

SAMSUNG FOUNDRY



Investor Presentation

2023

CONTENTS

BUSINESS UPDATE

FOUNDRY MARKET OPPORTUNITIES

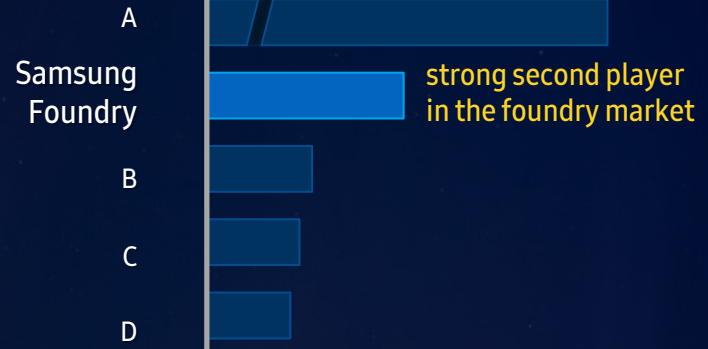
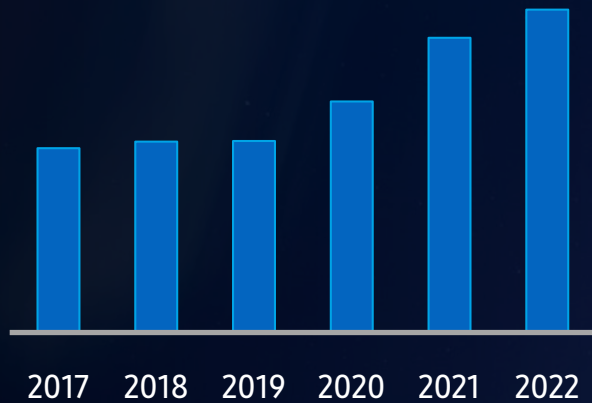
SAMSUNG FOUNDRY STRATEGY

KEY TAKEAWAYS


Financial Highlights

Revenue exceeded 10 billion dollar in 2018, growing continuously

continued double-digit
revenue growth in 2022



Business Milestones

<p>Foundry Business Start</p> <p>S1-Line Construction</p> 	<p>Foundry 1st HKMG <small>* High-K Metal Gate</small> Mass Production</p> <p>S2-Line Ramp up</p> 	<p>Foundry 1st FinFET Mass Production</p> 	<p>Spin-off into Independent Business Unit</p> <p>TO BE THE MOST TRUSTED FOUNDRY PROVIDING CREATIVE SOLUTIONS FOR CUSTOMERS' INNOVATION NEEDS</p> 	<p>Industry 1st 7nm EUV Production Start</p> <p>S3-Line Ramp up</p> 	<p>S5 Line Production Start</p> 	<p>World 1st GAA 3nm Production</p> 
<p>2005</p>	<p>2010</p>	<p>2015</p>	<p>2017</p>	<p>2018</p>	<p>2021</p>	<p>2022</p>

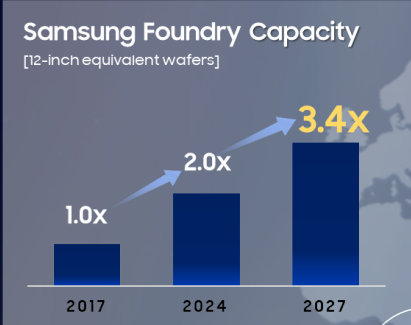
Global Manufacturing Sites

Advanced 300mm Fabs, Matured 200mm Fab, Test/Package Facilities

in Korea and US

in Korea

in Korea and China



Giheung Campus
Hwaseong Campus
Pyeongtaek Campus



Austin Campus
Taylor Campus

Line-6 (8 inch)	S1-Line (12 inch)	S3-Line (12 inch)	S4-Line (12 inch)	S5-Line (12 inch)
Giheung		Hwaseong		Pyeongtaek

TSP-OY
(conventional PKG)

TSP-CA
(Advanced PKG)

S2-Line
(12 inch)

S6-Line
(12 inch)

Austin, Texas

Taylor, Texas

CONTENTS

BUSINESS UPDATE

FOUNDRY MARKET OPPORTUNITIES

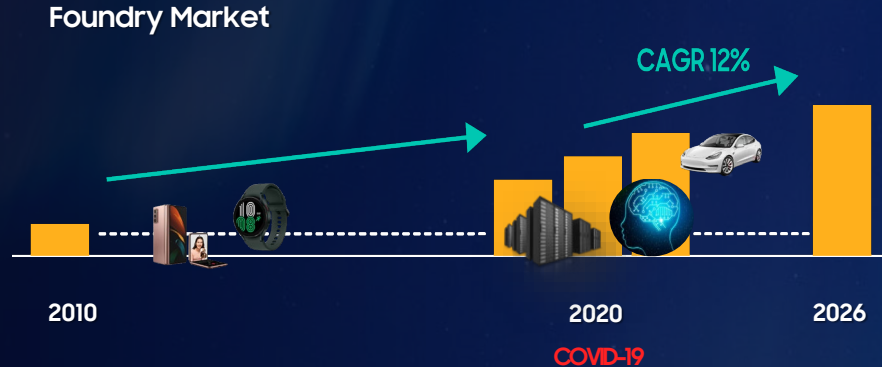
SAMSUNG FOUNDRY STRATEGY

KEY TAKEAWAYS

Smart and Connected World

New applications emerge with HPC, Automotive bringing greater demand for semiconductor industry

Foundry will be a pathfinder in realizing unforeseen technology

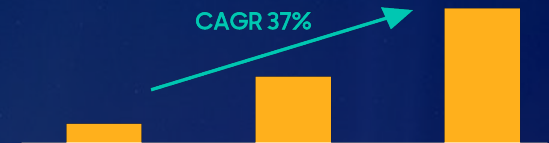


Data Traffic

1ZB: 10^{21} Bytes



EV Market



CONTENTS

BUSINESS UPDATE

FOUNDRY MARKET OPPORTUNITIES

SAMSUNG FOUNDRY STRATEGY

KEY TAKEAWAYS

Business Overview

5/4/3nm

High Performance IPs
Design Methodology for HPC
Advanced PKG (3D, 2.5D)



HPC



14/8/5/4/3nm

Critical IPs for Mobile
Mobile Design Methodology

Mobile / 5G

Samsung Foundry Total Design Platform

Automotive

14/8/5nm and 130nm (8")
Automotive Qualified IPs
Design for ISO 26262/AEC-Q100
Automotive Service PKG (ASP)

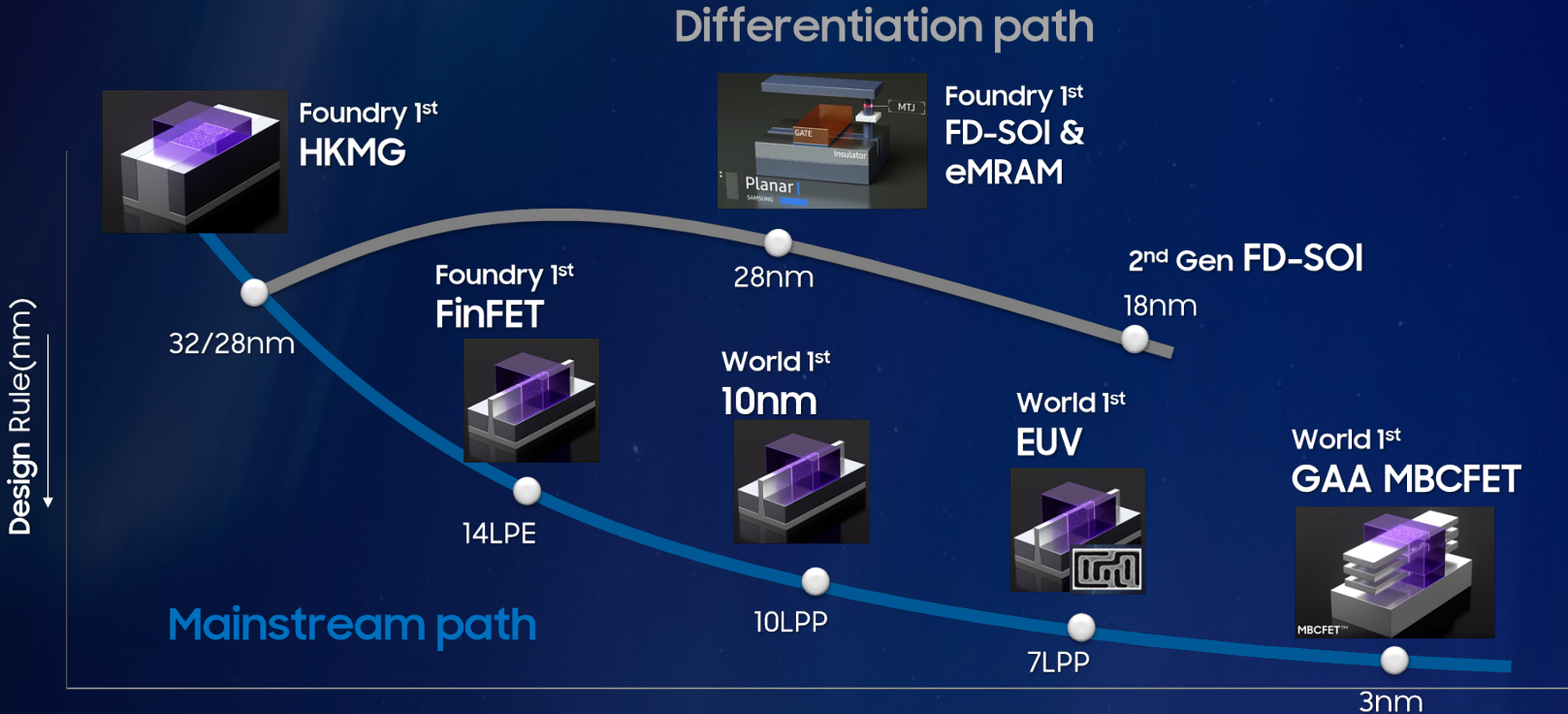


IoT

14/11/8nm
Critical IPs for IoT
Ultra Low Voltage Design Methodology
Cost & Form-factor Optimization



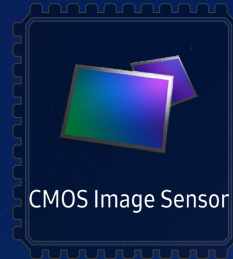
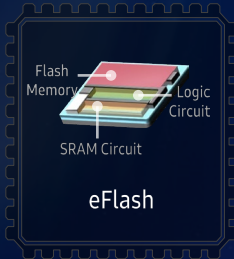
Technical Leadership



Specialty Value-Added Offerings

Portfolio Expansion from eMRAM, eFlash, Power IC,
DDI, CIS, RF to Power-discrete

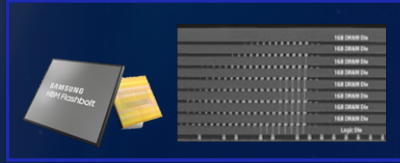
Technologies extensively optimized through many years of product manufacturing



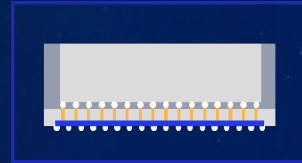
Advanced Package Solutions



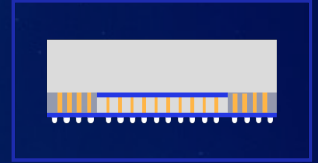
Production
HBM2



Production
HBM2E Flash-bolt



X-Cube
Production
u-Bump



X-Cube
Production
Bump-less (HCB)

X-Cube

2018

2019

2020

2021

2022

2023

2024

2025

2026

I-Cube

I-CubeS

I-CubeS

H-Cube

I-CubeE

I-CubeS

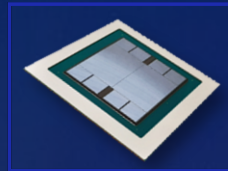
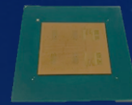
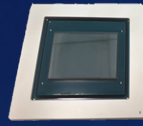
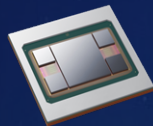
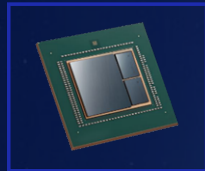
Production
2xHBM 2.5D

PKG Qual
4xHBM 2.5D

PKG Qual
6xHBM 2.5D

PKG Qual
2xHBM 2.5D

Production
8xHBM 2.5D

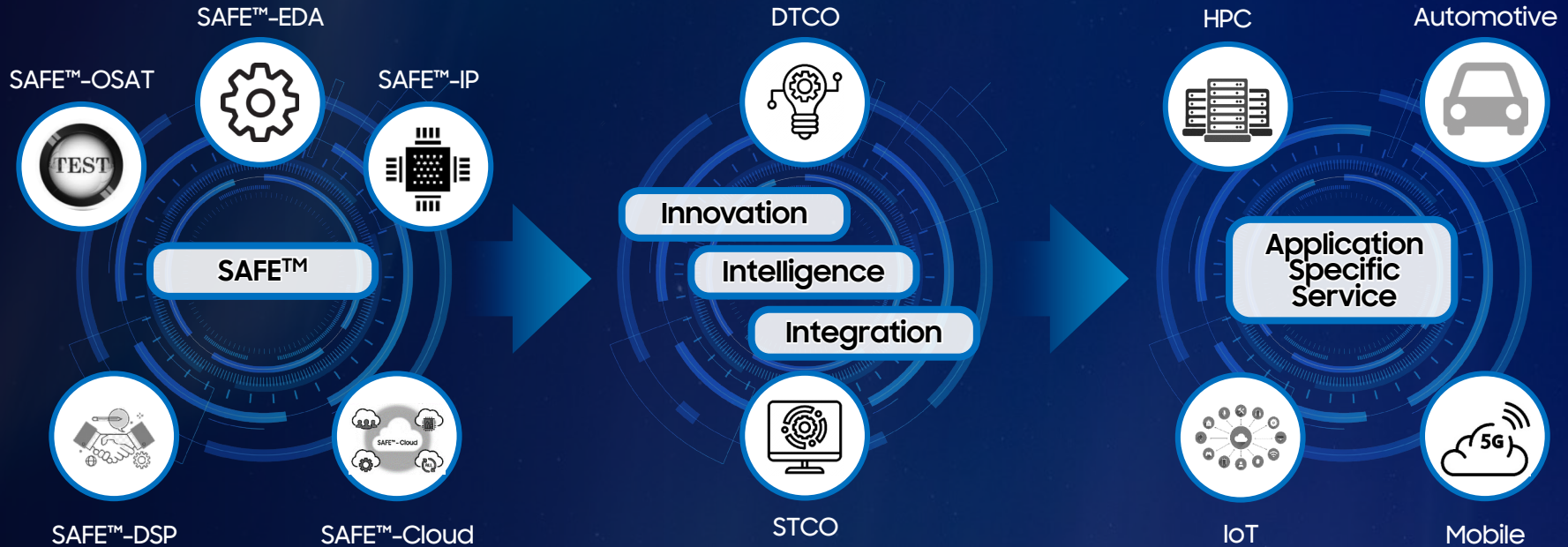


Foundry Design Ecosystem

Collaboration

Optimization

Realization



CONTENTS

BUSINESS UPDATE

FOUNDRY MARKET OPPORTUNITIES

SAMSUNG FOUNDRY STRATEGY

KEY TAKEAWAYS

Key Takeaways

Higher foundry opportunities in digital transformation era

Aggressive investment including expansion of global operation

Maintain firm leadership in technology, operation, and service

Enable faster time to market and growing together with customer

SAMSUNG

Visit Samsung Foundry



www.semiconductor.samsung.com/foundry