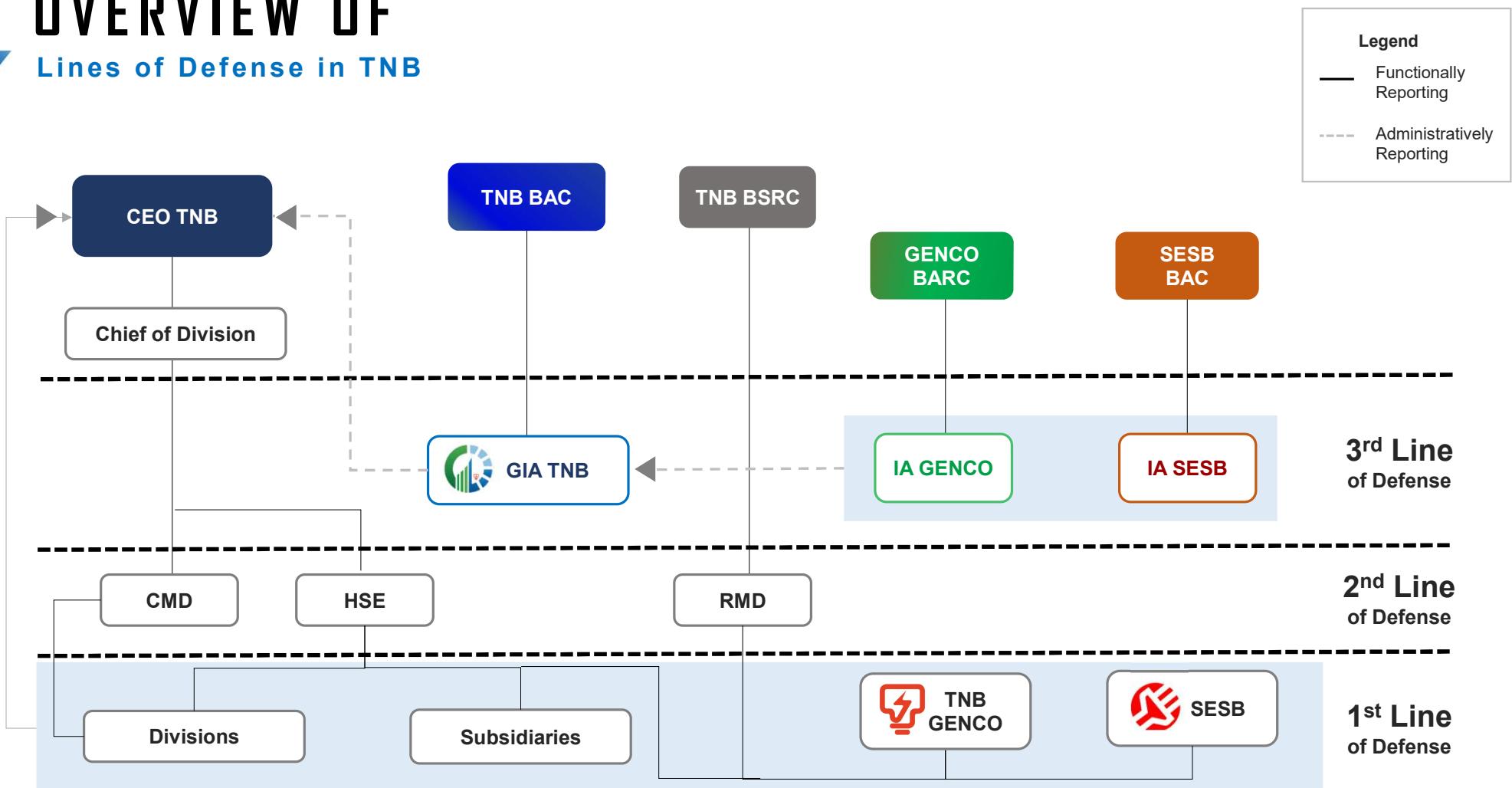
Our Aspiration



To be a globally recognized and valued internal audit service provider

OVERVIEW OF

Lines of Defense in TNB



*Legend: BAC – Board Audit Committee, BSRC – Board Sustainability & Risk Committee, BARC – Board Audit & Risk Committee, CMD – Compliance Management Dept., IA – Internal Audit

OUR LEADERSHIP

GIAD's Top Management

Key Responsibility

Conduct audits and reviews based on identified area particularly in **Operation & Maintenance, ICT, Project Management and Engineering**



Shreeram Nadarajah
Head of Section (Technical)

Key Responsibility

Conduct audits and reviews based on identified area particularly in **Procurement, Revenue Assurance, Finance, Human Resource and other support functions**



Lizah Abd Wahab
Chief Internal Auditor



Ruhaidah Rasidi
Head of Section (Non-Technical)

Key Responsibility

- Conduct **training on internal controls and data analytics** to internal staff & audit client (upon request).
- Perform **quality checks** on IA activity and report issuance.
- Perform **reviews** on other compliance functions and sustainability matters.



Vacant
Head of Section
(Strategic Management)

- Conduct annual and quarter **audit planning**.
- Prepare **presentations for Board Audit Committee meetings**.
- Assist audit team in conducting relevant **analysis**.
- Managing **administration, human resource and finance** matters

OUR GIAD TEAM



Lizah Abd Wahab
CHIEF INTERNAL AUDITOR (CIA)



Shreeram Nadarajah
Head of Section
(Technical)



**Faizul Amri
Md Yusof**
Head of Unit (ICT)



Rosmawati Ismail
Head of Unit
(Engineering Services)



**Ir. Ts. Mohd Hafiz
Zainuddin**
Head of Unit
(O&M Regulated)



Vacant
Head of Section
(Strategic Management)



Premila Balachandran
Head of Unit
(Advisory)



Azman Mohd Zaini
Head of Unit
(Data Analytics)



**Sharimala Devi A/P
Gunasekaran**
Head of Unit
(Sustainability & Quality Assurance)



Ruhaiddah Rasidi
Head of Section
(Non-Technical)



Aruna A/P Sivagnanam
Head of Unit
(Subsidiary)



Gunavathi A/P Kaliannan
Head of Unit
(Revenue Assurance)



**Ameer Hafidz bin
Zulkefl**
Head of Unit
(Procurement)



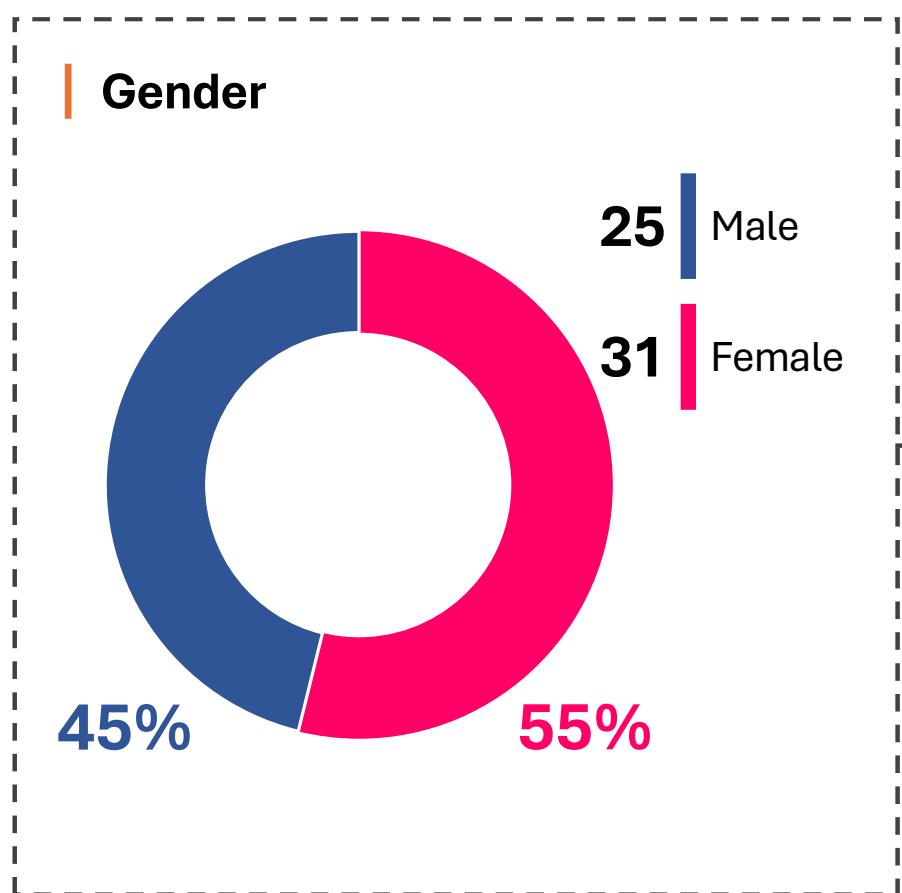
Mohd Aiman Kamarulzaman
Head of Unit
(Corporate Services)



Zaridasyah Zahudi
Head of Unit
(Finance & HR)

STAFF DEMOGRAPHICS

Background & Qualification



Background

	18	Accountants
	22	Engineers
	6	System Analysts
	3	Finance Officers
	2	Quantity Surveyors
	2	Business
	3	Support Staff

OUR STAFF ARE CERTIFIED



12



4



1



3



1



3



3



5



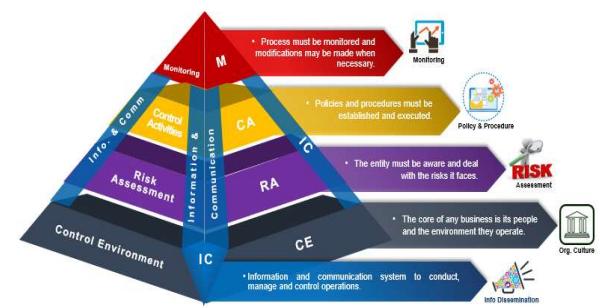
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GIAD's staffs are encouraged to acquire any other professional certifications related to audit or any relevant career/industry

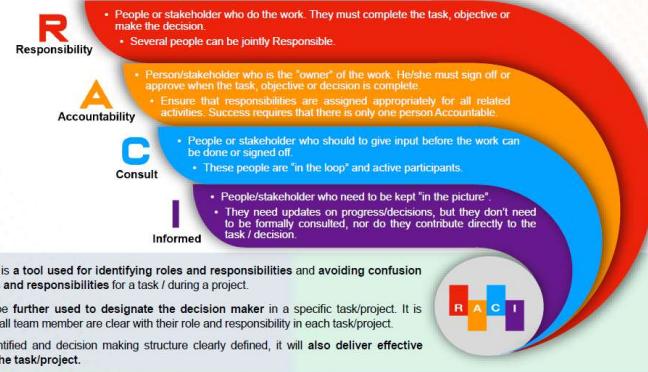
AMONGST THE STANDARDS / FRAMEWORKS WE REFER TO



Global Internal Audit Standards (GIAS)



COSO Internal control Framework



R.A.C.I



COBIT[®]
AN ISACA[®] FRAMEWORK

IT Internal Control Framework

BAC MEMBERS



Dato' Merina Abu Tahir
(Chairperson)



Ong Ai Lin

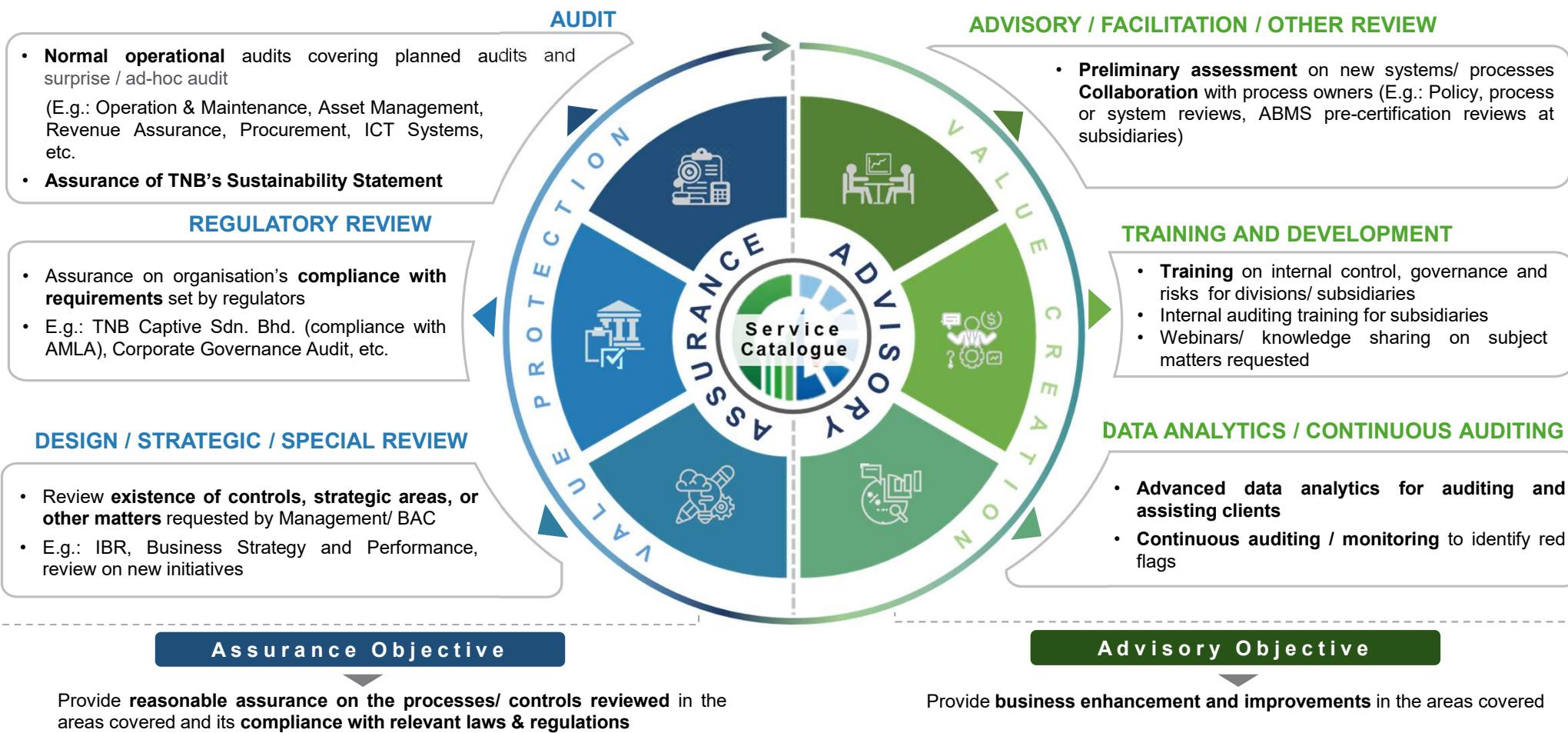


**Juniwati
Rahmat Hussin**



**Dato' Zulkifli
Bin Ibrahim**

GIA SERVICE CATALOGUE



EXPANDED ROLE OF IA IN SUSTAINABILITY

Sustainability Statement / Reporting Assurance

- Current / Past Audit on ESG/sustainability matter
- In line with Bursa Malaysia requirements on providing assurance on Sustainability Statement / Reporting, GIA has been taken to task on this matter.

▶

- **FY2022** – Review on Sustainability Reporting of TNB for FY2021
- **FY2023** – Pre-assurance assessment on TNB's Sustainability Reporting FY2022 (Performed by EY with GIAD staffs attached to the assignment.
- **FY2024** – Assurance on Material Matters and Selected Indicators
- **FY2025** – Assurance on Material Matters and All Indicators



BURSA MALAYSIA ENHANCES SUSTAINABILITY REPORTING FRAMEWORK WITH NEW CLIMATE CHANGE REPORTING

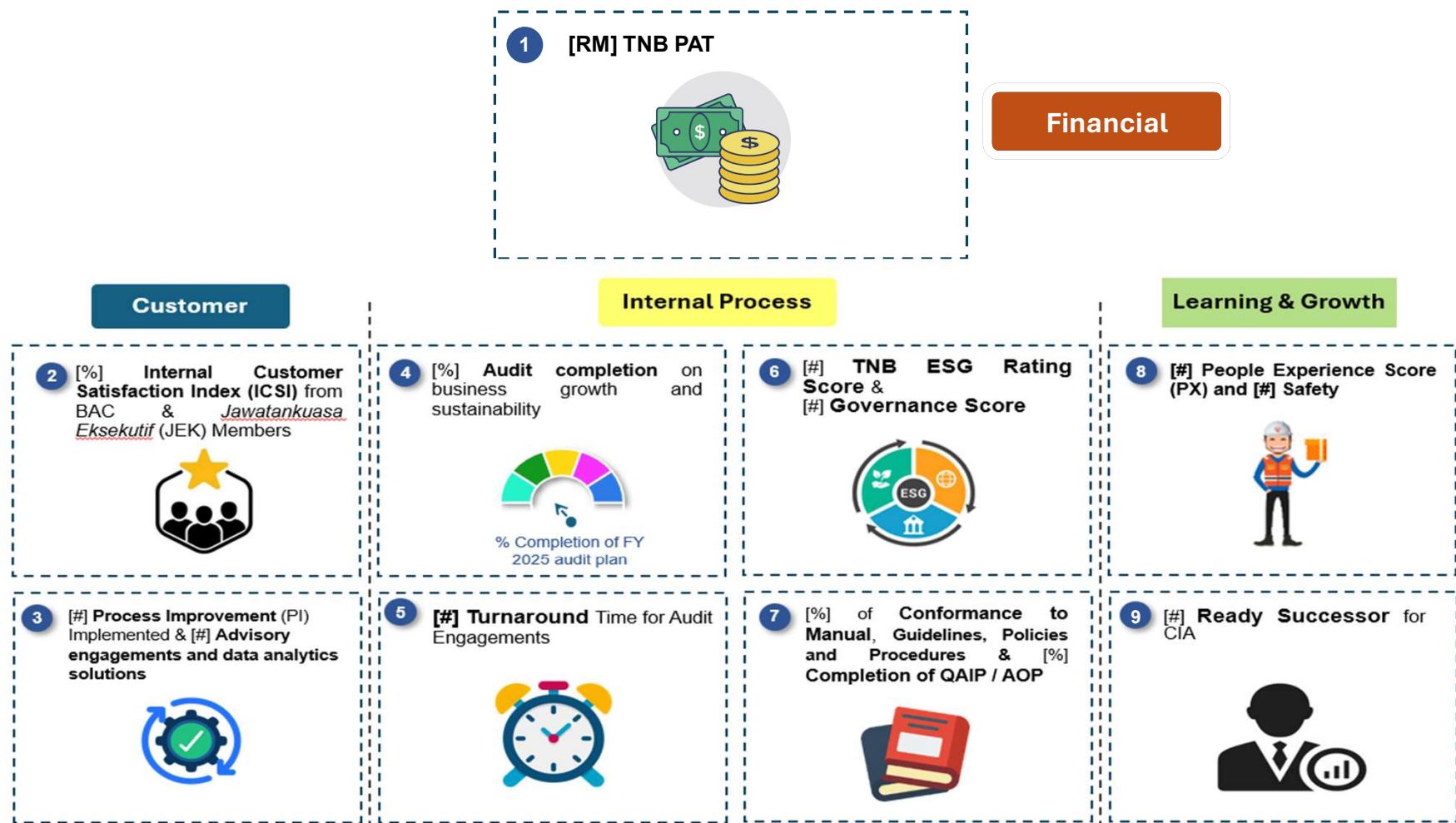
Aims to raise sustainability practices and disclosures of listed issuers

Kuala Lumpur, 26 September 2022 - Bursa Malaysia Securities Berhad ("Bursa Malaysia" or the "Exchange") today announces the enhanced sustainability reporting requirements in the Main Market Listing Requirements ("Main LR") and the ACE Market Listing Requirements ("ACE LR") (collectively, "Listing Requirements"), with the aim to elevate the sustainability practices and disclosures of listed issuers.

Main Market listed issuers will now be required to include the following disclosures in their Sustainability Statements¹:

- (i) a common set of prescribed sustainability matters and indicators that are deemed material for all listed issuers ("common sustainability matters");
- (ii) climate change-related disclosures that are aligned with Task Force on Climate-related Financial Disclosures ("TCFD") Recommendations ("TCFD-aligned disclosures");
- (iii) at least three financial years' data for each reported indicator, corresponding targets (if any) as well as a summary of such data and corresponding performance target(s) in a prescribed format ("enhanced quantitative information"); and
- (iv) a statement on whether the Sustainability Statement has been reviewed internally by internal auditors or independently assured ("statement of assurance").

HOW IS OUR PERFORMANCE MEASURED?



WHAT REPORTS DO WE PRODUCE?

To BAC and TNB's Top Management

Meeting Frequency

- Meeting frequency and other BAC related event/activity are as below:

No.	Category	Frequency of Meeting
1	BAC for audit	4 times / quarterly
2	Financial Review	4 times / Quarterly
3	Management papers	1 time / as and when
4	Special BAC (LTIP)	1 time
5	Special BAC (SESB)	1 time

Note: Meeting frequency tentatively set by COSEC and subject to changes

Other event / activities

- 1 Technical Visit by board member at selected TNB Premise i.e. plant, subsidiary

Reports Produced

To BAC

Annually

- 1 TNB's Annual Audit Plan (AAP)
- 2 TNB Integrated Assurance Reporting (IAR)
- 3 Statement of Internal Audit Function (SIAF)
- 4 Quality Assurance Improvement Program (QAIP)
- 5 Board Audit Committee (BAC) Report
- 7 Annual Operating Plan (AOP)
- 8 IA Charter review

Quarterly

- 1 GIAD's Achievements
- 2 State of Internal Control (SOIC)
- 3 Revised AAP
- 4 Audit Report – US/Critical Rating

As and When

- 1 BAC Terms of Reference

To Top Management

Periodically

- 1 CIA KPI Reporting

- 2 CA Status Reporting



STRATEGIC PLAN

GIAD Strategy for FY2025 – FY2029

GIAD Strategy For FY 2025 - 2029

Background

- Alignment with Global Internal Auditing Standards (GIAS) 2024

- a. Developed in line with the GIAS 2024 to meet the expectations of:
 - i. Board Audit Committee (BAC) members
 - ii. TNB Senior Management
 - iii. Other key stakeholders

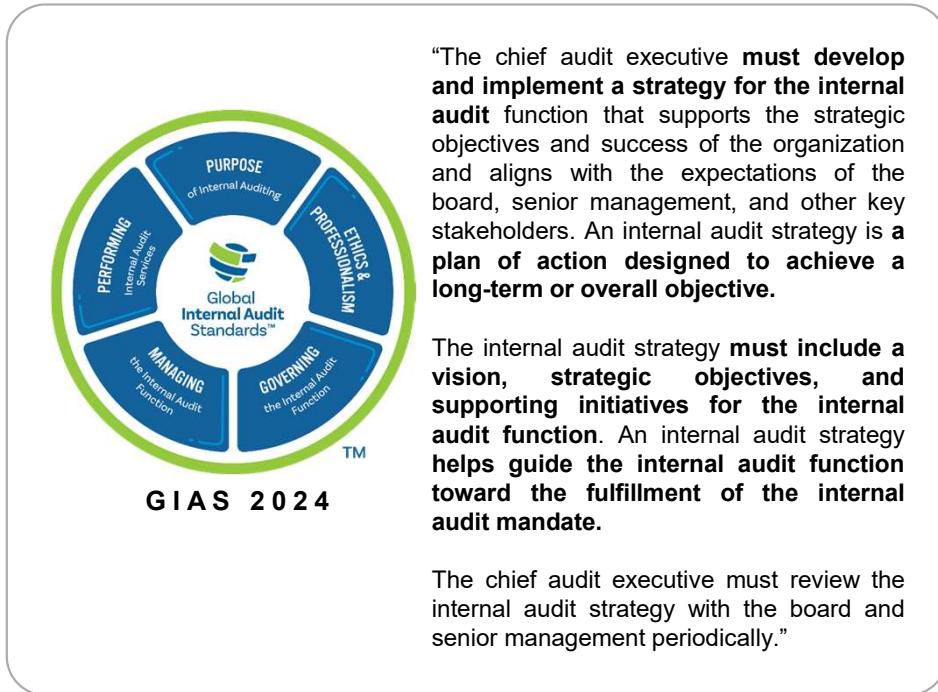
- Purpose of the strategy.

- a. This strategy serves as a guide for GIAD to:
 - i. Fulfill its internal audit mandate.
 - ii. Deliver greater value with TNB's overall objectives, including the Reimagining Tenaga (RT) 2.0 framework and the company's Net Zero Carbon Emissions by 2050 commitment.

- Strategic roles of IA

- a. This strategy reflects the dynamic nature of internal audit
- b. Highlight its pivotal role in:
 - i. Safeguarding business performance
 - ii. Optimizing operations
- c. Ensures that the internal audit function evolves with:
 - i. Business changes
 - ii. Regulatory developments
 - iii. Technology advancement

- GIAS 2024 stipulates the following:

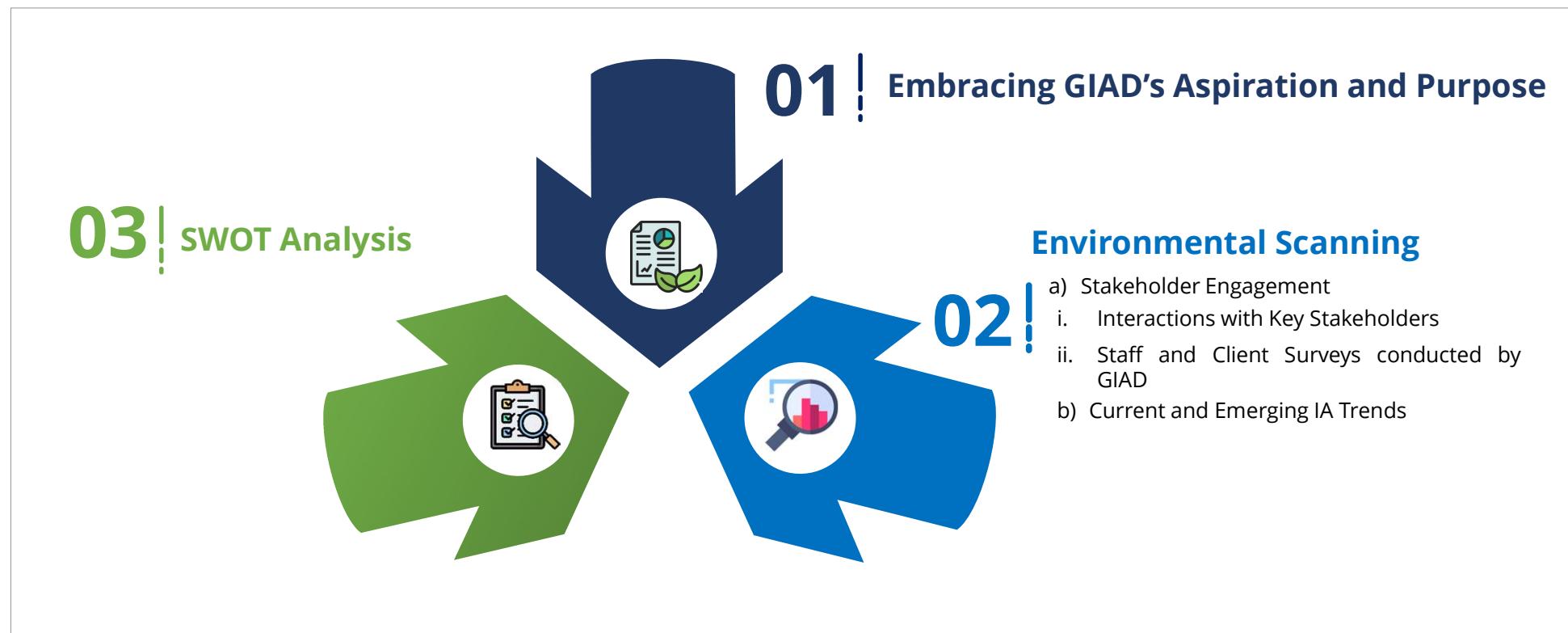


- The GIAD Strategy FY2025 – 2029 ensures that GIAD is not just an assurance provider, but also an active enabler of TNB's long-term success. By focusing on the strategic objectives of TNB, including the transition to a sustainable energy future, GIAD is committed to driving improvements that align with TNB's goals.
- This alignment helps strengthen internal audit's role as a Trusted Advisor, safeguarding and creating value across the organization.

GIAD Strategy For FY 2025 - 2029

GIAD's Strategy Planning Process

- The formulation of the 5-Year GIAD Strategy involves identifying the Critical Success Factors (CSFs) as the strategic objectives to enhance GIAD's ability to address both current and emerging risks, stakeholders' needs and developing specific initiatives.
- Steps taken in identifying the CSFs are illustrated as below:



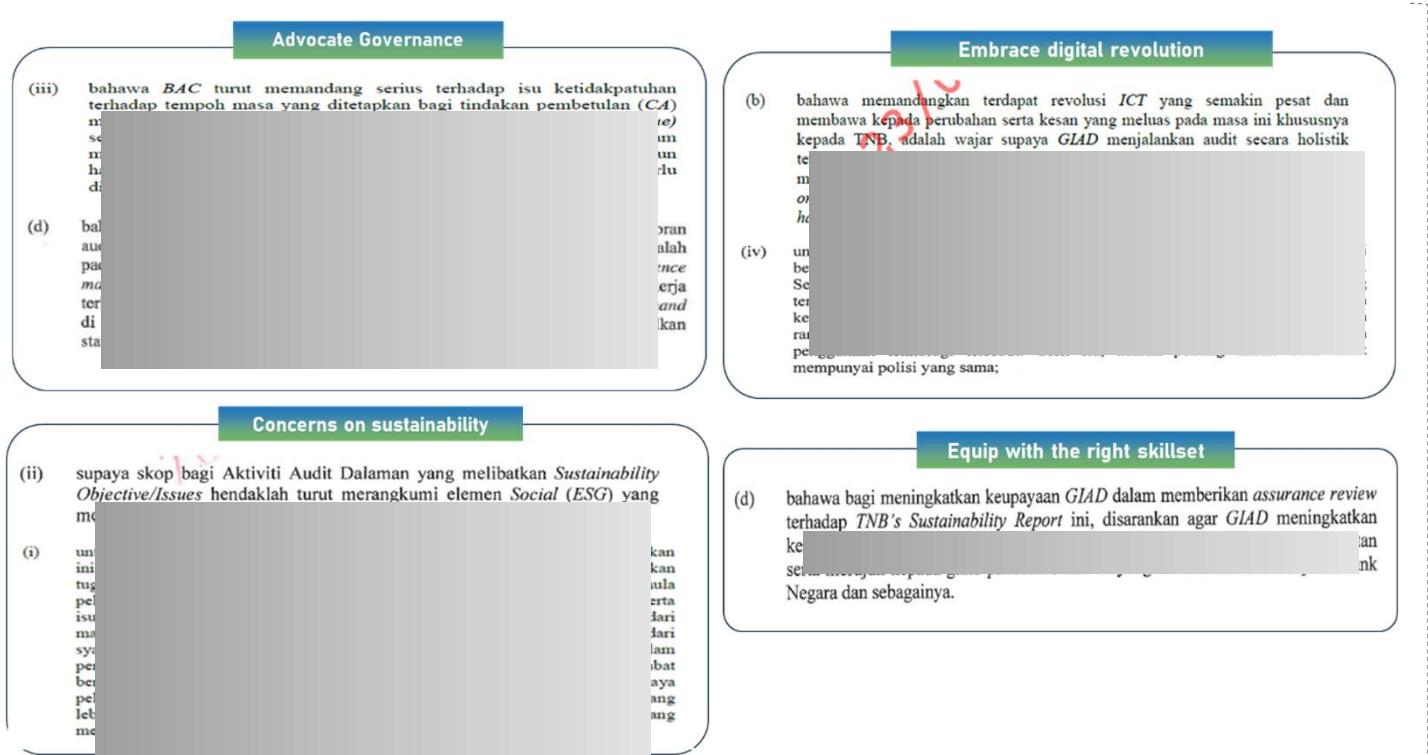
GIAD Strategy For FY 2025 – 2029

GIAD Strategy Planning Process

2 Environmental Scanning – Stakeholder Engagement

i. Interactions with Key Stakeholders

- In delivering its services, GIAD interacted with key stakeholders i.e. Board Audit Committee (BAC) members, to identify key focus areas. The concerns raised by the BAC are exemplified as shown below:



Based on the interactions with BAC members during BAC meetings, the expectations are as follows:

- Equip staff with the right skillset** via training, development programs, and other initiatives.
- Understand and embrace the digital revolution as an enabler.**
- Inclusion of sustainability agenda** as part of the annual audit planning and IA strategy.
- Advocate and educate** *TNB* masses on the importance of Governance, Risk, and Compliance (GRC).

GIAD Strategy For FY 2025 – 2029

GIAD Strategy Planning Process

2 Environmental Scanning – Stakeholder Engagement

ii. Staff and Client Surveys

- A staff and client survey was conducted in August 2024, of which 54 GIAD staff and 95 clients representing management responded to the survey. The results of the survey are as follows:

No.	Area	Staff Survey			Client Survey		
		Result (%)			Result (%)		
		FY2022	FY2023	FY2024	FY2022	FY2023	FY2024
1	Internal Audit Governance	94	93	92	88	89	87

- Constructive feedback provided by GIAD staff and clients are as follows:

From Staff Survey

- Expansion of data analytics to enhance engagements.
- Increase staff development opportunities, such as job attachments and rotations.
- Foster knowledge-sharing and participating in interdepartmental events to strengthen relationships

GIAD Strategy For FY 2025 – 2029

GIAD Strategy Planning Process

2 Environmental Scanning - Current and Emerging IA Trends

- GIAD also reviewed publications and literature from established consultants and platforms such as KPMG, PwC, Protiviti, and Gartner. Some of the current and emerging IA trends that would shape the IA strategy are listed below:

No.	Trend	Description	Focus Areas
1	Technology and Automation	Growing reliance on AI, data analytics (D&A), and robotic process automation (RPA) to improve audit efficiency, accuracy, and effectiveness.	Embracing digital revolution and flexibility
2	Integration of ESG Risks	Internal audit's expanding role in assessing environmental, social, and governance (ESG) risks, including sustainability goals and supply chain resilience.	Focus on sustainability
3	Sustainability and Green Auditing	Internal audit focuses on assessing environmental risks, ensuring compliance with sustainability initiatives, and managing the carbon footprint.	Focus on sustainability
4	Cybersecurity and Data Privacy	Internal audit's growing focus on evaluating cybersecurity frameworks and ensuring compliance with data privacy laws.	Embracing digital revolution
5	Internal Audit Collaboration with Assurance Functions	The growing trend for internal audit to collaborate with other assurance functions (e.g., compliance, risk, finance) for integrated risk management.	Focus on sustainability of the overall governance of the organization
6	Talent Management and Upskilling	A focus on developing audit talent, particularly in emerging areas like cybersecurity, data analytics, and AI.	Equip and uplift GIAD talents with right skillset
7	Agile Audit Methodologies	Adoption of agile methodologies in internal auditing to enhance flexibility and responsiveness to changing business conditions.	Equip and uplift GIAD talents with right skillset

3 SWOT Analysis

- Based on the SWOT analysis conducted by GIAD, several focus areas have been identified to strengthen its strategic initiatives. These focus areas are:

FOCUS AREAS BASED ON SWOT ANALYSIS

- Enhance staff skills** to address competency and knowledge gaps.
- Increase interaction with stakeholders** to foster better communication and collaboration.
- Establish platforms and dashboards** for seamless interaction with management.
- Enhance management understanding of governance, risk and controls** to ensure stronger alignment with organizational objectives.
- Increase the use of data analytics** to support informed decision-making and improve audit efficiency.
- Stay ahead of emerging technologies, regulatory changes, and associated risks** to maintain relevance and preparedness in a dynamic environment.

- These priorities are designed to leverage GIAD's strengths, mitigate its weaknesses, capitalize on opportunities, and address potential threats effectively.

GIAD STRATEGY FOR FINANCIAL YEAR (FY) 2025 -2029 AND ANNUAL OPERATING PLAN FOR FY 2025



GIAD Strategy For FY 2025 – 2029

- The GIAD Strategy FY 2025 – 2029 is illustrated as below:

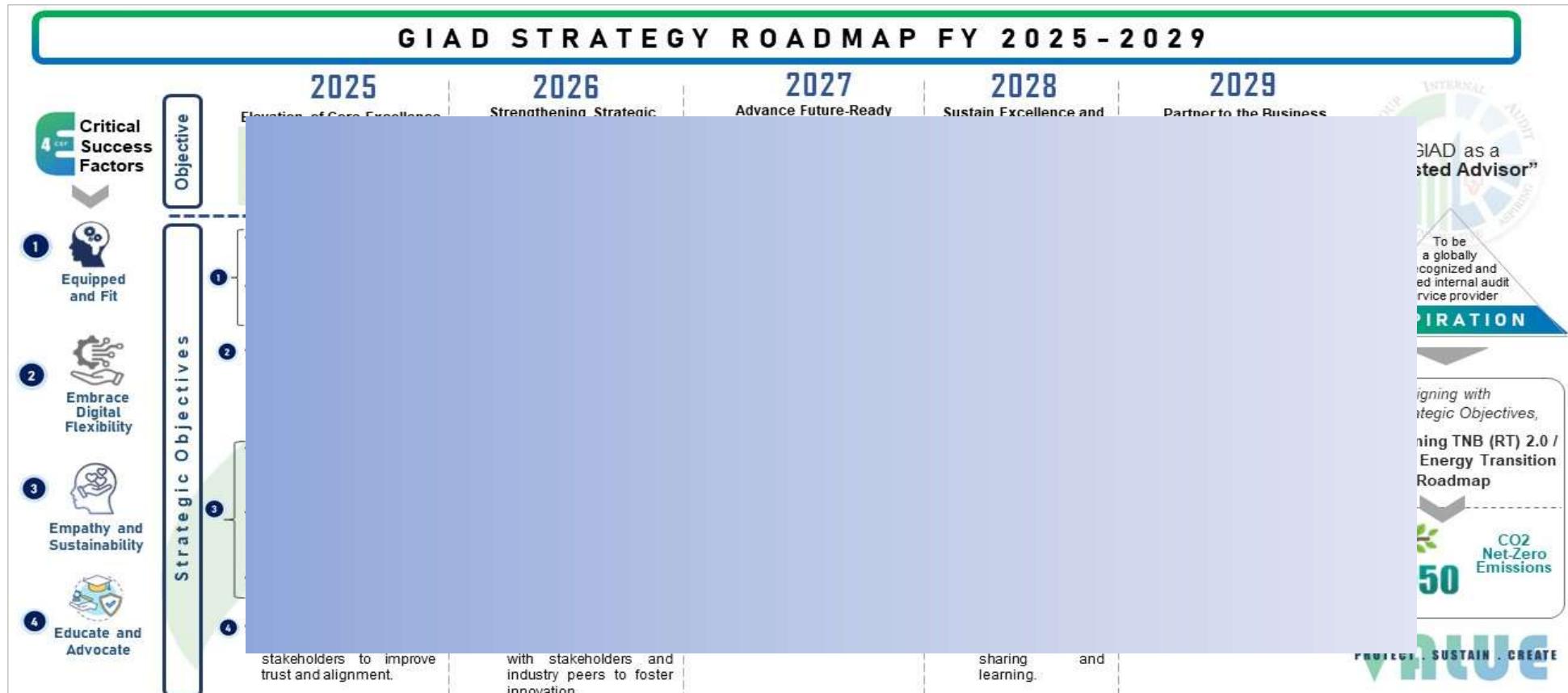


GIAD STRATEGY FOR FINANCIAL YEAR (FY) 2025 -2029 AND ANNUAL OPERATING PLAN FOR FY 2025

GIAD Strategy For FY 2025 – 2029

GIAD Strategy Roadmap FY 2025 - 2029

- A roadmap has been established to set benchmarks for innovation, trust, and sustainability within the internal audit function, as outlined below:



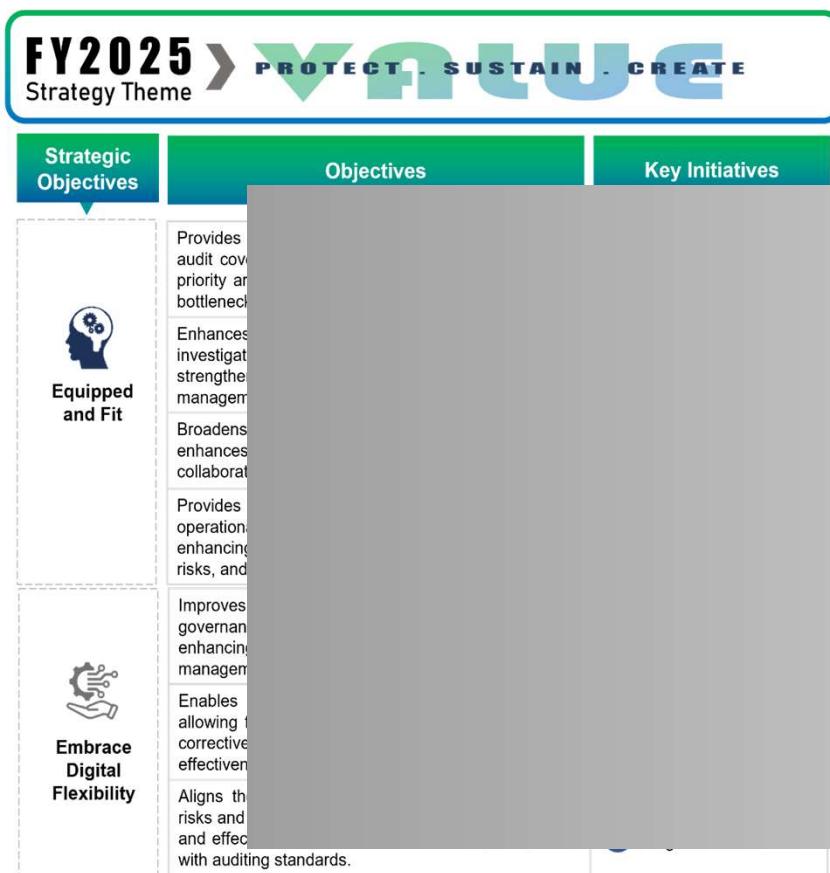
- Each year, GIAD will identify and implement a targeted Annual Operating Plan (AOP) to meet specific yearly objectives. These AOPs will be reviewed to ensure that GIAD remains agile and aligned with the broader strategic goals of TNB, including its Reimagining Tenaga (RT) 2.0 framework and its commitment to achieving Net Zero Carbon Emissions by 2050.

GIAD STRATEGY FOR FINANCIAL YEAR (FY) 2025 -2029 AND ANNUAL OPERATING PLAN FOR FY 2025



Annual Operating Plan (AOP) FY 2025

- In FY 2025, GIAD will focus on the **Elevation of Core Excellence**, emphasizing the strengthening of foundational capabilities to position the function as a forward-thinking, value-adding partner.
- The objective for this year is to enhance operational excellence, build a digitally adaptive workforce, and embed sustainability into internal audit practices.
- The targeted initiatives under the four strategic objectives for FY 2025 will serve as a cornerstone for delivering deeper insights, fostering resilience, and establishing GIAD's role as a Trusted Advisor. The key initiatives to be implemented as part of the annual operating plan for FY 2025 are stated below:



Strategic Objectives	Objectives	Key Initiatives
	<p>The focus will be on providing specialized training programs and certifications for staff to ensure they can carry out comprehensive assurance reviews, ensuring alignment with business needs and regulatory requirements.</p> <p>8 Sustainability Assurance Journey*</p>	



ANNUAL AUDIT PLAN (AAP)

How does GIA define audits to be performed?

A Review and Update the AUDIT UNIVERSE

- To include **business objectives, strategies, and structure** (inclusive of all functions/processes/business entities) within TNB Group.
- Update based on **latest changes** (if any), including the audits performed for the **last 5 years**.

B Update Risk Universe/ Risk Analysis

- Map **risks covered in previous 3 years audits**, identify new risk (from TRIS/ emerging risk) that need to be covered.



C Establish Audit HOTSPOTS

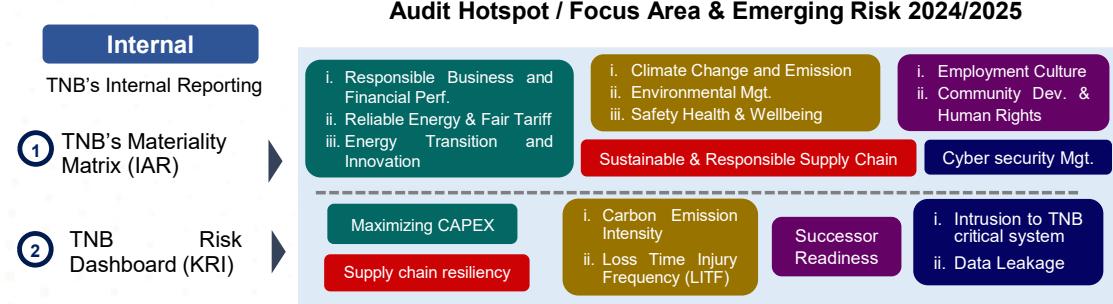
Establish audit Hotspots for the year, based on **emerging risks/TNB's direction**

- i. Internal Sources : *TNB's Materiality Matrix (IAR), TNB Risk Dashboard (KRI)*
- ii. External Sources : *Professional Body i.e. Audit Firm / Consultant (e.g. Gartner, The IIA, KPMG)*



AUDIT HOTSPOTS

How Do We Derive The Hotspots?

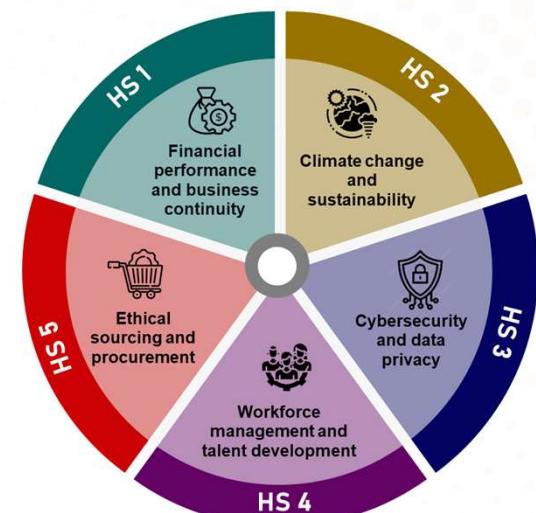


*Note: Info based on 1) Key Risk Indicator (KRI) Status Report from RMD, 2) TNB Integrated Annual Report (IAR) 2023

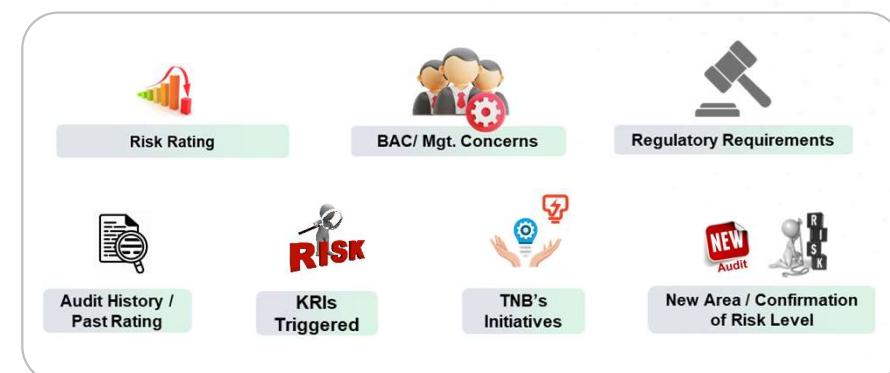


*Note: Info based on Audit Hotspot Review and Emerging Risk Study from the above entities.

Audit Hotspots (HS) for AAP FY2025



What Were The Considerations?



TYPES OF REVIEW

Types of Review

How do we differentiate the types of review

① Operational

- Conducted to review **existence, adequacy** and **effectiveness** of control system.
- Involves transactions test.
- Audit Ratings will be given.
- Thematic & Non-Thematic audits
- Follow Up will be performed for operational audits.

② Design/Strategic

- Conducted to review any **newly established process/ function/ project/ baseline review** or '**strategic in nature**' to check the **adequacy** of governance, risk and controls.
- Limited/may not involve transactions test.
- Audit Ratings will not be given.
- Follow Up will not be performed for design/strategic review audits.

③ Investigation

- Conducted as and when **requested by BAC/senior management**.
- Follow Up is not required. However, depends on specific circumstances or engagements.

④ Others

- Other reviews may relate to **regulatory requirements/ company's initiatives**. Example: LTIP Review, Regulatory Compliance Audit (RCA).
- Follow Up is not required. However, depends on specific circumstances or engagements.

① Ad-Hoc Request

- the type of review may fall under one of the categories above.
- If follow-up is instructed by the BAC/CIA, their directives shall take precedence.

9 - 11 weeks
Average Length

per audit assignment

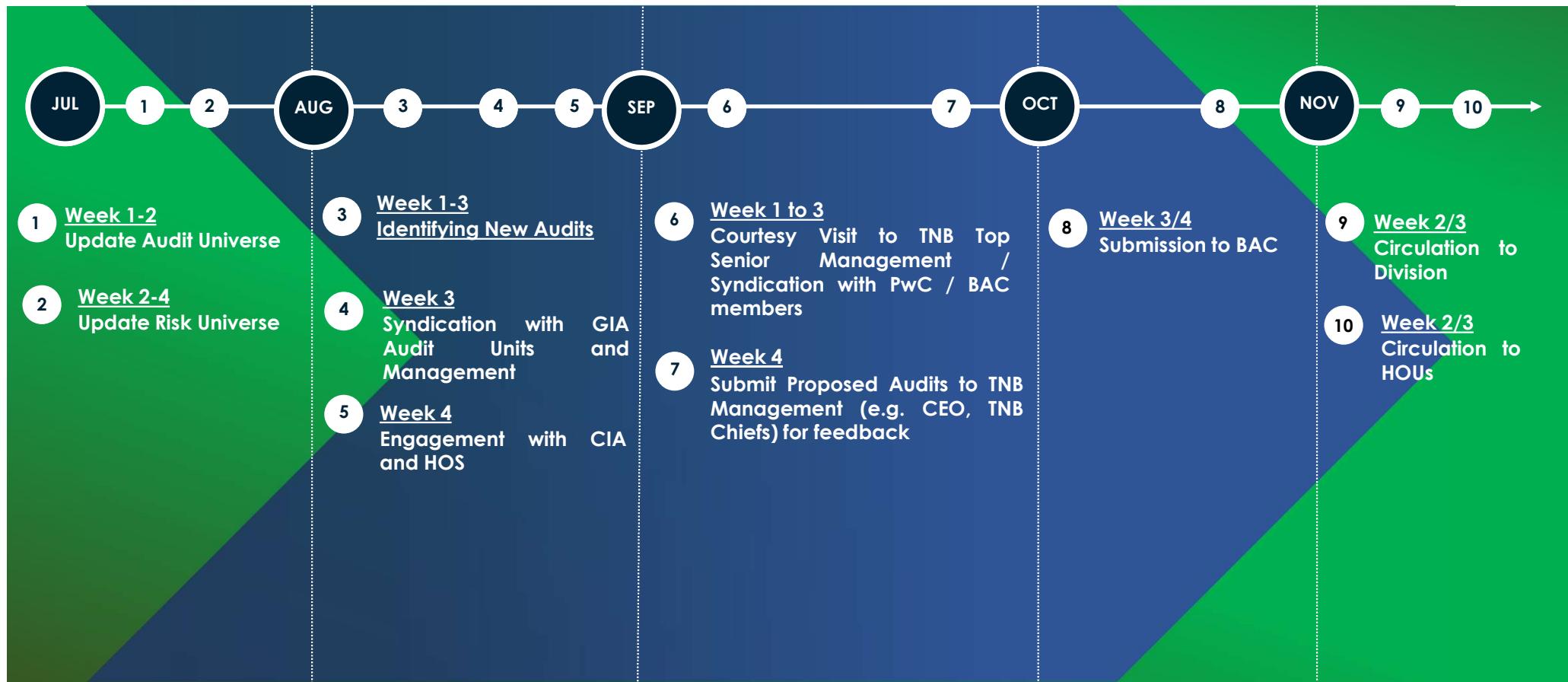
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auditors
Average Size

audit team per assignment

Other Key Matter/Notes

Timeline for Developing GIA's Annual Audit Plan



*Note: Identified audit areas will be prioritized based on the 1) Annual/ Regulatory Requirement, 2) BAC / Mgt. Concern, 3) Risk Ratings (High/ Significant) 4) Company's Initiatives, 5) Audit History



TNB GIA DIGITISATION

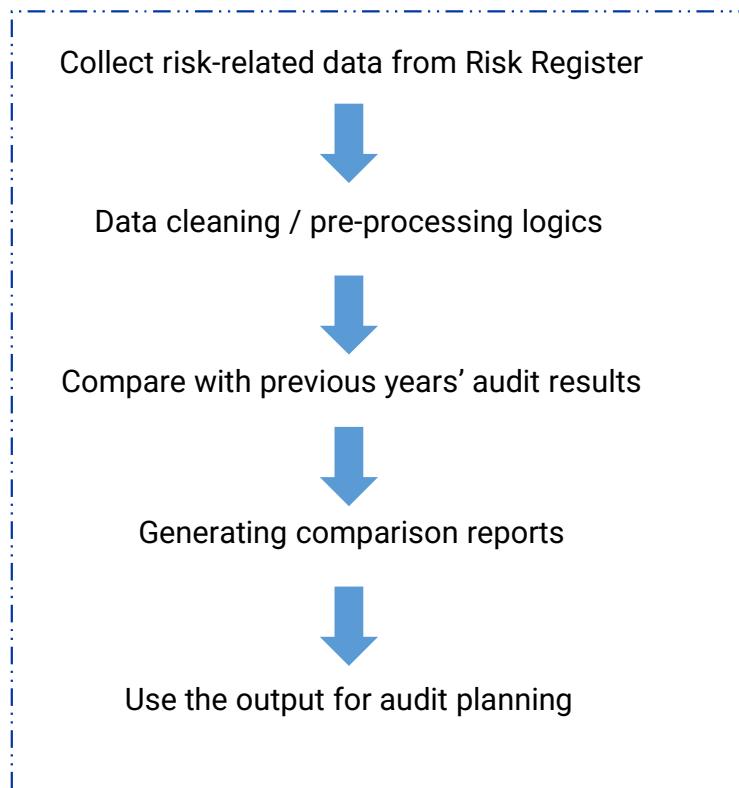
Utilization of Data Analytics

KEY TAKEAWAYS

1. Audit Planning & Risk Assessment
2. Digital Audit Workflow (using TM+)
3. Digital Knowledge Libraries
4. Data Analytics
5. Robotics Process Automation (RPA)
6. AI Applications
7. Compliance and Regulatory Monitoring

1 Audit Planning & Risk Assessment

Leveraging Python to reconcile risks in TRIS against risks coverage from previous audit.



Input: Risk register

The screenshot shows a web-based application interface for 'SAI360'. The top navigation bar includes 'Home', 'Workspaces', 'BI Reports', 'Dashboards', and 'Shortcuts'. A 'Quick Filter' input field is located in the top right. The main content area is titled 'All Risk Register' with a dropdown menu. A table lists five risk entries:

RISK NUMBER	DIVISION	DIVISION/DEPARTME...	TYPE OF RISK	RISK NAME
RSK-0004088	TNB Power Generation Sdn. Bhd.	TNB Power Generation Sdn. Bhd.\TPGSB REMACO	Operational	ESG Misalignment, Regulatory Non-Compliance and Loss of Stakeholder Trust
RSK-0004087	TNB Power Generation Sdn. Bhd.	TNB Power Generation Sdn. Bhd.\TPGSB REMACO	Operational	Ineffective Contract Execution and Project Delivery Affecting Business Outcomes
RSK-0004086	TNB Power Generation Sdn. Bhd.	TNB Power Generation Sdn. Bhd.\TPGSB REMACO	Strategic	Inability to sustain business growth
RSK-0004085	Group Finance Division	Group Finance Division\Strgic Mgmt & Business Perf	Operational	Loss of Critical Document and Leakage of Sensitive or Confidential Data

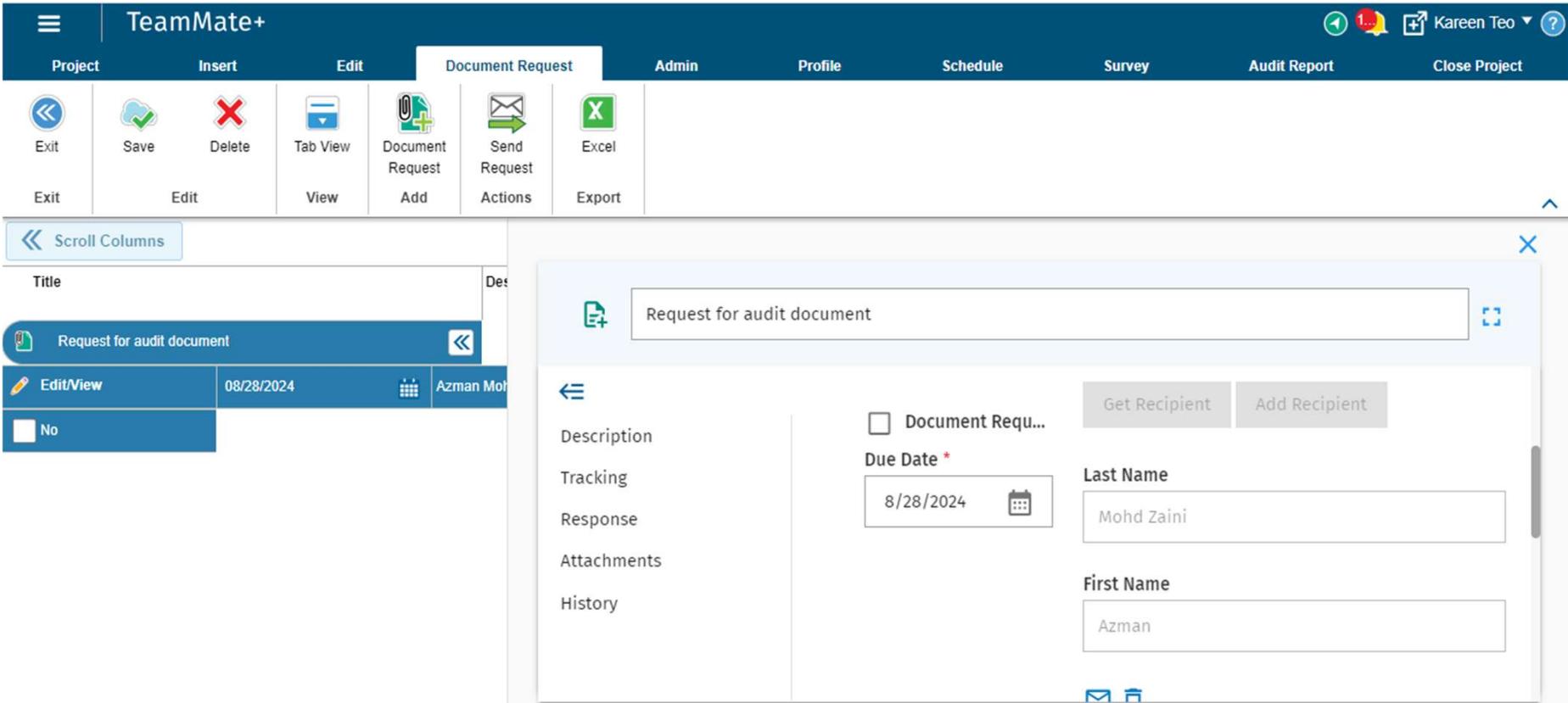
Output

- ✓ Risk rating summary
- ✓ List of risk covered / not covered in previous audit
- ✓ Changes in risk rating

2

Digital Audit Workflow (using TM+)

a. Document request prior to fieldwork

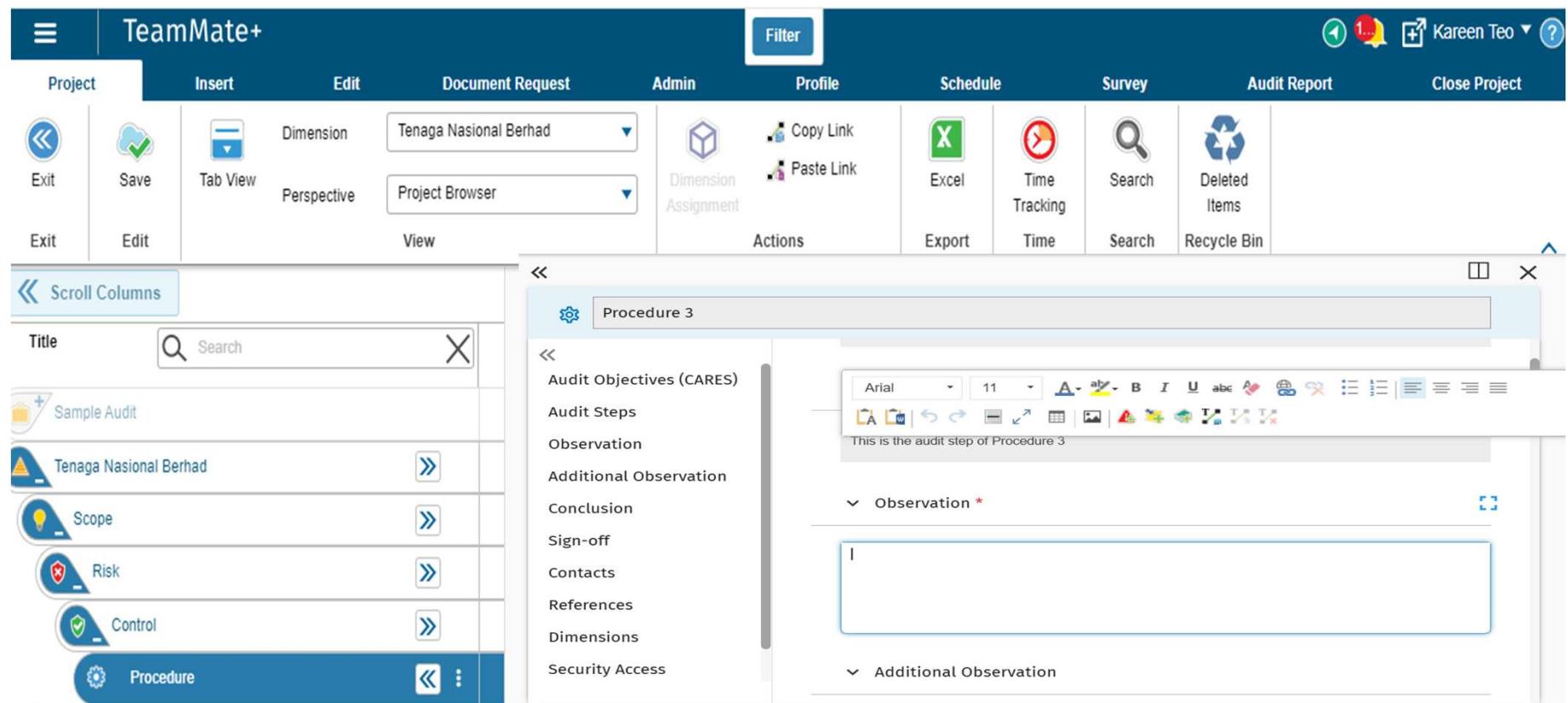


The screenshot shows the TeamMate+ software interface. The top navigation bar includes 'Project', 'Insert', 'Edit', 'Document Request' (which is currently selected), 'Admin', 'Profile', 'Schedule', 'Survey', 'Audit Report', and 'Close Project'. The 'Document Request' menu has sub-options: 'Exit', 'Save', 'Delete', 'Tab View', 'Document Request', 'Add', 'Actions', and 'Export'. The main area displays a list of document requests. One request is selected, showing a detailed view on the right. The selected request is titled 'Request for audit document' and is dated 08/28/2024, assigned to 'Azman Moh'. The detailed view form includes fields for 'Request for audit document' (with a file icon), 'Description' (with a text input), 'Tracking' (with a tracking icon), 'Response' (with a response icon), 'Attachments' (with an attachments icon), 'History' (with a history icon), 'Document Requ...', 'Due Date *' (set to 8/28/2024), 'Get Recipient' (button), 'Add Recipient' (button), 'Last Name' (input field with 'Mohd Zaini'), and 'First Name' (input field with 'Azman'). There are also icons for email and print at the bottom right of the detail view.

2

Digital Audit Workflow (using TM+)

b. Structured hierarchy for risk-based approach



The screenshot displays the TeamMate+ software interface, specifically the 'Procedure' module. The top navigation bar includes 'Project', 'Insert', 'Edit', 'Document Request', 'Admin', 'Profile', 'Schedule', 'Survey', 'Audit Report', and 'Close Project' buttons. A 'Filter' button is also present in the top right. The main workspace shows a list of audit items on the left, such as 'Sample Audit', 'Tenaga Nasional Berhad', 'Scope', 'Risk', 'Control', and 'Procedure'. The 'Procedure' item is currently selected, indicated by a blue bar at the bottom. The right side of the screen shows a detailed view of 'Procedure 3', which includes sections for 'Audit Objectives (CARES)', 'Audit Steps', 'Observation', 'Additional Observation', 'Conclusion', 'Sign-off', 'Contacts', 'References', 'Dimensions', and 'Security Access'. A rich text editor is used for the 'Observation' and 'Additional Observation' sections, featuring a toolbar with various formatting options like Arial, 11pt, bold, italic, and underline. A status message 'This is the audit step of Procedure 3' is displayed above the rich text editor.

2

Digital Audit Workflow (using TM+)

c. Electronic working paper (e.g. notesheet, evidences, etc)

TeamMate+ Project Insert Edit Document Request Admin Profile Schedule Survey Audit Report Close Project

Exit Save Tab View Dimension Perspective Attachment Management View

Copy Link Assign Dimension Paste Link Excel Time Tracking Search Deleted Items

Actions Export Time Search Recycle Bin

UAT_01_2023 - Audit at Group Finance (Re-Open)

Title	Document	Checked Out By	Parent	State	Manager
Audit Planning Memorandum	W Audit Planning Mem...		Pre-Audit Documentation (Approval ...	Reviewed - Accepted	
Audit Program	W Audit Program.docx		Pre-Audit Documentation (Approval ...	Reviewed - Accepted	
Audit Schedule	X Audit Schedule.xlsx		Pre-Audit Documentation (Approval ...	Reviewed - Accepted	
Audit Budget	X Audit Budget.xlsx		Pre-Audit Documentation (Approval ...	Reviewed - Accepted	
Borang Kebenaran Untuk Bertugas Di Luar Pejabat	W Borang Kebenaran ...		Pre-Audit Documentation (Approval ...	Reviewed - Accepted	
Entry Meeting Notification	R Entry Meeting Notific...		Others	Reviewed - Accepted	
Entry Meeting Slide - Standard	P Entry Meeting Slide ...		Others	Reviewed - Accepted	
Attendance Sheet	W Attendance Sheet.d...		Others	Reviewed - Accepted	
Test Attachment	R Test Attachment.pdf		CA1	Reviewed - Accepted	
Test Attachment	W Test Attachment.docx		CA3	Reviewed - Accepted	

2

Digital Audit Workflow (using TM+)

d. System-based sign-off

Sign-off

Workflow Status

- ▲ In Progress
- ✓ Ready for Review
- Reviewed - Accepted
- Reviewed - Action Required

Each person is required to 'sign-off' according to their role (preparer / reviewer)

Multiple review level can be set according to sequence

The screenshot shows the TM+ Audit Program interface. At the top, there is a 'Workflow Status' box with four categories: 'In Progress' (orange triangle), 'Ready for Review' (green checkmark), 'Reviewed - Accepted' (blue square), and 'Reviewed - Action Required' (blue square). Below this is a 'Audit Program' header with a document icon and a 'Review Order' table. The table lists three review steps: 1. Rasidi (Last Name), Ruhaidah binti (First Name), Reviewer (Role). 2. Abd. Wahab (Last Name), Lizah (First Name), Reviewer (Role). 3. Admin (Last Name), GIA (First Name), Reviewer (Role). On the left, a sidebar shows a sequence of steps: Document, Description, Sign-off (which is highlighted in blue), and Contacts. A blue callout box points to the 'Sign-off' step in the sidebar, with the text 'Multiple review level can be set according to sequence'. Another blue callout box points to the 'Workflow Status' box, with the text 'Each person is required to "sign-off" according to their role (preparer / reviewer)'.

Review Order	Last Name	First Name	Role
1	Rasidi	Ruhaidah binti	Reviewer
2	Abd. Wahab	Lizah	Reviewer
3	Admin	GIA	Reviewer

2

Digital Audit Workflow (using TM+)

e. Request for management response with deadline

UAT_01_2023 - Audit at Group Finance (Re-Open)

Management - Resp

09/01/2025

Management - Response

To get management response

Set response deadline

Draft Audit Report - Audit at Group Finance (UAT_01_2023)

GA GIA_Data Analytics
To: Teo Karen

Translate message to: English | Never translate from: Malay | Translation preferences

Assalamualaikum dan Selamat Sejahtera YBhg. Datuk/Dato'/Datin/Tuan/Puan,

Email and link to the report will be automatically sent to specified user

Dimajukan link bagi [Draft Report](#) pengauditan di atas bagi tujuan mendapatkan [Management Response](#) daripada pihak YBhg. Datuk/Dato'/Datin/Tuan/Puan selewat-lewatnya pada 9/1/2025.

Pautan	Penyataan
Draft Report	Management Response - To get management response

Sebagai maklumat, setiap Management Response adalah diperlukan bagi setiap Recommendation yang dicadangkan. Pihak kami mengucapkan terima kasih di atas kerjasama yang telah diberikan semasa kerja-kerja pengauditan dijalankan.

[This is a system generated email. Please DO NOT REPLY.]

Sekian, terima kasih.

Data Analytics Unit
Corporate Division
Group Internal Audit Department



2

Digital Audit Workflow (using TM+)

f. Customer satisfaction survey

TeamMate+

Project Insert Edit Document Request Admin Profile Schedule Survey Audit Report Close Project

Exit Add Save Delete Preview Publish End Results Recipients Reports Templates

Actions

Recipients

Templates

Survey Template

Due Date

State

End Date

Audit Survey

General

Assignments

Recipients

Get

Survey Template

Due Date

08/28/2024

Not Started

2

Digital Audit Workflow (using TM+)

g. Automated follow-up tracking

Corrective Action Status Update Reminder

GA GIA - AMS
Tc

Reply | Reply All | Forward | ...
Sun 21/7/2024 12:01 AM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

Salam Sejahtera,

GIA is required to monitor corrective actions (CAs) implementation progress resulting from audit review performed. The status of the CA is to be reported to Board Audit Committee (BAC) and Top Management periodically. Additionally, this status update will also be used during BAC presentation of an individual paper (if any).

To facilitate the updating of CA status, beginning 1 November 2018, all CA owners are required to perform the update through Audit Management System (AMS).

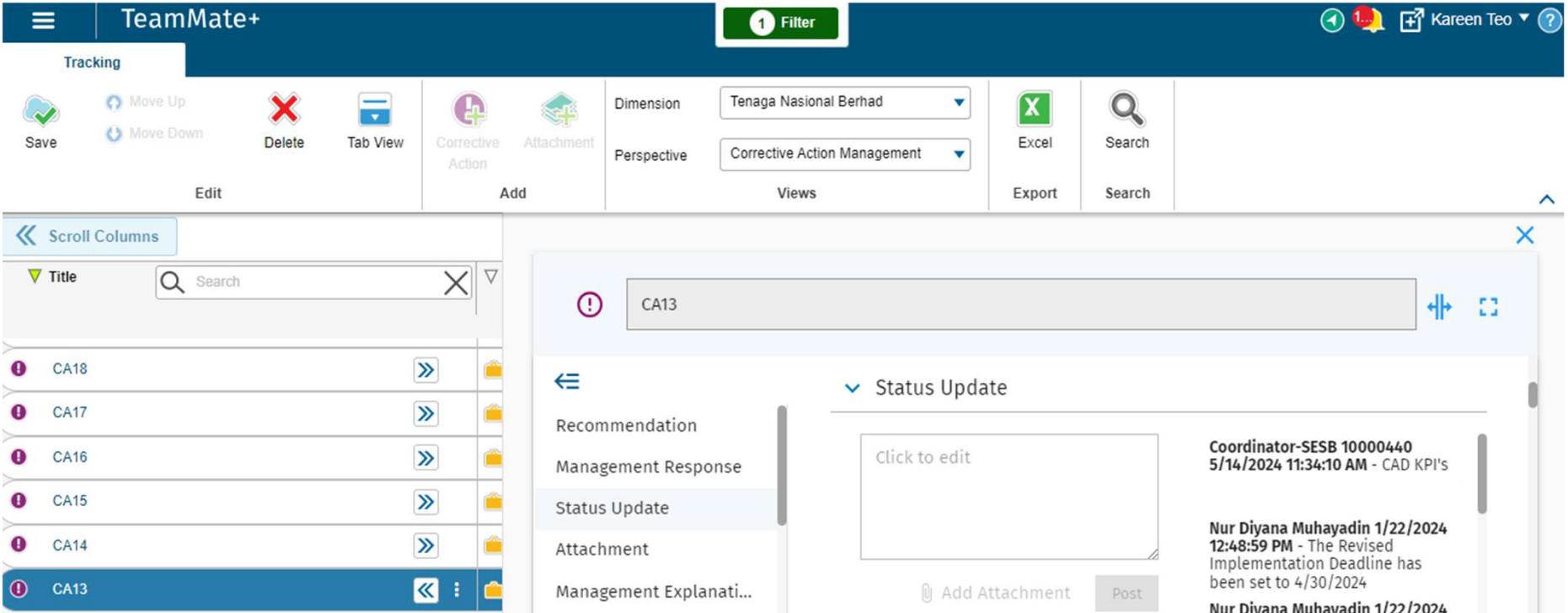
The following is list of CA(s) that is/are still pending as of today:

Audit Title	CA No.	CA Deadline	Link to CA
	k CA4	31/7/2024	CA4
	k CA7	31/7/2024	CA7

Guideline on updating CA status: [TeamMate+ Auditee Guideline](#)

2 Digital Audit Workflow (using TM+)

h. Corrective action status update by audit client



The screenshot shows the TeamMate+ software interface for corrective action management. The top navigation bar includes 'TeamMate+' and a 'Filter' button. The main toolbar has buttons for 'Save', 'Move Up', 'Move Down', 'Delete', 'Tab View', 'Corrective Action', 'Attachment', 'Dimension' (set to 'Tenaga Nasional Berhad'), 'Perspective' (set to 'Corrective Action Management'), 'Views', 'Excel', 'Search', 'Edit', and 'Add'. The left sidebar lists corrective actions CA18, CA17, CA16, CA15, CA14, and CA13. The right panel shows a detailed view for CA13, with sections for 'Recommendation', 'Management Response', 'Status Update' (which is expanded to show 'Click to edit'), 'Attachment', and 'Management Explanati...'. A status update from 'Nur Divana Muhyadin' dated 1/22/2024 at 12:48:59 PM is displayed, stating: 'The Revised Implementation Deadline has been set to 4/30/2024'.

TeamMate+

Tracking

1 Filter

Karen Teo

Save Move Up Move Down Delete Tab View Corrective Action Attachment Dimension Tenaga Nasional Berhad Perspective Corrective Action Management Views Excel Search Edit Add

CA13

Recommendation

Management Response

Status Update

Click to edit

Add Attachment Post

Coordinator-SESB 10000440
5/14/2024 11:34:10 AM - CAD KPI's

Nur Divana Muhyadin 1/22/2024
12:48:59 PM - The Revised
Implementation Deadline has
been set to 4/30/2024

Nur Divana Muhyadin 1/22/2024

2

Digital Audit Workflow (using TM+)

i. Automated notification for completed corrective action

Auditor check and validate implementation

Dimension: Tenaga Nasional Berhad
Perspective: Issue Management
Views: Excel, Search
Export: Search

CA 3

Sign-off

Implementation Date: 4/30/2025

Revised Implementation Date:

Actual Implementation Date:

Workflow Status:

State	Comments	Date	User
Closed - Verified		7/14/2025	Premila Balachandran
Reviewed - Accepted		7/14/2025	Premila Balachandran
Implemented		5/5/2025	Coordinator-RETAIL 10085791

Audit client receive automated notification on closure

Closure of Corrective Actions



GIA_Data Analytics
To: Teo Karen



Salam Sejahtera,

We are pleased to inform you that the corrective action(s) for the project(s) below has been reviewed and closed.

Project Code	Project Name	Corrective Action
UAT_01_2023	Audit at Group Finance	CA1

Thank you for your efforts in addressing the audit findings.

[This is a system generated email. Please DO NOT REPLY.]

Thank you.

Data Analytics Unit

Corporate Division
Group Internal Audit Department



2

Digital Audit Workflow (using TM+)

j. Digital time-tracking

Time Tracking

Save Copy Submit Un-Submit

Edit Actions

Timesheet

Resource: Karen Teo Open Timesheets: 2 Workflow State: In Progress Due Date: 9/8/2025 Weekly Total Hours: 16.50 Show Comments: On

Time Category Title

Project Search Add

	Su 31	Mo 1	Tu 2	We 3	Th 4	Fr 5	Sa 6	Weekly Total
Internal Control Recommendations ('ICR') (ICR_2022)	0.00	0.00	8.25	0.00	0.00	0.00	0.00	8.25
Merdeka Day	0.00	8.25	0.00	0.00	0.00	0.00	0.00	8.25
Total	0.00	8.25	8.25	0.00	0.00	0.00	0.00	16.50

Approver Notes

2

Digital Audit Workflow (using TM+)

k. Audit progress tracking by phases

TeamMate+ Project Insert Edit Document Request Admin Profile Schedule Survey Audit Report Re-Open Project Karen Teo ?

2024 Audit Plan

Audit on Billing Management at Retail Division

Planning

Information Gathering

Fieldwork

Entry Meeting

Evidence Review

Pre-exit Meeting

Exit Meeting

Reporting

Active Estimated Start Estimated End Actual Start Actual End Estimated Manhours Scheduled Manhours Actual Manhours Actual Manhours

5/31/2024 6/28/2024 5/31/2024 7/11/2024 800 504 962.00

5/31/2024 5/31/2024 5/31/2024

6/4/2024 6/28/2024 6/4/2024 7/11/2024 170.25

6/4/2024 6/4/2024

6/28/2024 7/16/2024

7/11/2024 7/11/2024

7/15/2024 7/19/2024 7/17/2024 8/19/2024 85.25

TeamMate+ My Dashboard Azman Mohd Zaini ?

Manage Dashboards Custom Widgets Get

Summary: Project

Total: 92

Phase Fieldwork 9

Reporting 7

Closing 31

None 45

3

Digital Knowledge Libraries

Centralized and digital repositories to store, manage and share information among audit teams

Consolidation of audit program

Title		Search <input type="text"/>	State
	GIA Audit Program Storage (GAPS)		
	Tenaga Nasional Berhad		
	2025 Audit Programs		
	SUB_02_2025_Audit on Subsidiary Board Governance for 10 Subsidiaries ...		
	PRC_01_2025_Audit on Vendor Qualification and Development at Procure...		
	CS_02_2025_Audit on Management of Rumah Peranginan CAHAYA at TN...		
	ICT_03_2025_Audit on User Access Management for BCRM at Retail Divisi...		
	OMR_01_2025_Review on Sustainability Indicator - Water Management		
	ES_02_2025_Review on Sustainability Indicator - Energy Management and...		
	OMNR_01_2025_Review on Sustainability Indicator - Emission Scope 1		
	CS_01_2025_Audit on Corporate Governance Compliance at Company Se...		
	FHR_01_2025_Audit on Portfolio Management of Legacy Investments at Gr...		

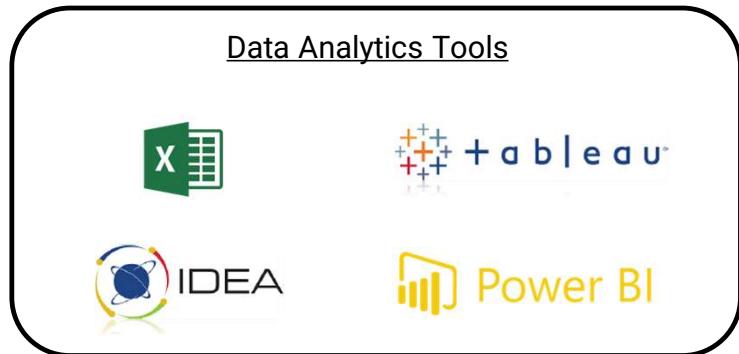
Standardized planning templates

TeamStore	Survey	Folder Template	Scoring Variables
Add			
Edit			
Title		Project Template	Last Modified Date
		Planning and Administration	
		Pre-Audit Documentation (Approval Required)	
		Audit Planning Memorandum_V4	25
		Audit Program _V4	25
		Audit Budget	22
		Audit Schedule	25
		Borang Kebenaran Tugas Luar Pejabat_V4	18
		Revised Audit Program (if any) (Approval Required)	
		HIRADC	
		Entry Meeting Notification	
		Management Response & Clearance	
		Engagement Risk Assessment (Info Gathering Document)	

4

Data Analytics

Enhancing audit effectiveness through end-to-end data analytics



Key benefits

- ✓ Full population testing instead of sampling
- ✓ Automates some repetitive tasks like data cleaning, filtering, and joining

Audit Title	Scope	Objective	Method	Tools
Audit on Procurement and Contract Management	General IT Control	To review control effectiveness in managing user access.	<ul style="list-style-type: none"> • Lists of transferred/ terminated staff and authorized system users were first extracted. • Comparison was then performed to identify terminated/ transferred users with inappropriate system access. 	Excel
	Procurement Management	To verify control effectiveness in managing inactive/ blocked vendors.	<ul style="list-style-type: none"> • Lists of purchase order (PO) and contract were first extracted from ERMS. • Comparison was then performed against list of inactive/ blocked vendors to detect purchase made from unauthorized vendor. 	Tableau
Audit on Financial Management	Revenue Management	To check timeliness in issuance of invoice.	<ul style="list-style-type: none"> • Comparison was made between sales order closed date against invoice issuance date to detect untimely issuance of invoice. 	Excel
Audit on Rental Management and Integrated Facility	Facility Maintenance Management	To review timeliness of action taken on request submitted in Computerised Maintenance Management System (CMMS).	<ul style="list-style-type: none"> • Aging results were generated from list of closed work order to detect untimely action taken in completing request. 	IDEA

5

Robotics Process Automation (RPA)

Automates data extraction, preparation and result generation

Example use case: staff attendance analysis

To check and monitor staff on:

- Absent / insufficient working hour without justification
- Absent / on leave with overtime / claim paid



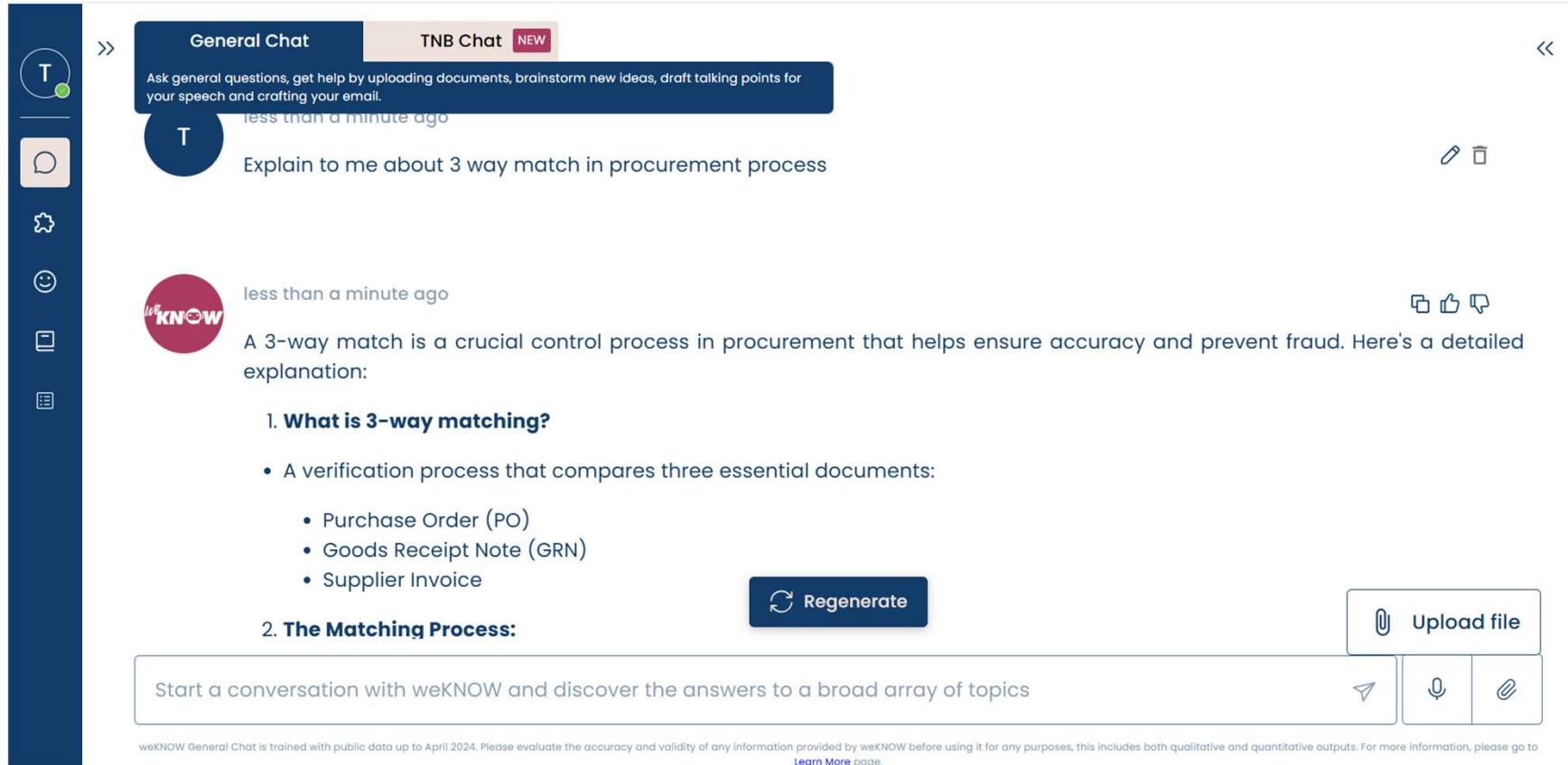
	Tableau Prep	Tableau Desktop	Microsoft Excel	Microsoft Outlook
Automation activities	<ol style="list-style-type: none">1. Open application2. Login to relevant database3. Execute data extraction4. Close application	<ol style="list-style-type: none">1. Open application2. Copy results3. Close application	<ol style="list-style-type: none">1. Open application2. Paste results3. Save file (with sequential naming)4. Close application	<ol style="list-style-type: none">1. Send email with Excel file attachment

** The entire pipeline is automated using Python

6

AI Application

Leveraging TNB's own virtual assistant (weKNOW) in audit



The screenshot shows a chat interface with a sidebar on the left containing icons for a profile (T), message (Q), settings (gear), smiley face, and a list. The main area has tabs for 'General Chat' and 'TNB Chat (NEW)'. A message from 'General Chat' asks about 3-way matching. The AI response, from 'weKNOW', explains what it is and the matching process, including a list of three documents: Purchase Order (PO), Goods Receipt Note (GRN), and Supplier Invoice. The interface includes a 'Regenerate' button, an 'Upload file' button, and input fields for messages and attachments.

General Chat TNB Chat (NEW)

Ask general questions, get help by uploading documents, brainstorm new ideas, draft talking points for your speech and crafting your email.

less than a minute ago

T Explain to me about 3 way match in procurement process

weKNOW less than a minute ago

A 3-way match is a crucial control process in procurement that helps ensure accuracy and prevent fraud. Here's a detailed explanation:

1. What is 3-way matching?

- A verification process that compares three essential documents:

- Purchase Order (PO)
- Goods Receipt Note (GRN)
- Supplier Invoice

2. The Matching Process:

Start a conversation with weKNOW and discover the answers to a broad array of topics

Regenerate

Upload file

weKNOW General Chat is trained with public data up to April 2024. Please evaluate the accuracy and validity of any information provided by weKNOW before using it for any purposes, this includes both qualitative and quantitative outputs. For more information, please go to [Learn More](#) page.

7

Compliance and Regulatory Monitoring

Integrated regulatory tracking through centralise platform





Thank You