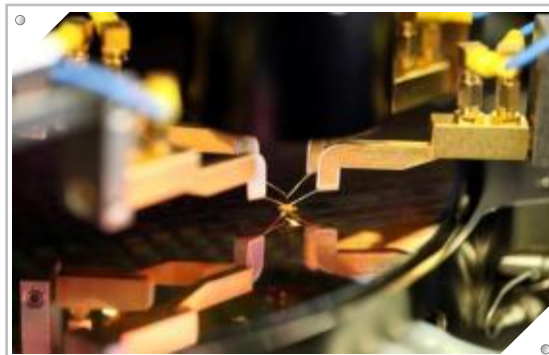
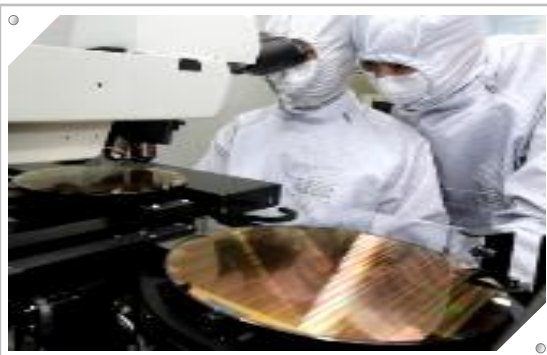


DB HiTek

The Most Respected Analog Foundry



- Established 1997
- Revenue US\$600M(2017)
- Number of Employees 1,940(2017)
- Business Areas System IC
- Technology 90nm~0.35um
- Capacity 116,000wfs/month(200mm)





2017

- Renamed to DB HiTek (ex-Dongbu HiTek)
- Released new process; SJ MOSFET, MEMS Microphone, RF HRS CMOS

2016

- Released Advanced 0.18um BCDMOS process
- Achieved over 1 million Analog & Power wafer shipments

2014

- Released 0.13um BCDMOS & 0.11um Low Noise CMOS

2013

- Released 0.13um eFlash technology

2010

- Launched industry's first 0.11um Mixed-Signal process

2008

- Launched industry's first 0.18um BCDMOS process
- Developed LCD driver IC

2004

- Started CMOS foundry processing at the 0.13um node
- Released 0.18um CIS process

2001

- Started mass production in Fab2

2000

- Completed Fab2 construction

1997

- Established 'Dongbu Electronics'
- Completed Fab1 construction, Started mass production in Fab1

Facilities



Fab1(Bucheon)



Fab2(Sangwoo)

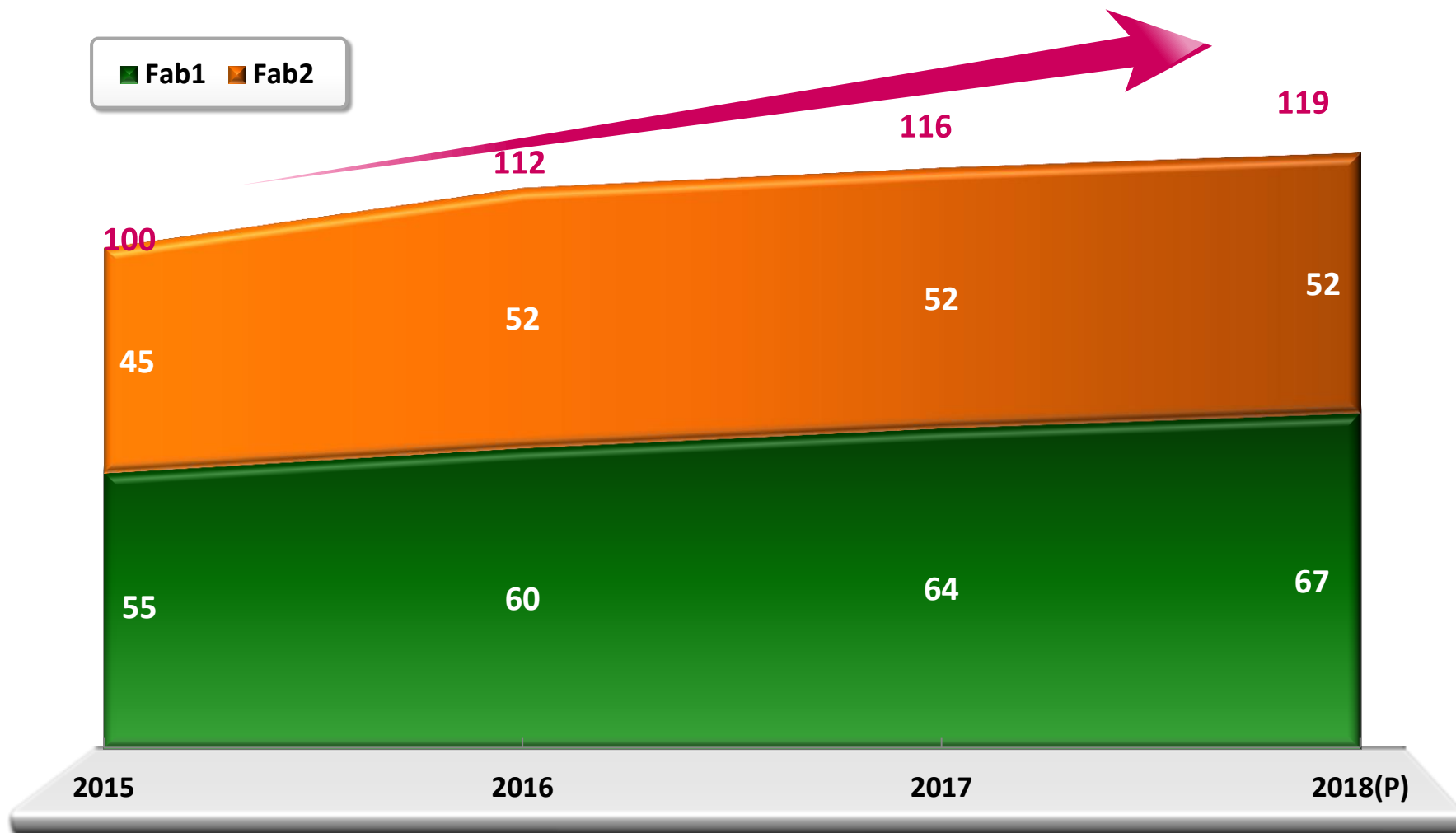


	Fab1(Bucheon)	Fab2(Sangwoo)
Capacity	64,000wfs/month	52,000wfs/month
Technology	0.35, 0.25, 0.18, 0.15um	0.18, 0.13, 0.11, 0.09um
Key Process	Analog/ Power, Mixed-Signal, High Voltage CMOS, SJ MOSFET	Analog/ Power, Mixed-Signal, CIS, eFlash, High Voltage CMOS, MEMS
Wafer Size	200mm(8-inch)	200mm(8-inch)
Location	Bucheon, Gyunggi-do	Eumsung, Chungcheongbuk-do

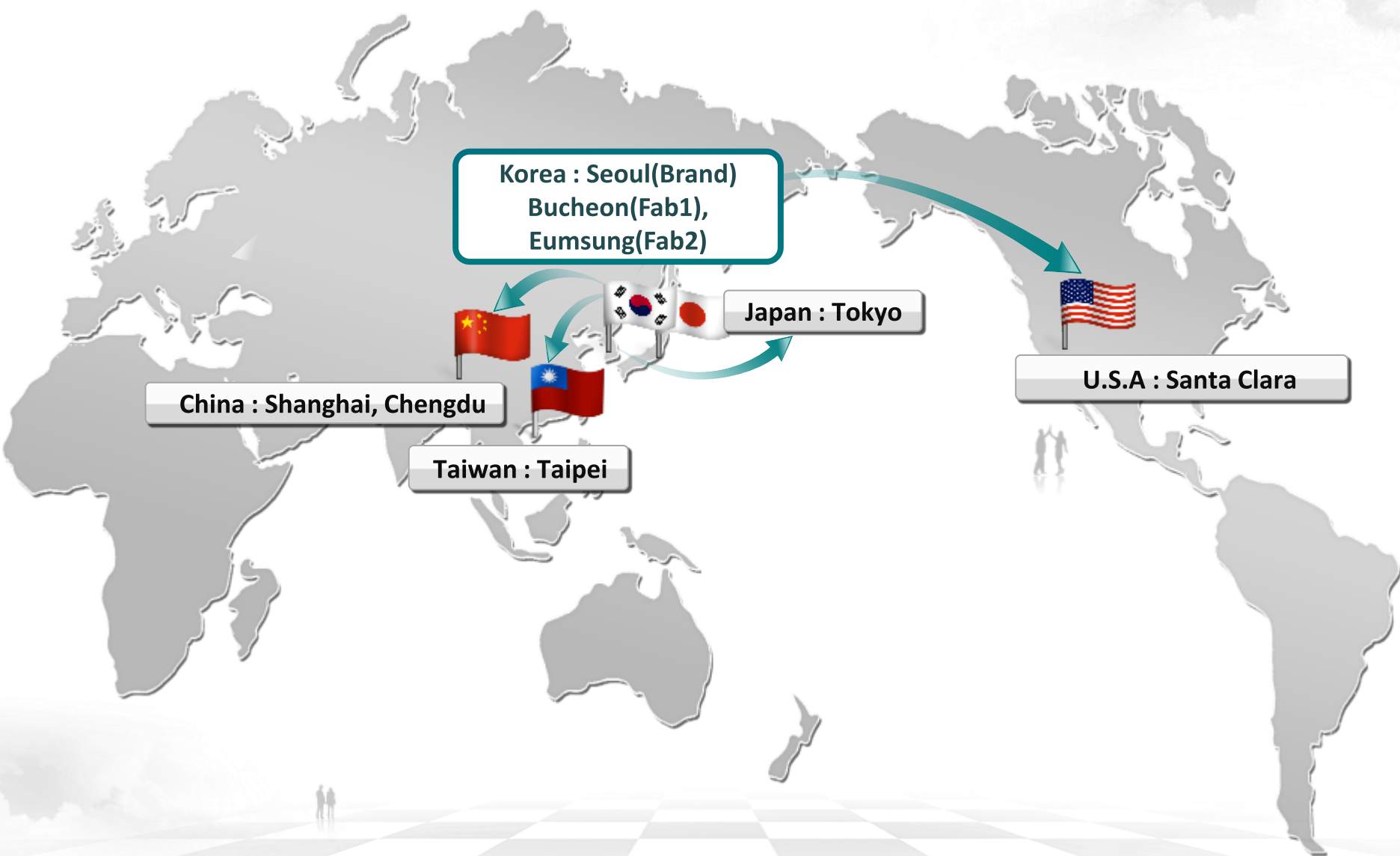
Capacity

- Continue to expand the capacity

(Unit: Kwfs/month)



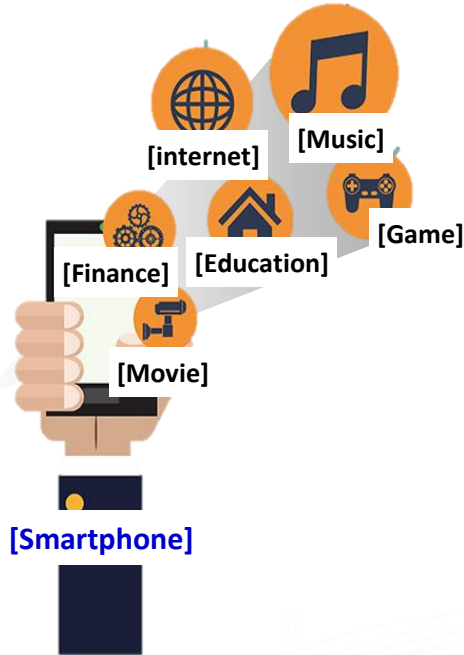
Global Networks



- Paradigm shift from 'Knowledge and information society centered in smartphone' to 'Hyper-connected and super intelligent society in 4th industrial revolution'

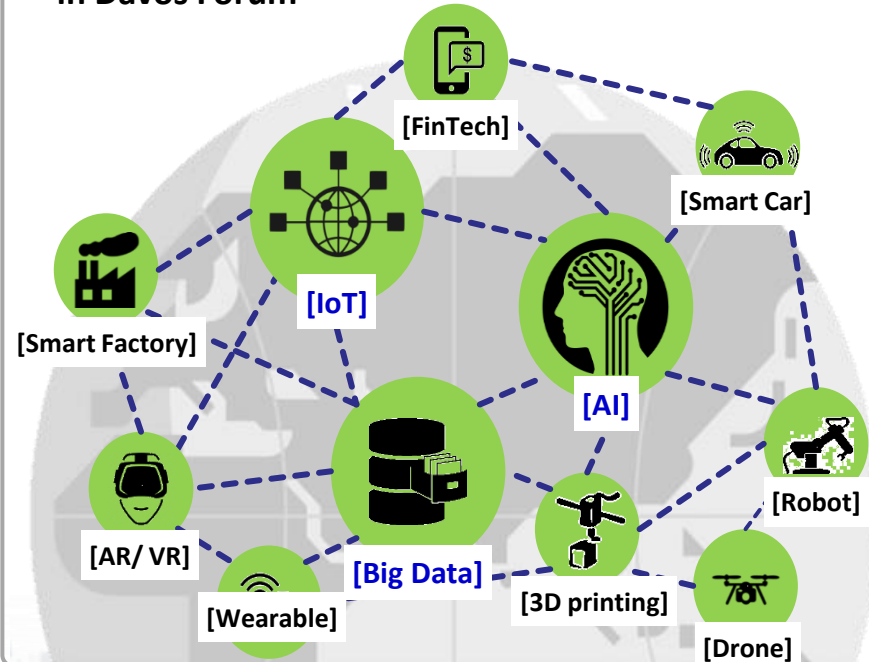
Knowledge and information society with smartphone

- 1970s, 3rd industrial revolution (Knowledge and information)
- 1990s, PC commercialization
- Late 2000s, Smartphone commercialization



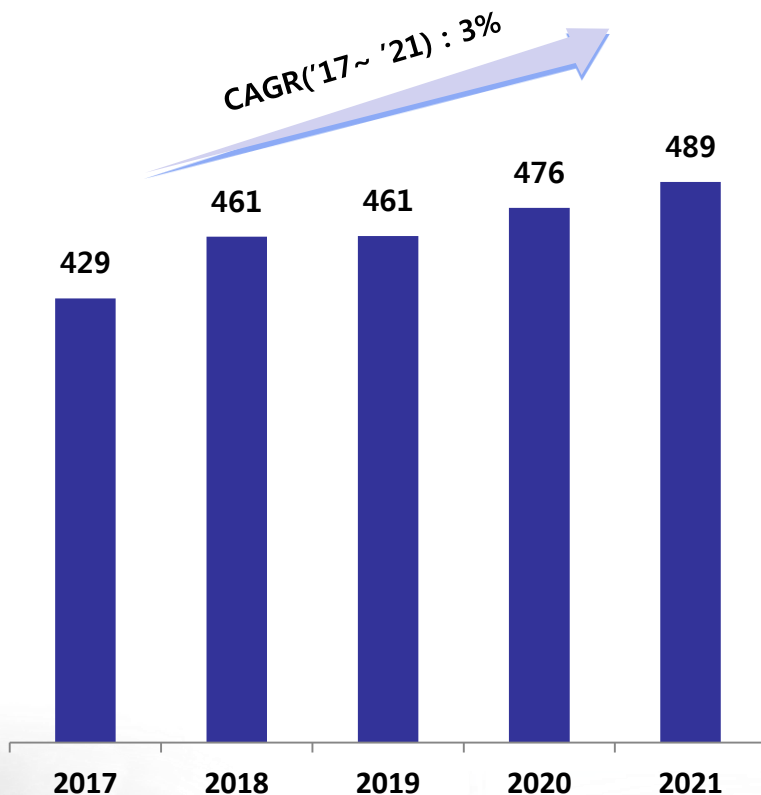
Hyper-connected and super intelligent society in 4th industrial revolution

- 2010s, Appearance of new technology and applications with the wave of 4th industrial revolution
- 2016, The first statement about 4th industrial revolution in Davos Forum



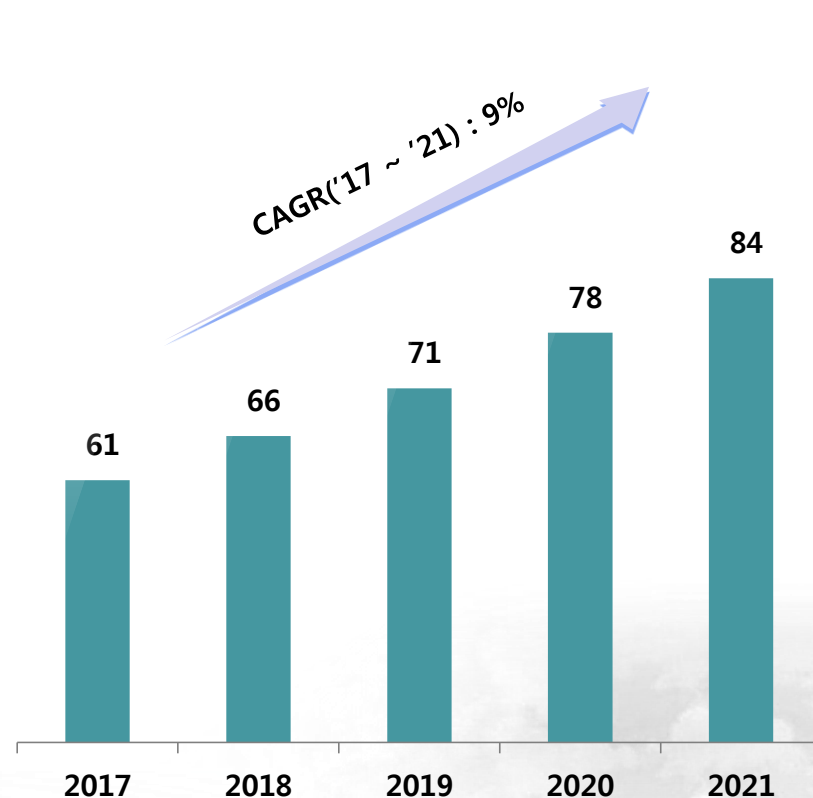
Global Semiconductor

(Unit: \$B)



Foundry Market

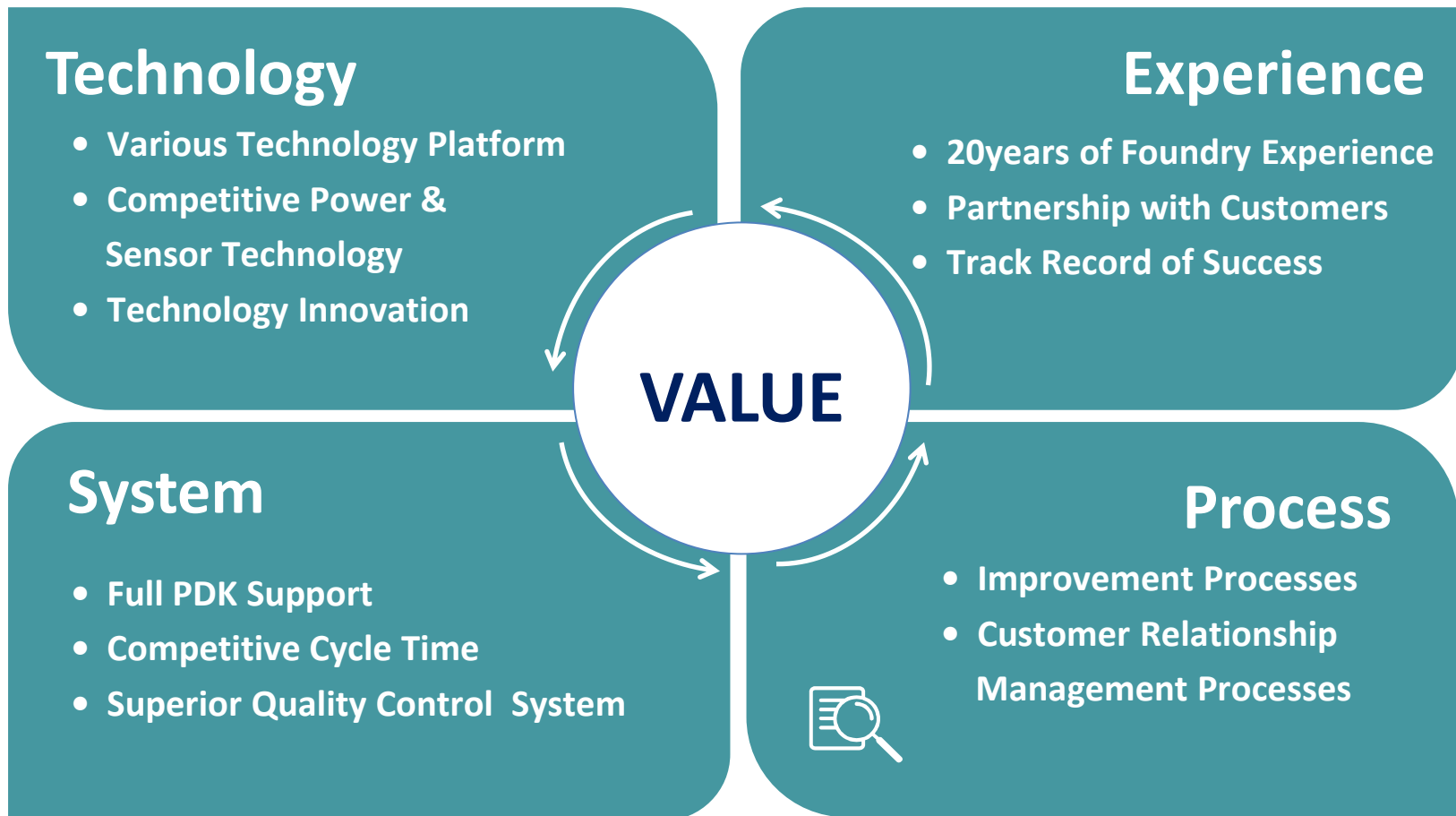
(Unit: \$B)



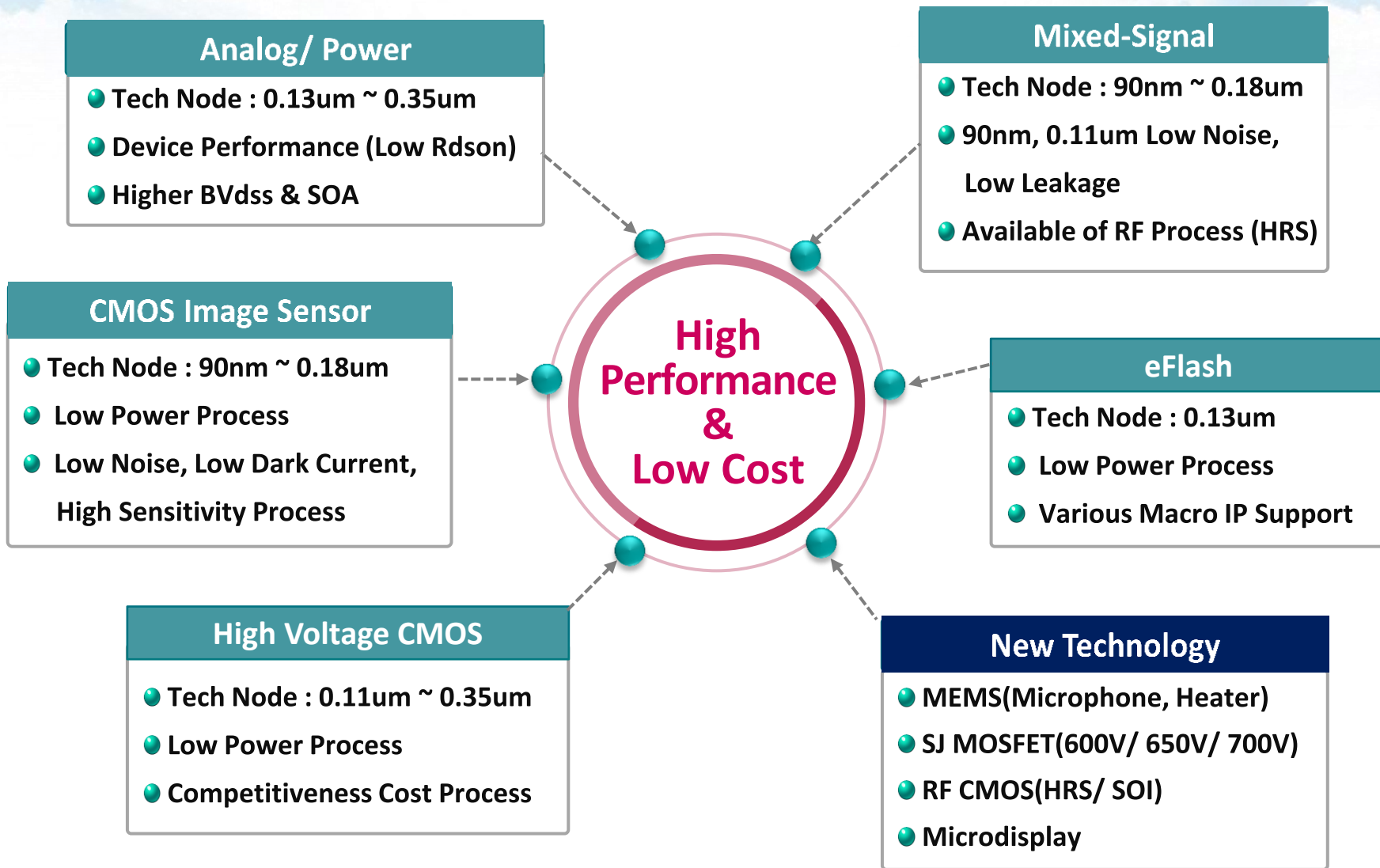
(Source: IHS '18.1Q)

Foundry Value Proposition

- DB HiTek support customers with valuable benefits



Key Process Portfolio



Applications



AUDIO



AUTOMOTIVE



DRONE



AR/ VR



TV



TABLET



SMARTPHONE



WEARABLE



IoT



DATA SERVER



SECURITY



AI SPEAKER



NOTEBOOK

Analog/ Power

- PMIC
- Motor Driver IC
- Wireless Charger
- DC-DC Converter

CIS

- Mobile
- Security
- Medical
- Industrial

Mixed-Signal

- Audio Codec
- High Precision ADC
- Fingerprint Sensor
- WLAN
- CMOS PA
- Microdisplay

High Voltage CMOS

- UHD LDI
- OLED
- TDDI

eFlash

- TSC
- MCU

Technology Roadmap

Development Planning

Process		Available Technology			2018	2019
Analog/ Power (BCDMOS)	LV (≤40V)	AN180(Non-Epi)	BD180LV(Fab2)		AN180LC	
		BD180LV(Gen2)	BD180LVA(Gen3)	BD180LVA(Fab2)		BD180LV(Gen4)
		BD130LV(Gen1)				BD130LV(Gen2)
	MV (≤45V)	BD180MV				
	HV (≤100V)	BD350				BD180XH(Gen2)
		BD180X	BD180XH		BD130XH	BD180SOI
	UHV (Non-Epi)	UHV700				UHV700(Gen2)

Technology Roadmap

Development Planning

Process		Available Technology	2018	2019
CIS	0.18um - Stitching	IL18SH X-ray, Line sensor		
	0.13/ 0.11um - Stitching	IL13SI		
		IL13SJ IL13SK	ToF : PPD (Mobile)	ToF : SPAD (ADAS)
	90nm	IL09SA		

Technology Roadmap

Development Planning

Process		Available Technology			2018	2019
MS/RF	0.18um	MS180	MS18BC Low noise	MS18BD Low cost, Low noise	MS18BE Low cost, Low noise	
		HP180 Low noise				
	0.11um	TS11SB Low noise	RF11SB Low noise	TS11SC Low noise/ULL		
	0.11um RF Front End	RF11SC(HRS)	RF11SD & SE(HRS)		RS13SA(SOI)	RS13SA(SOI)
	90nm	TS09SA Low noise				
0.13um eFlash	SE13SA	TE13SB				

Technology Roadmap

Development Planning

Process		Available Technology			2018	2019
HV CMOS	TV	LD350	LD160	LD150	LD130	
	IT	LD180	LD160			
		LD110	LD110			
Mobile	LD160	LD110				
Power Discrete		SJ MOSFET(Gen2) 600V/650V/700V			SJ MOSFET(Gen3) 600V/650V IGBT 1200V Automotive	
MEMS		Microphone(Gen1)	Microphone(Gen2)	Microphone(Gen3)	Microphone(Gen4)	
		Micro Heater				

Design Infra

- SPICE Modeling
- PDK/iPDK
- ESD Solution
- IO/STD Cell Library
- Memory Compiler

Reduced
R&D
Lead Time

Application Specific IP

- Non Volatile Memory (OTP, MTP)

Reference Design Flow

- Analog/ Mixed-Signal Design
- Digital Design
- EDA Solution

Partner Companies

ARM[®]


eSilicon[®]

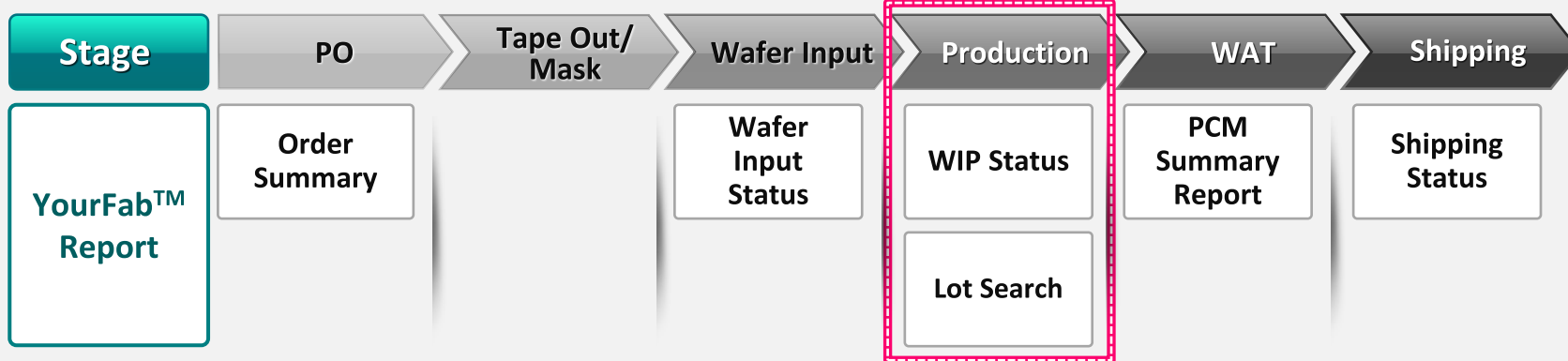
ememory

SYNOPSYS[®]


YourFab™ Service Flow



Order To Shipping Service Flow



ShuttleChip™ Service

 Tape-out start date

Process	Tech	Fab	2018											
			1Q			2Q			3Q			4Q		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BCD (BEOL 0.15um, BD180LVA)	0.15um	FAB1	24			11			11		12		14	
Analog / BCD/ Mixed-Signal (AN180 &BD180 & HP180 &MS180)	0.18um		31	28	28	25	23	27	25	29	19	24	28	26
Mixed-Signal/ RF HRS	0.11um	FAB2	17			25			25			24		
CIS	0.11um							27				31		
Analog /BCD (BD130)	0.13um			21			16			22			21	
Mixed-Signal	0.15 ~ 0.18um				07				20			05		05

* The shuttle schedule might be changed or canceled if the minimum number of paid seat has not been filled.

* Schedule for some ShuttleChip may change due to un-foreseen circumstances,
so please contact your account manager for updated schedule.

* DB check will be cleared within 7 days before tape-out.

Quality Certification



ISO 9001



IATF 16949

ESH Certification



ISO 14001



OHSAS 18001

Security Certification



ISO 27001



THANK YOU

