AEM Holdings Ltd.

Annual General Meeting
Presentation to Shareholders

24 April 2024
The SingPost Auditorium

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In this presentation, all $ dollar amounts are in Singapore dollars unless otherwise specified.

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AEM 2024 AGM PRESENTATION

AEM is repositioning for the AI infrastructure future

New test demands require upgrading of existing equipment and new test flows with systems performance data

Key Industry Developments

- PC/ laptop: 8 quarter annual growth rate decline since 1Q22 show signs of recovery in 2024, though still 25% down from 2021 peak.

- Potential uplift from Windows 11 upgrade and AI-capable PCs

- Slim datacenter CAPEX growth disproportionately driven by AI/ GPU spend vs general CPU

- Wide adoption of Advanced Packaging and Chiplets for Accelerated Compute and AI chips driving Test complexity test times and thermal challenges

- Customer need for new test flows that incorporate AI/ ML with systems performance data & tracking

AEM Initiatives

- Grow AI test socket engagements at multiple customers with production intercepts in 2024 – expect doubling of new customer AI test equipment revenues.

- Dramatically improve execution – revamped Ops leadership with robust systems post fixes of 2023 inventory error.

- ONE AEM with integrated technology solutions across wafer probe, advanced thermals, complex automation, testers, load boards and sockets.

- Expand technology pillars and patent portfolio for upgrades and new solutions

- Tightly manage working capital

Financials & Metrics

Demand weakness in 2023 – AI mix shift and excess end market inventory

Revenue	PBT
$481.3M	**$7.6M** Including exceptional items

2024 Metrics – Inventory drawdown and production ramp intercepts with new AI test sockets
- Support for new installations at key customer
- New burn-in and SLT tools and upgrades at xPU and HBM memory customers
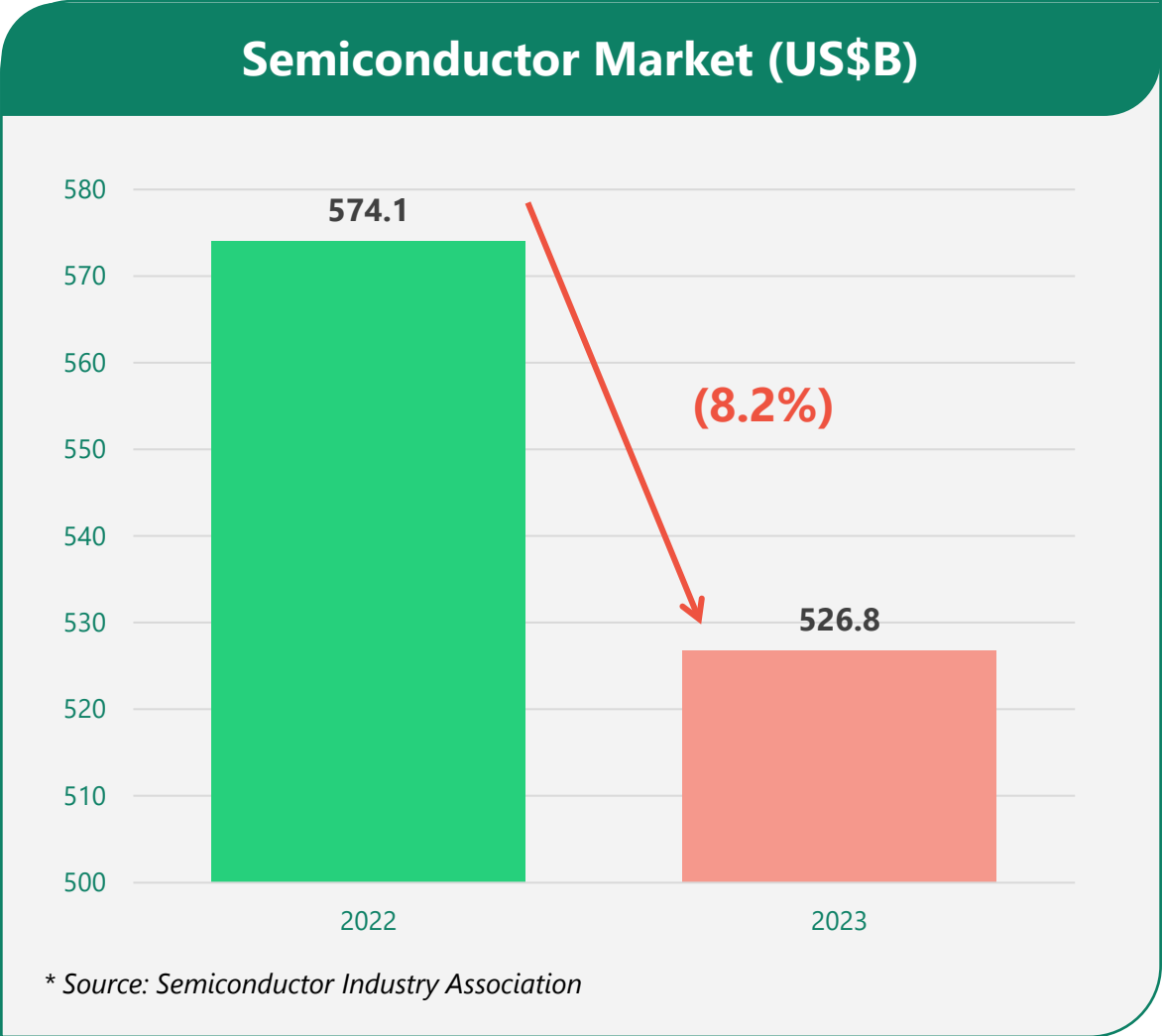- New engineering evaluations at AI chip customers

Industry Review

2023 saw semiconductor demand decrease by 8.2% year-on-year *, while the semiconductor test equipment market contracted by 17% year-on-year **

With test equipment utilization rates remaining low through 2023, a recovery is expected 2H 2024 to 1H 2025
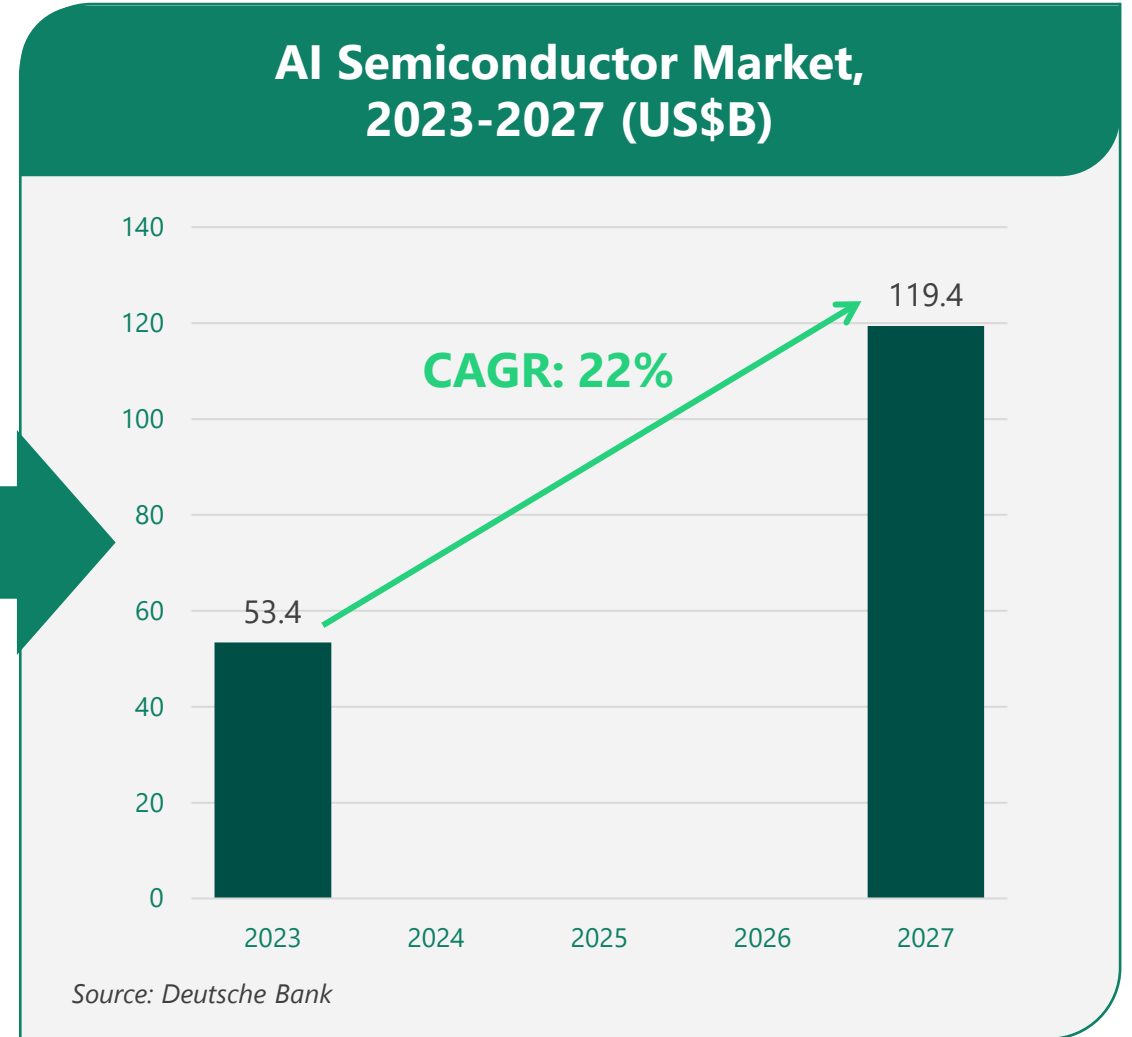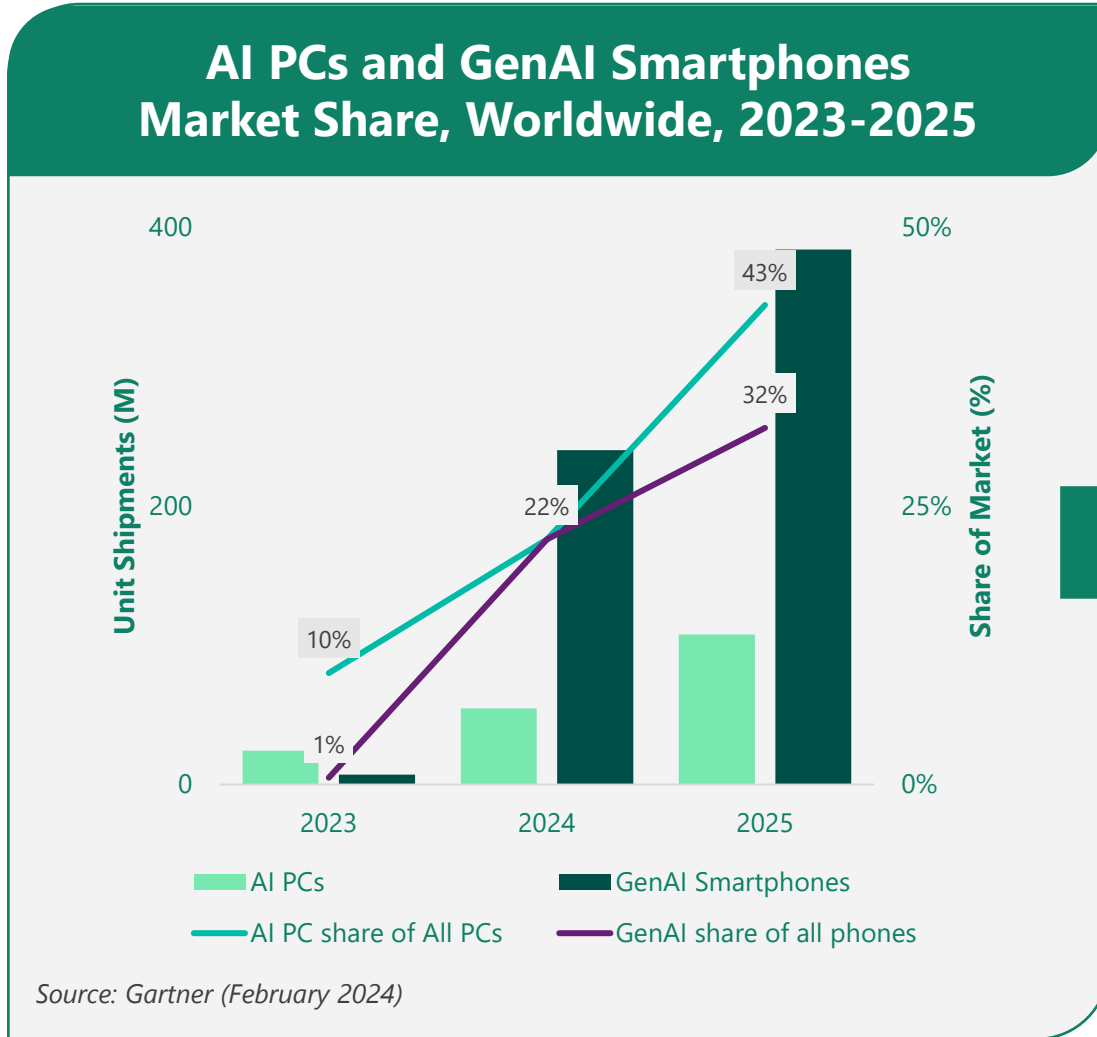
Semiconductor Market (US$B)

(8.2%)

574.1 — 2022

526.8 — 2023

Semiconductor Test Equipment Market

Contracted by

17%

in 2023

*** Source: SEMI.org*

* Source: Semiconductor Industry Association

The next wave of infrastructure investment is being driven by generative AI

Today's AI market value growth is derived from skyrocketing ASPs vs. unit volume growth. This is expected to change with the proliferation of AI to edge devices in 2025 and beyond, which is when demand for test equipment will grow

AI PCs and GenAI Smartphones Market Share, Worldwide, 2023-2025

Source: Gartner (February 2024)

Legend: AI PCs, GenAI Smartphones, AI PC share of All PCs, GenAI share of all phones

Data labels: 10%, 1%, 22%, 43%, 32%

AI Semiconductor Market, 2023-2027 (US$B)

CAGR: 22%
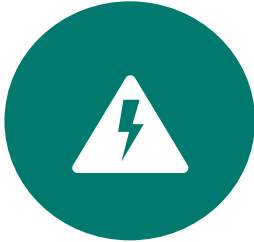
53.4, 119.4

Source: Deutsche Bank

Growth of AI unit volume brings about test challenges that will have a material impact on semiconductor companies' bottom lines

An innovative approach to testing is required to address these challenges while reducing overall cost of test.

That approach is Test 2.0.

Test Challenges

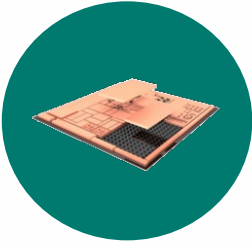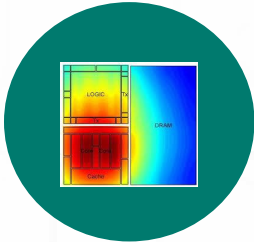**Increasing Power Requirements**

Reduced Time to Market

Increasing Device Complexity

Factory Automation

Thermal Gradients

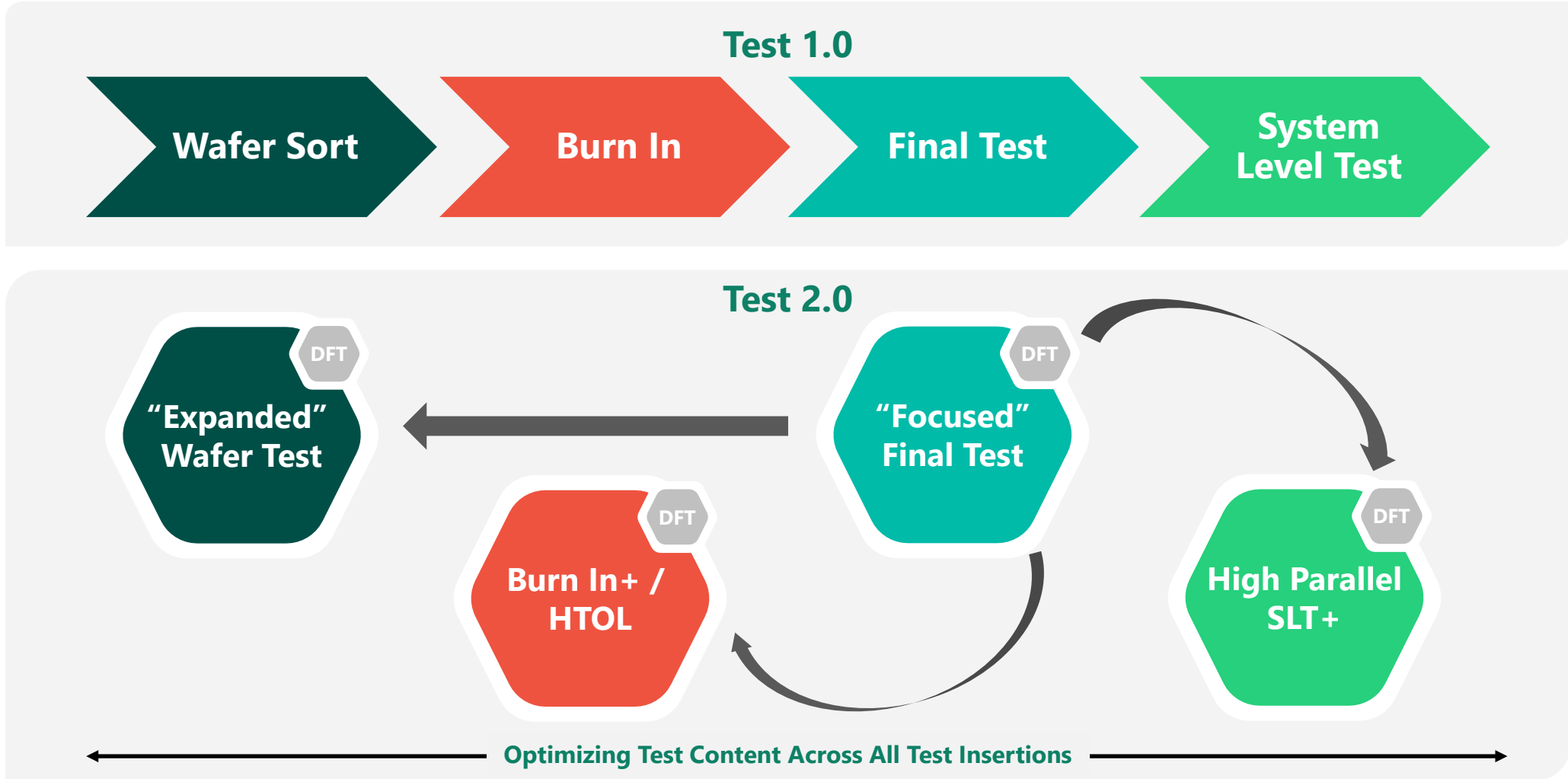**Increasing Test Coverage Requirements**

Increasing Test Times

Corporate Developments & Looking Ahead

What is Test 2.0?

Test 2.0 is an approach to test that features highly parallel, advanced intelligent automation, with a powerful thermal engine and application optimized test instrumentation to deliver a fully customized test flow that shifts Final Test test content into SLT, Burn-In, or Wafer Sort.

Test 1.0

Wafer Sort → **Burn In** → **Final Test** → **System Level Test**

Test 2.0

"Expanded" Wafer Test (DFT)

"Focused" Final Test (DFT)

Burn In+ / HTOL (DFT)

High Parallel SLT+ (DFT)

Optimizing Test Content Across All Test Insertions

AEM's key technology pillars enables it to deliver Test 2.0 solutions

Thermal
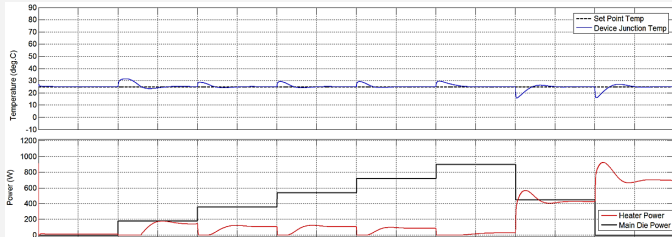
Advanced Automation

Application Optimized Test Instrumentation

Advanced Software
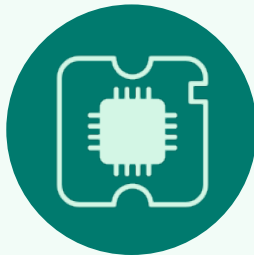
High-End Test Sockets

Test Flow Optimizer

Highly Parallel Architectures

Machine Vision

Continued investment in R&D results in key engagements despite industry slowdown

R&D Expenses

FY2023
S$24.4M

Socket Technology

Wafer Probe   Machine Vision

Thermal   Software

Control **Instrumentation**

Advanced Automation

9 Patents
Awarded in FY2023

Key Engagements

Memory
1 Large memory IDM for HBM SLT

xPU
2 HPC / AI customers for
AI Burn-In and HPC SLT

Systems / Hyperscalers
2 Application Processor customers
for AP SLT
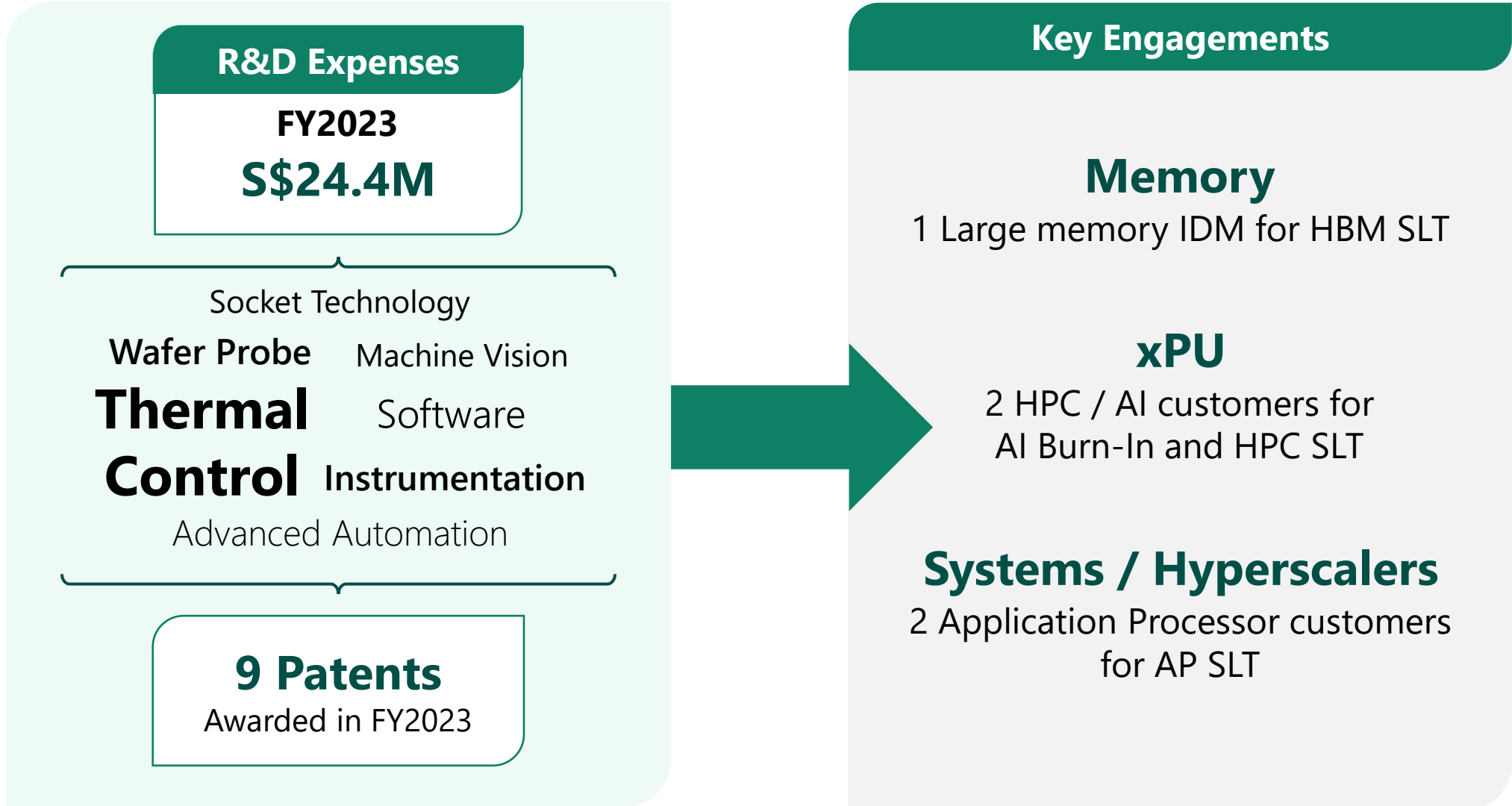
AEM's Test 2.0 paradigm is progressing

2023 was challenging, yet we progressed well with our new accounts. 2024 will set the foundation for new test insertion win revenue to increase more than 5x from FY2023 to triple digit millions in FY2025

New Test Insertion Wins From 2023 to 2025

Update

	2023	2024	2025
Memory	GDDR SLT Lab	GDDR SLT Production	LPDDR SLT Production
xPU	Engineering Validation SLT / BI (1 customer)	Production Intercept (1 customer w/ 2 programs)	Ramp
Systems & Hyperscalers	Engineering Validation SLT / FT (2 customers)	Engineering Validation SLT / FT (2 customers)	Ramp
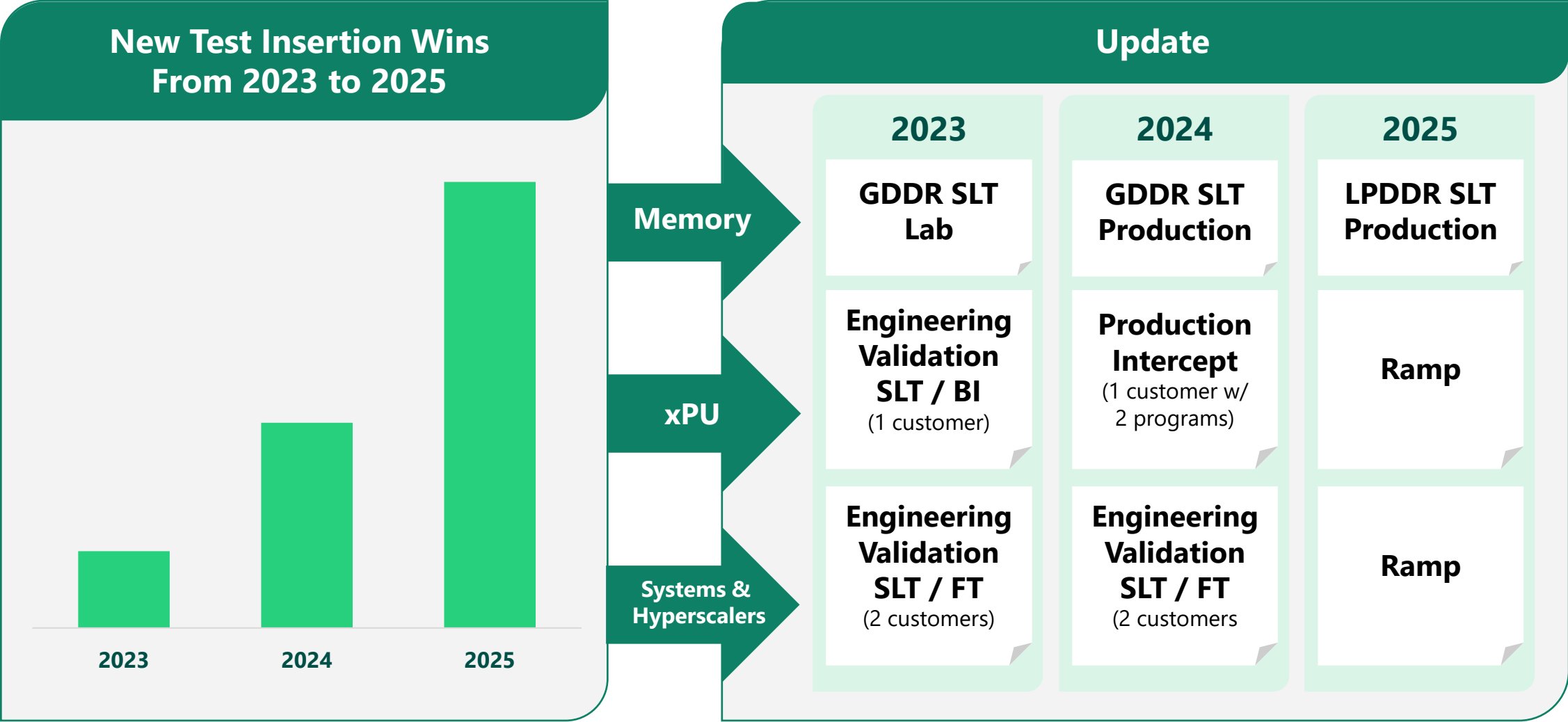
Resolving key issues from 2023 to prepare for success in 2024 and beyond

Settlement of Confidential Arbitration & Shortfall in Inventories

Settlement of Confidential Arbitration

- Settlement in confidential arbitration was reached in 3Q 2023, and was reached without findings or admissions as to breach or liability

- Closes off this matter and eliminates ballooning legal fees

- Two payments totaling US$20 million were fully taken up in FY2023, with US$9 million paid in 3Q2023 and US$11 million to be paid in 3Q2024

Shortfall in Inventories

- Shortfall in inventories discovered during year-end internal stock-take exercise

- Investigations concluded no loss of physical inventory and no fraudulent activity

- Issue was a result of a poorly planned and executed migration of production from Singapore to Malaysia, an ERP system migration, and the shift of operating model from a build-to-order in a single site to a build-to-order in multiple sites

- Year-end results have taken up the adjustment for the shortfall

Organizing for success in 2024 and beyond

Chua Tat Ming
*Chief Operating Officer,
Global Engineering
& Operations*

Lim Kim Hua
*Vice-President,
Group Finance*

Yeap Kian Yong
*Vice-President,
Global Manufacturing*

Financial Review

FY2023 Financial Highlights - Summary

Semiconductor slowdown in 2023 resulted in push out of test equipment expenditures

Revenue

FY2023	FY2022
S$481.3M	S$870.5M

SG&A Expenses

FY2023	FY2022
S$64.5M	S$93.8M

R&D Expenses

FY2023	FY2022
S$24.4M	S$23.1M

PBT (including exceptional items)
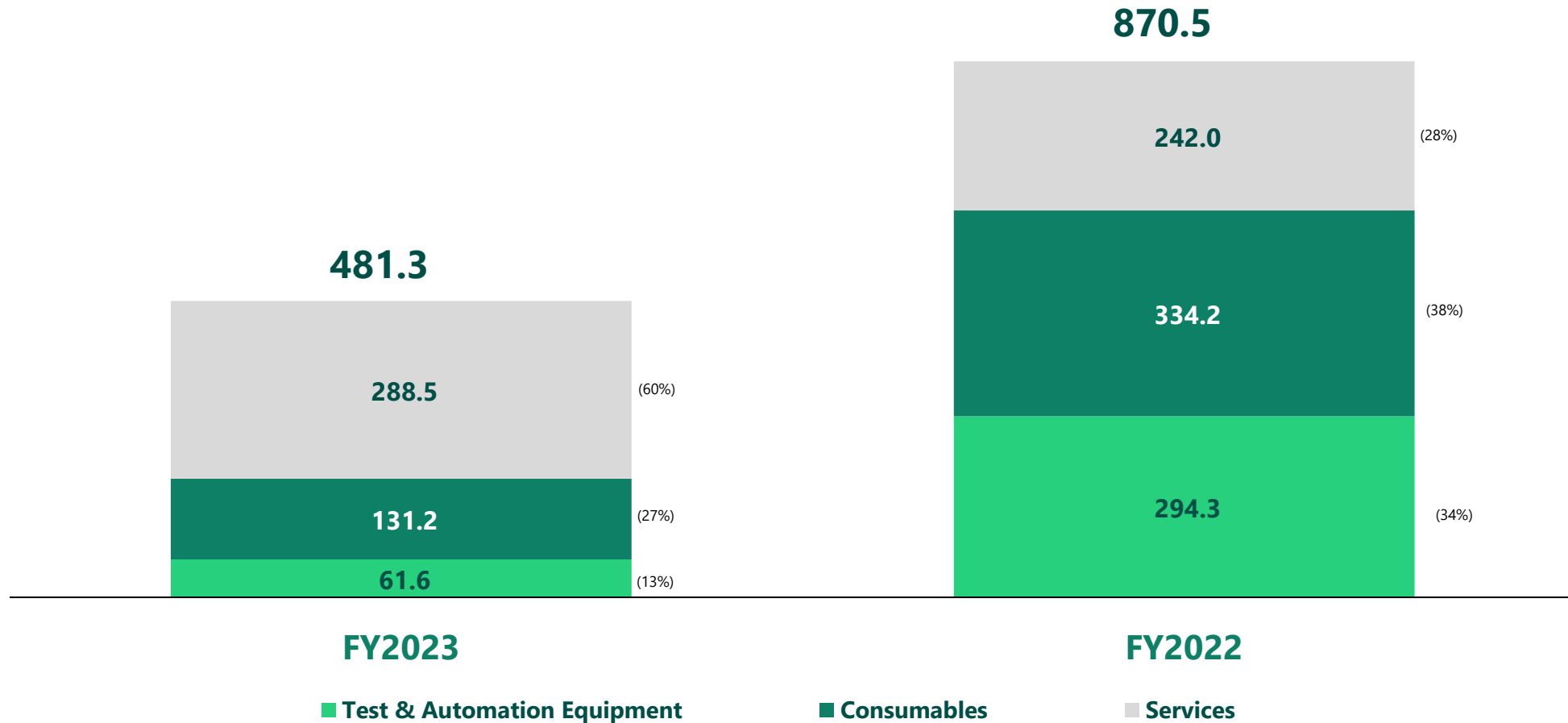
FY2023	FY2022
S$7.6M	S$158.7M

FY2023 Financial Highlights - Revenue Mix

AEM's revenue from Services increased year-on-year on the back of increased NRE and CM revenues

Revenue

S$M

481.3

870.5

FY2023 bar:
- 288.5 (60%) — Services
- 131.2 (27%) — Consumables
- 61.6 (13%) — Test & Automation Equipment

FY2022 bar:
- 242.0 (28%) — Services
- 334.2 (38%) — Consumables
- 294.3 (34%) — Test & Automation Equipment

FY2023   **FY2022**

Services comprises manufacturing, engineering, and FSE revenue

■ **Test & Automation Equipment**   ■ **Consumables**   ■ **Services**

FY2023 Financial Highlights - Balance Sheet

Sound capital structure, with a Debt / Equity ratio of 0.3x

	As at	
	Dec'23	Dec'22
	S$M	S$M
Cash	101.8	127.8
Inventories	328.6	367.7
Trade and other receivables	58.8	92.9
Total assets	707.5	805.6
Trade and other payables	74.1	118.9
Financial liabilities	126.4	143.3
Total equity	474.4	493.4
in SG cents		
NTA per share	110.8	119.6
NAV per share	151.3	157.1
Debt / Equity	0.3x	0.3x
No. of shares less treasury shares ('000)	308,902	308,753

Trade and other receivables (-S$34.1M)
Decreased mainly due to lower revenue towards the end of period

Total equity (-S$19.0M)
Decreased mainly due to:
- Final dividend for FY2022 payment of S$11.1M
- Loss after tax for FY2023 of S$1.2M
- Translation reserve movement of S$4.7M

Thank You!

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