

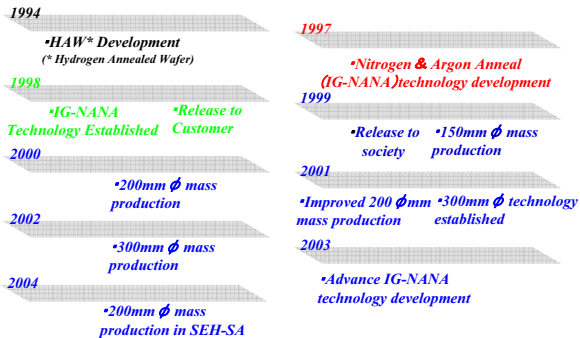
# IG-NANAウエハー

## IG-NANA Wafers

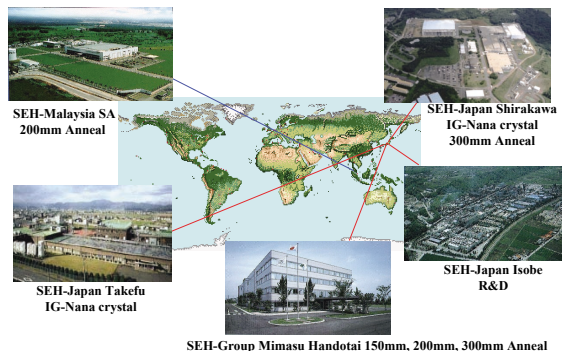


Higher performance and Cost-effective Wafers.  
The best starting material for variety of device process including Low Thermal Budget.

### Development & Business history



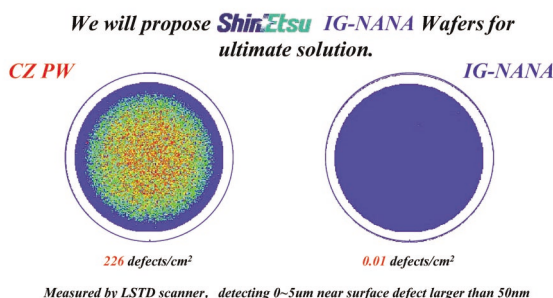
### IG-NANA Wafer Production Sites



### IG-NANA Wafers Current Status

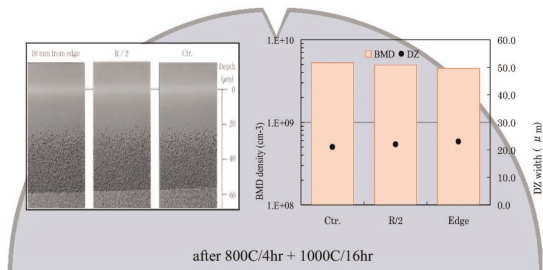
		150mm		200mm		300mm		Comment
		STD	STD	Ver. 2	STD	Ver. 2	STD	
LPD	Surface	$>0.12 \mu m, <5 \mu m$ ; $>0.065 \mu m, <50 \mu m$						Measured by SPI-TBI, CR81
	Near surface	COP free zone $\sim 5 \mu m$	COP free zone $\sim 5 \mu m$	COP free zone $\sim 8 \mu m$	COP free zone $\sim 3 \mu m$	COP free zone $\sim 5 \mu m$	Measured by MO601 & SP-1+Polish	
Haze		$<0.1 \text{ ppm}$						SP-1
Slippage		Surface free						X-ray Topo, SP-1
BMD	As-anneal	$> 1E8 / \text{cm}^2$	$> 1E8 / \text{cm}^2$	$> 1E8 / \text{cm}^2$	$> 1E8 / \text{cm}^2$	$> 5E8 / \text{cm}^2$	after IG-NANA process, measured by SIRM	
	After HT	$\geq 5E8 / \text{cm}^2$	$\geq 5E8 / \text{cm}^2$	$\geq 5E8 / \text{cm}^2$	$\geq 5E8 / \text{cm}^2$	$> 1E9 / \text{cm}^2$		800C + 1000C simulation, measured by Cleave+Etching
DZ Width		After HT $> 10 \mu m$						800C + 1000C simulation, measured by Cleave+Etching
Production Scale		Mass production						SEH & MIMASU

### Ar Annealed & COP Free Wafers



### Sufficient bulk precipitate and denuded zone

for high gettering ability in Low Thermal Budget Process



### Near Surface Resistivity Profile

Near surface resistivity profiles comparison between IG-NANA and HAI

