
688396 \

--

IDM

IDM

IDM

+

IDM

8

				2020-2022		65.6	
73.8		81.4		7.4	8.7	10.2	
	83.9%	17.7%	18.2%		0.61	0.71	0.84
PE	88	75	63x	"	"		
		1			2		
3							



26		.....
27		.....
28		.....
29		.....
30		.....
31		.....
32		.....
33		.....
34	<i>MEMS</i>	.....
35		.....
36	<i>MEMS</i>	.....
37	<i>MCU</i>	.....
38	<i>MCU</i>	.....
39		.....
40	<i>IDM</i>	.....
41		%
42		.....
43		.....
44	<i>SIC</i>	.....
45	<i>SIC</i>	.....
46		.....
47		.....
48		.....
49		.....

1.

IDM

IDM

1.1.

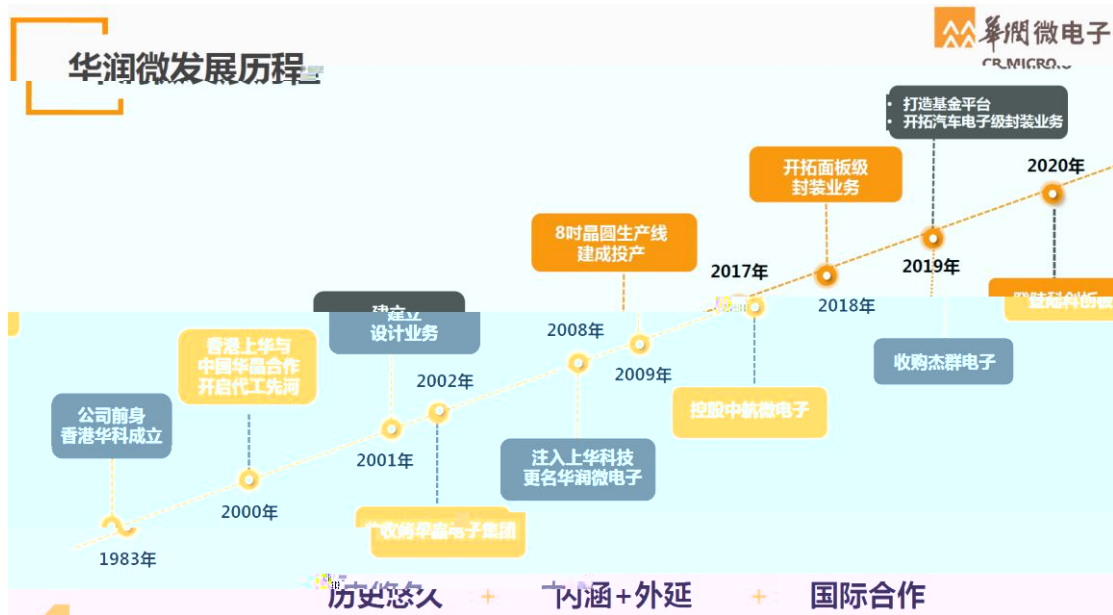
4

40

1983

4

1



14,000

2019 "

500 "

80

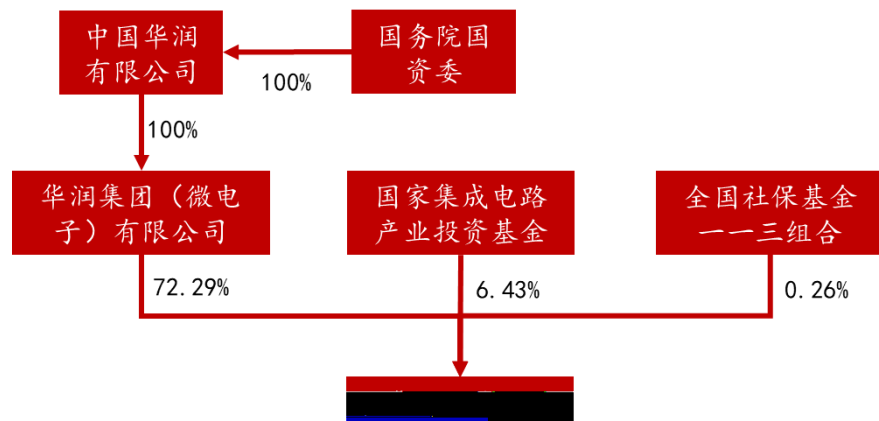


IPO

" "

7812.5

IPO



4

	1	SK	2
		3	
	1		2
	1		2
MEMS	1		2
		3	

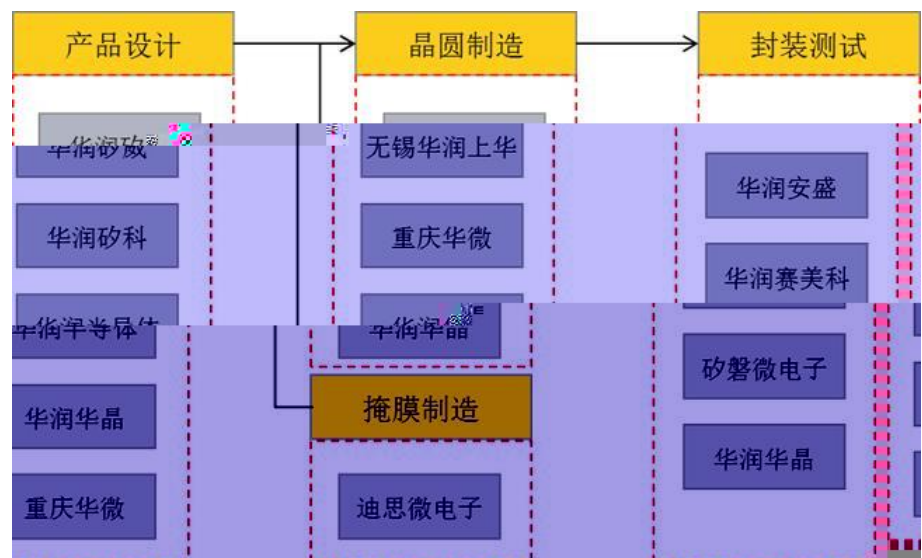
eeeworld

1.2.

IDM

" - - "

5



IDM

IDM

Fab less+

IDM

" Fab less+ "

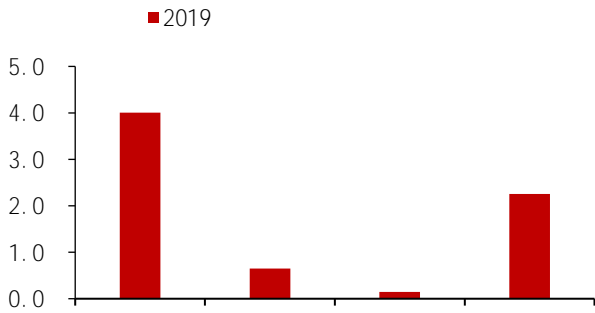
IDM

IHS Markit

IDM

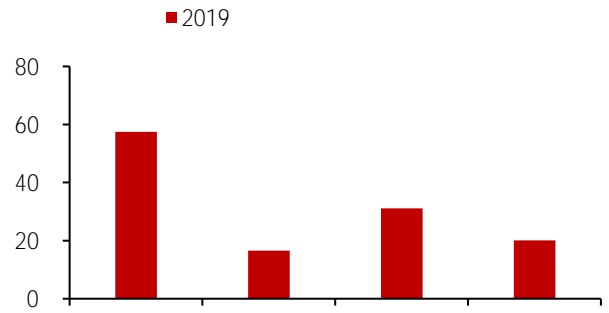
8

IDM



9

IDM



1.3.

7%

40%

2019

3000

3268

1401

10



11



BCD

BCD

Bi polar CMOS DMOS

IC

BCD SOI BCD BCD 5700V BCD

0.11 m

MEMS

MEMS

CMOS

MEMS

MEMS

MEMS

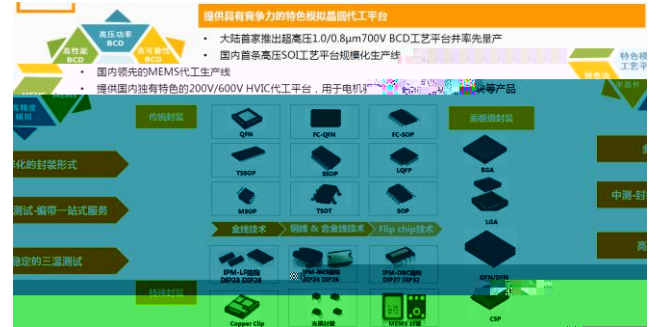
T0-220 T0-3P T0247
IPM

IPM
DPAK PDFN PQFN

12

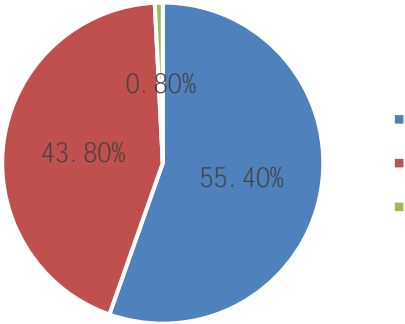


13



55% 44% 2019

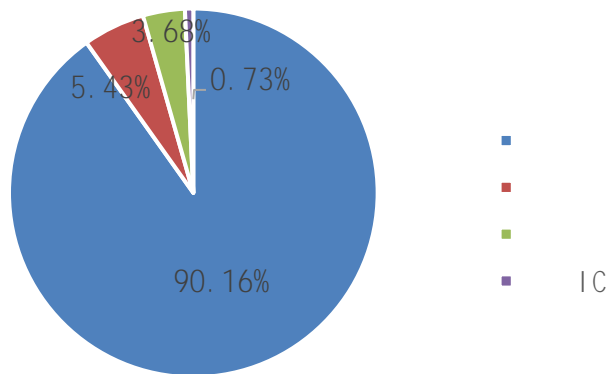
14



15



16

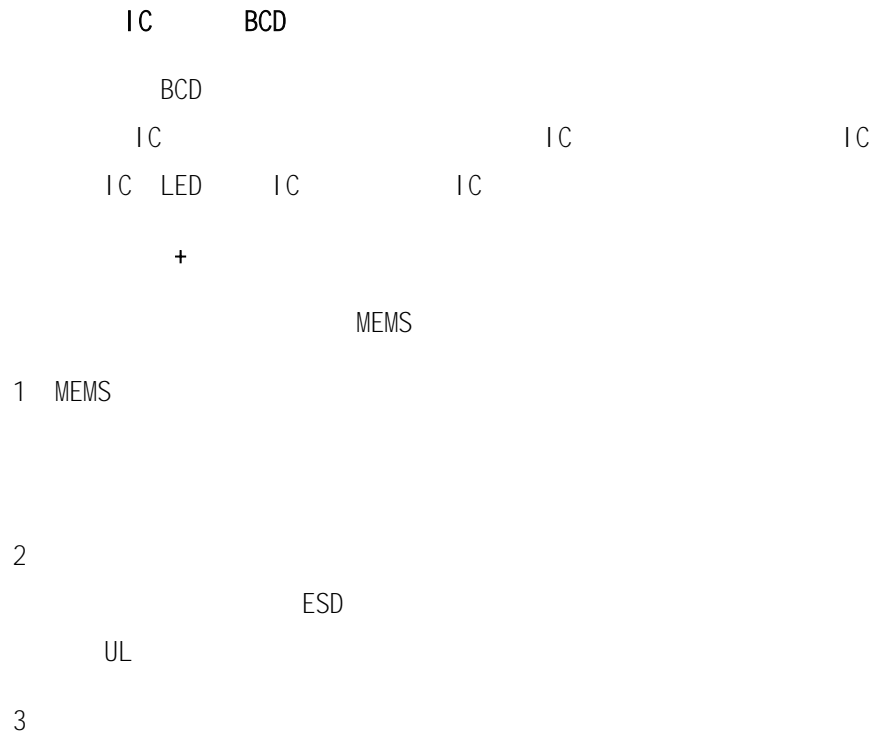


MOSFET
IDM
MOSFET
-100V 1500V
MOSFET
VDMOS MOS MOS

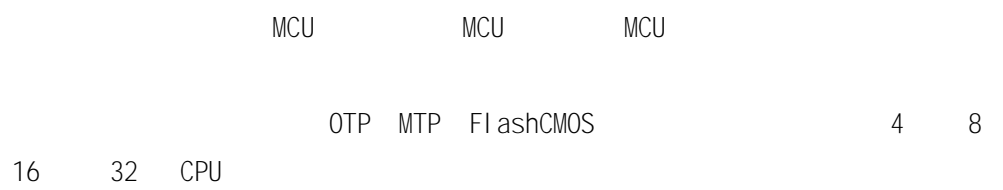
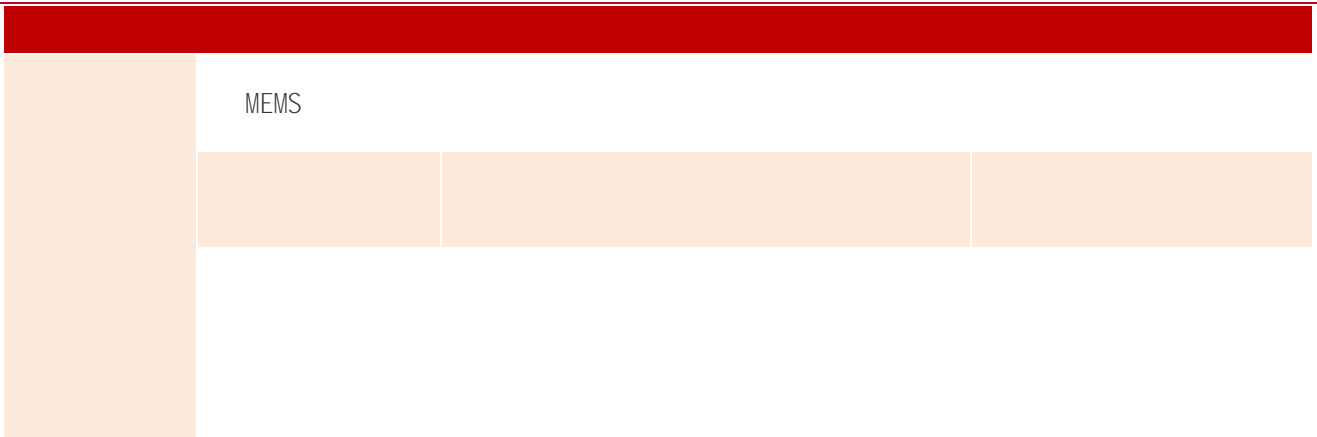
17 MOSFET

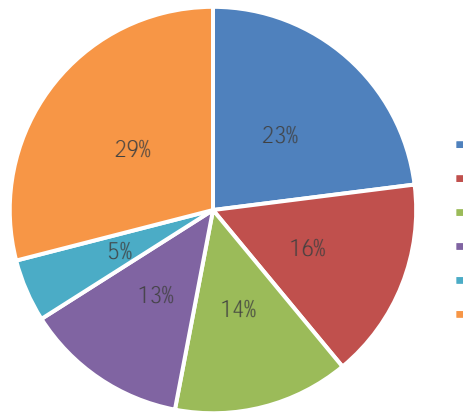
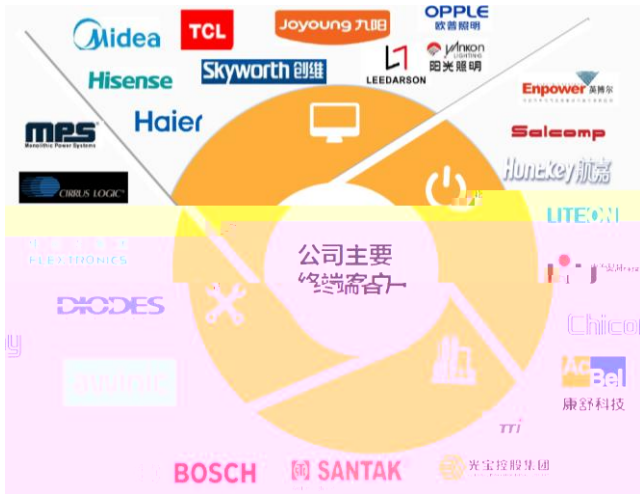
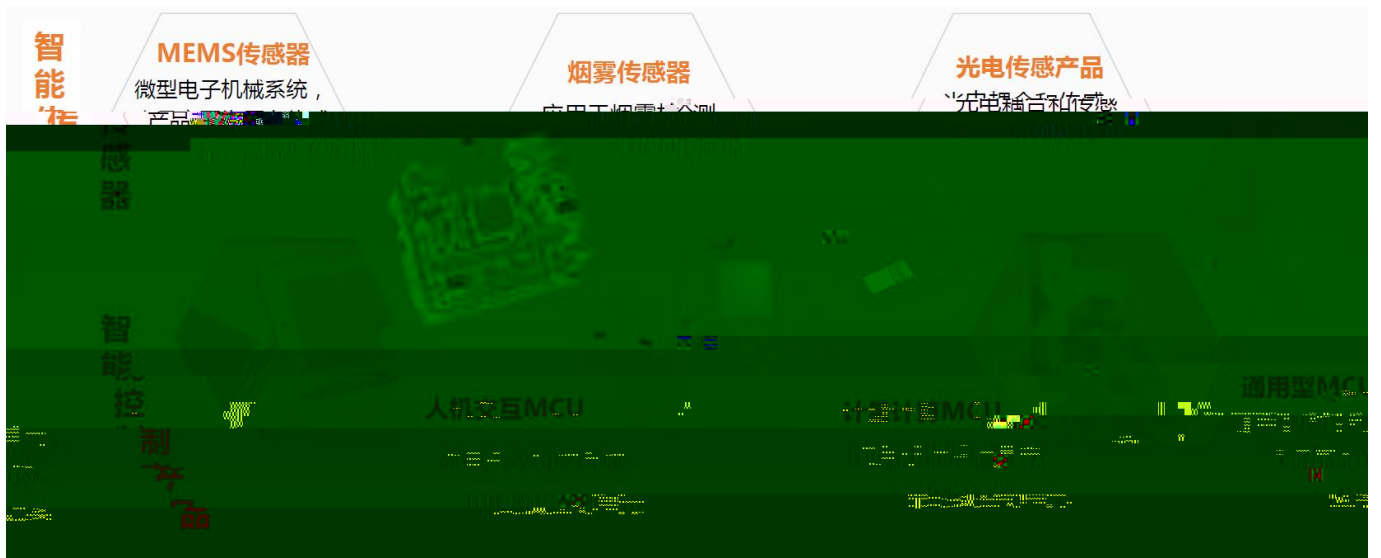
	30V-900V	40V-900V	-60V-150V	-100V-1500V
	MOS		MOS	MOS
	MOS		MOS	
	MOS	MOS	MOS	
	MOS	MOS	MOS	
	MOS		P	MOS

FRD



19

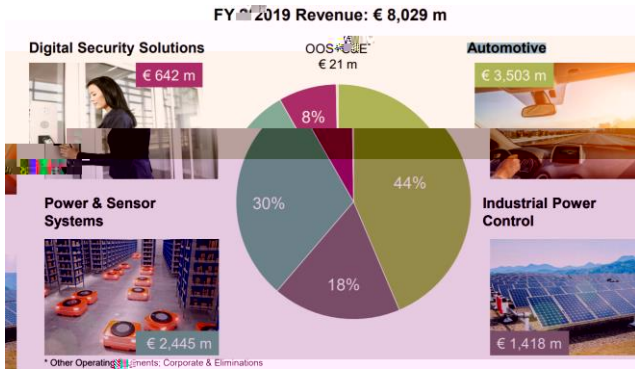




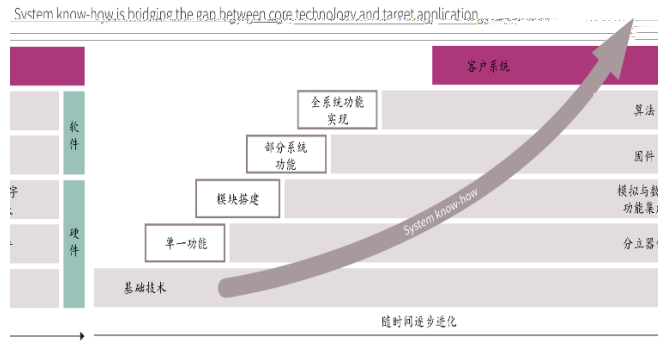
IDM

IDM

23



24



2. +

8

2.1.

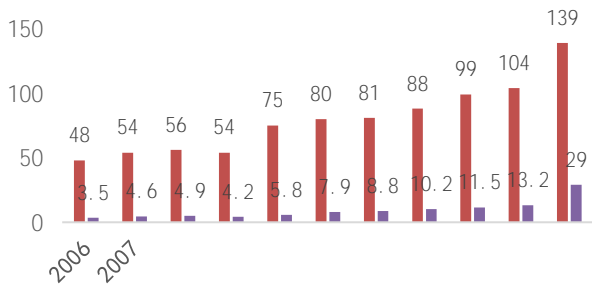
IDM

2015

950

25 IC

26



IC Insight

2.2.

1

400

IC

IHS Market

2018

391

2021

441

CAGR 4.1%

MOSFET IGBT

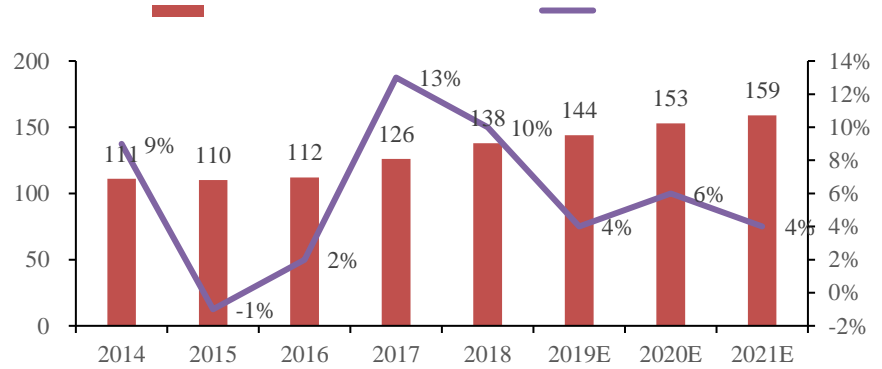
5

27

IHS Market

35%
2018
138
9.5%
2021
35%
159
4.8%

28



IHS Markit

IGBT

IHS Markit

IC MOSFET IGBT
61% 20% 14%

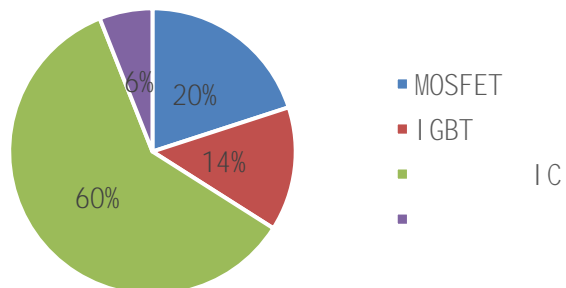
IGBT

IGBT

MOSFET

IC MOSFET IGBT

29



IHS Markit

ASP

Gartner 2016

40% 13%

27%

strategic Analysis

338

704

108%

55%

71

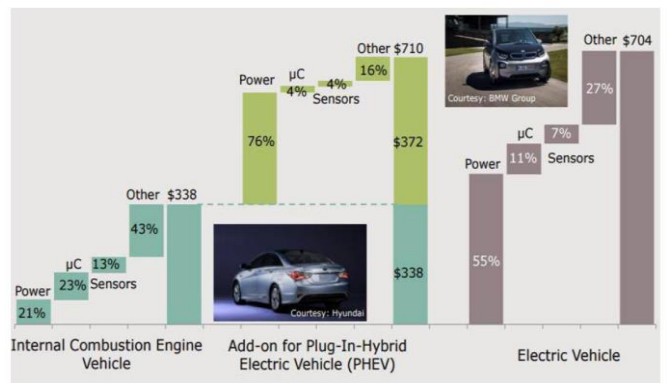
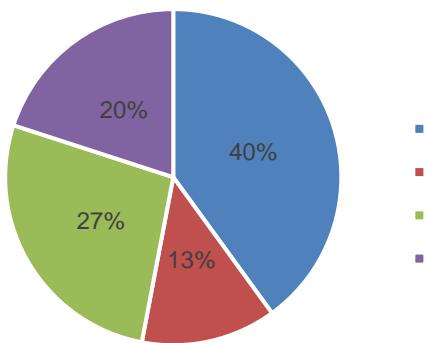
387

21%

5

30

31



Gartner 2016

Strategic Analysis

50

IEA

2020

310

1300

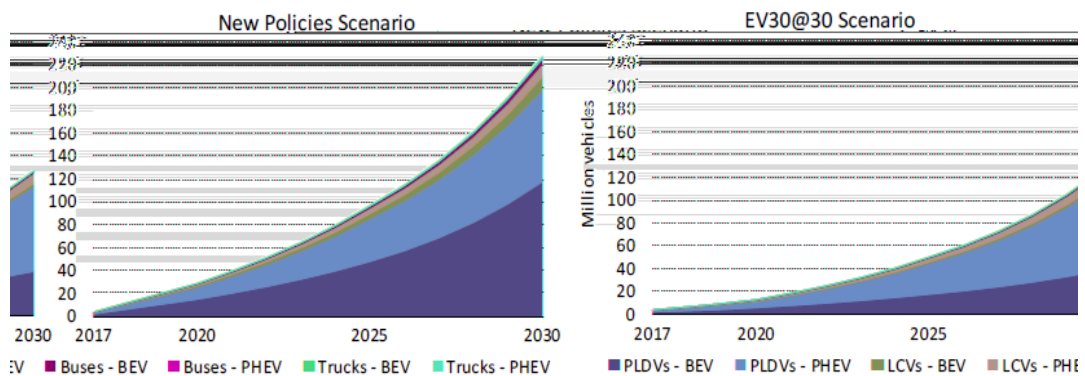
24%

2030

12500

50

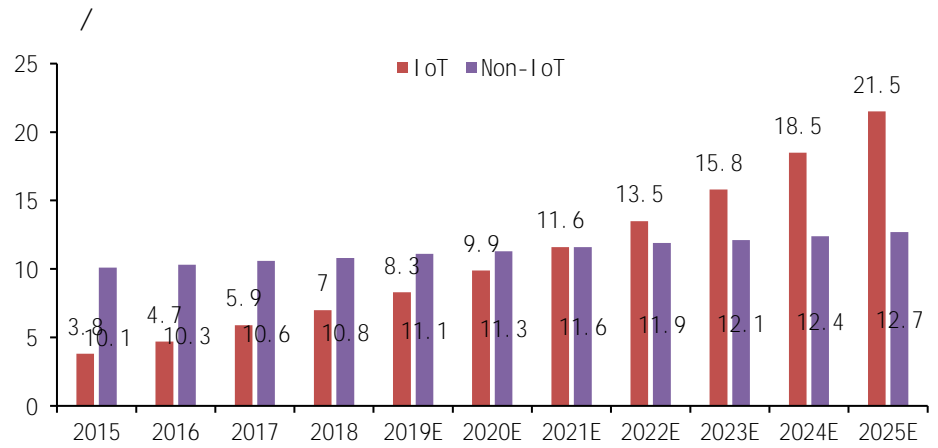
32



2 MEMS

IoT Analytics 2020
 4570 CAGR 28.5%
 100 2025 220
 MEMS

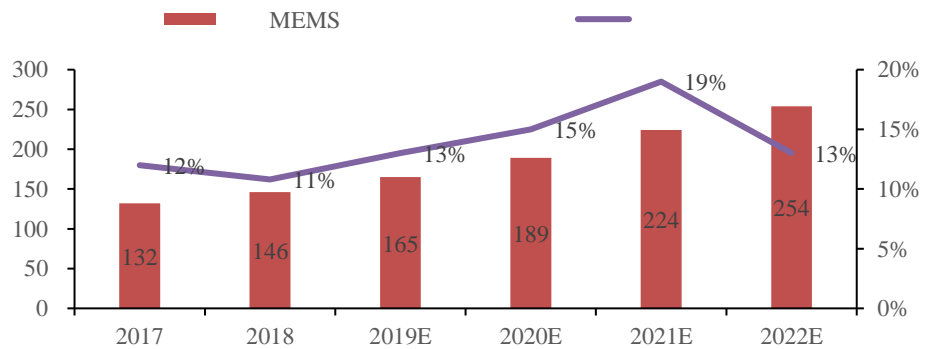
33



IoT Analytics

MEMS 146
 MEMS YoI e
 Development 2018-2022 MEMS 14.85%

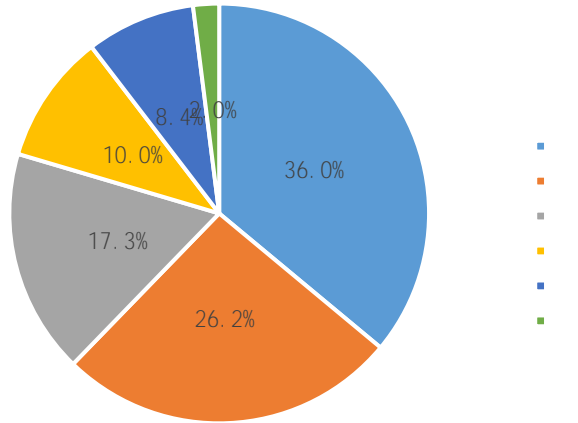
34 MEMS



YoI e

8.35% 26.2% 30% BIS Research 17.2% 10.21% 36%

35

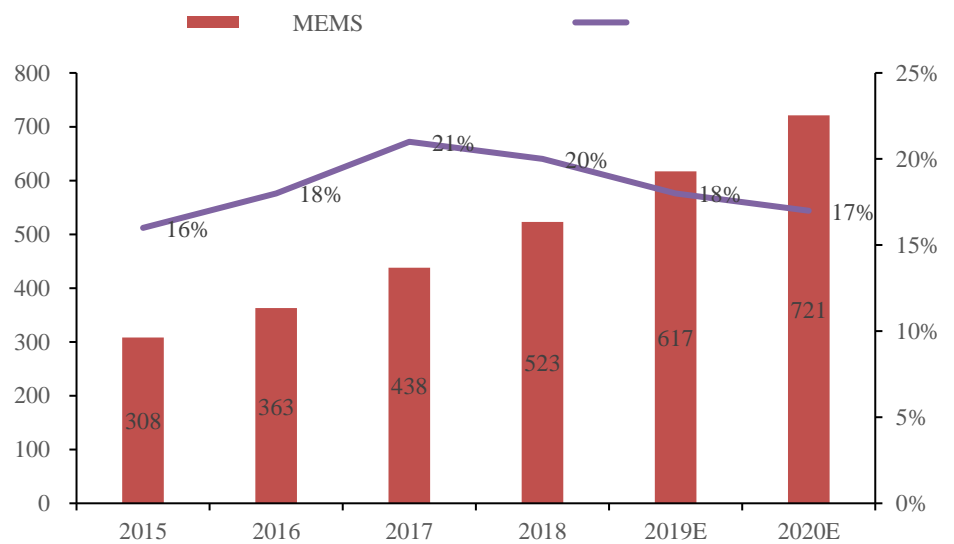


BIS Research

MEMS MEMS 523 60% 19.5% 18-2020

2018 MEMS 17.41%

36 MEMS



MEMS MEMS MEMS MEMS MEMS MEMS MEMS MEMS

IDM MEMS IDM

MEMS MEMS MEMS MEMS MEMS MEMS MEMS MEMS

Year Development 2017 MEMS IDM

60									
		62						69	
PEP INNOVATION									
	40		IDM						
IDM									
				5	6			8	
		230				8	8		73
			3				12		8 /
	4				100				8
	6				4	/	MOSFET	IGBT	
	8							8	
			8	BCD					8 MEMS
BCD	MEMS				16,000				23.11
2.75		2018	9						

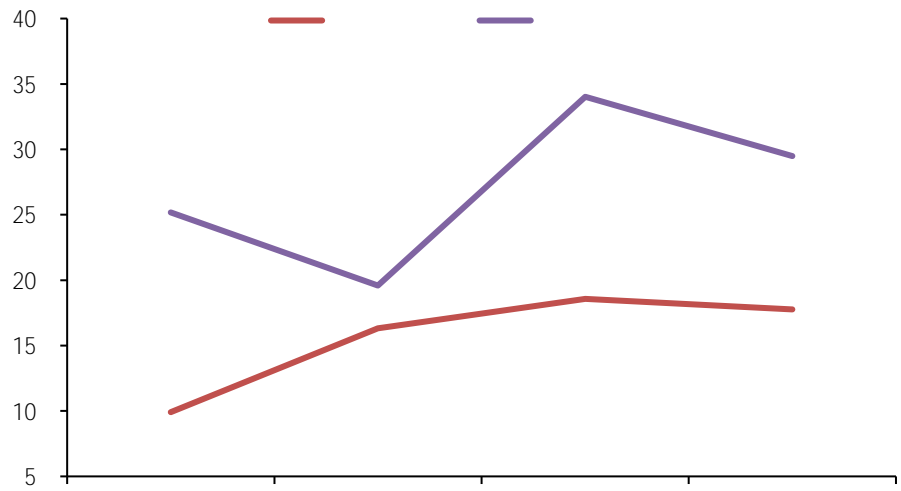
3.

3.1.

		20%				30%
MCU	30%		MEMS	40%		

41

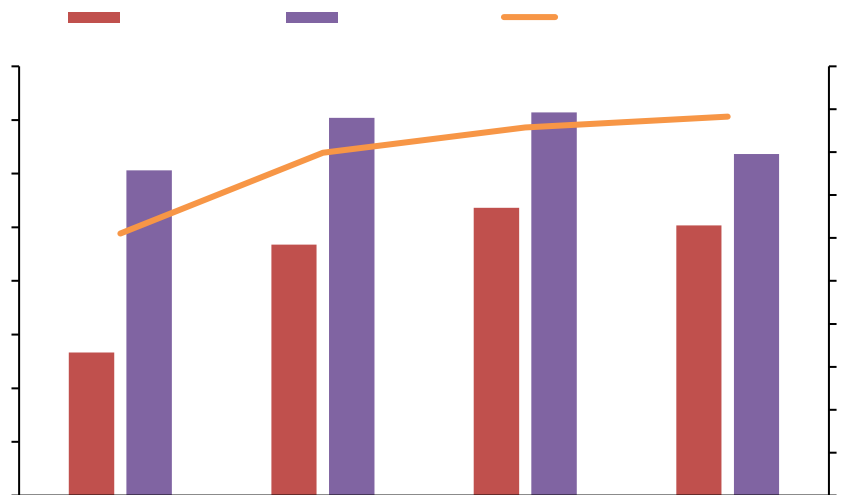
%



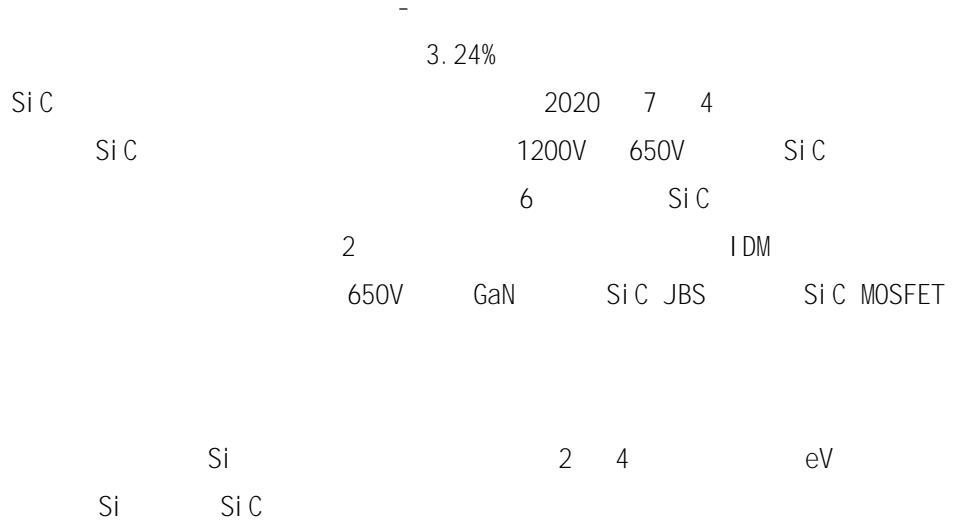
2019 44%

2016 30%

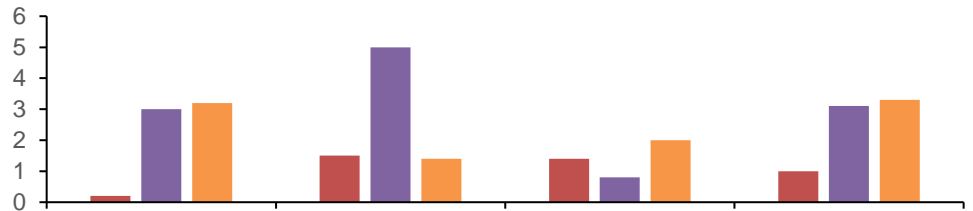
42



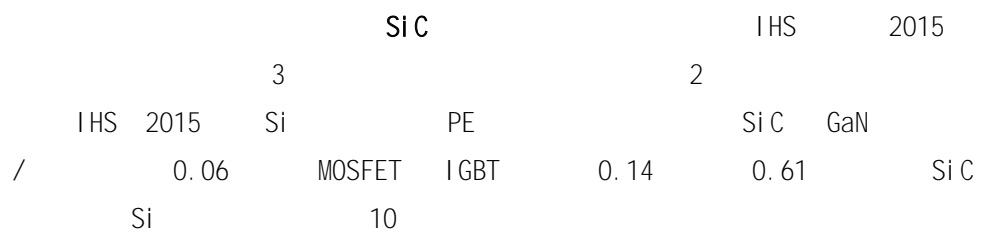
3.2.



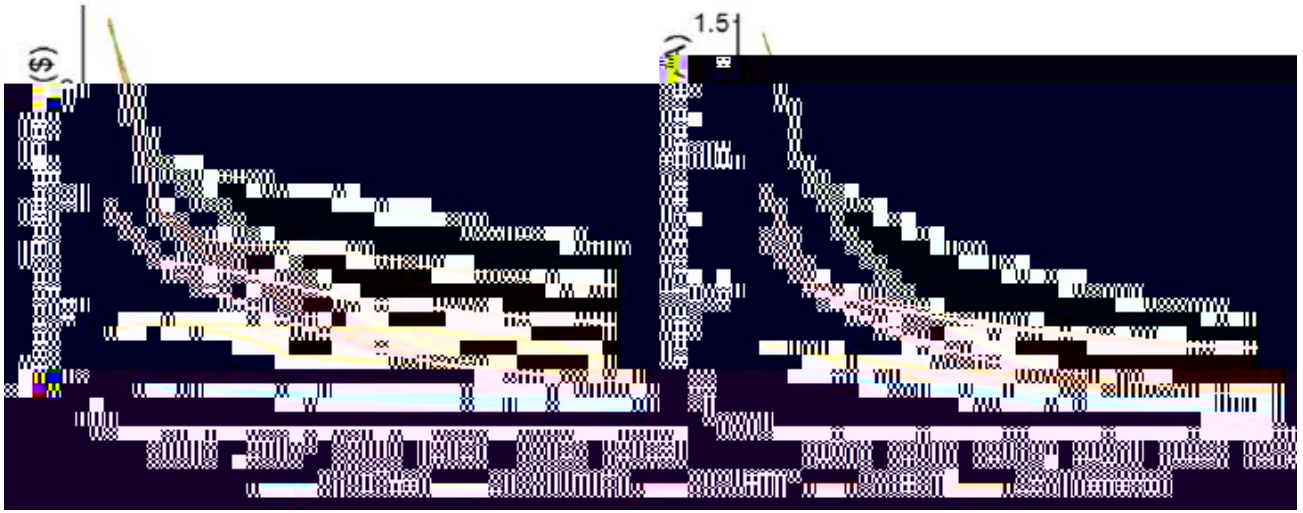
43



ORNL



44 SIC



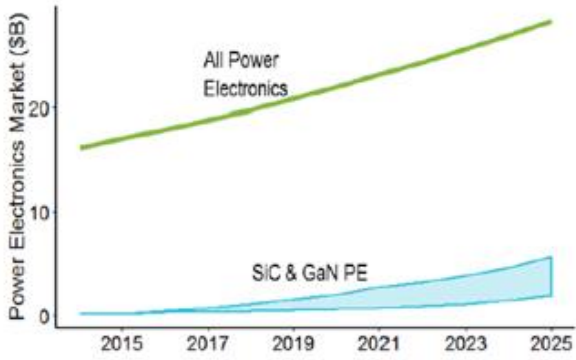
IHS(2016)

12

50

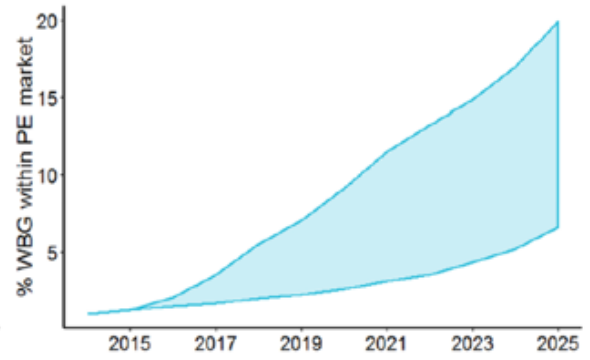
2025

45 SIC



IHS(2016)

46



IHS(2016)

4.

IDM

1

2

3

8

2020-2022

65.6

73.8

81.4

7.4

8.7

10.2

2020-2022

0.61

0.71

0.84

PE

88

75

63

47

/	2018	2019	2020E	2021E	2022E
	3,572.00	3,184.00	3502.40	3782.59	4009.55
	1.50%	-11.00%	10.00%	8.00%	6%
	18.57%	17.76%	18.50%	18.50%	18.50%
	2,683.00	2,516.00	3,019.20	3,562.66	4,097.05
	14.70%	-6.20%	20.00%	18.00%	15.00%
	34.02%	29.48%	33.50%	34.00%	34.50%
	15.00	44.00	35.00	35.00	35.00
	-22%	193.00%	-20%	0%	0%
	28.46%	10.04%	15.00%	15.00%	15.00%
	6,271.0	5,743.0	6,556.54	7,380.04	8,141.66
	6.72%	-8.42%	14.17%	12.56%	10.32%
	25.20%	22.84%	25.39%	25.97%	26.54%

IDM

2021

80

" "

48

	EPS			PE		
	2020E	2021E	2022E	2020	2021E	2022E
247	0.17	0.22	0.26	111	86	73
345	1.10	1.52	2.13	195	142	101
132	0.50	0.63	0.79	54	43	34
148	0.63	0.80	1.04	50	39	30
				103	77	60

wind 2020 8 12

5.

1

2

3

49

:	2018A	2019A	2020E	2021E	2022E	:	2018A	2019A	2020E	2021E	2022E
	1538	1931	3110								

6	20%		
6	10%		
6	5%		
6		10%	10%
6	10%		

6			
6			
6			

" "

/

/

/



8

9

0510-82833337

0510-82833217



1198 3704 3705 3706

021-61649996