

# SCREEN IR Day 2024

Investor Relations  
Corporate Communications Department  
SCREEN Holdings Co., Ltd.



Cautionary statements:

- The earnings forecasts, contained in these materials and communicated verbally, are made in accordance with currently available information and rational assumptions. SCREEN Holdings does not promise that the forecasts or estimates will be accurate. Therefore, it should be noted that actual results could differ significantly due to a variety of factors.
- Figures are rounded down to eliminate amounts less than ¥100 million, except per share figures. Ratios are rounded off.
- SCREEN's fiscal year (FY) covers the period from April 1 to March 31 of the following calendar year. (e.g. FY2025/03 = April 1, 2024 - March 31, 2025)

# Agenda

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- Value Up Further 2026
- Investment strategy under Value Up Further 2026
- Outlook of the semiconductor market and WFE, and SPE's growth strategies
- Initiatives to increase market share in the cleaning business
- Q&A session
- A social gathering



# Value Up Further 2026

New medium-term management plan design based on the 10-year vision

SCREEN Holdings Co., Ltd.

**Toshio Hiroe**

Representative Director,  
President & CEO



# Review of Value Up 2023 and targets of Value Up Further 2026

## Value Up 2023

### Concept

Establishing a presence as the solution creator in each market we serve

### Economic value targets and results

All targets were met. Profitability and efficiency improved.

	Final-year targets (Initial plan)	Final-year targets (after July 2022 revisions)	Final-year results (FY2024/03)
Net sales	¥400 billion or more	¥500 billion or more	¥504.9 billion
Operating margin	15% or above	17% or above	18.6%
ROE	15% or above	20% or above	21.0%
Operating cash flows	Cumulative total of ¥120 billion or more in 4 years	Cumulative total of ¥240 billion or more in 4 years	Cumulative total of ¥309.1 billion in 4 years
Shareholder returns	Consolidated total shareholder return ratio 30% or above	Consolidated total shareholder return ratio 30% or above	Consolidated total shareholder return ratio 30.6%

### Social value results

### Achievements

Main strategies	Results
Enhance corporate value by creating innovation and a sustainable growth cycle	<ul style="list-style-type: none"> <li>Implemented technological development strategy aligned with business strategy</li> <li>Applied innovation management to revise technological development strategy</li> <li>Worked to increase market share in existing businesses and continued investing to scale up new businesses</li> </ul>
Generate cash flows equivalent to profits by improving both profitability and efficiency	<ul style="list-style-type: none"> <li>Established ROIC management and introduced business portfolio management</li> <li>Improved productivity and profitability through investment in S<sup>3</sup>-3 and S<sup>3</sup>-4</li> <li>Restructured underperforming businesses</li> <li>Shifted focus to cash flow management</li> </ul>

### Remaining issues

Sustainably improving profitability over the medium to long term while investing aggressively for growth

## Value Up Further 2026

### Concept

Further enhance our presence through the growth of each individual and by enhancing competitiveness as a solution creator

### Financial targets

FY2025/03–FY2027/03 Three-year cumulative targets	
Cumulative net sales	¥1.8 trillion or more
3-yr operating margin	19% or above
ROIC	15% or above
Shareholder returns	Consolidated dividend payout ratio: 30% or above (Flexible share buy-backs will be implemented depending on the progress of growth investment)

Notes: 1. The above figures are predicated on organic growth.  
2. For details about cash allocation, see "Message from the CFO" (p. 29).

### Non-financial targets

Main final-year (FY2027/03) targets
Human resource strategy Engagement survey positive response rate: 70% or above <sup>1</sup>
Sustainability strategy Greenhouse gas emissions reduction <sup>2</sup> • Scope 1 + 2—From business activities (total emission volume): 70%+ reduction • Scope 3—From the use of sold products (per unit of gross profit): 48%+ reduction

1. Consolidated basis, for the final fiscal year  
2. Compared with FY2019/03

### Basic concept and main initiatives

The three years covered by Value Up Further 2026 will be an investment phase, building momentum for new growth while maintaining the financial foundation established in the past four years as we work toward the 10-year vision target of ¥1 trillion in net sales



### Key points to address

- Increasing market share by enhancing added value
- Launching new technologies and products and strengthening sales capabilities
- Creating new businesses that generate ¥10.0 billion in net sales
- Enhancing operational efficiency
- Enhancing business foundations to support long-term growth



# Outline of the Management Grand Design

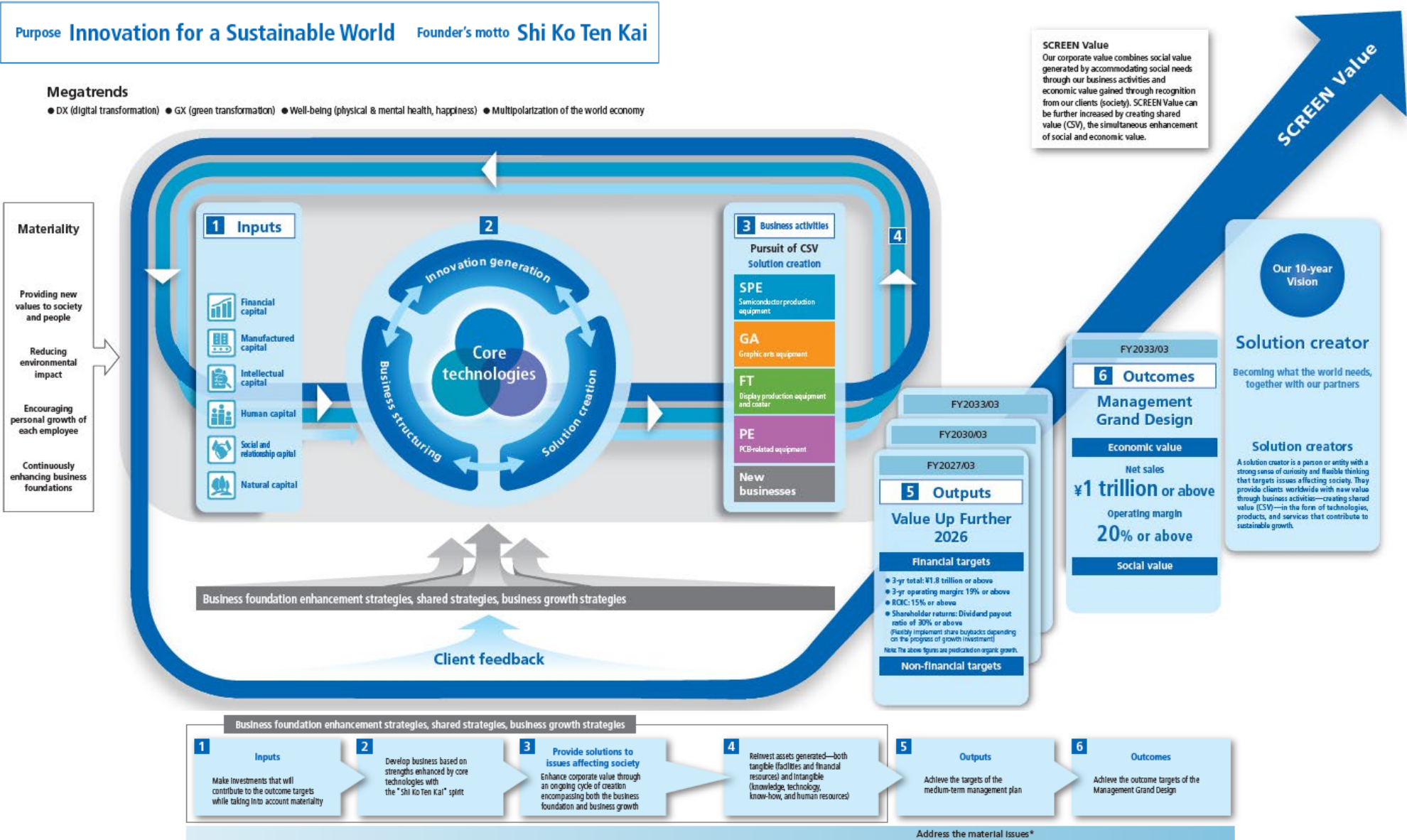


# Realizing our 10-year vision through business activities





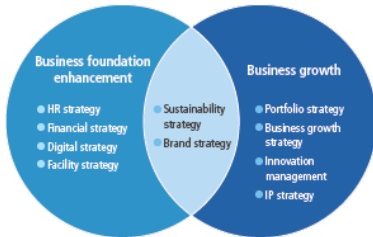
Purpose **Innovation for a Sustainable World** Founder's motto **Shi Ko Ten Kai**

Megatrends

- DX (digital transformation)
- GX (green transformation)
- Well-being (physical & mental health, happiness)
- Multipolarization of the world economy



# Policies and strategies to address material issues

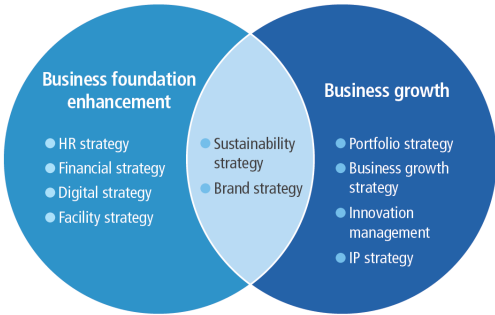
Strategies for realizing our 10-year vision				
Material issues	 <b>New value</b> <b>Providing new value to society and people</b> Establishing businesses focused on social needs, thereby adding value to our technologies, products, and services to contribute to the development of a sustainable society.	 <b>Environment</b> <b>Reducing the environmental impact</b> Reducing greenhouse gas emissions, waste disposal, and use of exhaustible resources through business activities, thereby addressing socio-environmental issues such as climate change and biodiversity.	 <b>Human resources</b> <b>Encouraging personal growth of each employee</b> Motivating each employee to take on new challenges and supporting their personal growth, through the efforts to ingrain our corporate philosophy and develop solution creators.	 <b>Business foundations</b> <b>Continuously enhancing business foundations</b> Enhancing our business foundations to support the efforts to increase our long-term corporate value through the implementation of growth strategies in line with our purpose.
	<b>Net sales</b> ¥1 trillion or above <b>Operating margin</b> 20% or above			
Outcome targets	<ul style="list-style-type: none"> <li>Proportion of net sales from new products or products equipped with new technology</li> <li>New business operating companies rooted in social needs</li> <li>Intellectual property ETR (patent citation rate)</li> <li>Number of patents held</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of net sales from Super Green Products<sup>1</sup></li> <li>GHG emissions (Scope1+2)</li> <li>Waste disposal</li> <li>Energy usage</li> </ul>	<ul style="list-style-type: none"> <li>Engagement rate</li> <li>Health presenteeism<sup>2</sup></li> <li>Number of occupational accidents resulting in 4 or more lost work days</li> </ul>	<ul style="list-style-type: none"> <li>Human resources portfolio fulfillment rate</li> <li>Equity ratio</li> <li>Increase in transparency of management</li> <li>Robust cybersecurity</li> </ul>
Policy and strategies	<p>The entire SCREEN Group will work as one to implement its business foundation enhancement and business growth strategies, as well as shared strategies that cover both. By providing solutions that address social needs through business, we will create outcomes that enhance our corporate value.</p> <div data-bbox="1044 896 1414 1129">  <p><b>Business foundation enhancement</b></p> <ul style="list-style-type: none"> <li>HR strategy</li> <li>Financial strategy</li> <li>Digital strategy</li> <li>Facility strategy</li> </ul> <p><b>Business growth</b></p> <ul style="list-style-type: none"> <li>Portfolio strategy</li> <li>Business growth strategy</li> <li>Innovation management</li> <li>IP strategy</li> </ul> <p><b>Shared strategies</b></p> <ul style="list-style-type: none"> <li>Sustainability strategy</li> <li>Brand strategy</li> </ul> </div>			
Main initiatives	<b>Business growth strategy</b> <b>Portfolio strategy</b> <b>Innovation management</b> <b>IP strategy</b>	<b>Sustainability strategy:</b> Addressing climate change Efforts to reduce waste and increase the recycling rate	<b>HR strategy:</b> Employee engagement survey <b>Employee wellness</b> <b>Safety and health</b>	<b>HR strategy:</b> Talent portfolio management <b>Financial strategy:</b> Message from the CFO <b>Corporate governance</b> <b>Digital strategy</b>



# Strategic planning and implementation strengthening

## Basic concept and main initiatives

The three years covered by Value Up Further 2026 will be an investment phase, building momentum for new growth while maintaining the financial foundation established in the past four years as we work toward the 10-year vision target of ¥1 trillion in net sales

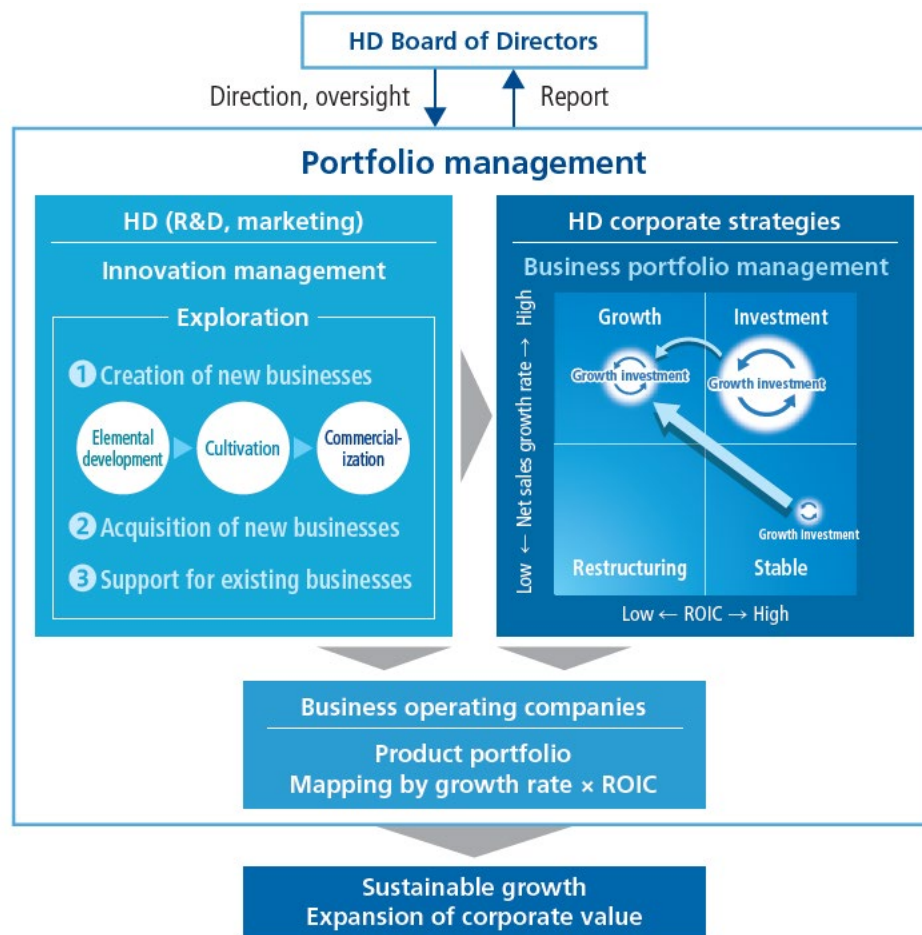


Business foundation enhancement strategies	Shared strategies for both business foundation and growth	Business growth strategies
<ul style="list-style-type: none"><li>● HR strategy: Creating a vibrant corporate culture and encouraging individual growth</li><li>● Financial strategy: Building a risk-resilient financial foundation that can support business growth</li><li>● Digital strategy : Enhancing cybersecurity and promoting digital transformation (DX) to drive productivity</li><li>● Facility strategy: Developing facilities to support business growth and R&amp;D</li></ul>	<ul style="list-style-type: none"><li>● Sustainability strategy: Pursuing ESG (environmental, social and governance) activity across the value chain</li><li>● Brand strategy: Establishing a presence as a global brand</li></ul>	<ul style="list-style-type: none"><li>● Portfolio management: Combining business and product portfolio management</li><li>● Business growth strategy: Increasing the presence in the industries we serve to raise our corporate value further</li><li>● Innovation management: Introducing new technologies and products to the markets and launching new businesses with net sales of ¥10 billion</li><li>● IP strategy: Building an IP portfolio aligned with our business and R&amp;D strategies</li></ul>



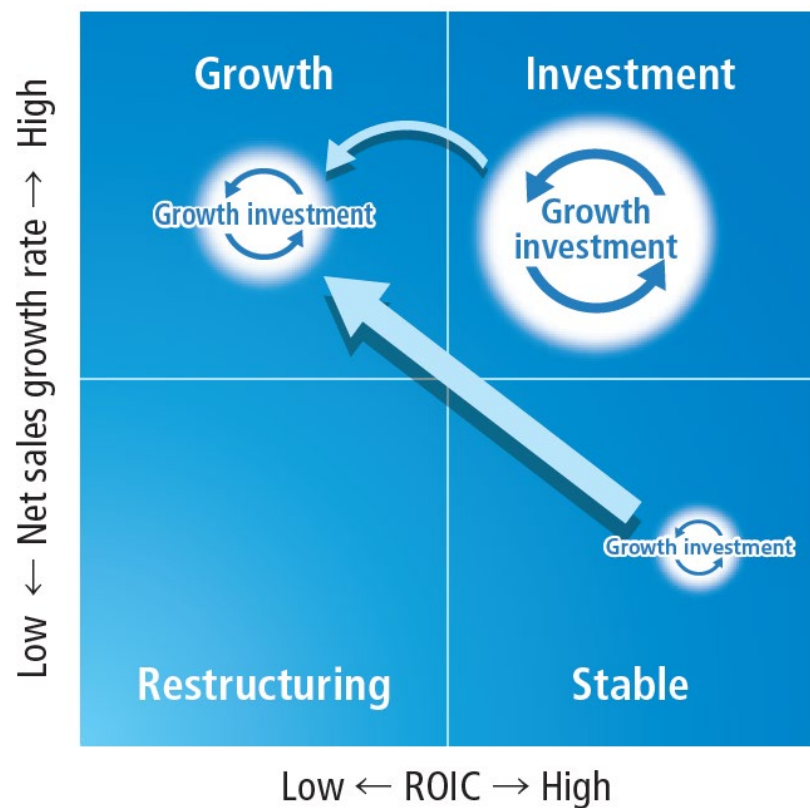
# Portfolio strategy

It consists of two parts: business portfolio management to monitor the corporate value of each business in the SCREEN Group and innovation management to sustainably and effectively create new businesses.



# Business portfolio management

Using two indicators: growth potential (net sales growth rate) and ROIC, we regularly check the difference between the current and ideal position of each business as we work toward our ideal business portfolio.



## Growth

This area is for new businesses that aim to eventually move to the investment area.

## Investment

This area is for existing businesses that prioritize self-reinvestment and also reinvest in the growth area.

## Stable

This area is for existing businesses that prioritize reinvestment in the growth area over self-reinvestment.

## Restructuring

Businesses in this area are restructured under the control of HD.

# Innovation management

We explore ideas mainly in four focus areas based on megatrends we have identified, and we aim at creating new businesses that could eventually reach the level of our existing business operating companies as well as solutions that strengthen the existing business operating companies.

## Focus areas

### DX

Contribute to DX  
in society  
DX in equipment

### GX

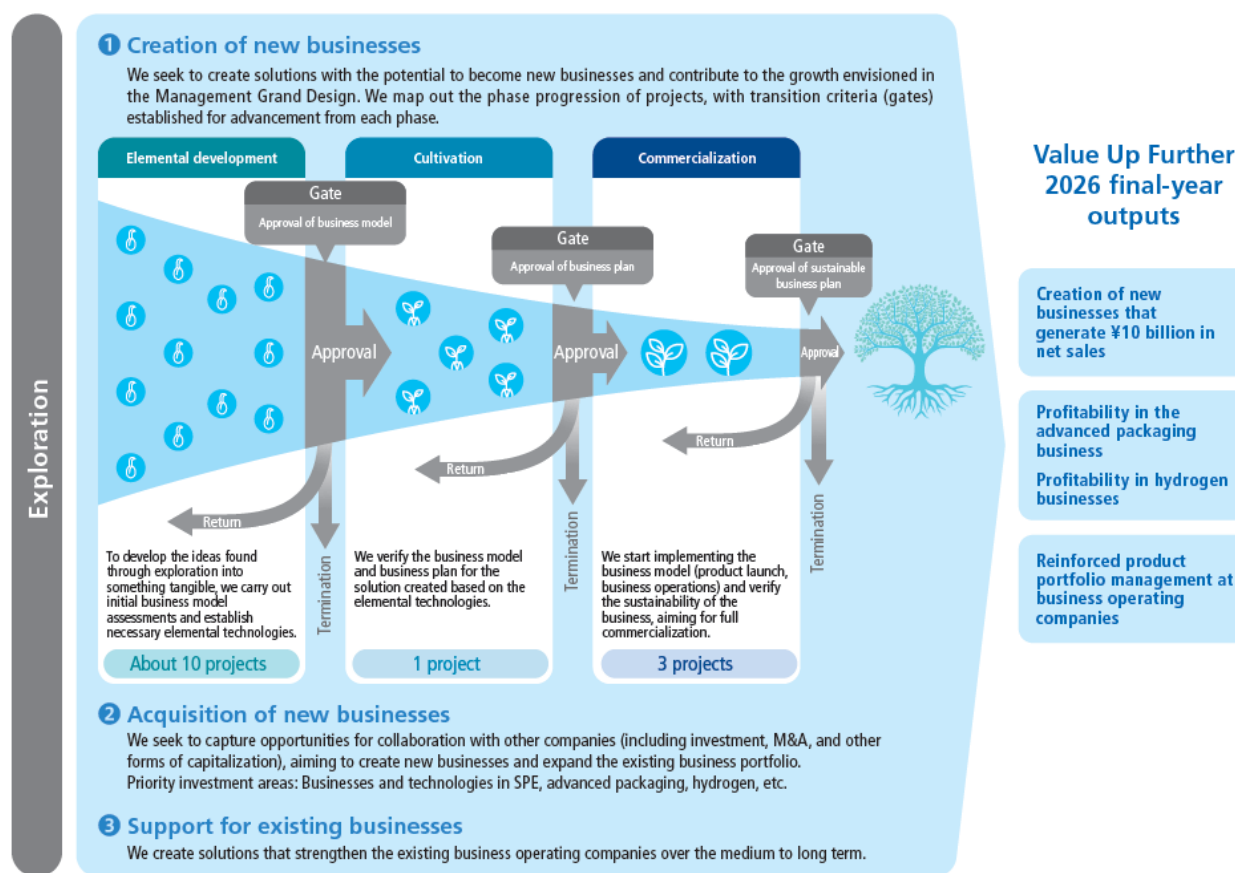
Contribute to  
decarbonization  
Make low-energy  
equipment

### Humanics

Automation/  
self-driving  
Integrate people and  
technologies

### Mobility

Technologies that  
support convenient  
transportation of  
people and goods



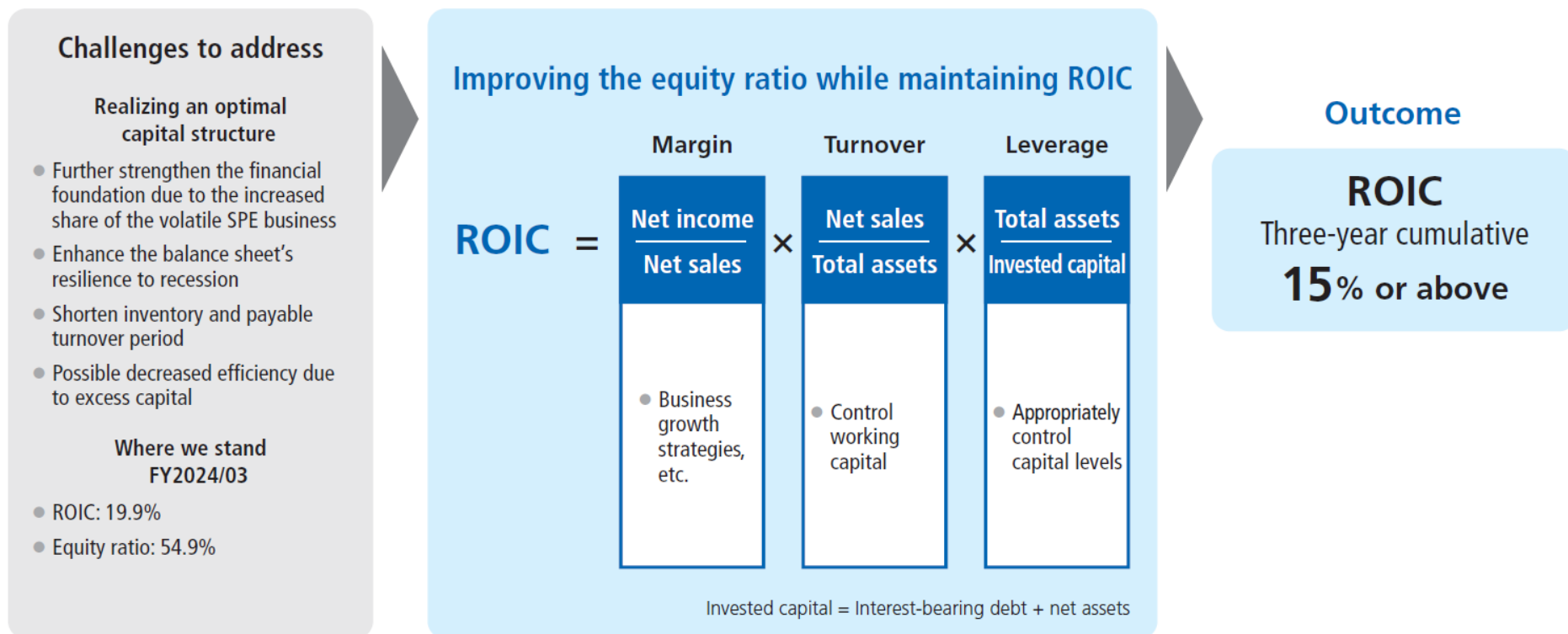


# Financial strategy

- Improving our equity ratio while maintaining ROIC -

## Financial strategy under Value Up Further 2026

### Build a risk-resilient financial foundation that can support business growth



# HR strategy

With every member of the SCREEN Group acting as a solution creator who generates the solutions that pave the way to a better future, we will strive to continue to earn the trust and support of our stakeholders over the long term.

## Value Up Further 2026: Steps for promoting our HR strategy

Create a vibrant corporate culture and encourage individual growth through a cycle of recruitment, development, and retention based on corporate strategy

### Five attitudes required of a solution creator

Think deep, see through to the essence

Take ownership

Drive innovation as a team

Try and try again with passion and honesty

Earn respect from clients

### Strengthening the linkage of corporate strategy and HR strategy

- Need to advance from corporate philosophy and Management Grand Design recognition to resonance and action
- Establishment of work environment where diverse talents can demonstrate their ability
- Declining group unity as business scale expands
- Global HR measures not yet started

#### Where we stand

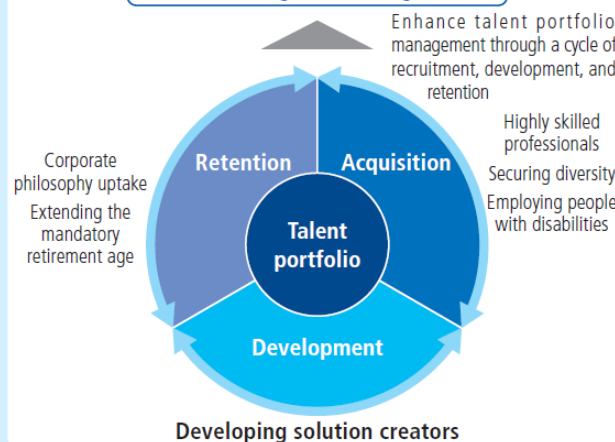
- Engagement survey positive response rate: 65%
- Quantity: Talent portfolio management not yet started
- Quality: 54% score for the organizational solution creator (SC) level 2 or higher

### Corporate strategy

Optimal HR allocation linked to management strategy

### HR strategy

Create a vibrant corporate culture and encourage individual growth



### Final-year outputs (strategy KPIs)

#### ● Engagement survey

Positive response rate: **70% or more<sup>1</sup>**

1. Consolidated basis

#### ● Talent portfolio management

Quantity: **90% fulfillment rate<sup>2</sup>**

Quality: **60% score for the organizational SC level 2<sup>3</sup> or higher**

2. Number of personnel in each job type as a percentage of the number required  
3. Capable of solving issues by working with clients and lead clients forward

#### ● Global

Conduct engagement surveys

Formulate talent portfolio management measures

# Investment strategy under Value Up Further 2026

SCREEN Holdings Co., Ltd.

**Masato Goto**

Senior Managing Executive Officer  
Senior Corporate Strategy Officer

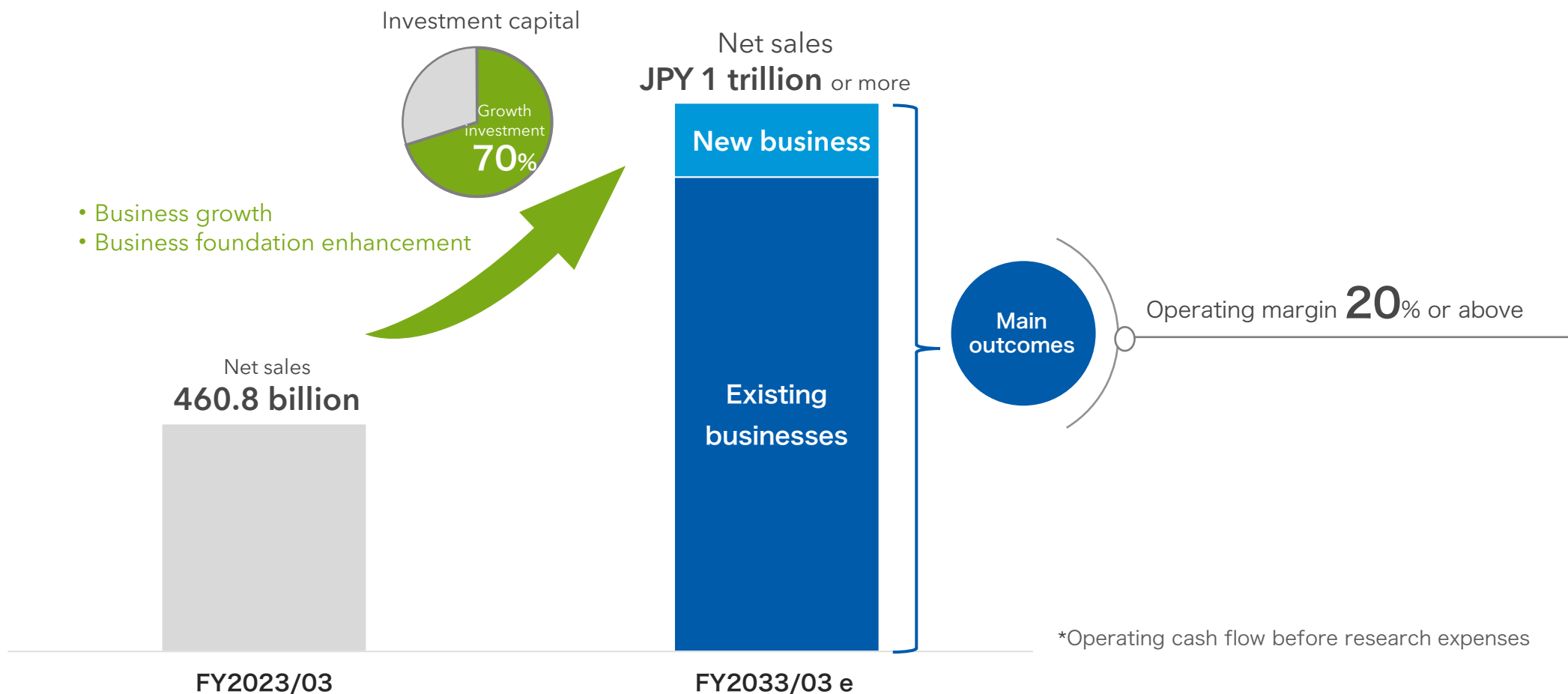




# Financial & non-financial targets in Management Grand Design

## 10-year vision for enhancing corporate value

Basic policy: To grow our existing businesses and create new businesses, 70% of our investment fund\* will be allocated to growth, with the aim of achieving the Management Grand Design's FY2033/03 targets of net sales of ¥1 trillion or more and an operating margin of 20% or above.

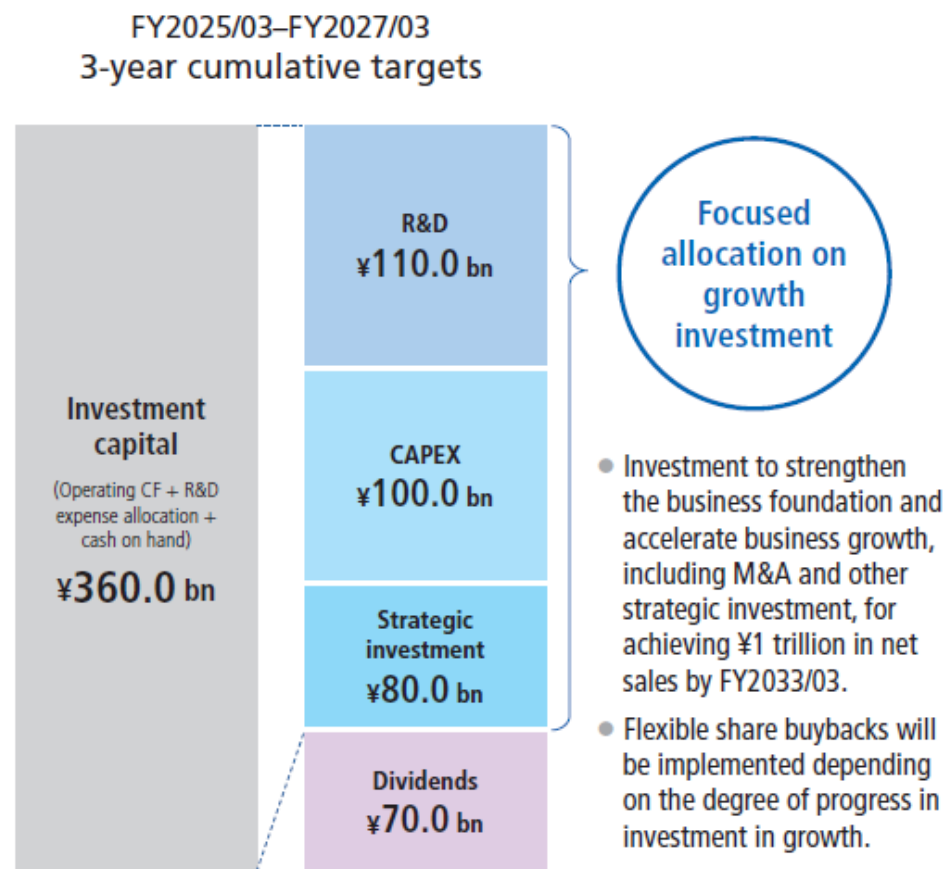


# Investment strategy under Value Up Further 2026

Before allocating investment capital, we prioritize paying dividends and maintaining a consolidated dividend payout ratio of 30% or above.

During the FY2025/03-FY2027/03 period, approximately 80% of investment fund will be allocated to growth investments, with the aim of reaping the benefits during the period of the next medium-term plan, starting FY2028/03.

1. Enhancing the competitive advantage of our products
2. Cultivation of new businesses



# Investment strategy under Value Up Further 2026

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## 1. Prioritizing investments that enhance the competitive advantage of our products

### **Develop an optimal R&D environment**


- Strengthening R&D activities abroad
- Globalizing the R&D framework, such as cooperating with imec, NSTC, IBM Albany, etc.

### **Enhance production capacity**

- Investments for a higher productivity of existing facilities
- Investments to prepare for further growth in sales and operating margin during the next medium-term management plan



# Reference: Imec's expectations of SCREEN - from Annual Report 2024, page. 58

**Interview** imec  SCREEN

**Interview with Luc Van den hove, CEO of imec, the world's leading independent nanoelectronics R&D hub**

**Luc Van den hove**  
President, CEO

The semiconductor industry is in the midst of remarkable growth, driven by technological development. At the same time, however, the industry faces numerous manufacturing challenges. SCREEN has collaborated with imec<sup>1</sup> from 2002 to advance innovation. From 2022, we have also joined imec's SSTs program for reducing environmental impact across the entire industry. We asked imec CEO Luc Van den hove about his expectations for SCREEN.

**Expectations in the area of advanced packaging**

**Eric Beyne, PhD**  
VP R&D, 3D System Integration Program Director, Senior Fellow

The area of 3D integration is at an inflection point. We are naturally evolving to systems where not everything in the chip is made monolithically like in the past, going from a monolithic to a HI. So in the area of packaging, technologies to scale precisely, like in FEOL and BEOL, are required, while wet cleaning must be very uniform. At these points of high sensitivity, SCREEN's cleaning technology is very important for us. Also, for backside power delivery networks, we have shown that SCREEN technology is highly effective because it allows us to thin down the silicon to only a few hundred nanometers. We are very satisfied with the results we have obtained, and our partnership has been greatly encouraging. I hope we will continue to work on these topics to meet industry needs.

Note: For details about our efforts related to advanced packaging, see "Innovation management (New businesses)" on page 65.

## President Luc Van den hove:

- Future prospects/threats in the semiconductor industry
- Expectations of SCREEN

## VP R&D Eric Beyne, PhD:

- The importance of advanced packaging
- The key role of SCREEN

# Investment strategy in Value Up Further 2026

## 2. Cultivation of new businesses

Of the projects in the commercialization phase, the advanced package project have been upgraded to a business department in April 2024.

Focus areas		DX	GX	Mobility	Humanics
Projects (new businesses)		DX of social and equipment design	Decarbonization Energy-saving equipment	Convenient transportation technologies	Automation/self-driving Connect people and technologies
Commercialization phase	Advanced packaging	A more prosperous world Power-efficient devices			
	Hydrogen	Widespread hydrogen power			
	Life science				Improved QOL
Cultivation	AI	A more prosperous world Declining working-age population			

Equipment for Advanced Packaging:  
Levina and Lemotia

### LeVina direct patterning system

The LeVina combines patterning heads equipped with the proprietary GLV™ optical engine for high precision pattern formation compatible with advanced packages, such as FCCSP, FCBGA, and FOPLP, with laser control technologies based on optical systems employing proprietary technologies, realizing industry-leading resolution of 2 μm in a direct patterning and exposure system for mass production.



### Lemotia PLP coater/dryer system

The Lemotia is a coater/dryer system for advanced semiconductor packages designed for FOPLP, glass core, and related substrates. It incorporates technologies and expertise refined in the SK series of coater/developers, which boasts the top market share worldwide in the display segment.



# Summary of investment strategy in Value Up Further 2026

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## 1. Enhancing the competitive advantage of our products

We will work to accurately identify market growth trends and make appropriate growth investments

To further increase the competitive advantage in the mainstay SPE business, we expand our R&D and production frameworks in tandem with technology trends in leading-edge devices and customer investment plans.

## 2. Cultivation of new businesses

Constantly trying new things, creating solutions and nurturing them as a business

We will continually help transform the industry by providing solutions that help solve issues faced by society and our clients, and by turning these solutions into businesses.



# Outlook of the semiconductor market and WFE, and SPE's growth strategies

SCREEN Semiconductor Solutions Co., Ltd.

Akihiko Okamoto  
President



# Agenda

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- Market trends
- R&D progress
- Accelerate and complete development

# Agenda

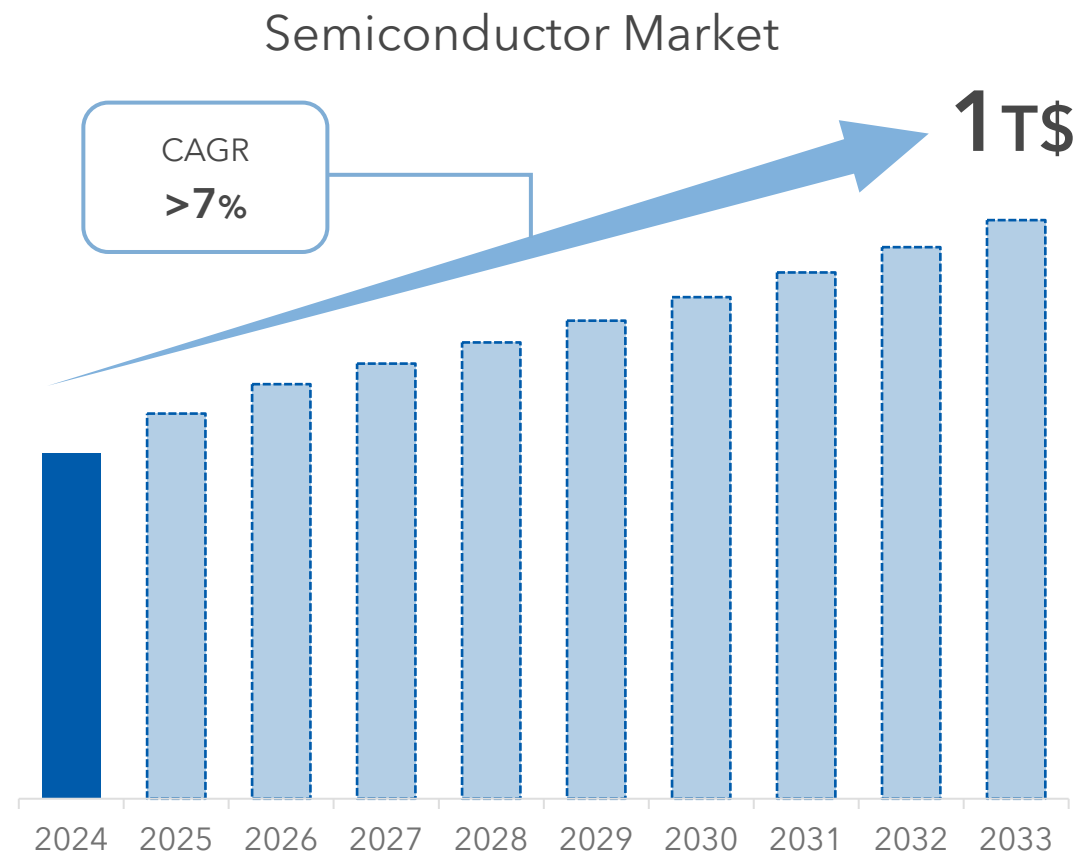
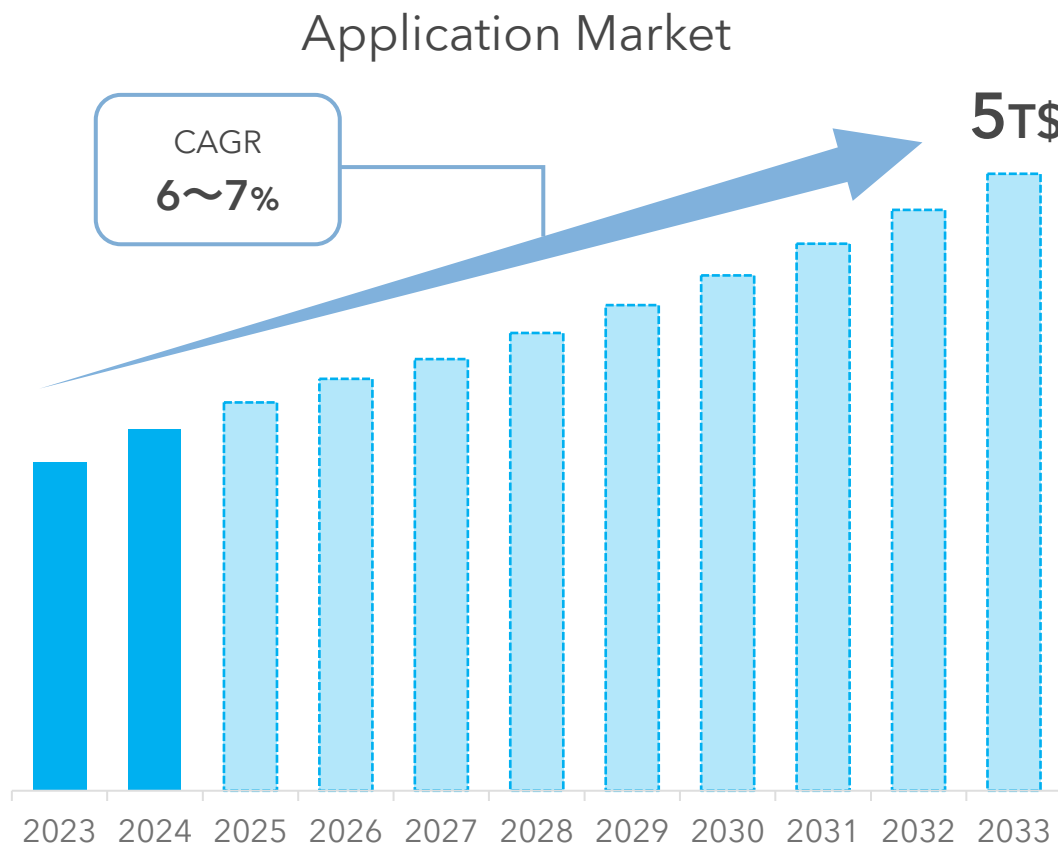
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- **Market trends**
- R&D progress
- Accelerate and complete development

# Application & Semiconductor market forecast

■ Application: Growth in the medium to long term [CAGR 6-7%]

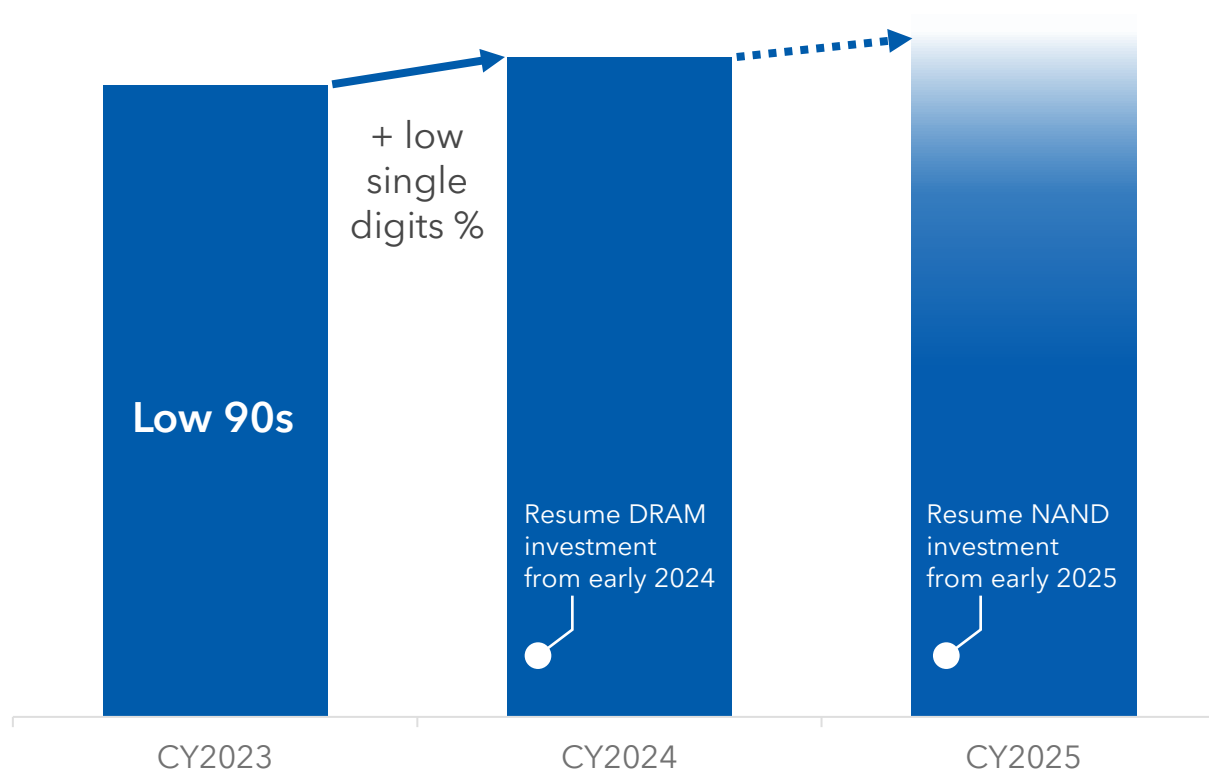
■ Semiconductor: Expected to reach 1T\$ level market by 2033





■ WFE market is recovering and expected to grow in CY2024 and CY2025

WFE forecast (B\$)



## CY2024

WFE expects mid-single digit % growth

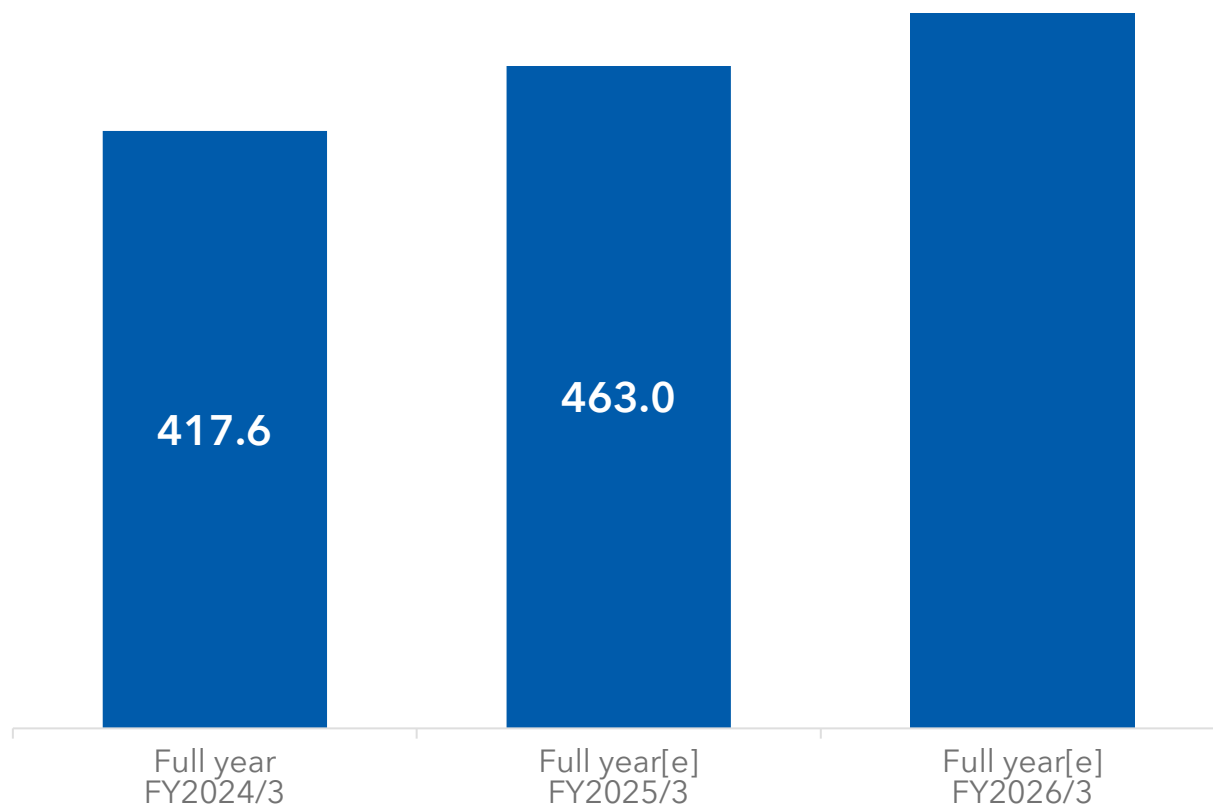
## CY2025

Slightly weaker than July forecast, reflecting slow recovery in key applications (PCs, smartphones, EVs, etc.) and latest memory investment

# Our SPE business situation

## ■ Our business remains steady

Sales revenue (Billions of JPY)



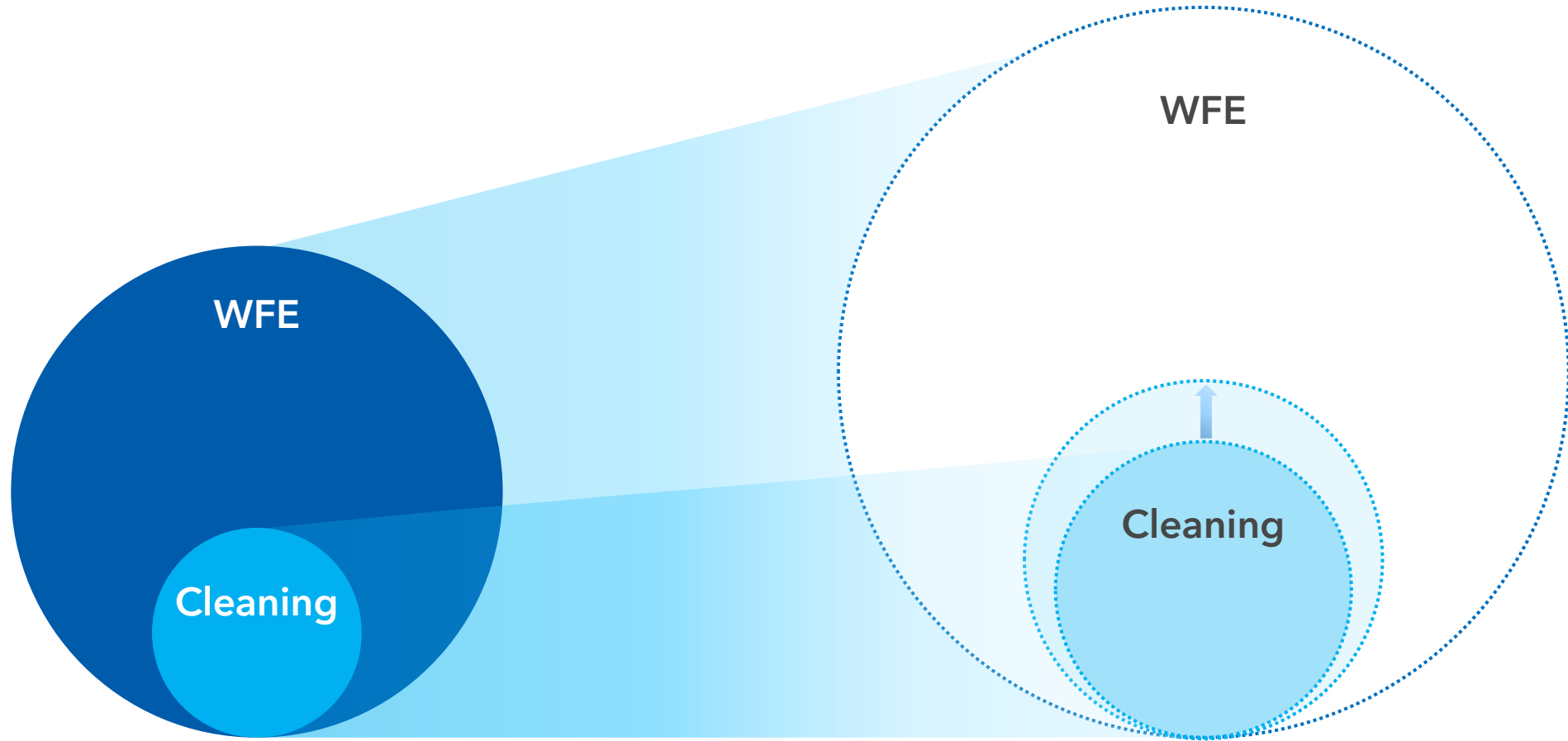
### Sales trend

Sales are expected to increase steadily this year and next year toward the sales target for the fiscal year ending March 31, 2033, outlined in the Management Grand Design

### To increase market share

Complete current development items with the aim of obtaining new POR

# Expansion of business in cleaning area

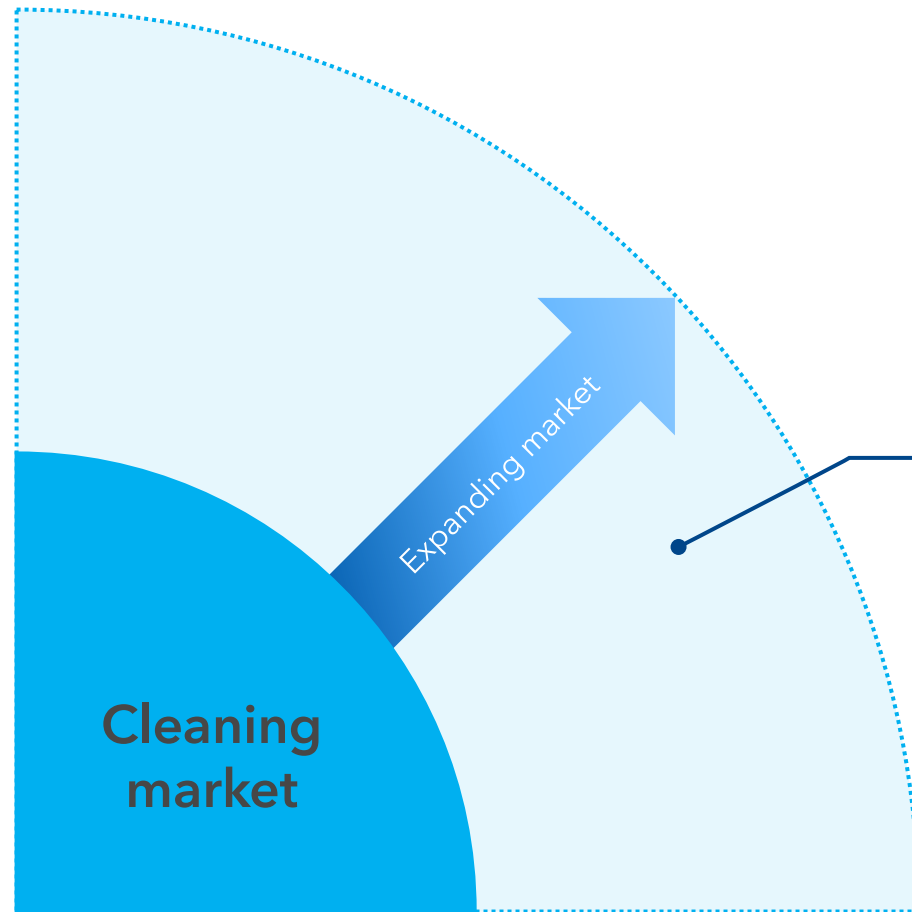


Medium- to long-term growth in the device market will drive WFE



Cleaning market grows in line with this growth

# Expansion of business in cleaning area



WFE cleaning equipment markets

## Semiconductor miniaturization

- Continued miniaturization
- Backside cleaning and narrow etching due to EUV compatibility and/or structural complexity

## 3D integration of devices and chips

- Compatible with Ad.Pkg  
[e.g. chiplet]
- Increase process steps  
[e.g. Bonding, Contact hall, Wafer thinning, etc.]



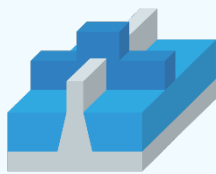
# Agenda

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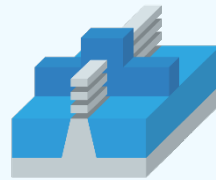
- Market trends
- **R&D progress**
- Accelerate and complete development

# Development for miniaturization and 3D integration

## Semiconductor miniaturization



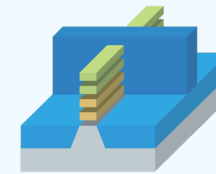
FinFET



Nanosheet

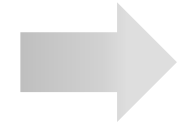


NS extension

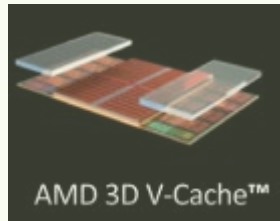


CFET

Source: SCREEN estimation

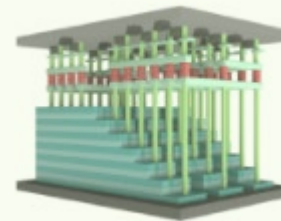


## 3D integration of devices and chips



AMD 3D V-Cache™

Source : AMD, Web-site  
[chiplet-architecture-white-paper.pdf](https://www.amd.com/en/tech/whitepapers/chiplet-architecture-white-paper.pdf)



Source : YMTC, Web-site  
<https://www.ymtc.com/en/technicalintroduction.html>



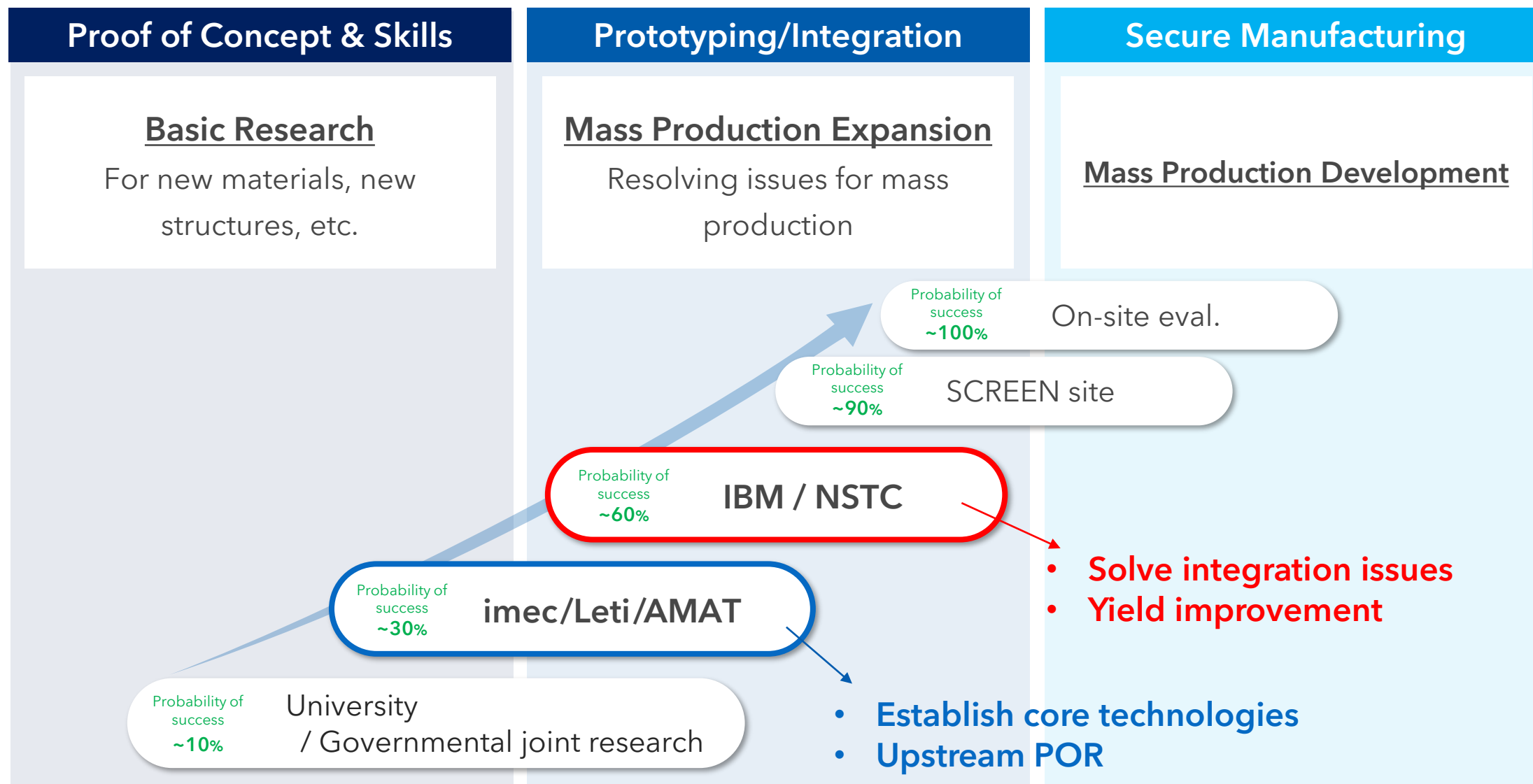
Source : intel, Web-site  
<https://www.intel.com/content/www/us/en/foundry/process/18a.html?wapkw=powervia>

Completion of development Utilizing  
know-how, collaboration results

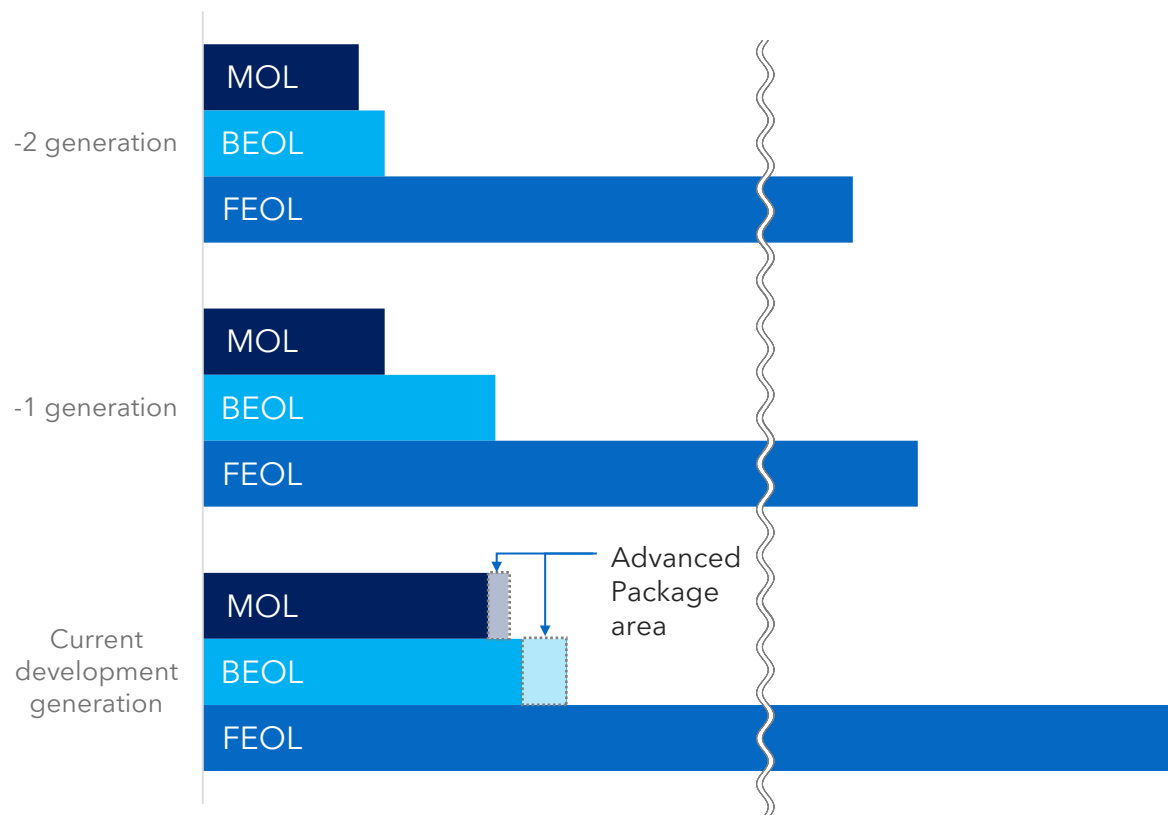


**Provide Solution**

# R&D pipelines to enhance added value for clients



## Our acquisition status of advanced-device cleaning process



Continued growth in FEOL as well as MOL/BEOL areas



- **Acquire business in advanced cleaning area**
  - Continued miniaturization
  - Diversification of structure [Chiplet etc.]
- **MOL/BEOL business is also progressing steadily**



# Agenda

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- Market trends
- R&D progress
- **Accelerate and complete development**

## Improve the flow of information by adding ingenuity to nanotechnology



Investment is expected to continue to grow in CY2024 to CY2026



Production capacity expansion to cover the current mid-term plan (1.5 trillion JPY over 3 years from FY25/3 to FY27/3) has already been completed.



### Focus on accelerating and completing development

- Providing new solutions to customers through development that adapts to the evolution of devices
- To accelerate acquisition of POR, the R&D Strategy Operations Department was newly established and the Engineering Division was reorganized
- Ensure implementation of each measure to increase market share

# Initiatives to increase market share in the cleaning business

**SCREEN Semiconductor Solutions Co., Ltd.**

**Hiroaki Takahashi**

Managing Director  
Cleaning Elemental Technology Development



# Agenda

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- Increased cleaning opportunities associated with 3D structures
- Technology in high value-added area
  - ECS PRiME 2024 (October 6<sup>th</sup> to 11<sup>th</sup> 2024 in Hawaii) -
- Summary

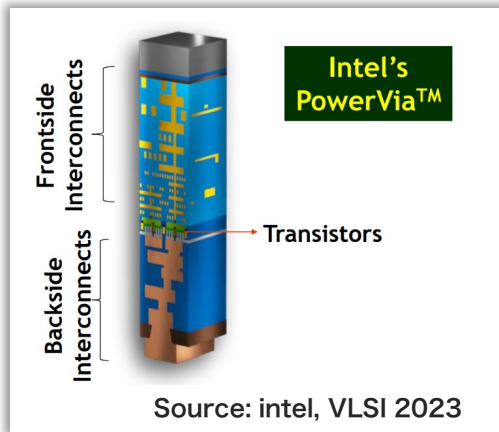


# Agenda

- Increased cleaning opportunities associated with 3D structures
- Technology in high value-added area
  - ECS PRiME 2024 (October 6<sup>th</sup> to 11<sup>th</sup> 2024 in Hawaii) -
- Summary

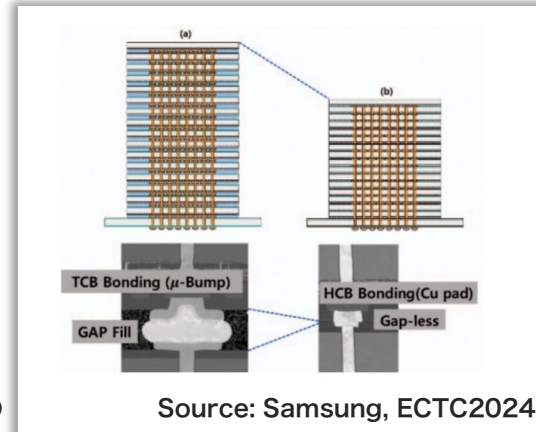
# 3D Process Increases

## Logic BSPDN



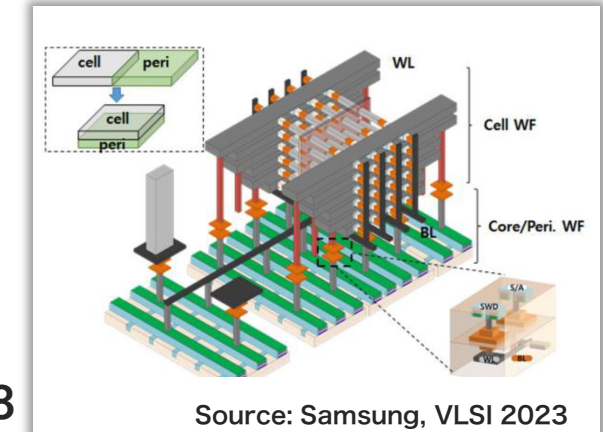
CY2024

## HBM4E HB



CY2026

## 3D-DRAM



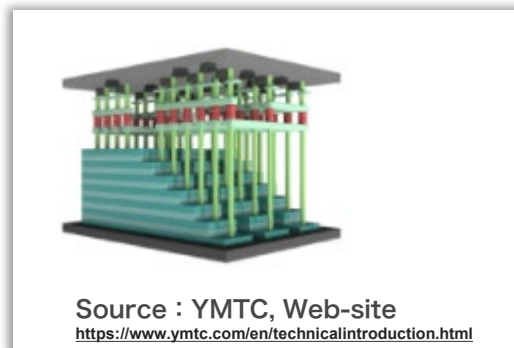
CY2028

CY2025

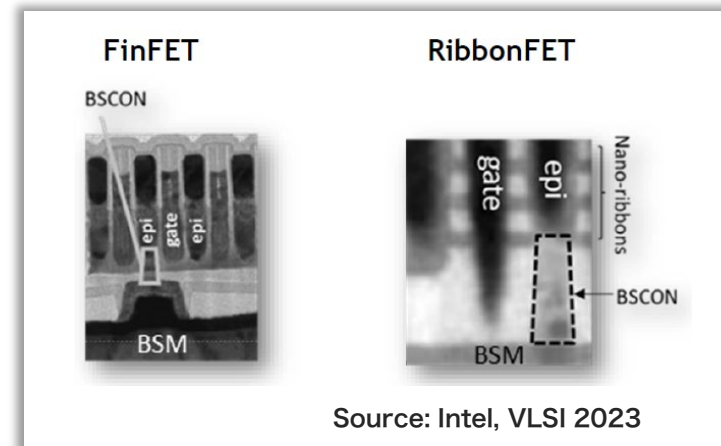
CY2027

CY2029

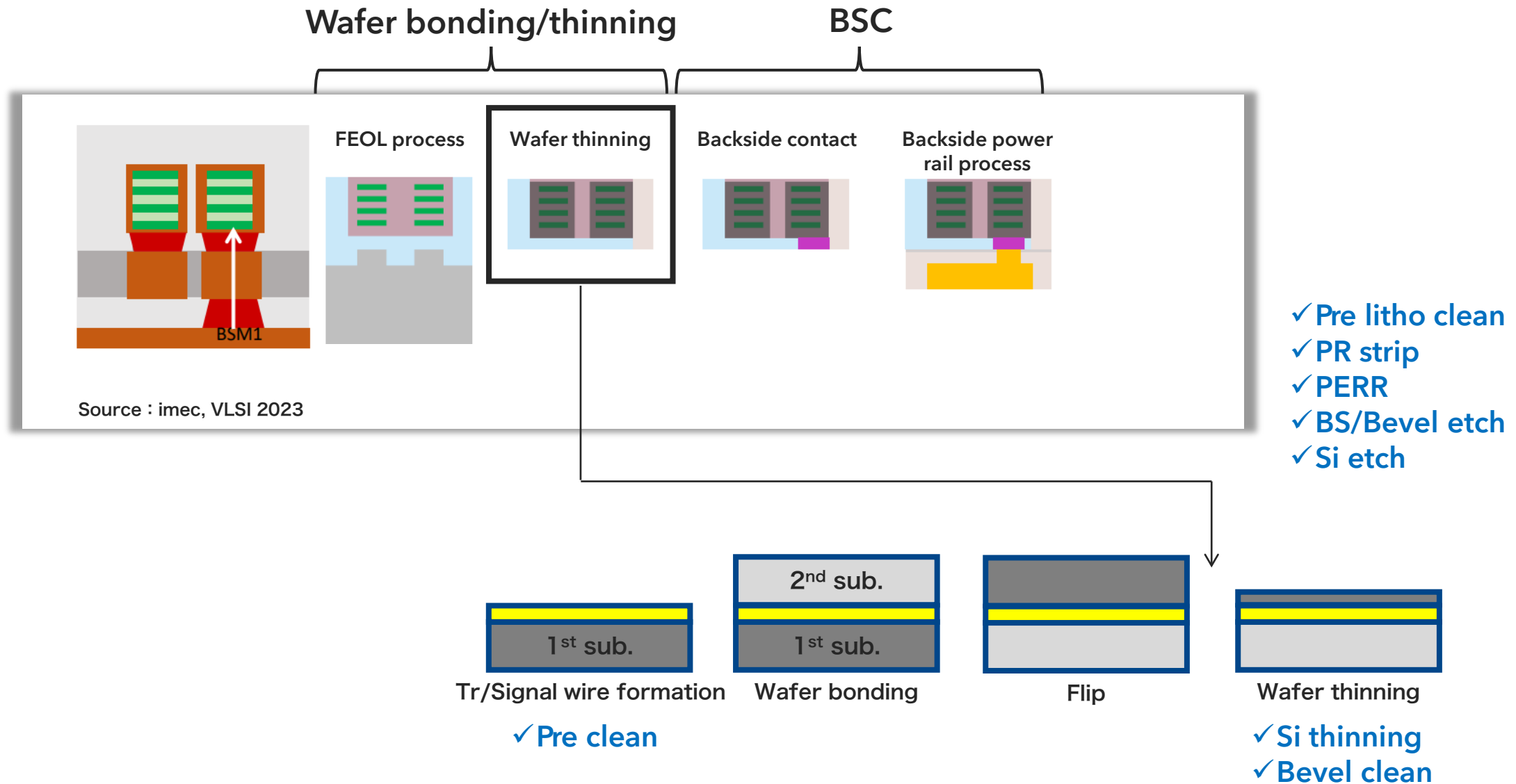
## 3D-NAND



## Logic BSC



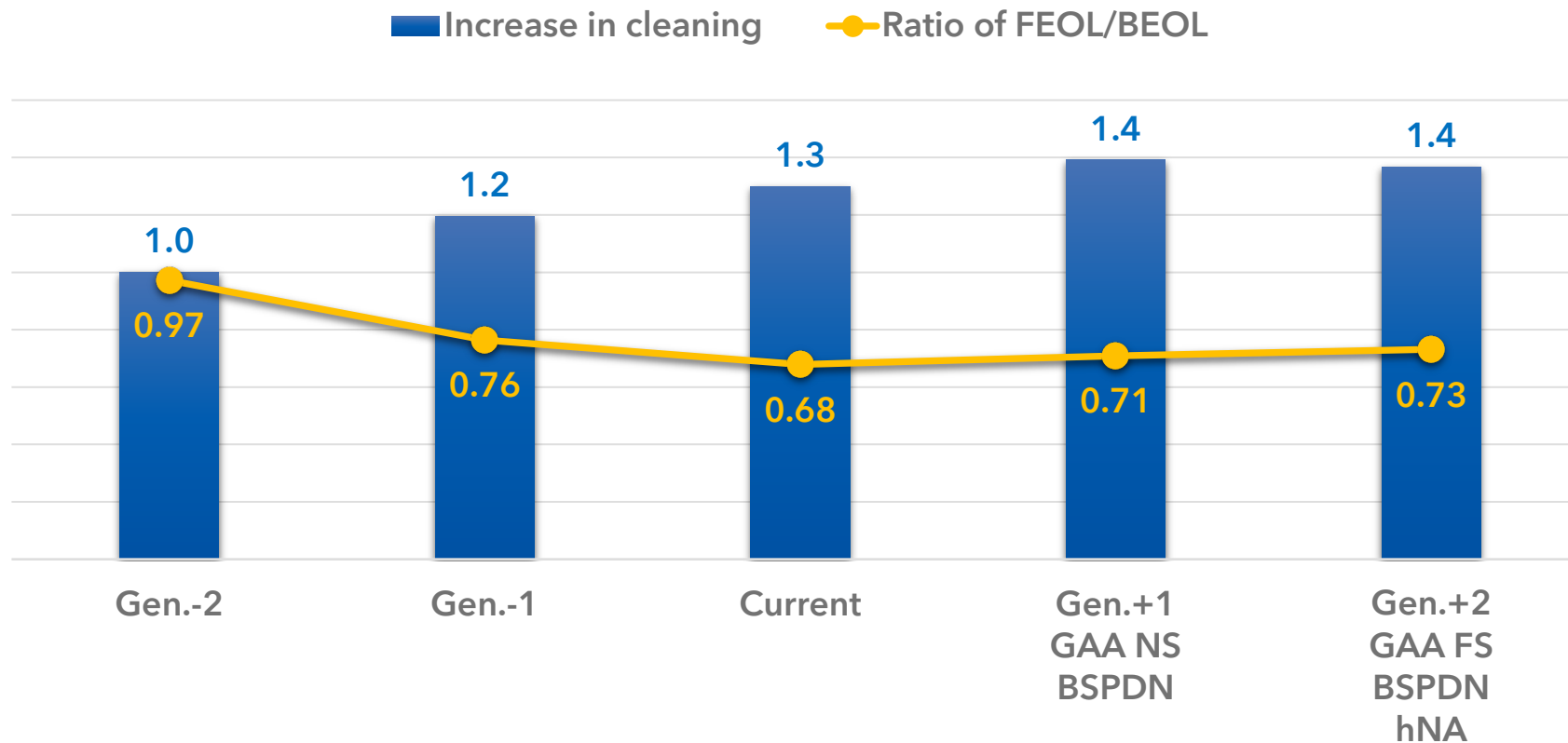
# Cleaning Applications on BSPDN



Source: SCREEN estimation

# Cleaning Processes will Increase in the Future

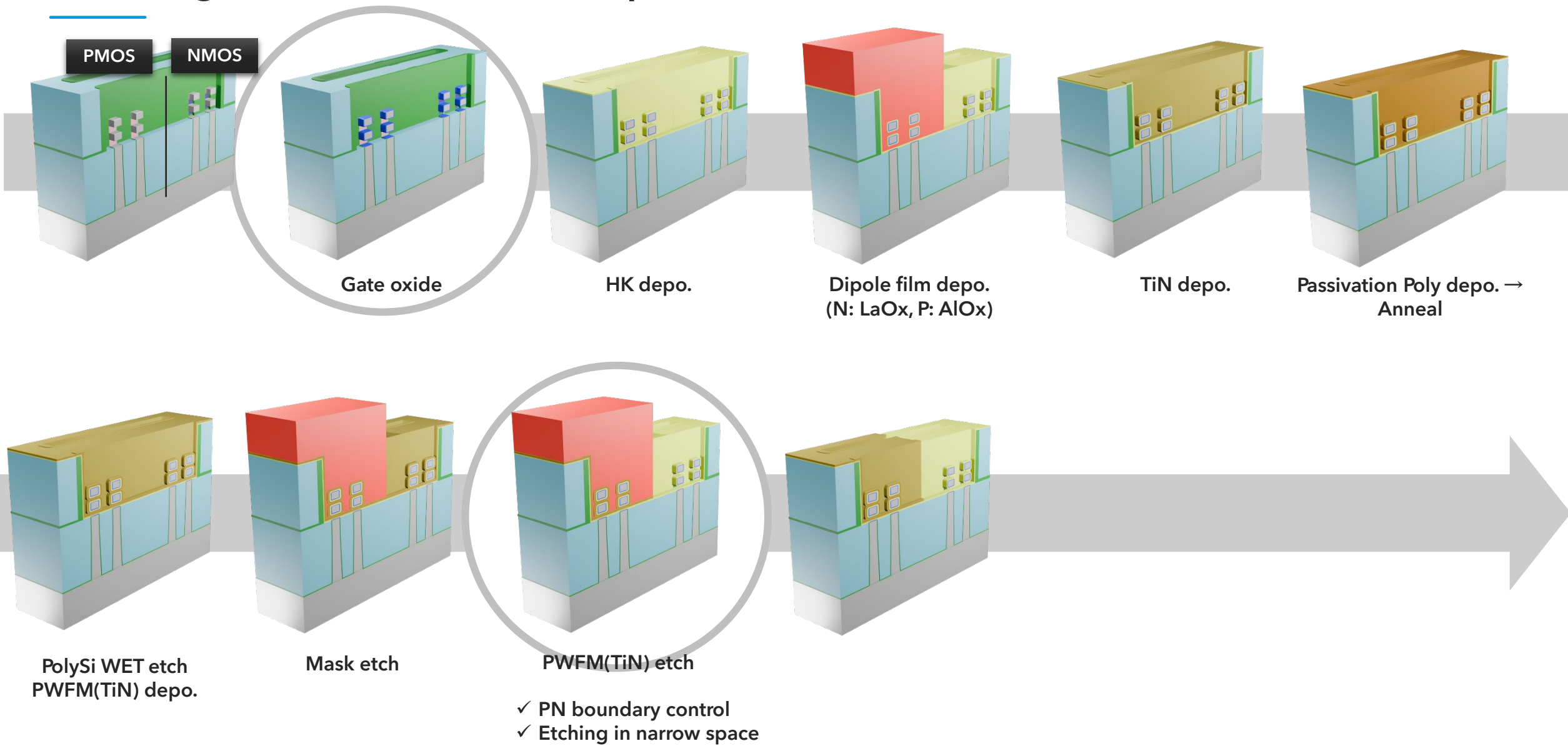
Increase in cleaning process with respect to Gen.-2



- Increase in MOL processes (Gen.-2→Gen.-1)
- Increase in number of BEOL layers (Gen.-1→Current)
- Process increase of BSPDN (Current→Gen.+1)

# Challenge for Nanosheet RMG process

Source: SCREEN estimation



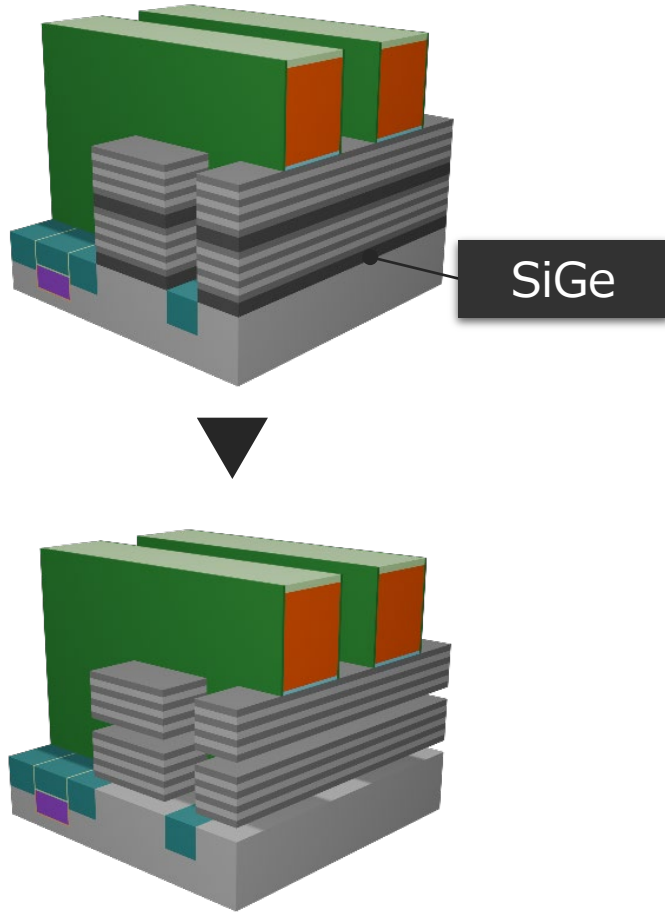


# Example of Cleaning Process for 3D Structures

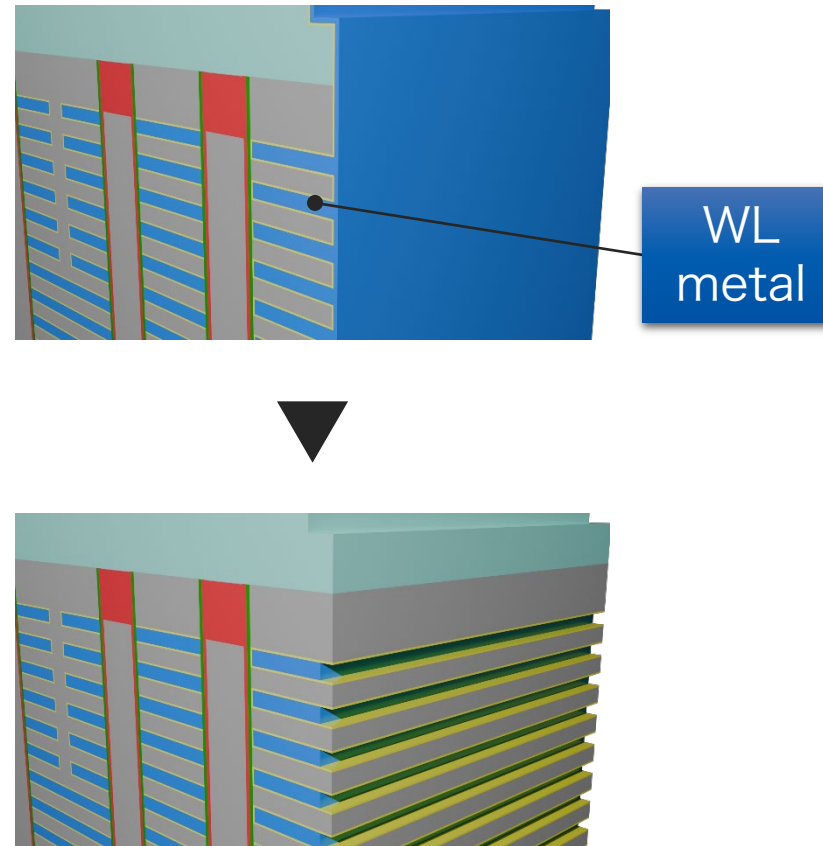
Source: SCREEN estimation

SPE

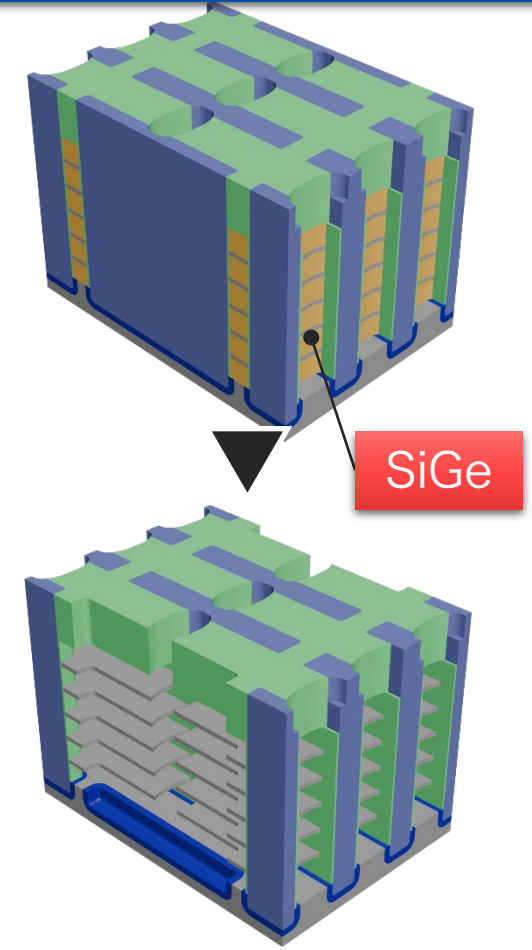
Logic  
(SiGe etch)



3D-NAND  
(WL recess)

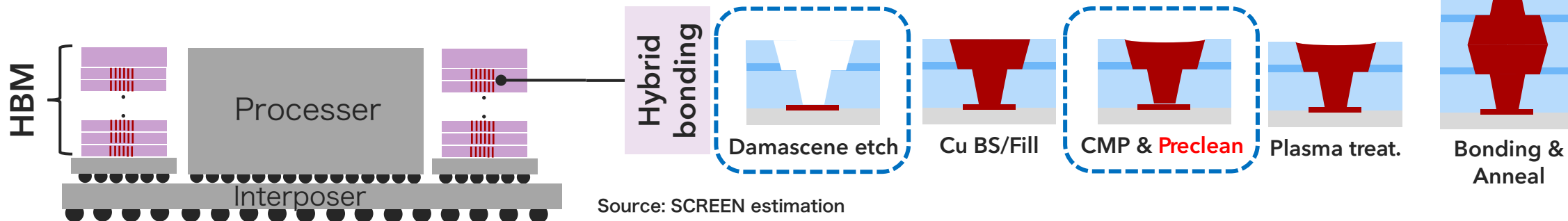


3D-DRAM  
(SiGe etch)

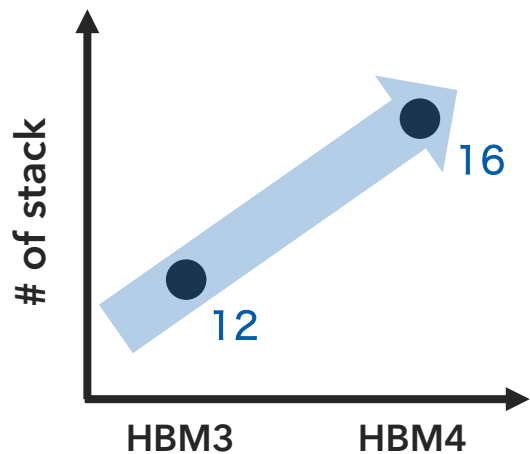


Cleaning is not just a particle removal but also a processing application to form structures

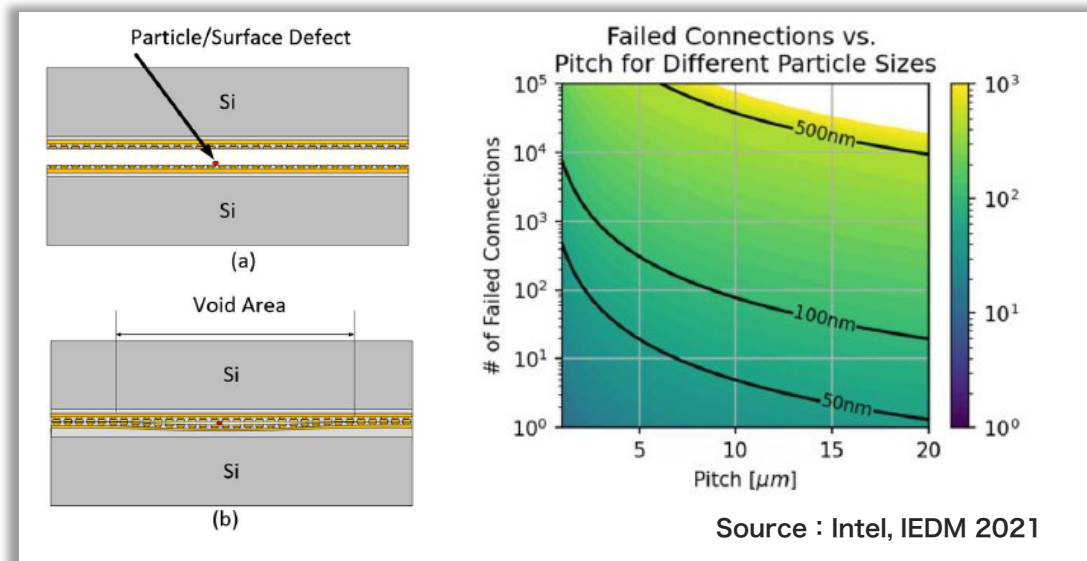
# Increased Cleaning Opportunities for HBM



Application of HB will increase surface cleaning requirements



Increased # of stack  
→ Increase in chip production



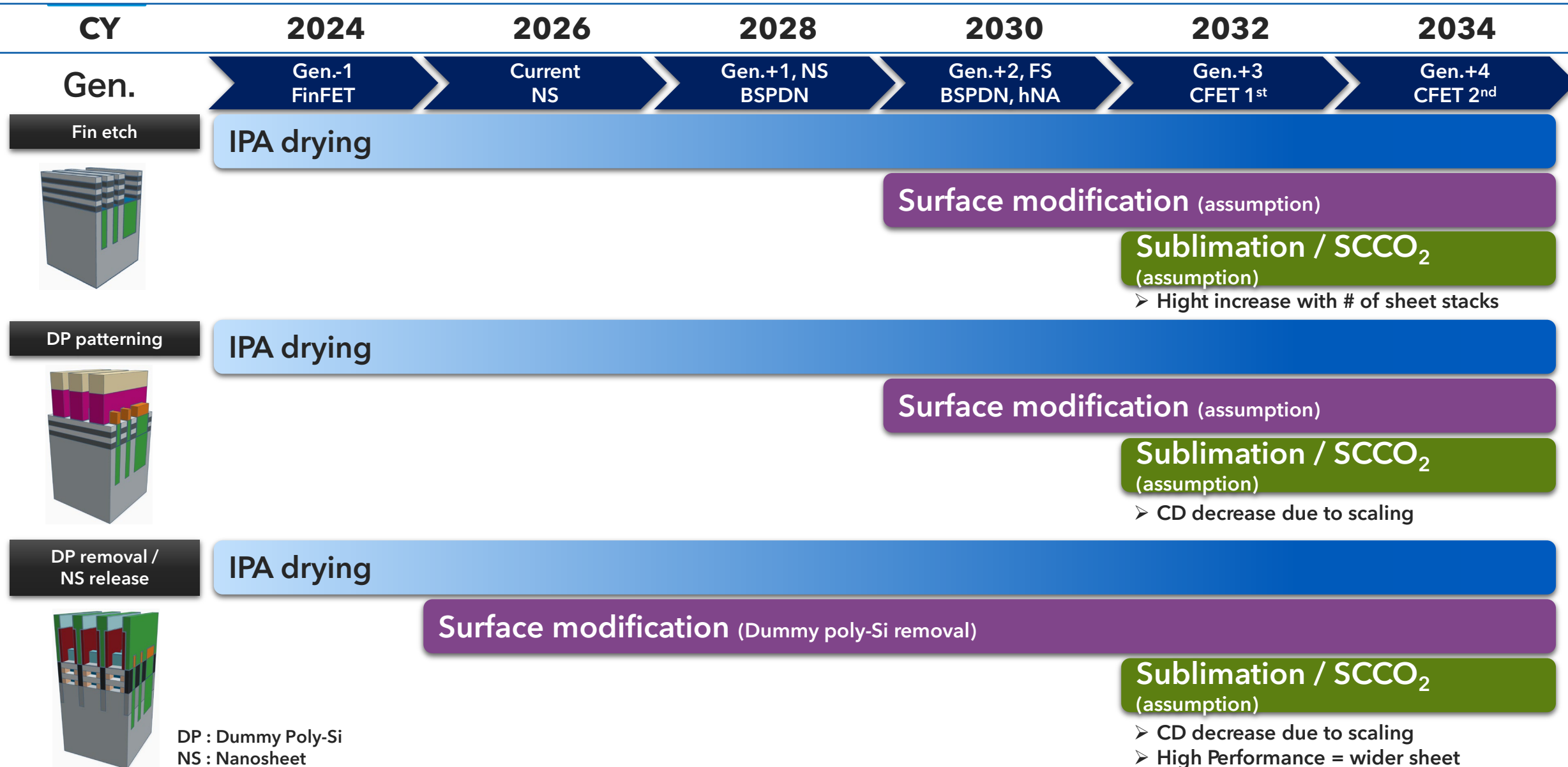
- HBM development will continue and HBM4 will be introduced in 2026<sup>(1)</sup>
- Increased stacks / chip area and application of HB will expand cleaning opportunities

(1) SK Hynix, IMW 2024

# Drying Roadmap for Logic

Source: SCREEN estimation

SPE

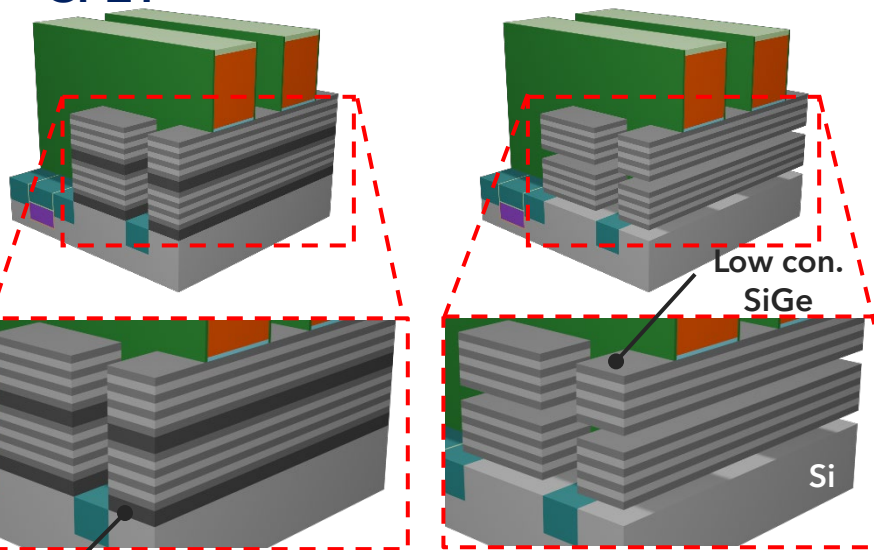


DP : Dummy Poly-Si  
NS : Nanosheet

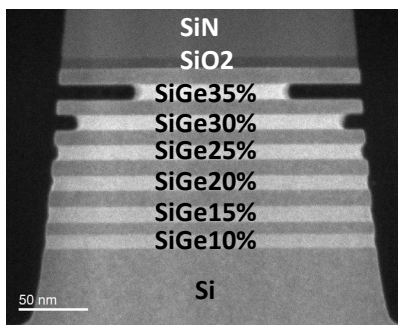
# Evolution of Cleaning Technology for 3D Processes

## CFET

Source: SCREEN estimation



High conc. SiGe



The above result was obtained through a collaboration between imec and Merck

Source: Hikaru Kawarazaki, UCPSS 2023

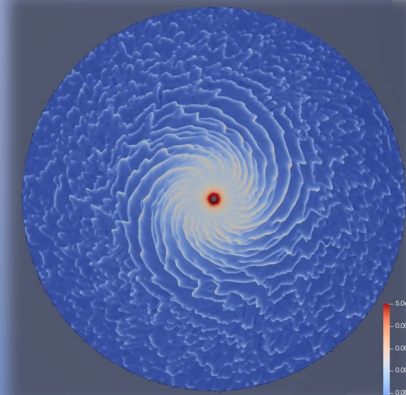
## Systemization technology



Re-circulation

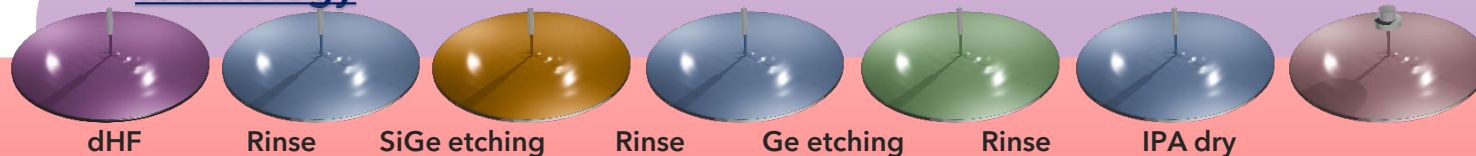
## Solution supply

Time: 0.200000

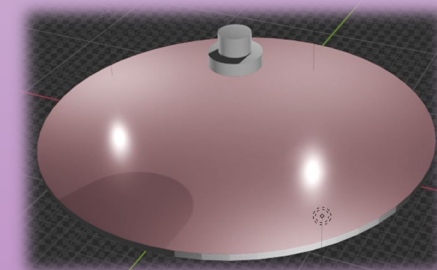
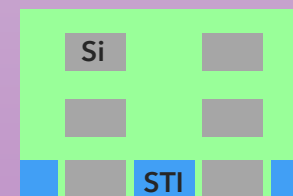
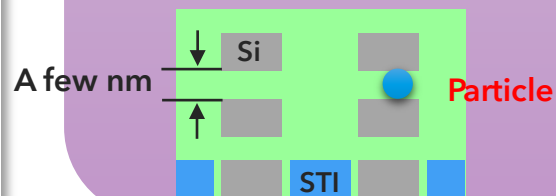


## Surface treatment technology

Precision treatment by chemical combination



## Ultra clean drying



■ System technology and surface treatment technology drive the 3D process

# Agenda

- Increased cleaning opportunities associated with 3D structures
- Technology in high value-added area
  - ECS PRiME 2024 (October 6<sup>th</sup> to 11<sup>th</sup> 2024 in Hawaii) -
- Summary



# Fundamental Technology: Molecular Dynamics

Lead author: Ryuichi Seki

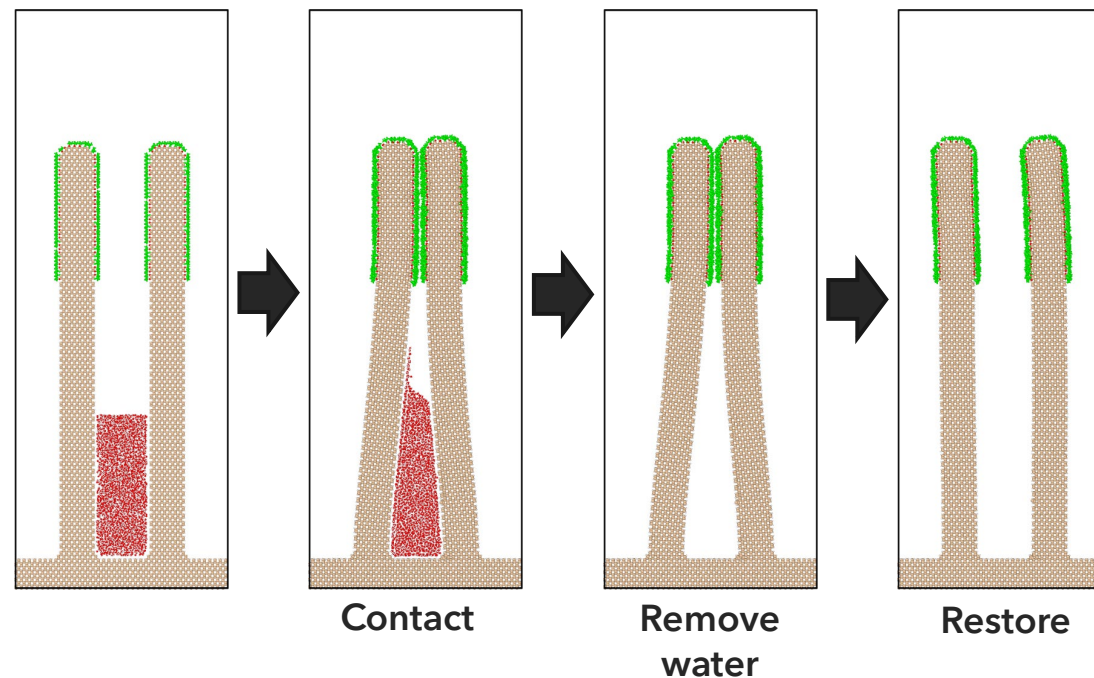
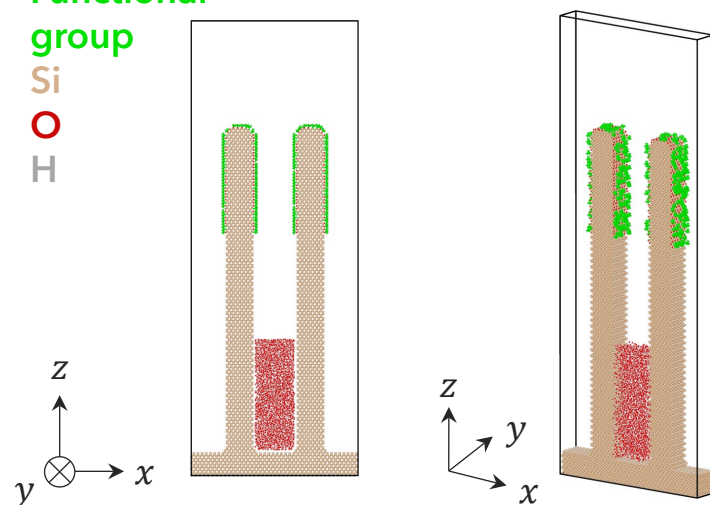
Title: Verification of Adhesive Forces Reduction By Surface Modification Treatment in FinFET Patterns: A Molecular Dynamics Simulation Study

- Functional group

• Si

• O

• H

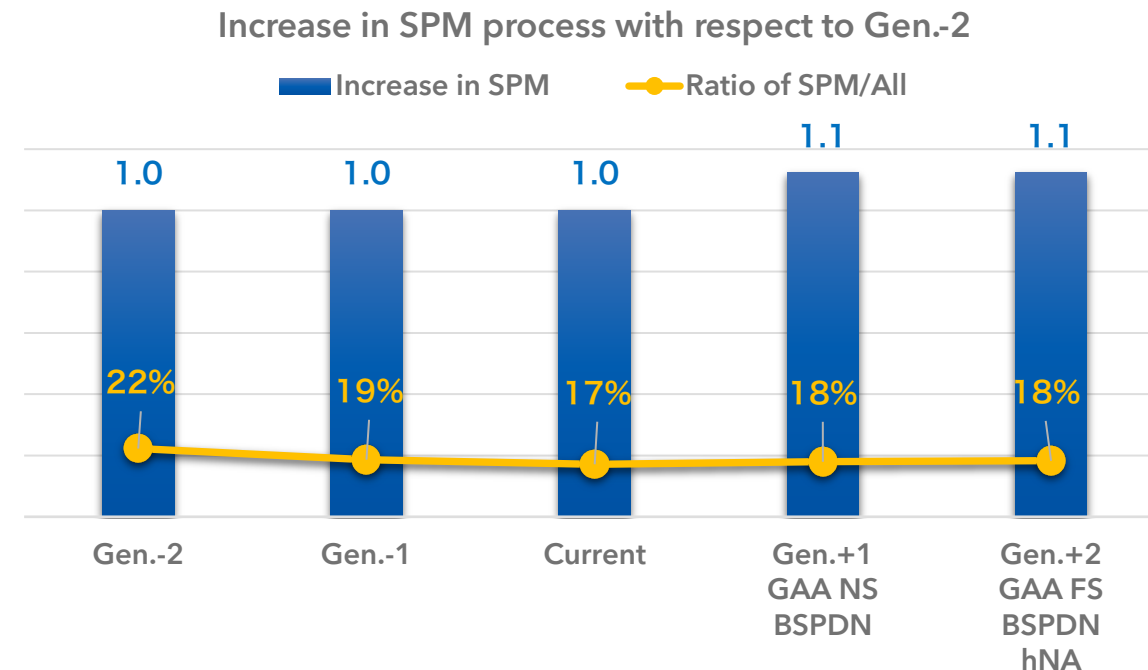
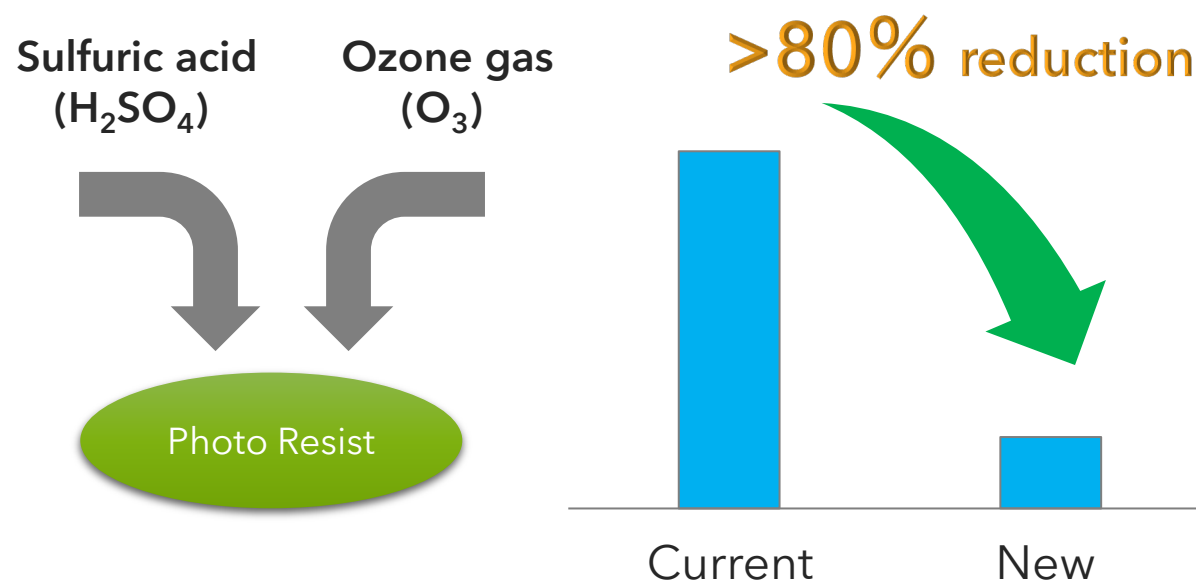


- MD reproduces pattern restoration during surface modification drying
- Further understanding of drying behavior to advance our drying technology

# Fundamental Technology: SPM Reduction

Lead author: Tsung Ju Lin

Title: Extreme Chemical Reduction on Photoresist Stripping Process by Using Sulfuric Acid Ozone Mixture in Liquid Film

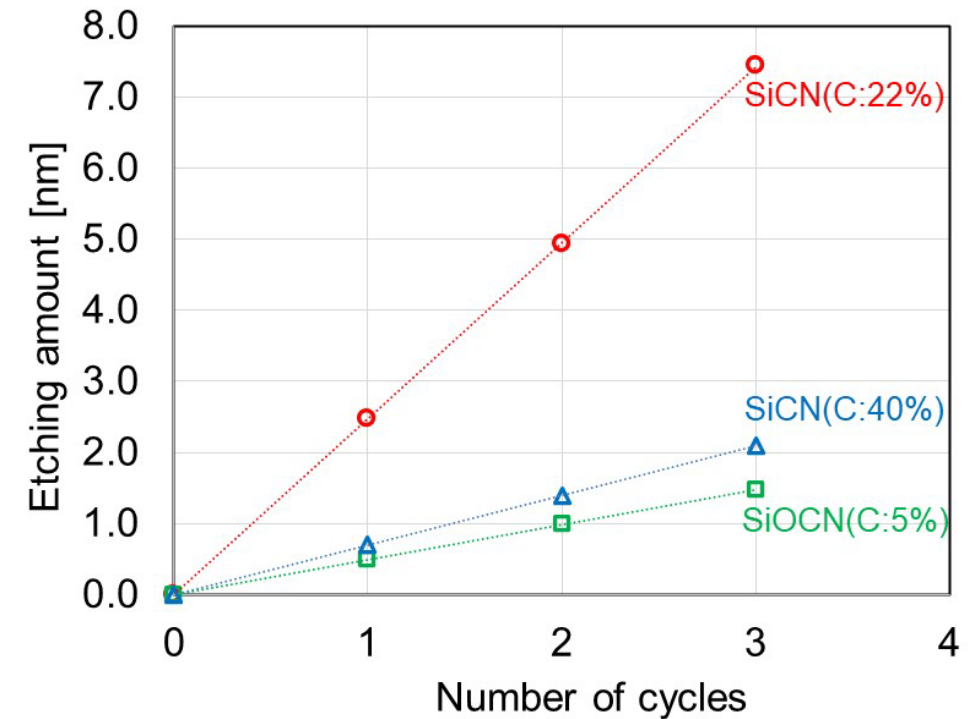
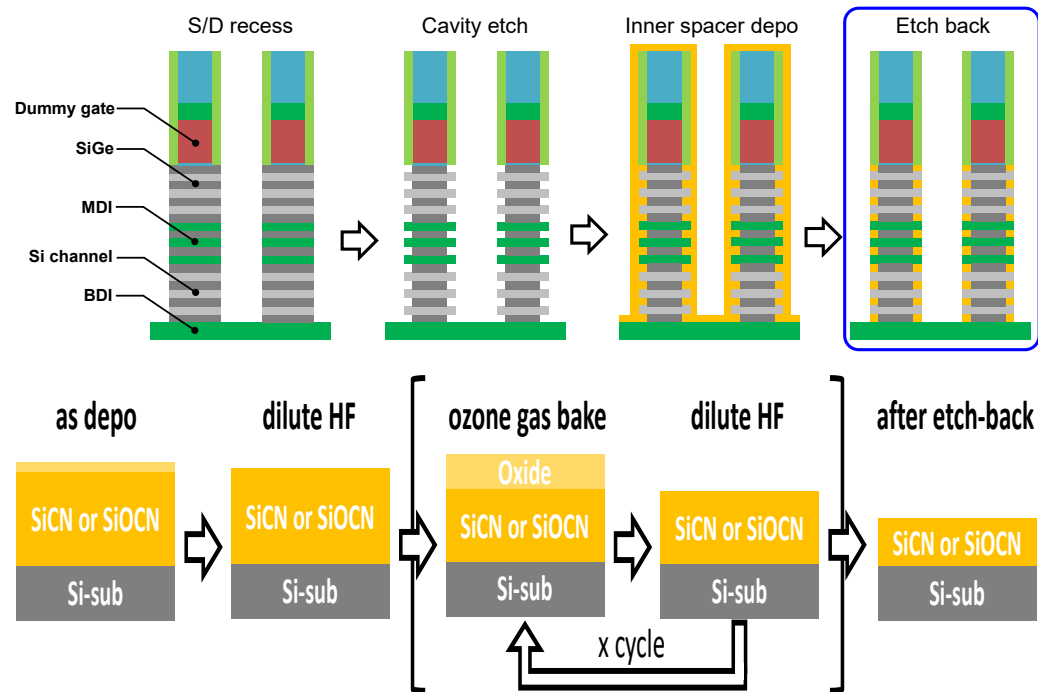


- We have established an innovative technology with >80% SPM reduction
- We propose equipment contributes to our customer's green manufacture

# Fundamental Technology: Precision Etching

Lead author: Hikaru Kawarazaki

Title: Precise Inner Spacer Etch-Back by Combining Ozone Gas Bake and Wet Chemical Etching



- CFET fabrication requires selective and precise etching control technology
- Extending wet technology with gas to achieve customer-required process

# Agenda

- Increased cleaning opportunities associated with 3D structures
- Technology in high value-added area
  - ECS PRiME 2024 (October 6<sup>th</sup> to 11<sup>th</sup> 2024 in Hawaii) -
- Summary

## Summary

- As devices become increasingly scaling and 3D and integrated through wafer bonding, not only are cleaning processes increasing, but the cleaning process itself is becoming more and more important.
- We believe that SCREEN's equipment-scale systemization technology and atomic-scale surface treatment technology will enable the integration of semiconductor devices and drive market growth.
- We will continue to provide solutions to maximize added value for our customers.

# Annual Report 2024 (scheduled to be released on September 27, 2024)

## Overview

It lays out the SCREEN Group's medium- to long-term value creation story aimed at enhancing corporate value in line with the 10-year vision, highlighting the Management Grand Design and our new medium-term management plan, Value Up Further 2026.



Click [here](#) to download the annual report  
\*Available after September 27, 2024

## Highlights

- The Management Grand Design and the medium-term management plan are explained in an overview, in line with our basic strategy.
- A new page has been inserted to give an at-a-glance overview of the company, with practical examples of realizing our corporate purpose, Innovation for a Sustainable World.
- Our value creation process revisited with the clarification of the linkage and relationship with the Management Grand Design and the medium-term management plan.
- Further enhancement of business pages, with the SPE section featuring an interview with imec, one of the world's leading research institutes and our production division, etc.
- Enhanced disclosure of non-financial information, including human resources strategy, etc.

