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688396 \

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IDM

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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.

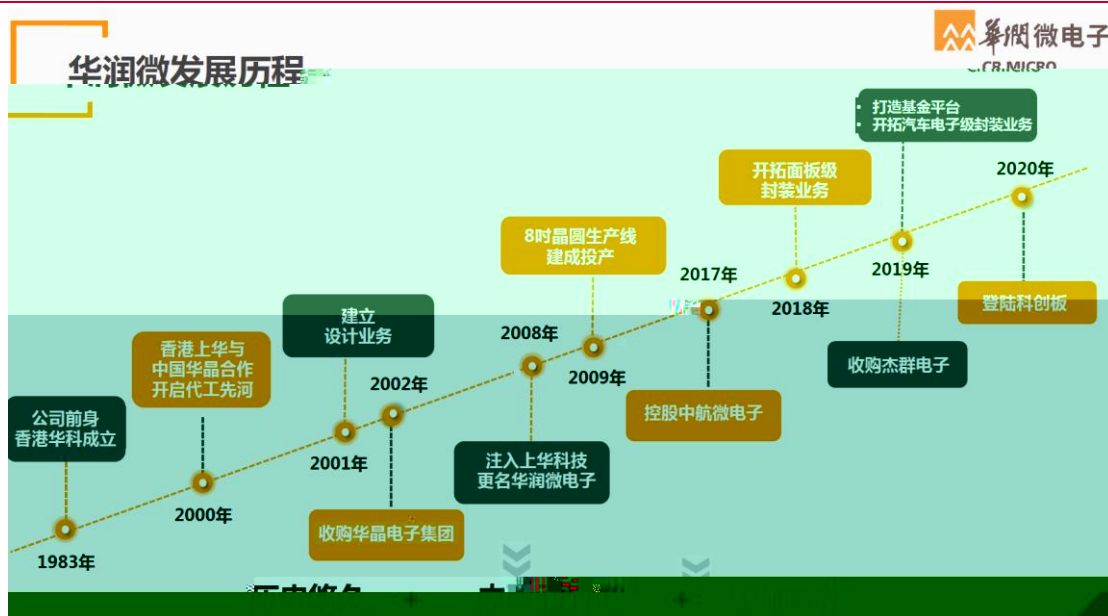
4

40

1983

4

1



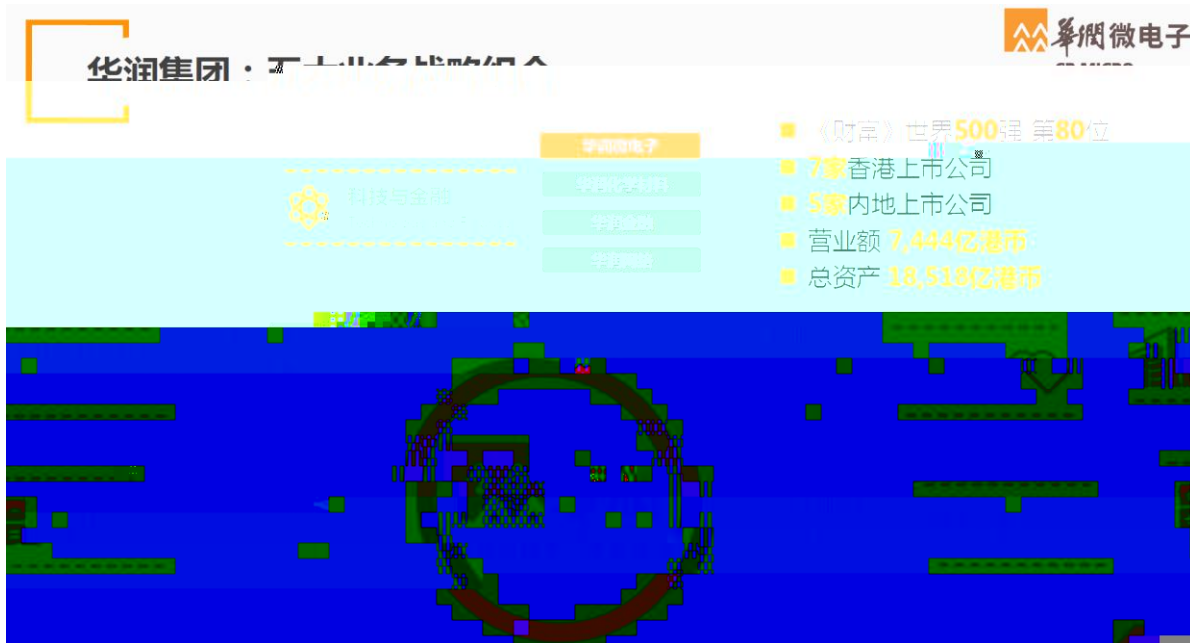
14,000

2019 "

500 "

80

2



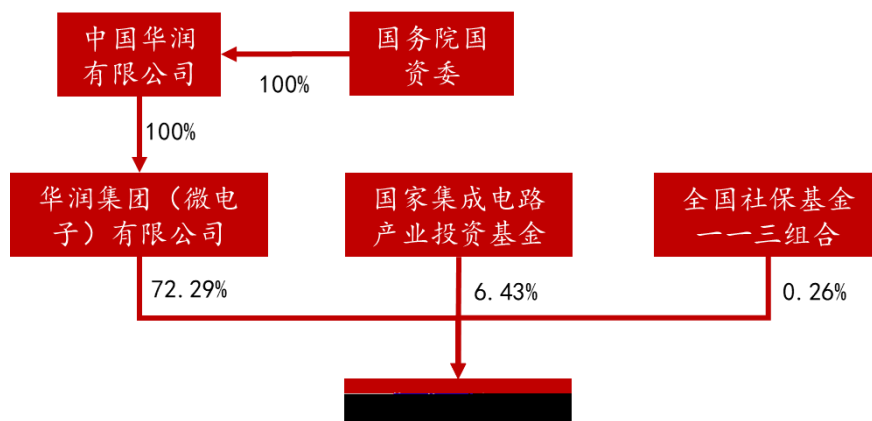
IPO

" "

7812.5

IPO

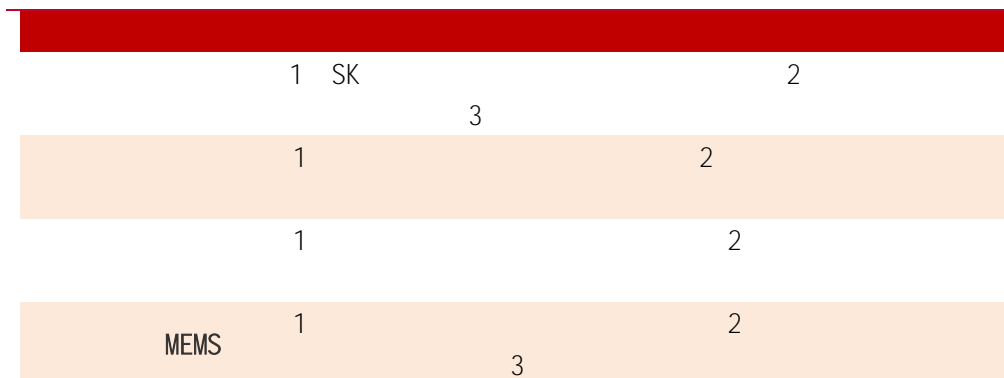
3



80

SK

4

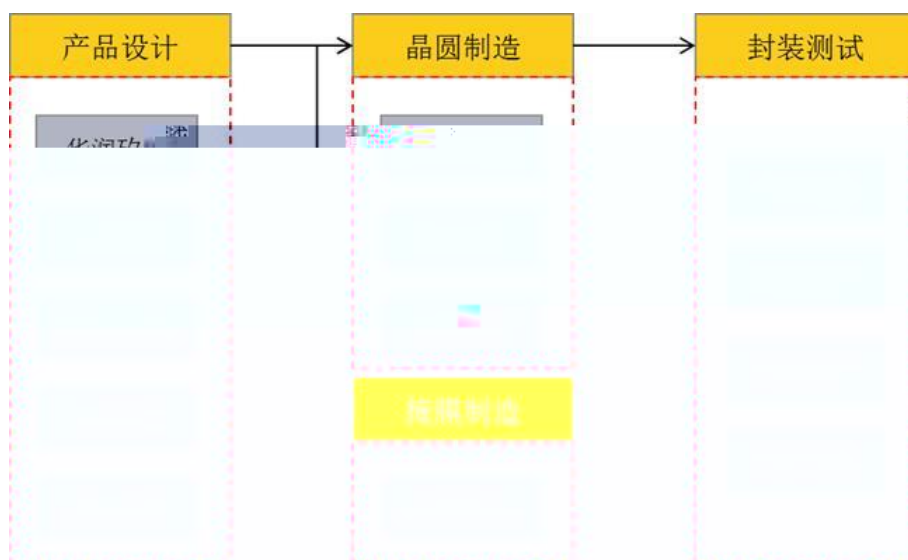


eeWorld

1.2.

IDM " - - "

5



IDM

IDM

Fabless+

IDM

" Fabless+ "



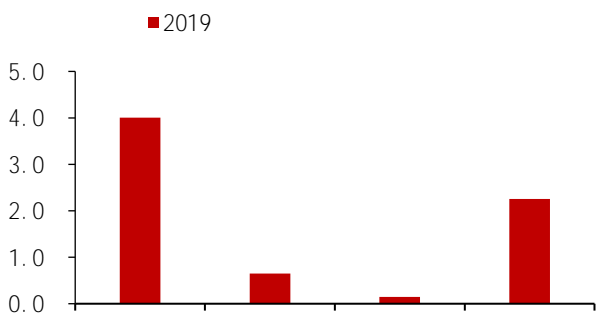
IDM

IDM

IHS Markit

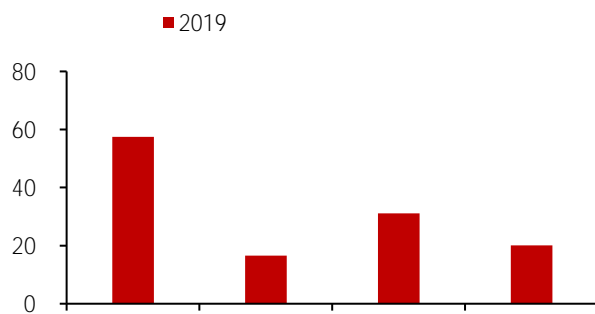
8

IDM



9

IDM



1.3.

40%

2019

7%

3000

3268

1401

10



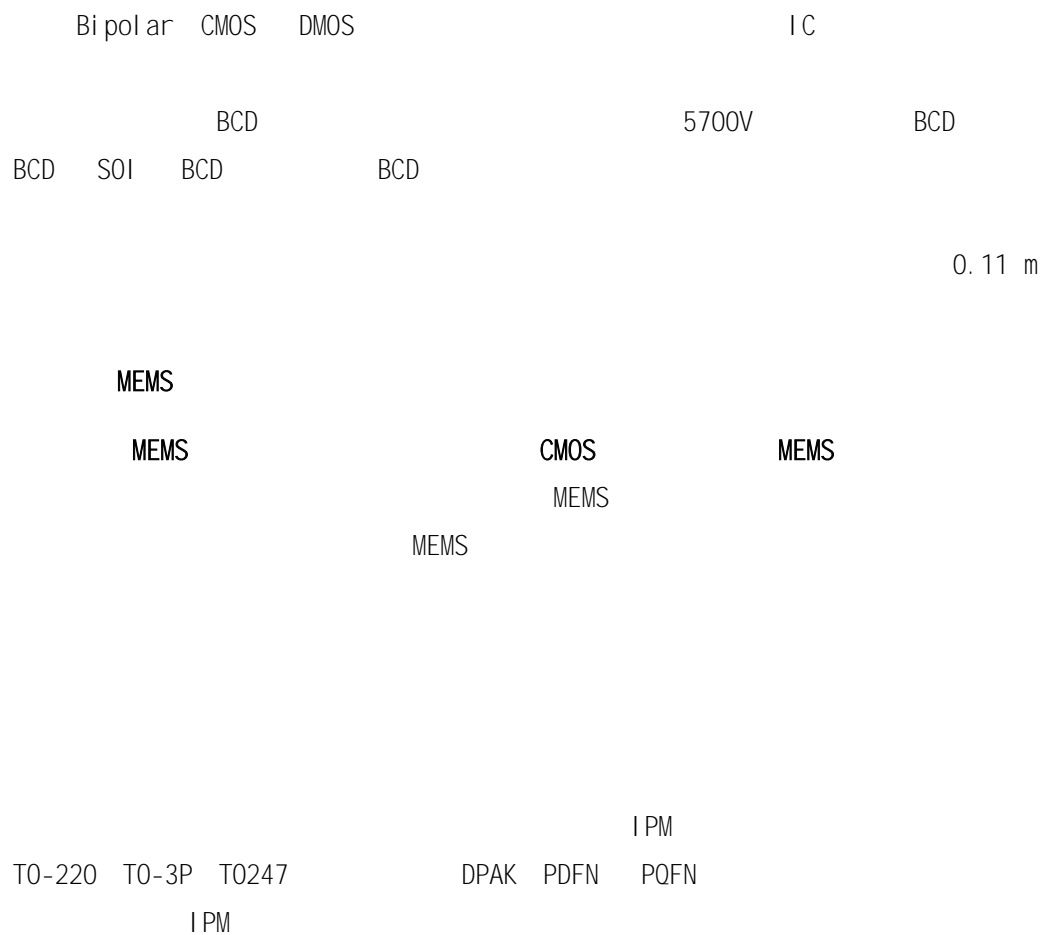
11



BCD

BCD





12

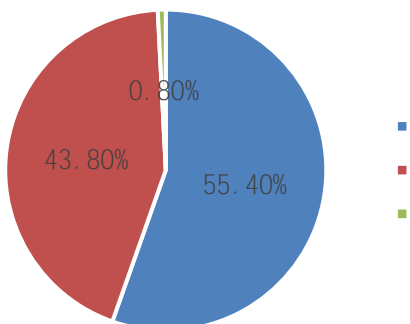


13



55% 44% 2019

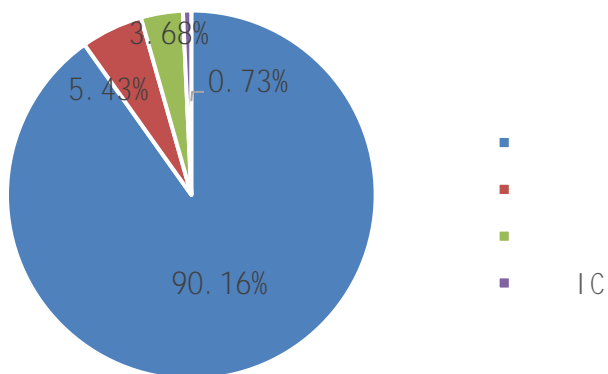
14



15



16

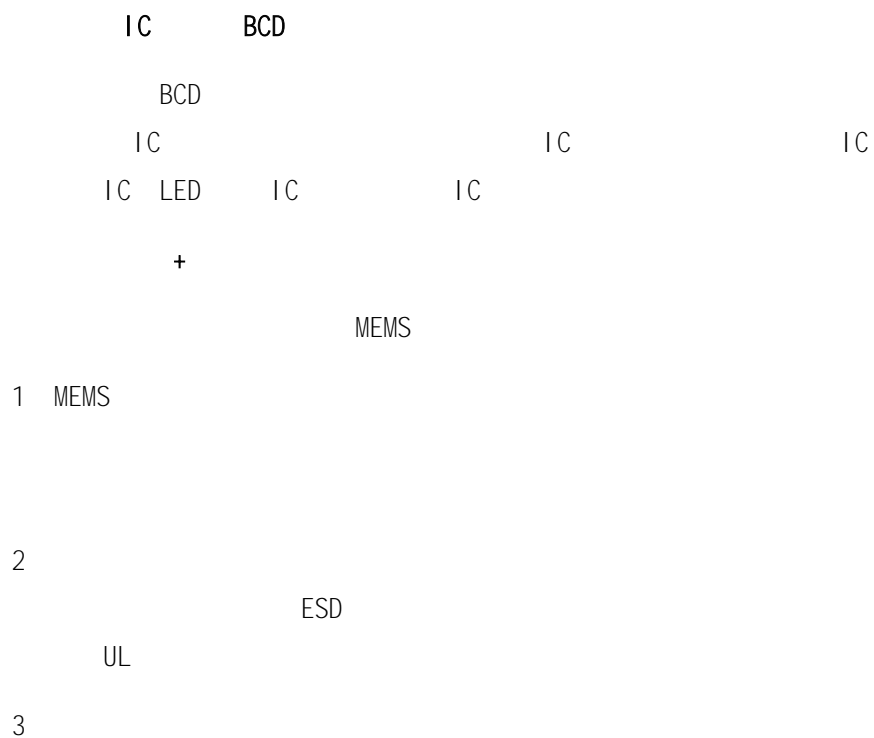


MOSFET  
 IDM  
 MOSFET  
 VDMOS  
 MOSFET  
 MOS  
 MOS  
 MOS

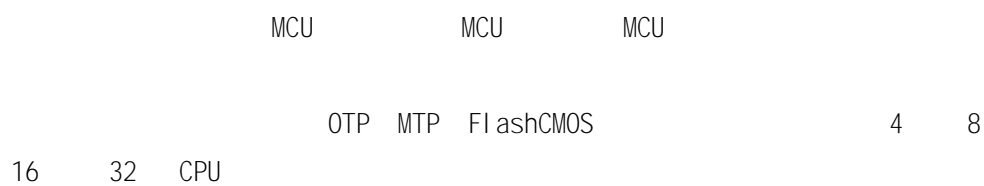
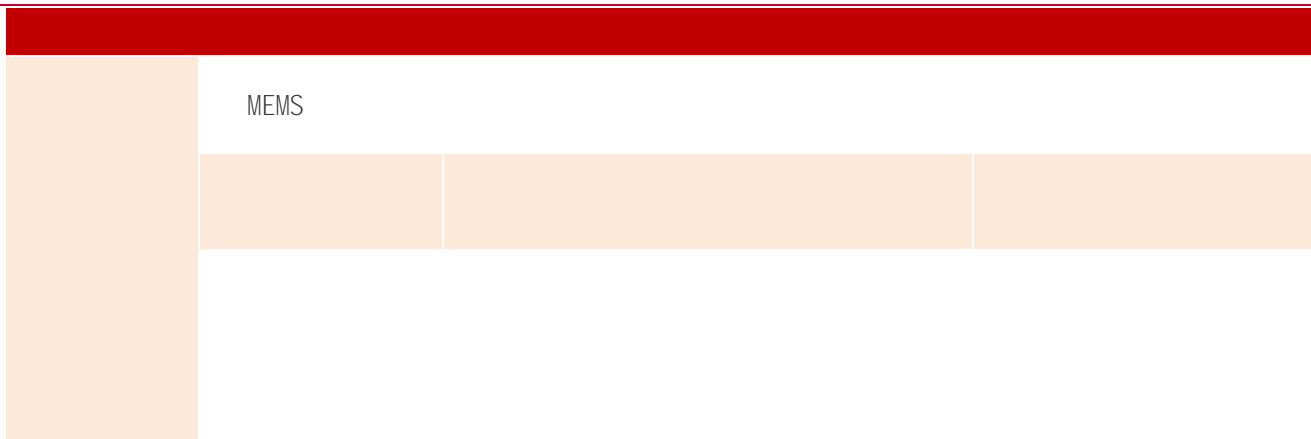
17 MOSFET

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

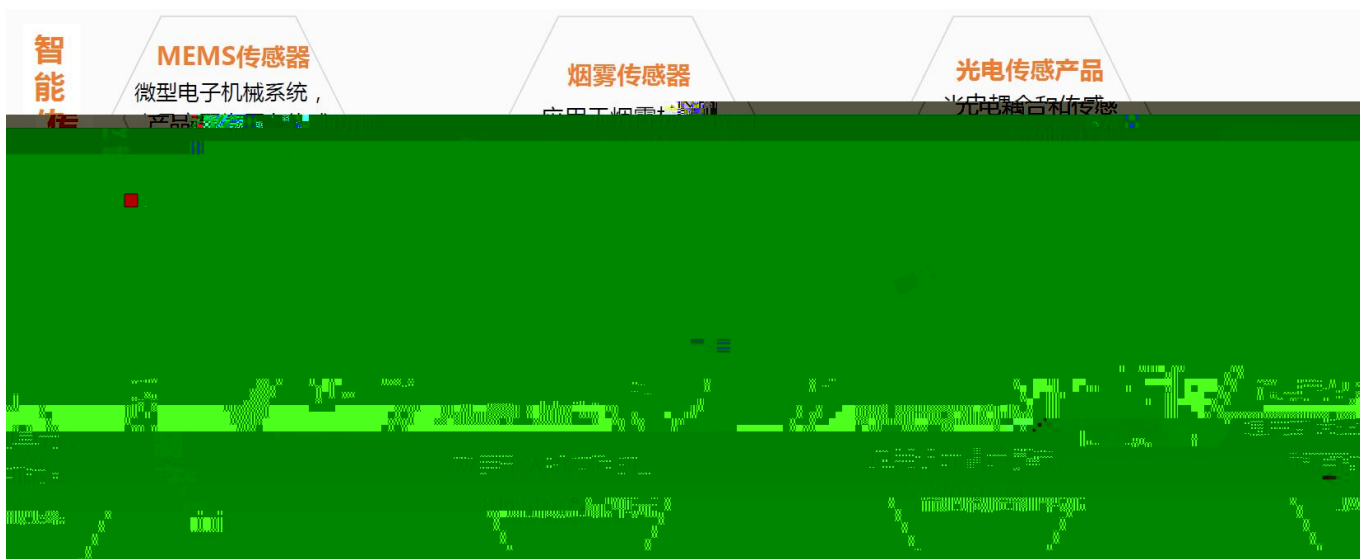
FRD



19



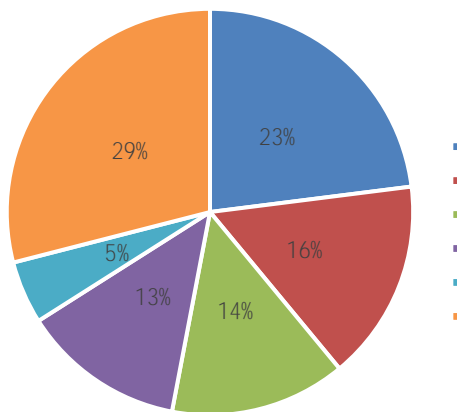
20



21



22



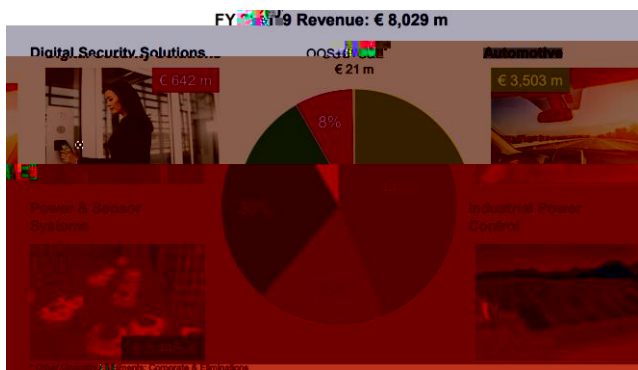
" "

IDM

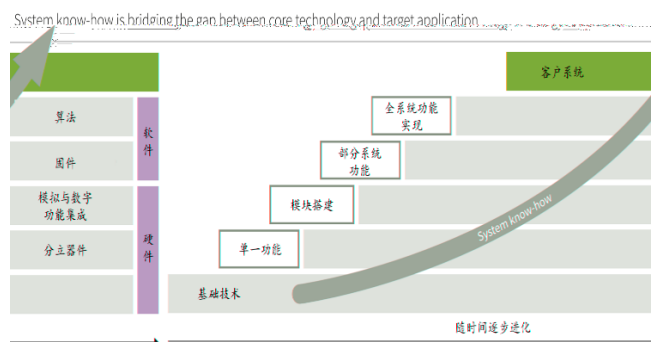
IDM

" " " "

23



24



2. +

IDM

8

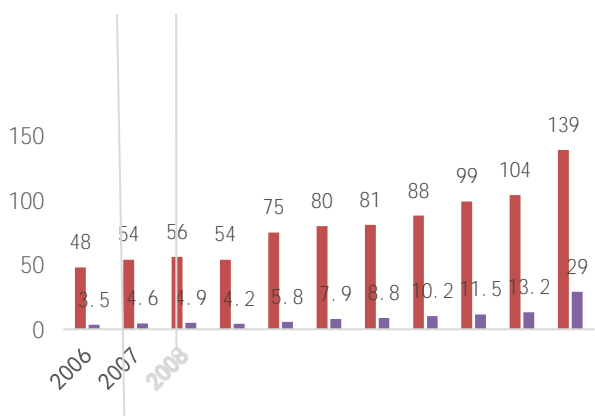
2.1.

2015

950

25 IC

26



IC Insight

## 2.2.

1

400

IC

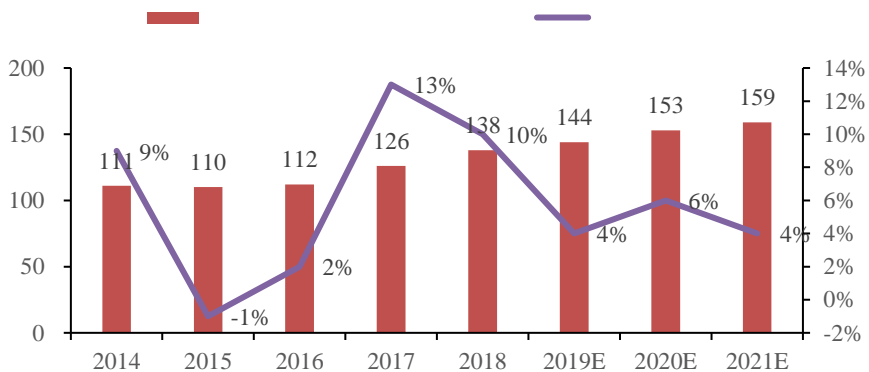
IHS Market 2018 441 CAGR 4.1% MOSFET IGBT 391 2021  
 5

27

IHS Market

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

28



IHS Markit

IGBT

IHS Markit

IC MOSFET IGBT  
 61% 20% 14% IGBT

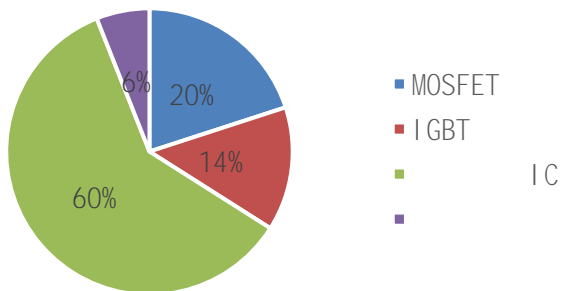
IGBT

IGBT

MOSFET

IC MOSFET IGBT

29



IHS Markit

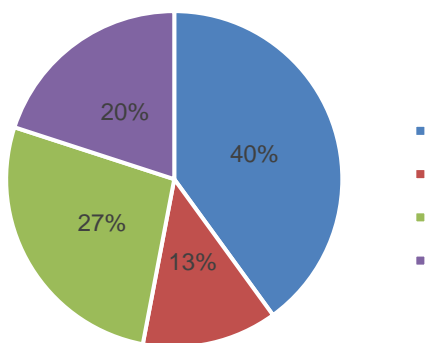


ASP

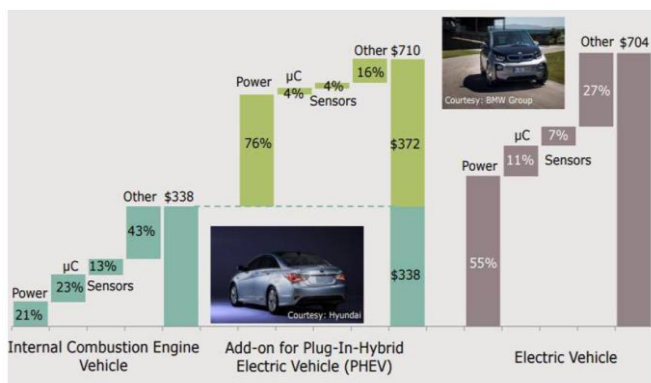


30

31



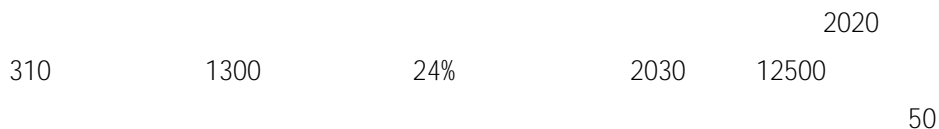
Gartner 2016



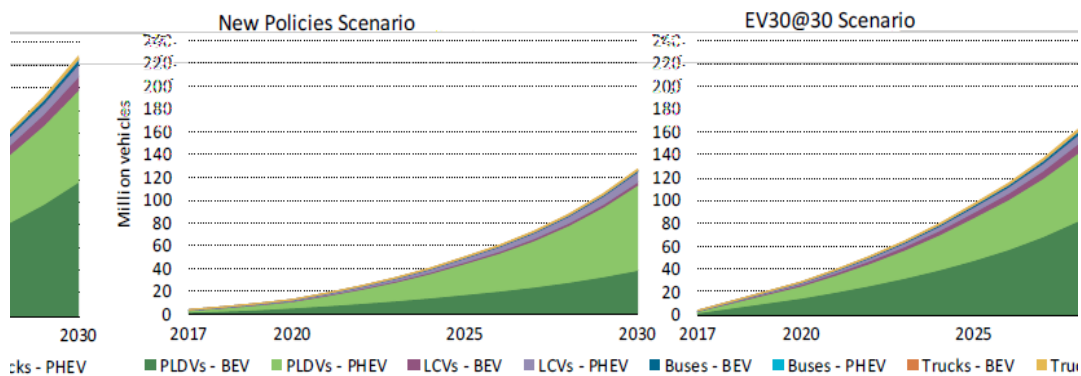
Strategic Analysis

50

IEA



32

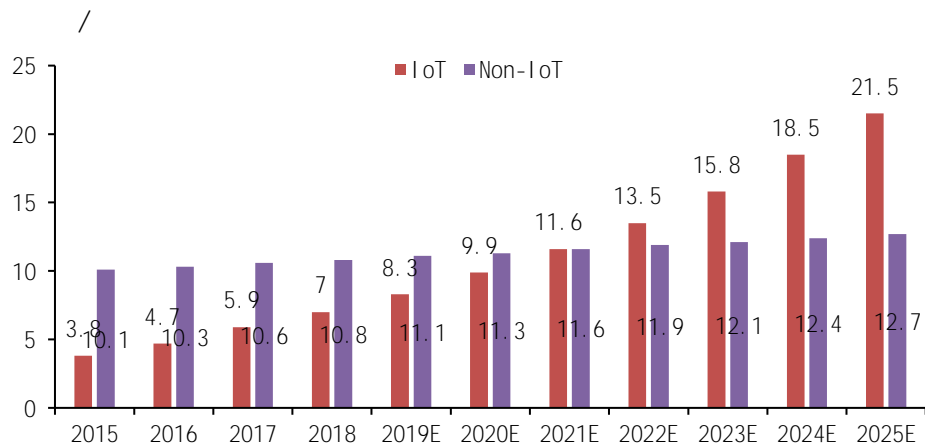


IEA

2 MEMS

IoT Analytics 2020  
4570 CAGR 28.5%  
100 2025 220  
MEMS

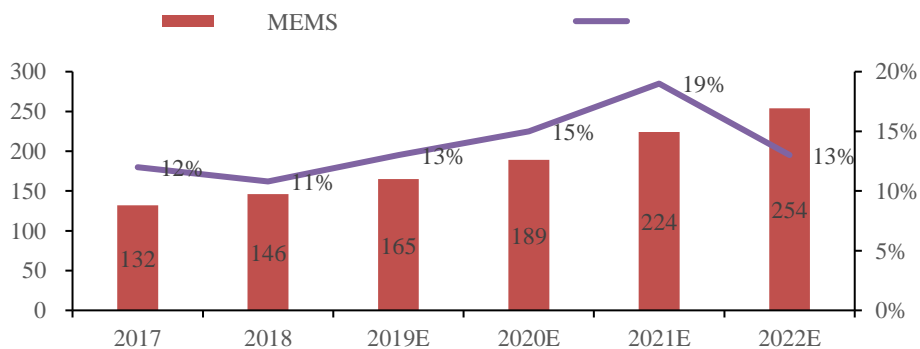
33



IoT Analytics

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

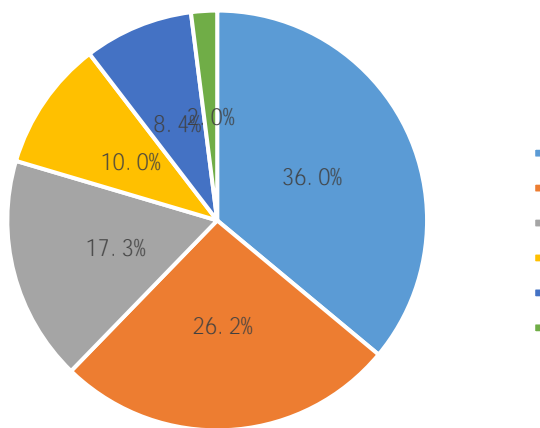
34 MEMS



YoY e

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

35

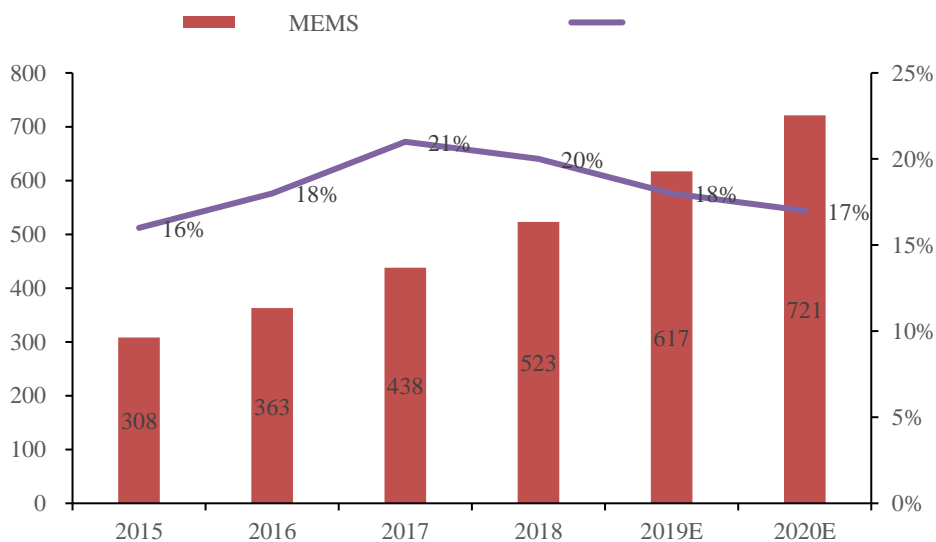


BIS Research

MEMS      MEMS      523      60%      19.5%      2018-2020

2018      MEMS      17.41%

36 MEMS



MEMS      MEMS      MEMS      MEMS      MEMS      MEMS      MEMS      MEMS      MEMS      MEMS

IDM      IDM      IDM      IDM      IDM      IDM      IDM      IDM      IDM      IDM

YoY Development 2017      2018      2019      2020

### 3 MCU

MCU

MCU

Micro Control Unit  
CPU RAM ROM

I/O

MCU

MCU

4

8

16

32

MCU

240

MCU

MCU

IC Insights

2018

MCU

186.2

3

11.4%

2018-2022

6.42%

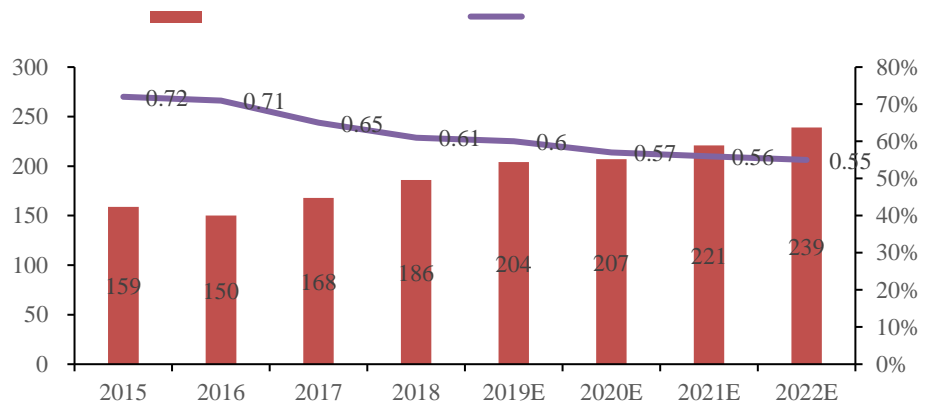
2022

MCU

240

37

MCU



IC Insights

MCU

40

MCU

IHS Markit

2017

MCU

46

5

9.5%



60										
		62						69		
PEPINNOVATION										
	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						

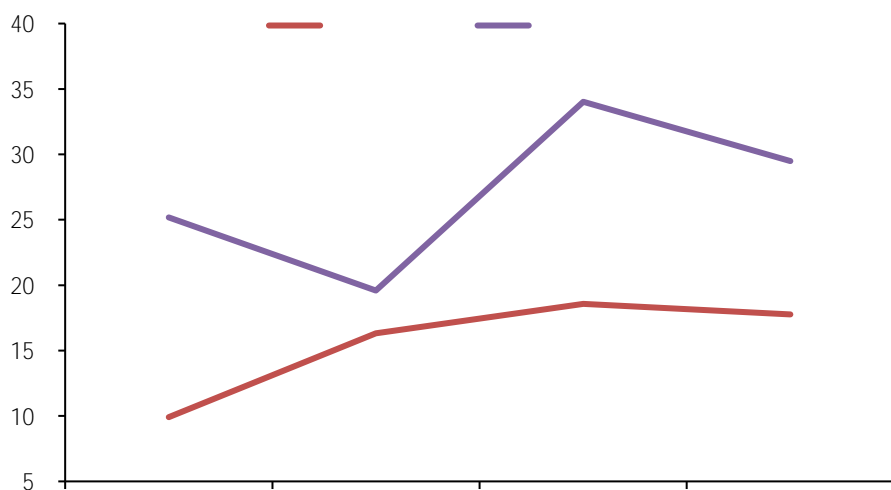
### 3.

#### 3.1.

		20%				30%
MCU	30%		MEMS	40%		

41

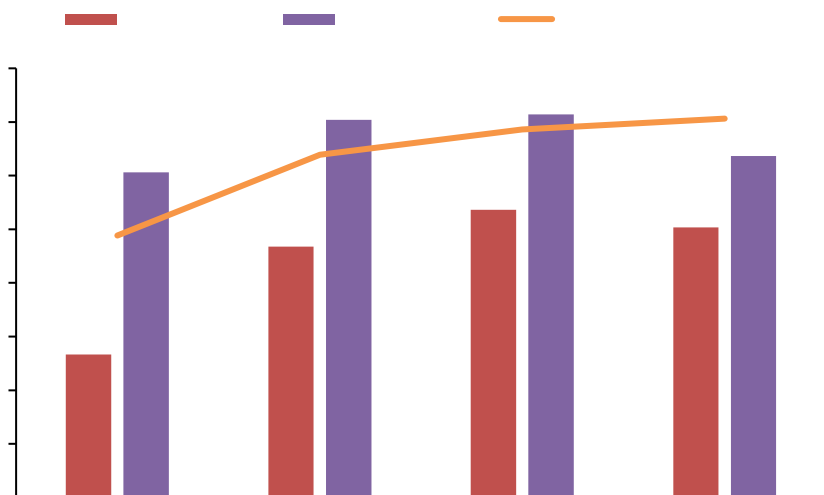
%



2019 44%

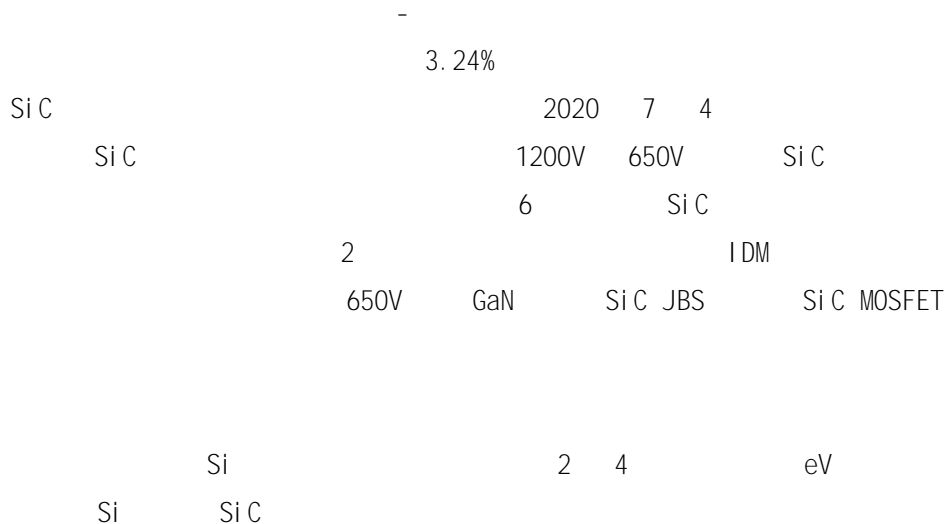
2016 30%

42

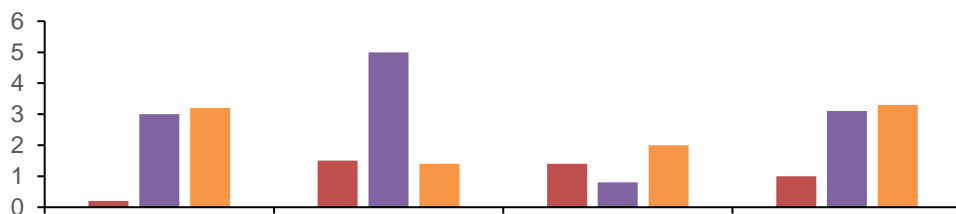


**3.2.**

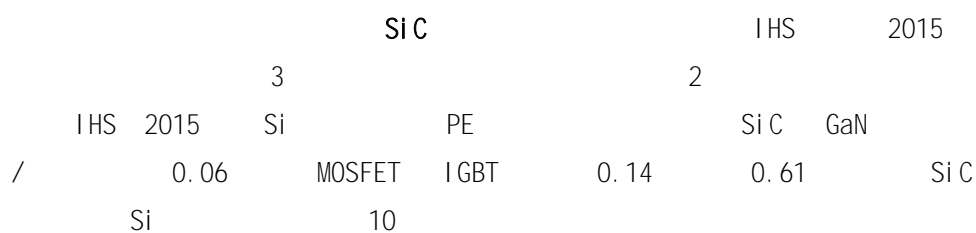
IGBT



43

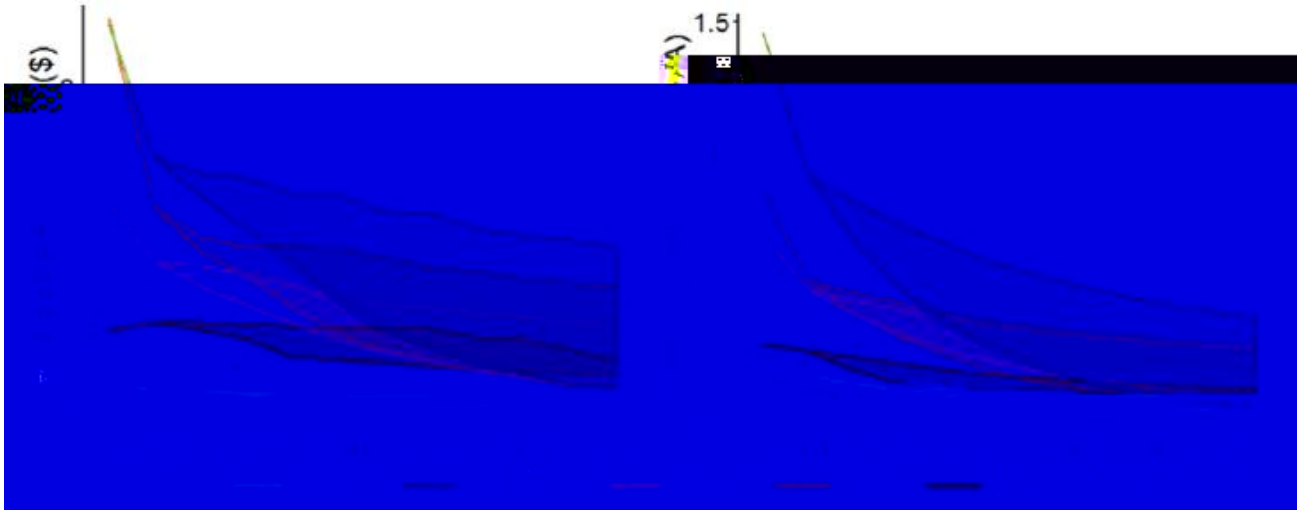


ORNL





44 SIC



IHS(2016)

12

50

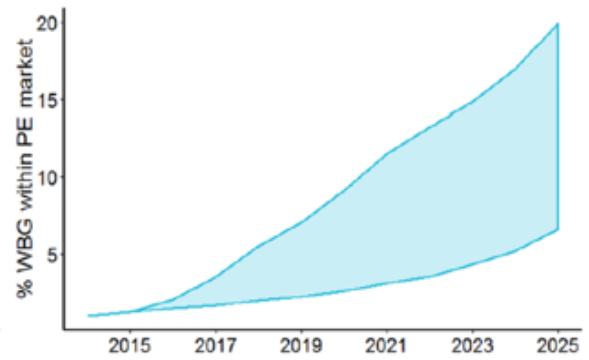
2025

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%
	<b>6,271.0</b>	<b>5,743.0</b>	<b>6,556.54</b>	<b>7,380.04</b>	<b>8,141.66</b>
	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
				<b>103</b>	<b>77</b>	<b>60</b>

wind 2020 8 12

## 5.

1

2

3

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49

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

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

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6			
6			
6			

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" "

/

/

/



8 9

0510-82833337  
0510-82833217



1198 3704 3705 3706

021-61649996