

ADVANCED SEMICONDUCTOR WAFER

150mm | 200mm | 300mm

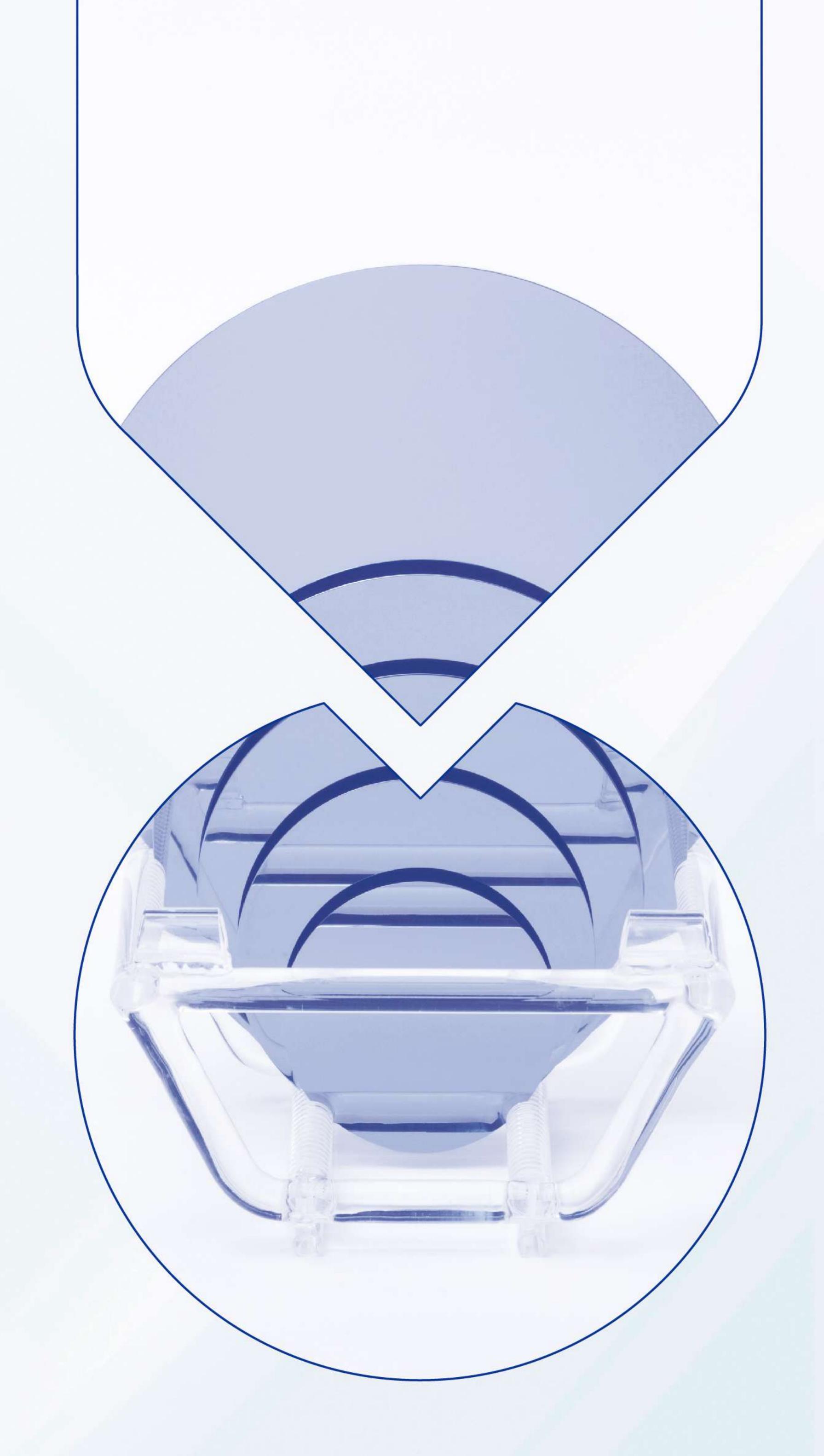
MADE IN CHINA. SAIL TO FUTURE

BOUT CCMC

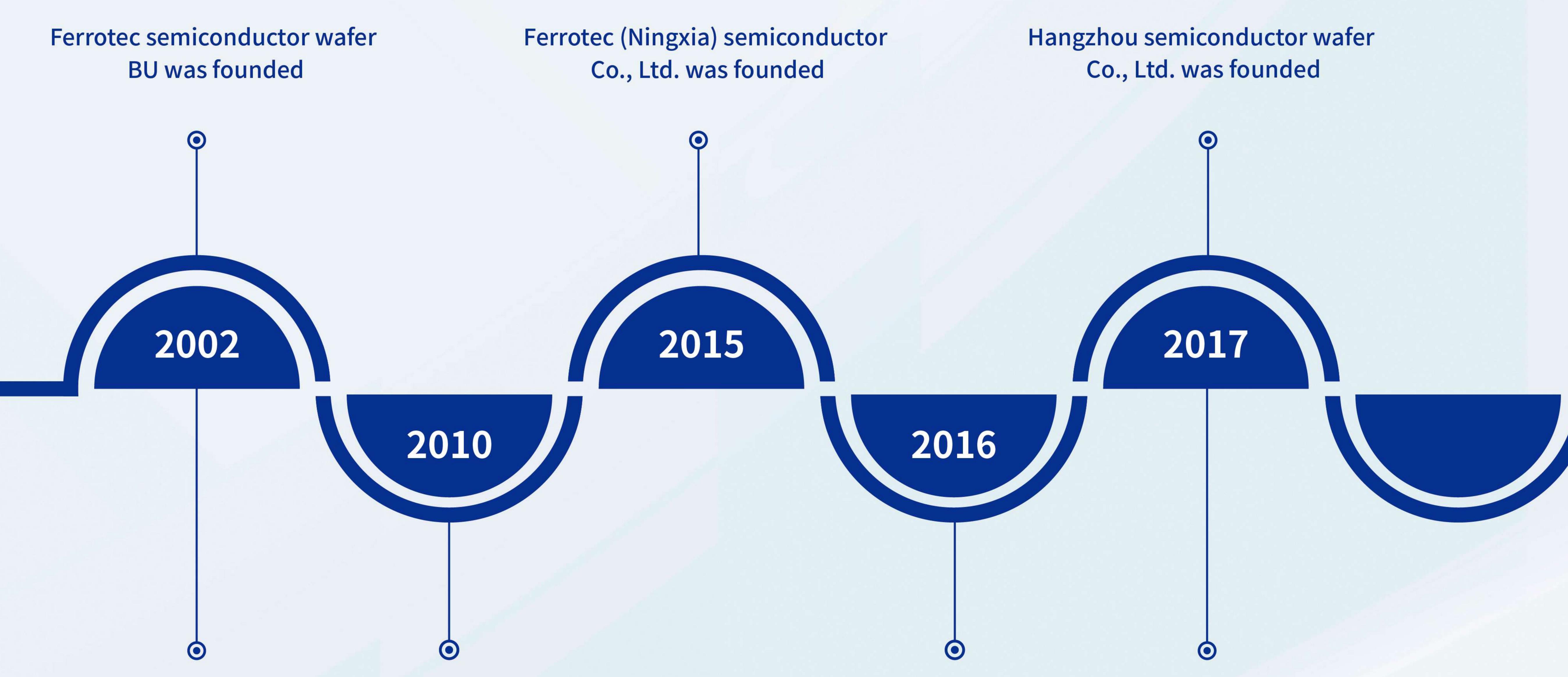
CCMC is one of the earliest enterprises in the Chinese mainland engaged in semiconductor silicon wafer production. It's predecessor was the Ferrotec semiconductor wafer BU under Ferrotec Corporation. Since 2002, it has been conducting semiconductor silicon wafer business in China.

CCMC has a leading preparation process in China, enabling the full-chain production from ingot growing, slicing, lapping, polishing to epitaxy. Main products include 200-300mm polished wafers and epitaxial wafers, and 100-150mm polished wafers. They are used to make Logic IC, NAND, DRAM, CIS, DDIC and etc.

CCMC has established group operations with Hangzhou factory as its headquarters, achieving complete integrated production from ingot growing to 100-300mm wafer manufacturing. CCMC is committed to becoming one of the main supplier of semiconductor silicon wafers in the world.



MILESTONE

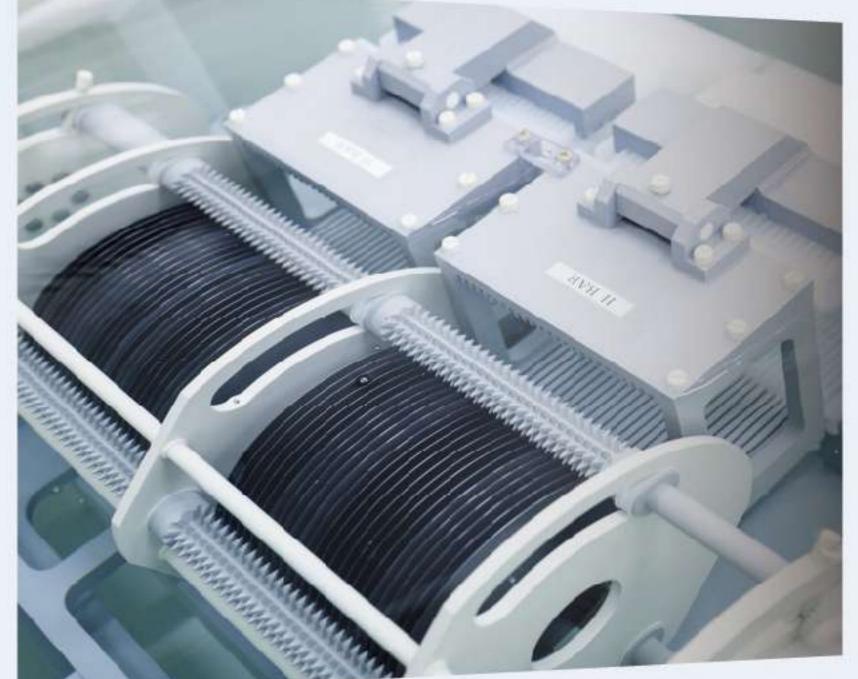


- Started the wafer business and introduced semiconductor market the whole production line of 100-150mm wafer and manufacturing heavily doped wafer techniques from Toshiba (Global Wafer Japan)
 - Entered the Chinese independently and successfully developed
- First 200mm production line
 Yinchuan factory was built in Shanghai
- The single crystal production base began to construct in Yinchuan, and Japanese single crystal technical experts joined in
- Successfully developed 200mm COP-Free wafer and anneal wafer
- and Shanghai factory achieved mass production of 200mm wafer

ADVANTAGES



Long history



Full range ofproducts



Localized manufacturing



Automated production line management



Comprehensive facility management system



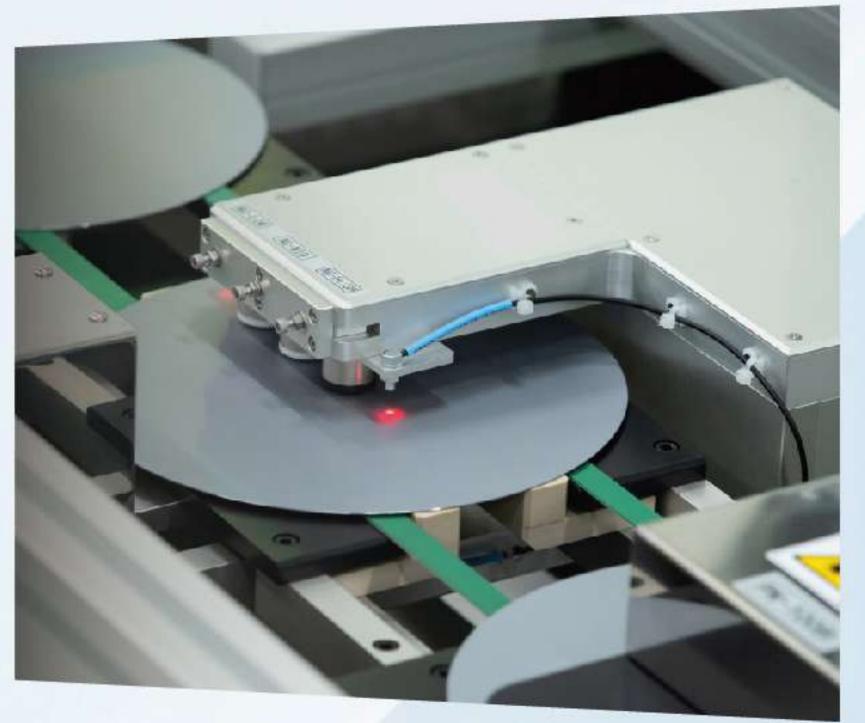
International R&D team



Sufficient production capacity



Full production process coverage



Reliable quality

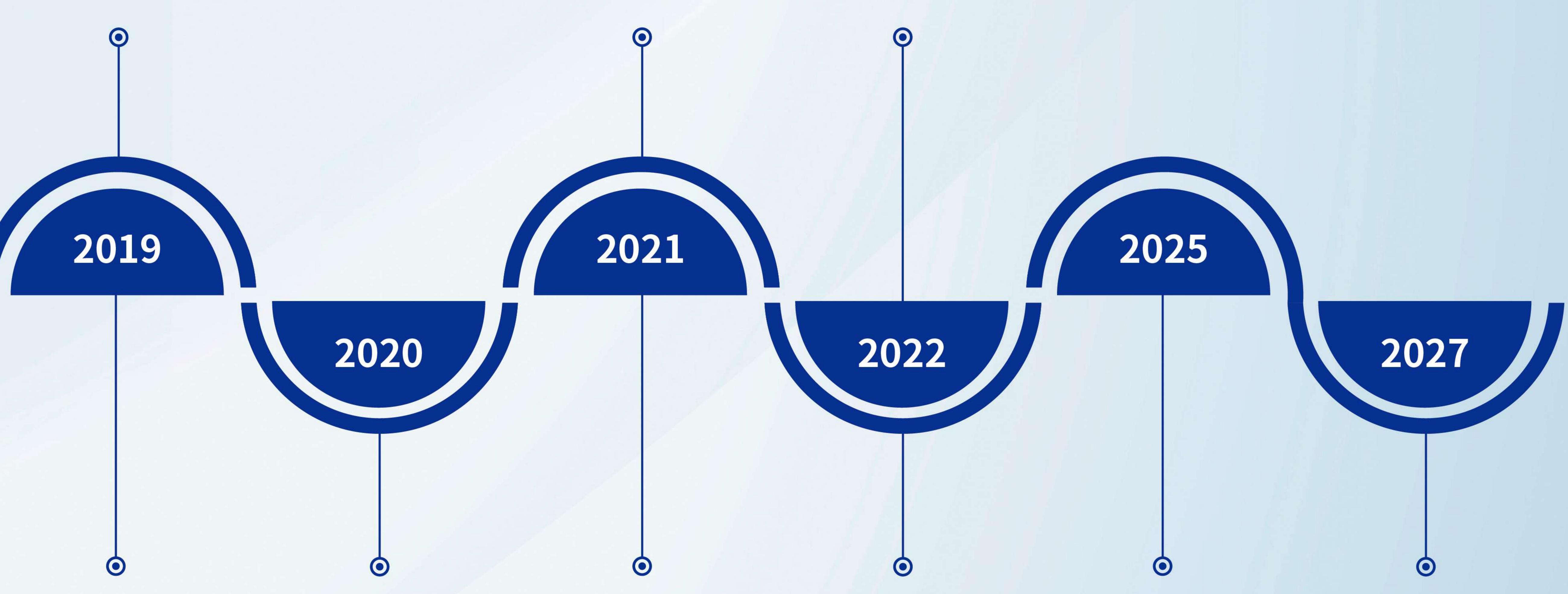


Stable supply chain system

Ferrotec Shanghai Semiconductor wafer Co., Ltd. commenced independent operations

Zhejiang Lishui semiconductor wafer Co., Ltd. (Lishui epitaxial project) and FSMC was founded.

Zhejiang Lishui semiconductor material Co., Ltd. (Lishui polishing project) was founded.



- wafer production lines were launched in Hangzhou factory
- 200mm/300mm
 Standardized naming across all manufacturing facilities and completed preliminary equity restructuring and reorganization
 - 300mm epitaxial wafer production line was launched
- CCMC semiconductor materials research Institute was founded
- project construction was completed
- Lishui epitaxial
 Lishui polishing project production line commenced operation
- The estimated monthly capacity of 300mm polished wafer reach 800K

PRODUCT CATALOGUE

Classification	Diameter	Monthly Capacity (including planning)	Varieties	
	300mm	450K (350K production line under construction)	Lightly doped polished wafer(dopant: Bo, Phos) ■Cop-Free polished wafer ■Anneal wafer ■MCZ	
			Heavily doped polished wafer (dopant: Bo, red Phos, As, Sb)	
Polished wafer	200mm	450K	Lightly doped polished wafer(dopant: Bo, Phos) ■Cop-Free polished wafer ■Anneal wafer ■MCZ	
			Heavily doped polished wafer (dopant: Bo, red Phos, As, Sb) ■Super heavily doped polished wafer ■Heavily doped flat-edge polished wafer ■Heavily doped thick wafer	
	100-150mm	400IZ	Lightly doped polished wafer	
	TOO-TOOLILL	400K	Heavily doped polished wafer	
Epitaxial wafer	300mm	300K	Epitaxial wafer	
	200mm 200K		■ P/P- ■ P/P+ ■ N/N++ ■ Thick epitaxial wafer	

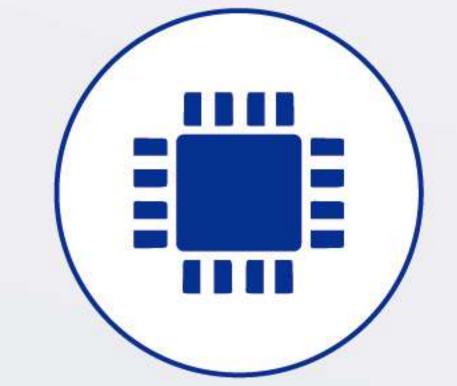
FEATURES AND APPLICATIONS

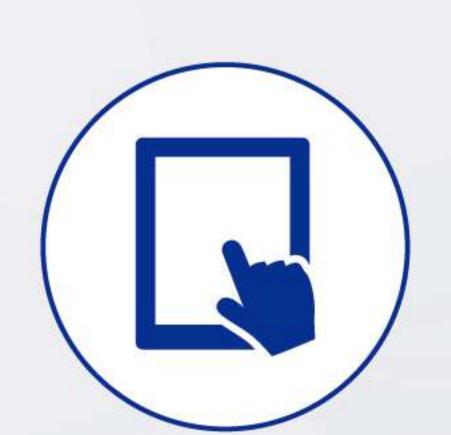
Classification	Product features and applications	CCMC product		
300mm Epitaxial wafer	■ Enhances device reliability and reduces power losses;	■ 300mm P-type epitaxial wafer for CIS		
200mm Epitaxial wafer	 Widely adopted in Logic, Memory, image processor, discrete/power devices, and general-purpose processor; 	 300mm lightly Bo-doped P-type epitaxial wafer for Logic 200/300mm ultra-low resistivity red Phos-doped epitaxial wafer 		
300mm Polished wafer	■ Serves as substrate material for epitaxial wafer and SOI wafer;	 300mm lightly Bo-doped polished wafer for DRAM/NAND/BC 200mm lightly Bo-doped P-type polished wafer for Logic/Ana 200mm Heavily Bo-Doped Polished Wafer for GaN Epitaxy 		
200mm Polished wafer	Widely adopted for sensors, Analog, discrete/power devices, and RF front-end chips;	 200/300mm lightly doped P-type & N-type anneal wafer 200/300mm low-oxygen MCZ polished wafer 200/300mm ultra-low resistivity red Phos-doped polished wafer 		
100mm-150mm Pollished wafer	■ Mainly adopted in SiC, GaN, MOSFET and IGBT;	 100-150mm lightly doped polished wafer 100-150mm heavily doped polished wafer 		

Logic	Memory	Analog	Microprocessor	Optoelectronic devices	Discrete Power devices	Sensor
Logic ASIC	DRAM NAND Flash NOR Flash	PMIC Signal Chain DDIC	MCU	Opto	IGBT Power MOSFET	MEMS CIS

APPLICATION FIELDS

CCMC 100mm-300mm polished wafers and epitaxial wafers are widely used in traditional fields such as consumer electronics, communication equipments, computers, servers, and automotive electronics. We also provide support for the development of cloud storage and computing, smart transportation, smart healthcare, AloT, smart industry and other emerging fields.





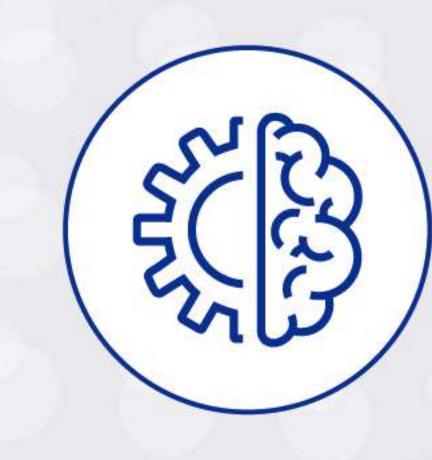














electronics

Consumer Communication computers equipments

& Servers

electronics

Automotive Cloud storage and computing

Smart transportation

Smart healthcare

Smart industry

AloT

FACTORY DISTRIBUTION



Ferrotec(Ningxia) Semiconductor Co., Ltd. Ingot (100mm-300mm)



Ferrotec Shanghai Semiconductor Wafer Co., Ltd.
Polished wafer(100mm-200mm)

FSMC Sales base

Zhejiang Lishui Semiconductor Wafer Co., Ltd.

Epitaxial wafer (200mm-300mm)



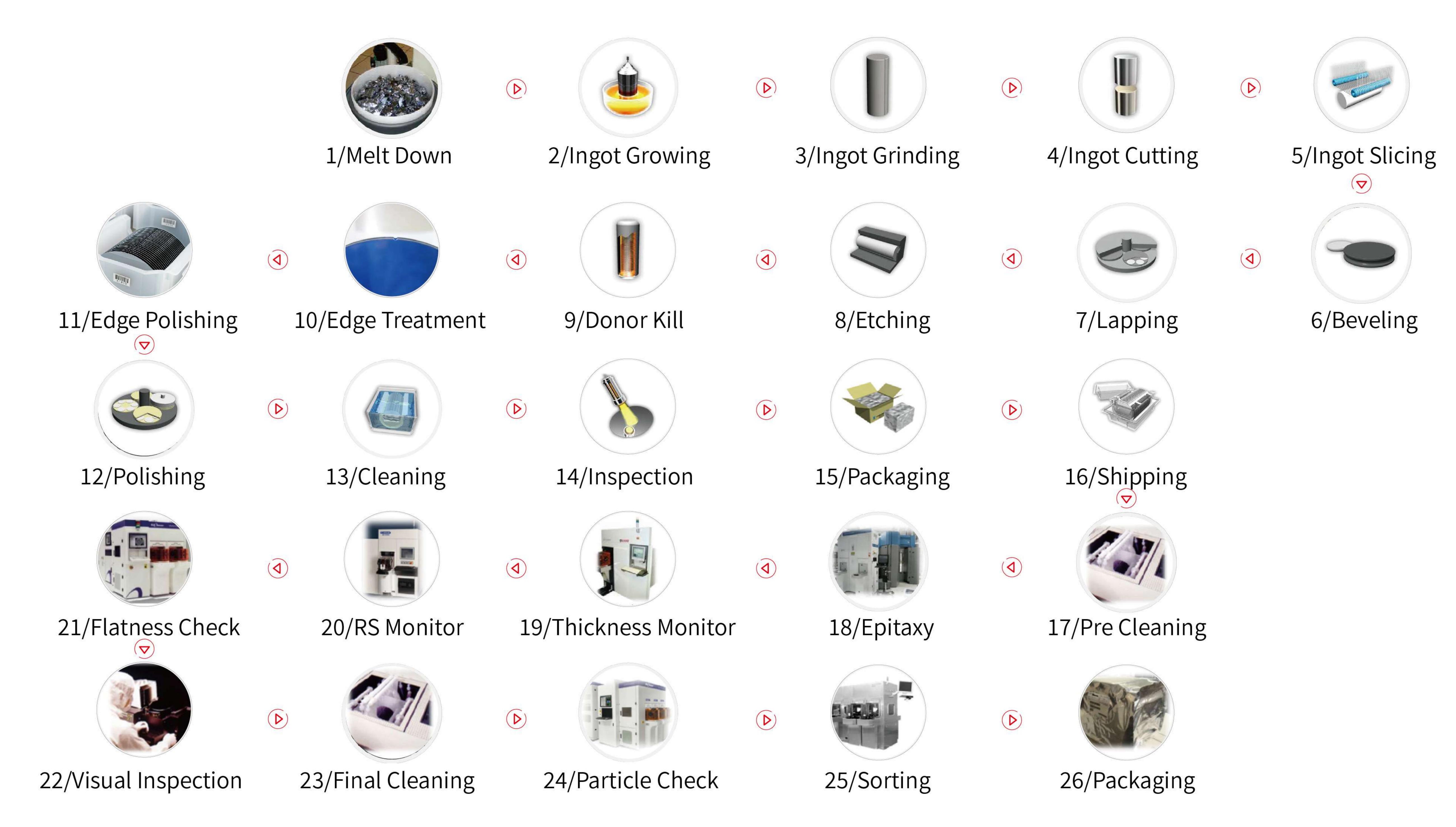


Zhejiang Lishui Semiconductor Material Co., Ltd.
Ingot/Polished wafer (300mm)



Hangzhou Semiconductor Wafer Co., Ltd.
Polished wafer/Epitaxial wafer(200mm-300mm)

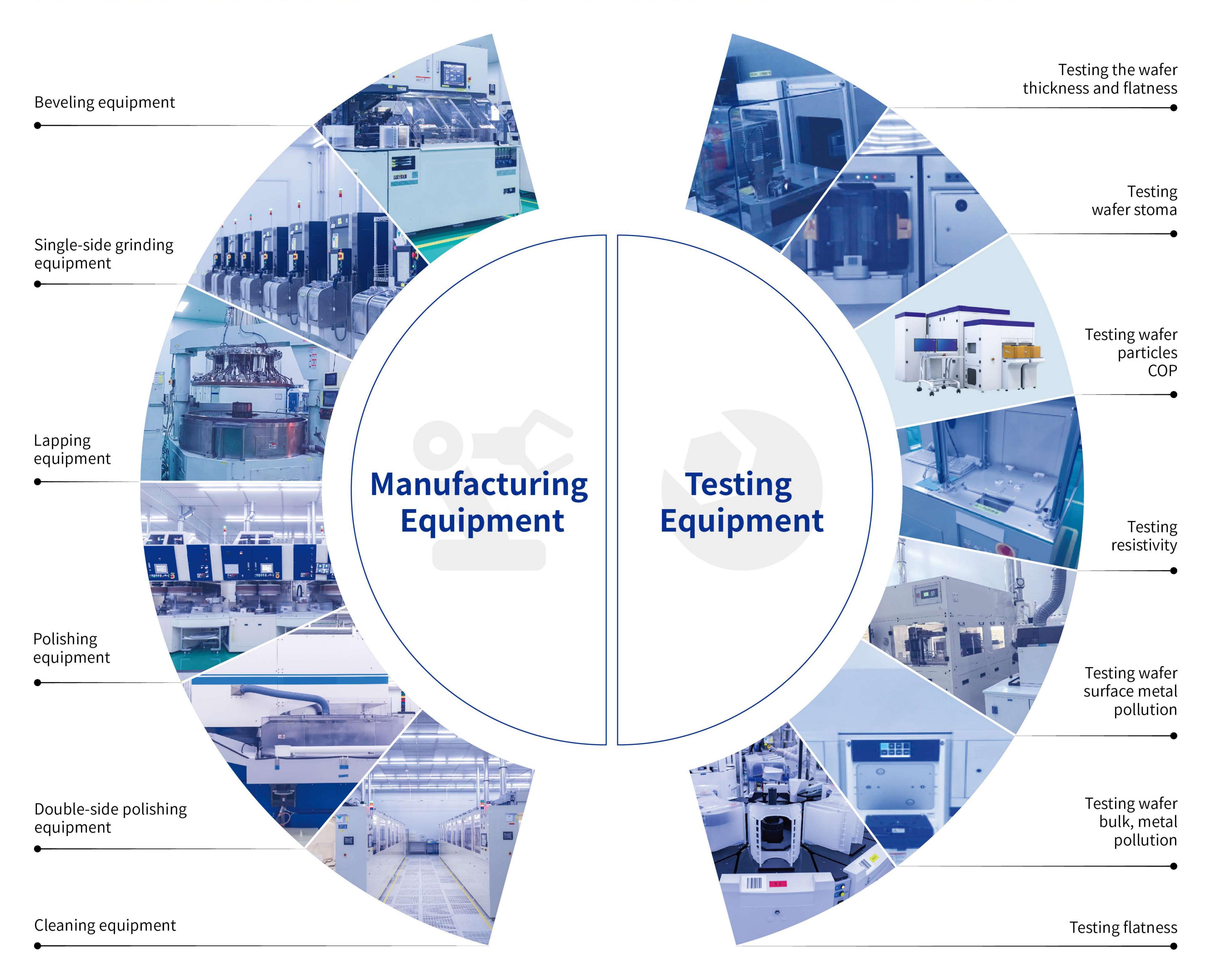
PROCESS FLOW



INGOT MANUFACTURING&TESTING CAPABILITY



POLISHED WAFER MANUFACTURING&TESTING CAPABILITY



EPITAXIAL WAFER MANUFACTURING&TESTING CAPABILITY

Manufacturing & Testing Equipment

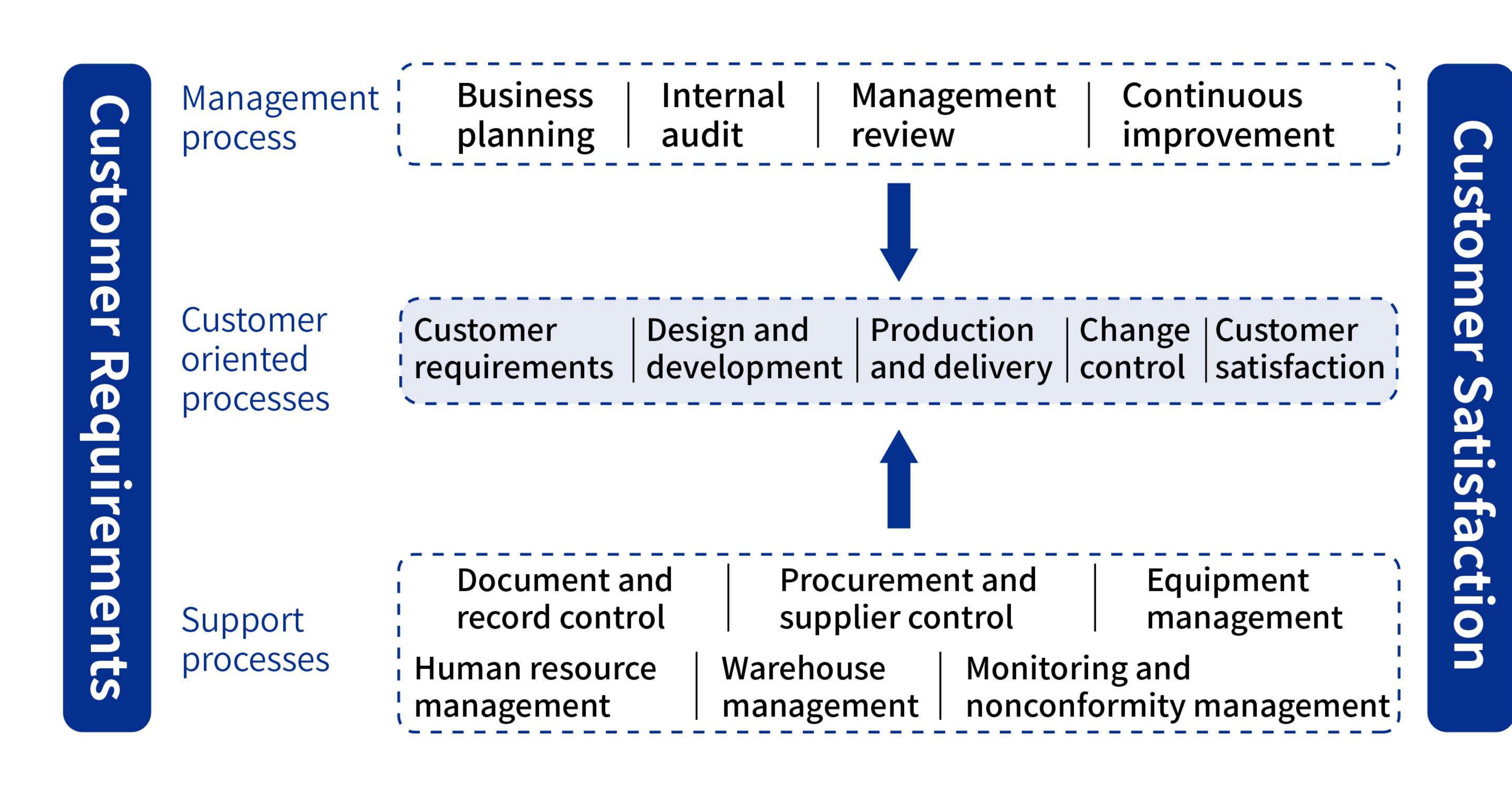


Visual inspection

Epitaxial layer resistivity measurement

Measurement of doping profile from epitaxial layer to substrate

QUALITY MANAGEMENT





Quality Management System

Quality System	Certification Body	CCMCH	CCMCS	CCMCN	CCMCL	CCMCM
ISO 9001	afnor					Under certification (completion by Dec. 2025)
IATF 16949	afnor					Under certification (completion by Sep. 2026)
ISO 14001	afnor					
ISO 45001	afnor					
ISO 27001	SGS				Under certification (completion by Jun. 2026)	Under certification (completion by Jun. 2026)
QC08000	SGS				Under certification (completion by Dec. 2025)	
GB29490	Zhongzhi(Beijing)					

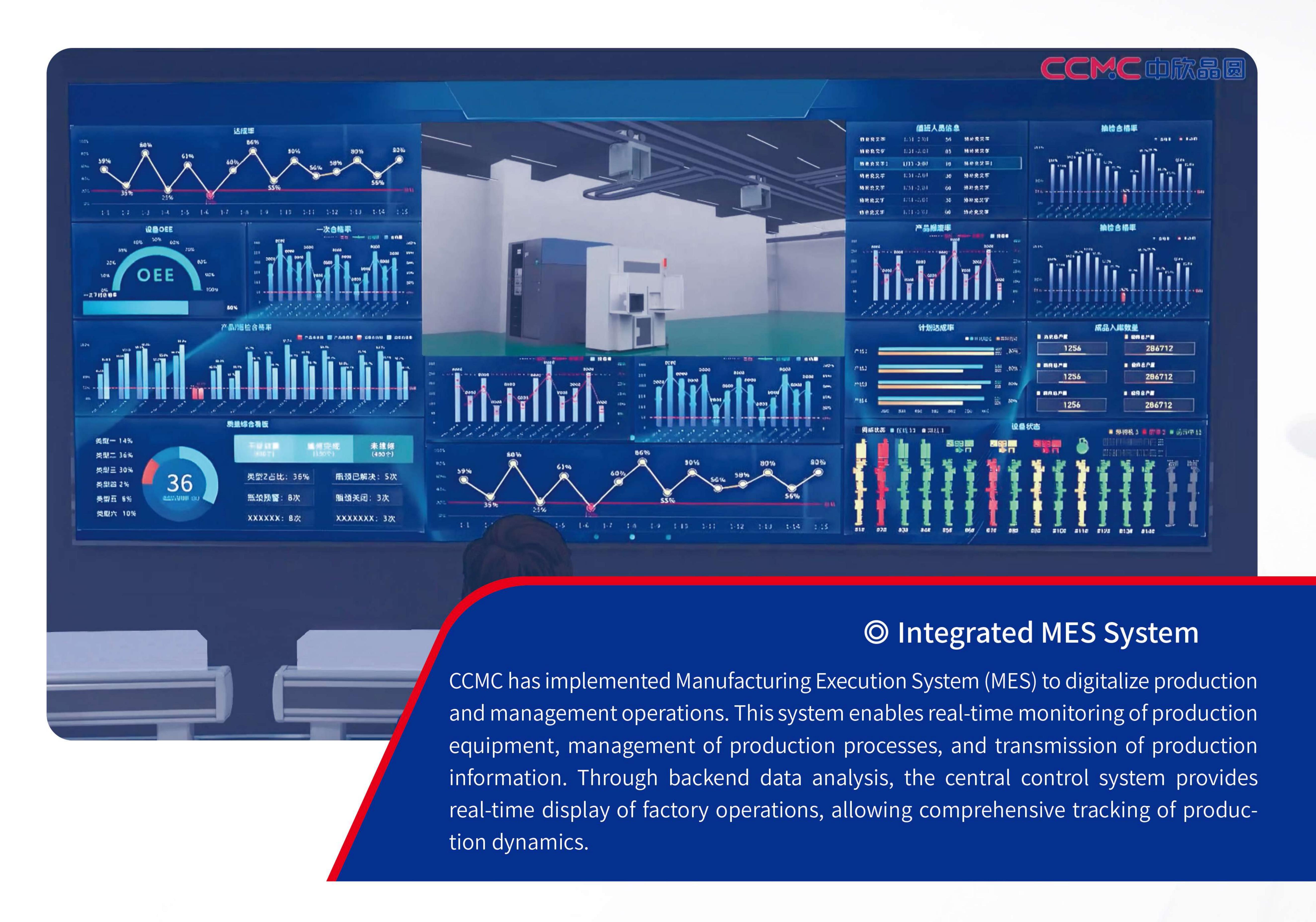


•QC 080000 •ISO 27001 •ISO 045001

•ISO 9001

•ISO 14001 •IATF 16949 •ISO 29490

SMART FACTORY CONSTRUCTION



O Automation System

CCMC is equipped with automated systems such as automatic packaging systems, OHT (Overhead Hoist Transport) systems, and AGV (Automated Guided Vehicle) systems to enhance control over material flow and improve production time predictability, thereby reducing waste in labor, materials, and equipment utilization across time and space.

Under Andon System operation mode, automated systems continue to execute predefined tasks with precision, ensuring uninterrupted high-efficiency material flow. It significantly reduced energy consumption and achieved green production.



Ingot handling AGV

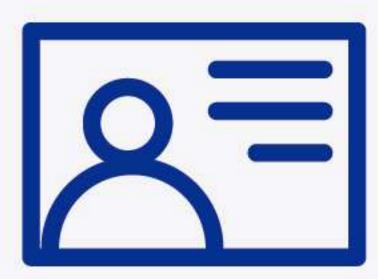


Intelligent automated storage/retrieval system

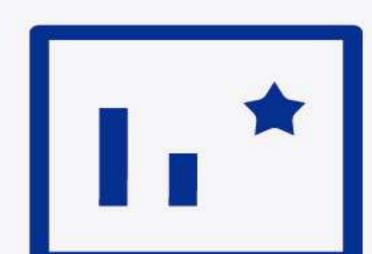


Overhead Hoist Transport (OHT) system

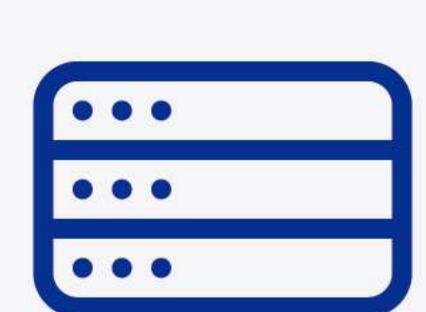
MISSION AND VISION



Become an excellent worldwide semiconductor wafers supplier



Provide high performance semiconductor wafers for various integrated circuits and discrete devices



Provide sincere services, keep innovating and win together

HONORS AND INVENTION PATENTS



By the middle of 2025, a total of nearly 300 granted patents have been obtained (including nearly 100 single crystal R&D patents, 120 silicon wafer processing R&D patents and nearly 70 other types patents).

There are nearly 600 invention patents pending approval, and the application fields include IGBT, IRD, CIS, BCD, Logic, Memory, MOSFET, etc.



杭州中欣晶圆半导体股份有限公司

中国电子材料衍业协会 2024年7月

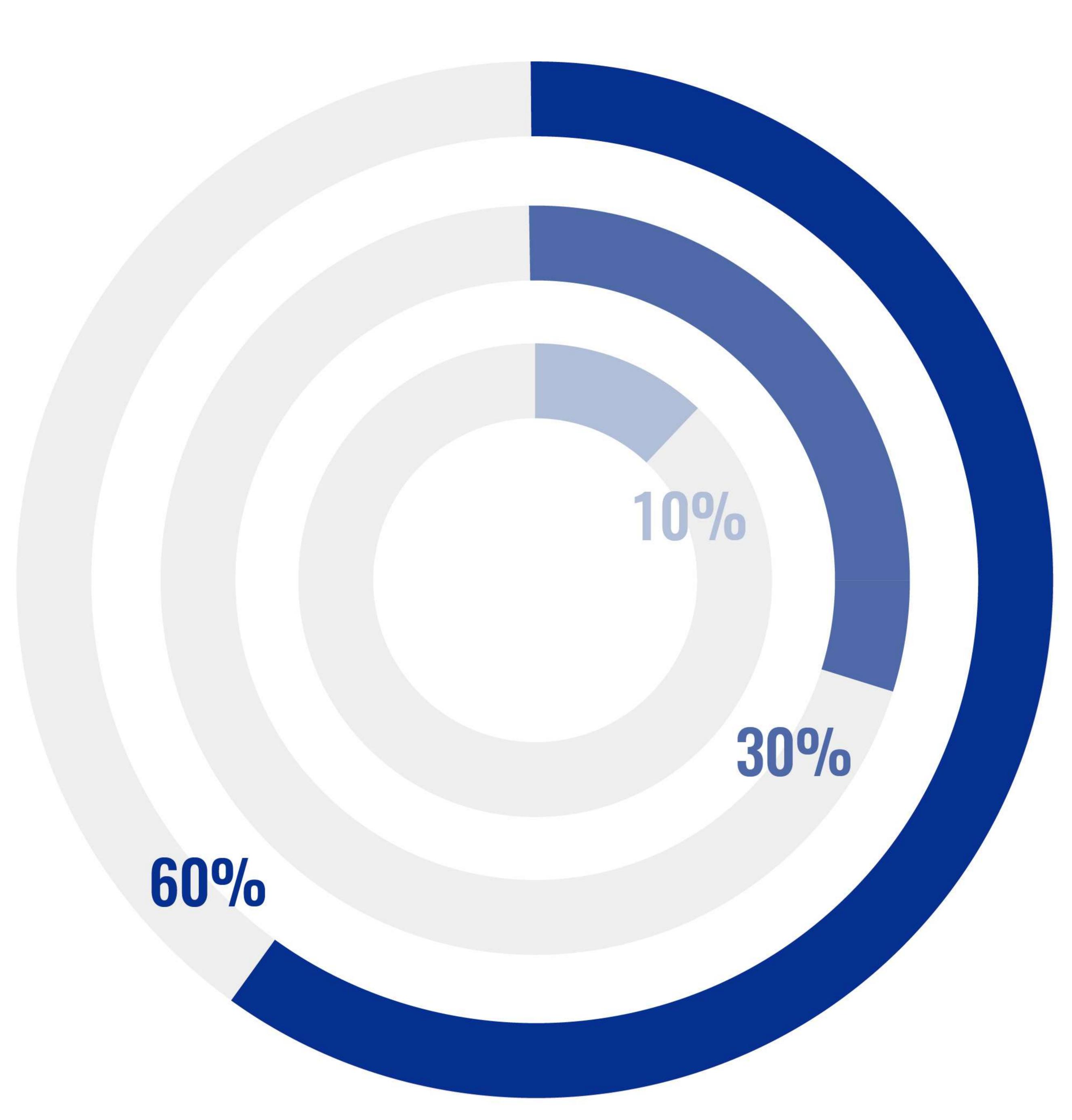
毕马威中国

"芯科技"斯锐全量50评选 (第二編)

KPMG

FERROTEC GROUP

FerroTec is a multinational corporation that provides diversified technology of advanced materials, components, equipments, and solutions for the integrated circuit industry, empowering industry clients to unlock infinite possibilities for their end products. FerroTec Group (China) specializes in the R&D, manufacturing, and sales of Group wafers, thermoelectric semiconductor cooling materials and devices, quartz products, fine ceramics products, Profile vacuum seals, and power devices. Its products are widely applied in semiconductors, electronics, mechanical processing, home appliances, medical devices, new energy vehicles and other fields.



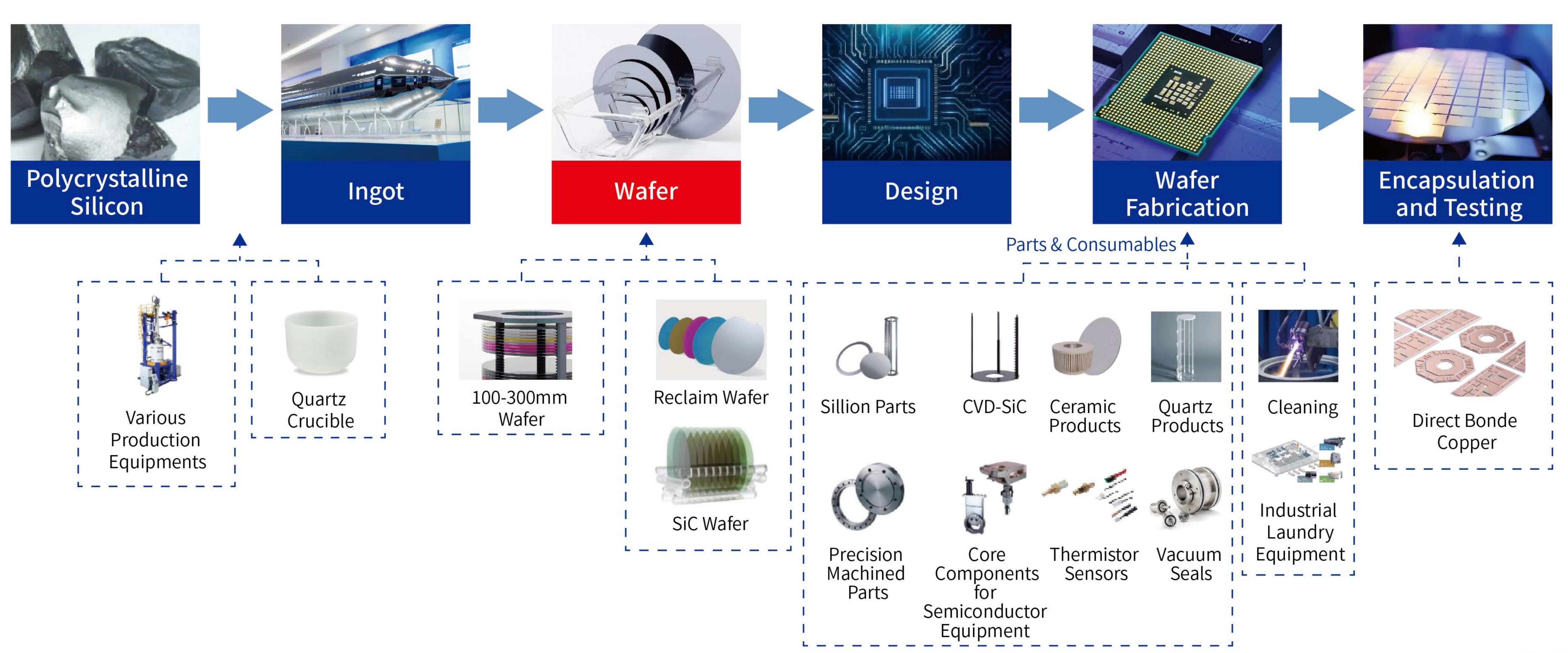
Semiconductor					
Vacuum Feedthroughs	EB-Gun, LED				
Quartz	Wafer Manufacturing				
Silicon Parts	Wafer Reclaiming				
Ceramics	Equipment Parts Cleaning				
CVD-SiC	Quartz Crucibles				

Electronic Device	
Thermoelectric Modules	Power Semiconductor Substrates
Ferrofluid, others	Sensor

	PV & Others					
	Wafer for Solar Cells	Power Electronic				
-	Silicon Ingots for Solar Cells	Quartz Crucibles for PV				
	Industrial Cleaning Machines	Wood Processing / Metal Working				

Industrial Equipment

FERROTEC GROUP'S ONE-STOP SEMICONDUCTOR INDUSTRY CHAIN AND SERVICES







Official WeChat



WeChat Channel

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