



台灣茂矽電子股份有限公司

Investor Relation Presentation

March 17, 2021

POWER saving by MVI

風險聲明

Risk Disclosures Statement

This presentation material contains certain forward-looking statements that are based on current expectations and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements.

- 2020營運成果 唐亦仙 董事長暨總經理
- 產品及產能規劃 鄧志達 副總經理暨發言人
- 問與答

營運結果摘要

單位：新台幣 百萬元	109年12月31日	108年12月31日
	金額	金額
營業收入淨額	1,846	1,358
淨利(損)	220	(397)
每股盈餘(元)	1.42	(2.56)
現金及約當現金	635	687
權益	2,178	1,952
出貨片數(仟片)	600	466

簡明綜合損益表-年度比較

單位：新台幣 百萬元

	109年度		108年度		年差異
	金額	%	金額	%	%
營業收入淨額	1,846	100.0	1,358	100.0	35.9
營業成本	(1,427)	(77.3)	(1,251)	(92.1)	14.1
營業毛利	419	22.7	107	7.9	291.6
營業費用	(200)	(10.9)	(216)	(15.9)	(7.4)
營業淨利(損)	219	11.8	(109)	(8.0)	300.9
資產評價利益(損失)	49*	2.7	(271)	0.0	118.1
其他淨營業外收入(損失)	(48)	(2.6)	(17)	(21.2)	(182.4)
稅前淨利(損)	220	11.9	(397)	(29.2)	155.4
本期淨利(損)	220	11.9	(397)	(29.2)	155.4
每股盈餘(元)	1.42		(2.56)		

* 110.1.22. 完成PACRAY (1010.HK)持股出售，交易總金額約HKD1.41億

簡明資產負債表-年度比較

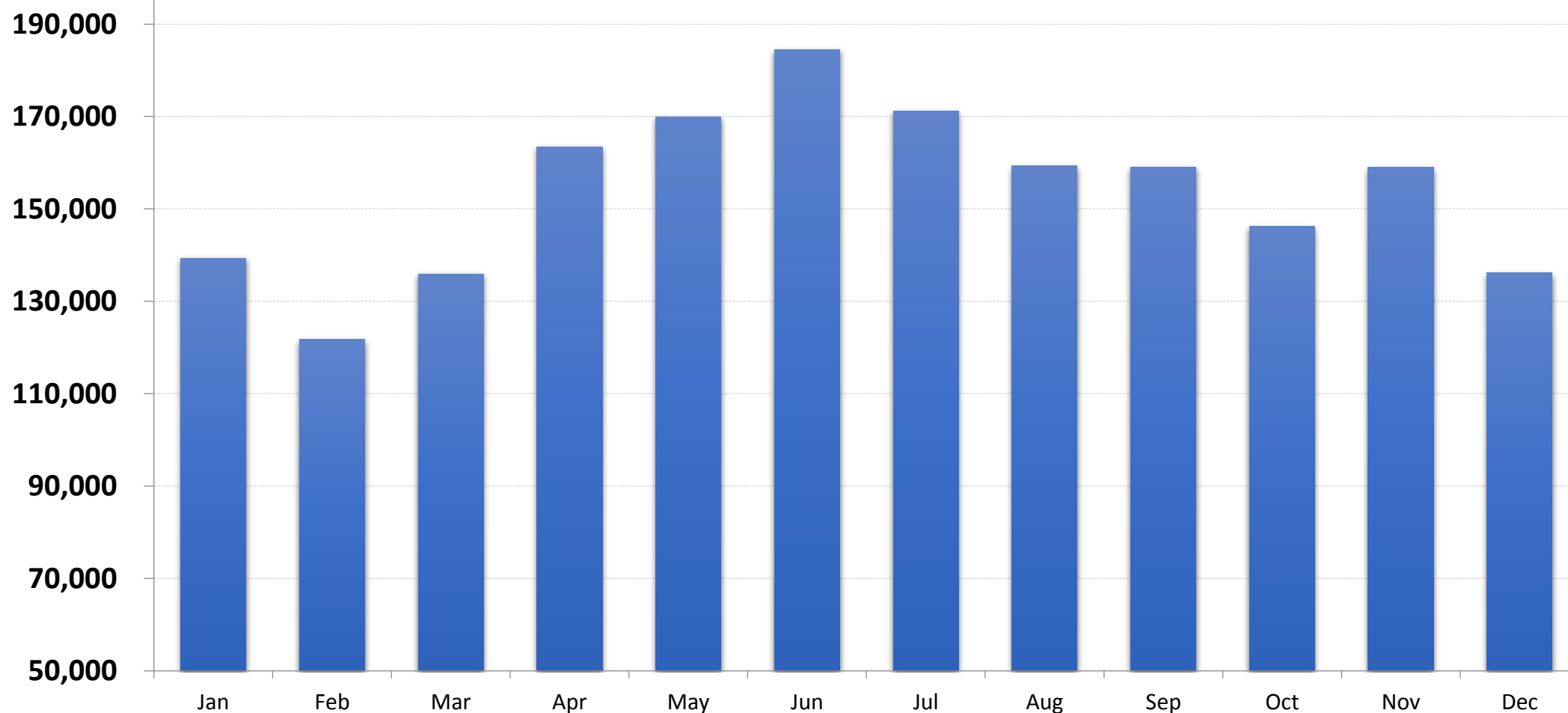
單位：新台幣 百萬元	109年12月31日		108年12月31日	
	金額	%	金額	%
總資產	2,963	100.0	2,742	100.0
現金及約當現金	635	21.4	687	25.1
應收票據及帳款	287	9.7	259	9.5
存貨	210	7.1	183	6.7
流動資產	1,523	51.4	1,432	52.2
不動產、廠房及設備	310	10.5	306	11.2
使用權資產	333	11.3	340	12.4
應付票據及帳款	168	5.7	152	5.6
應付費用及其他	218	7.4	214	7.8
流動負債	386	13.0	366	13.4
權益總計	2,178	73.5	1,952	71.2
每股淨值(元)	13.82		12.35	

Monthly Sales

2020年每月營收表現



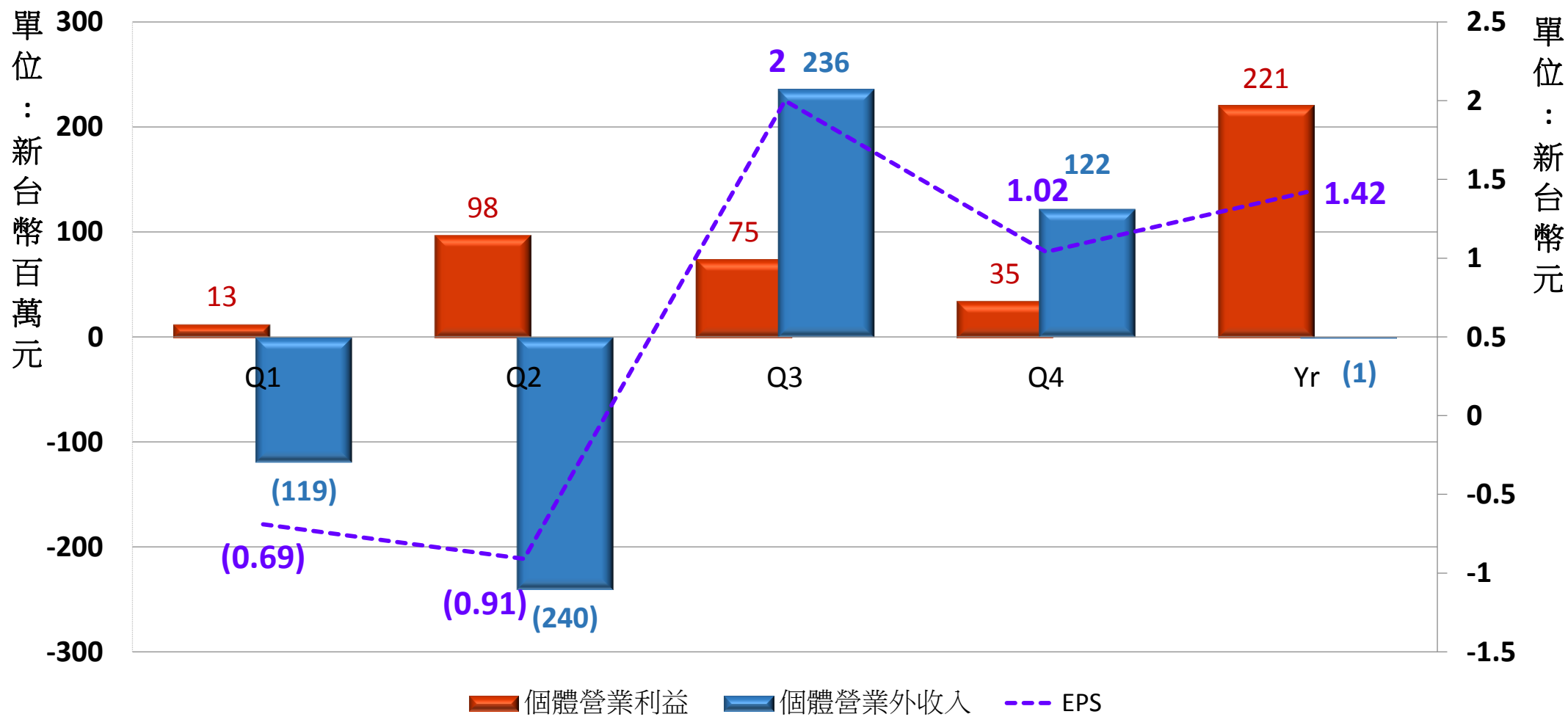
單位：新台幣仟元



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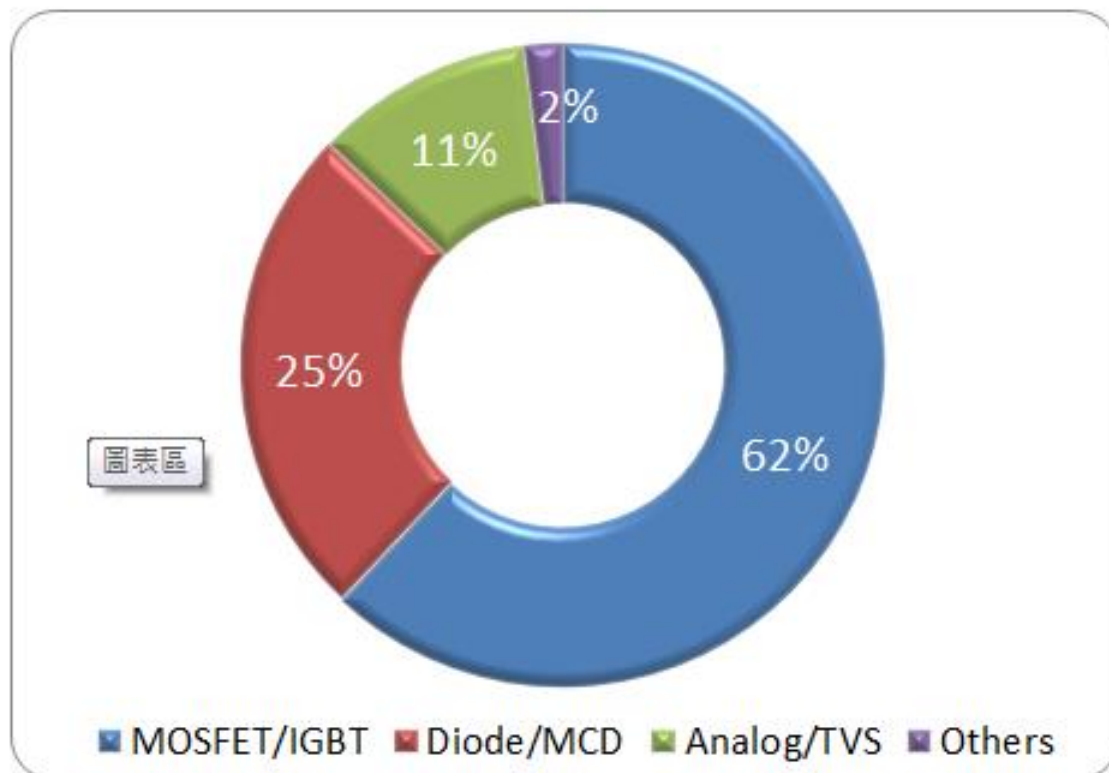
Quarterly Financial Highlights

2020年季度營運表現

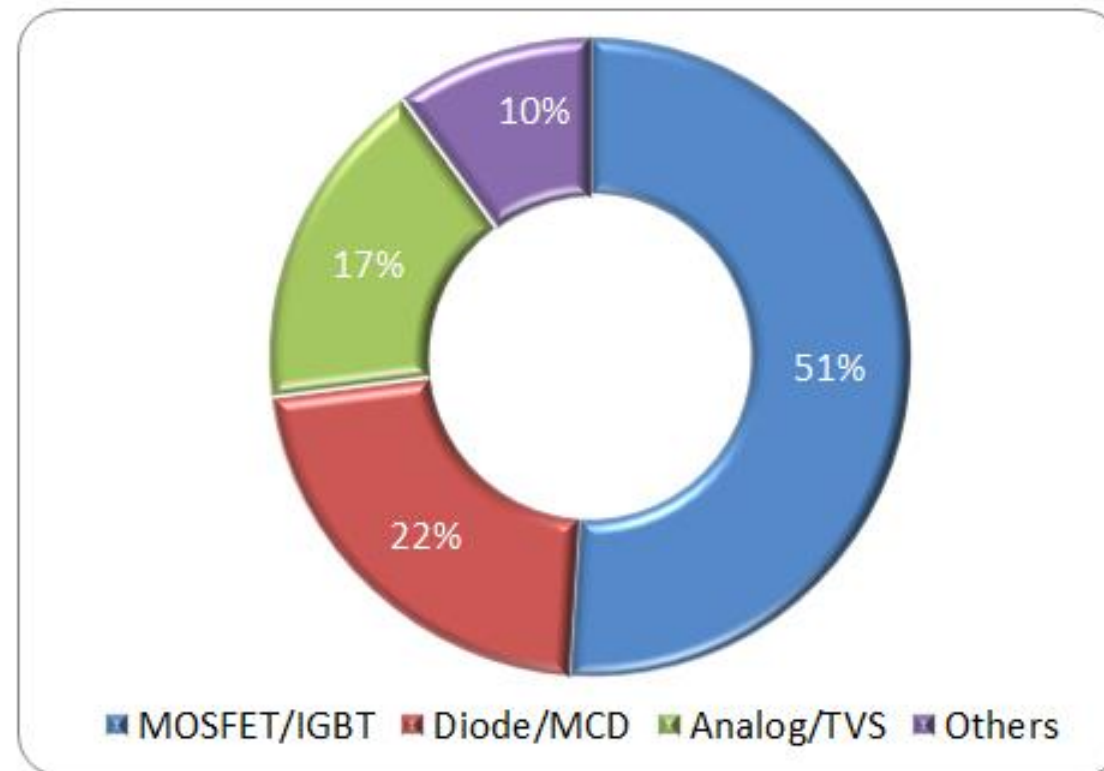


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Y2019

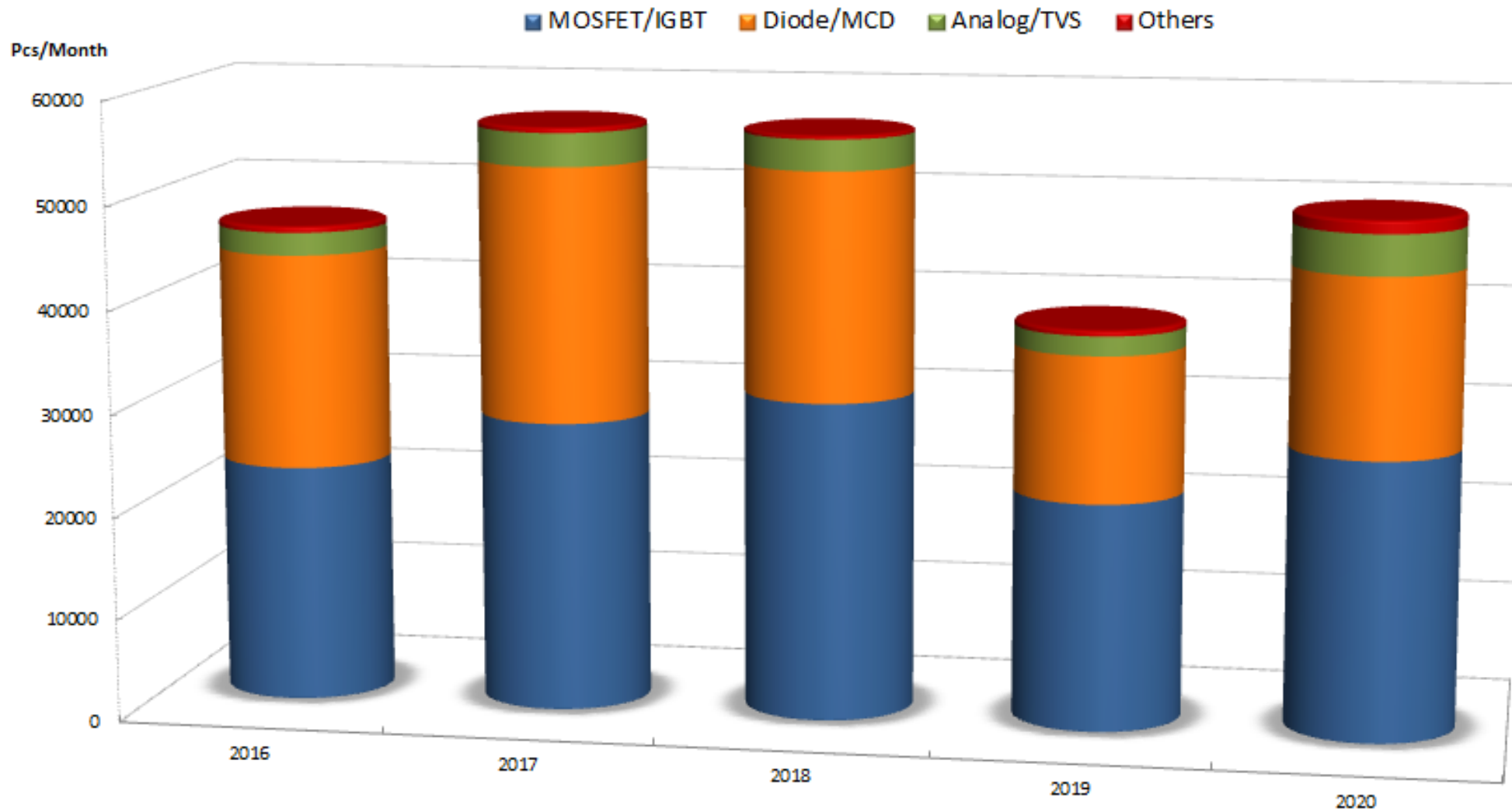


Y2020



Wafer Foundry Output Trend (average per month)

平均每月晶圓製造產出數量



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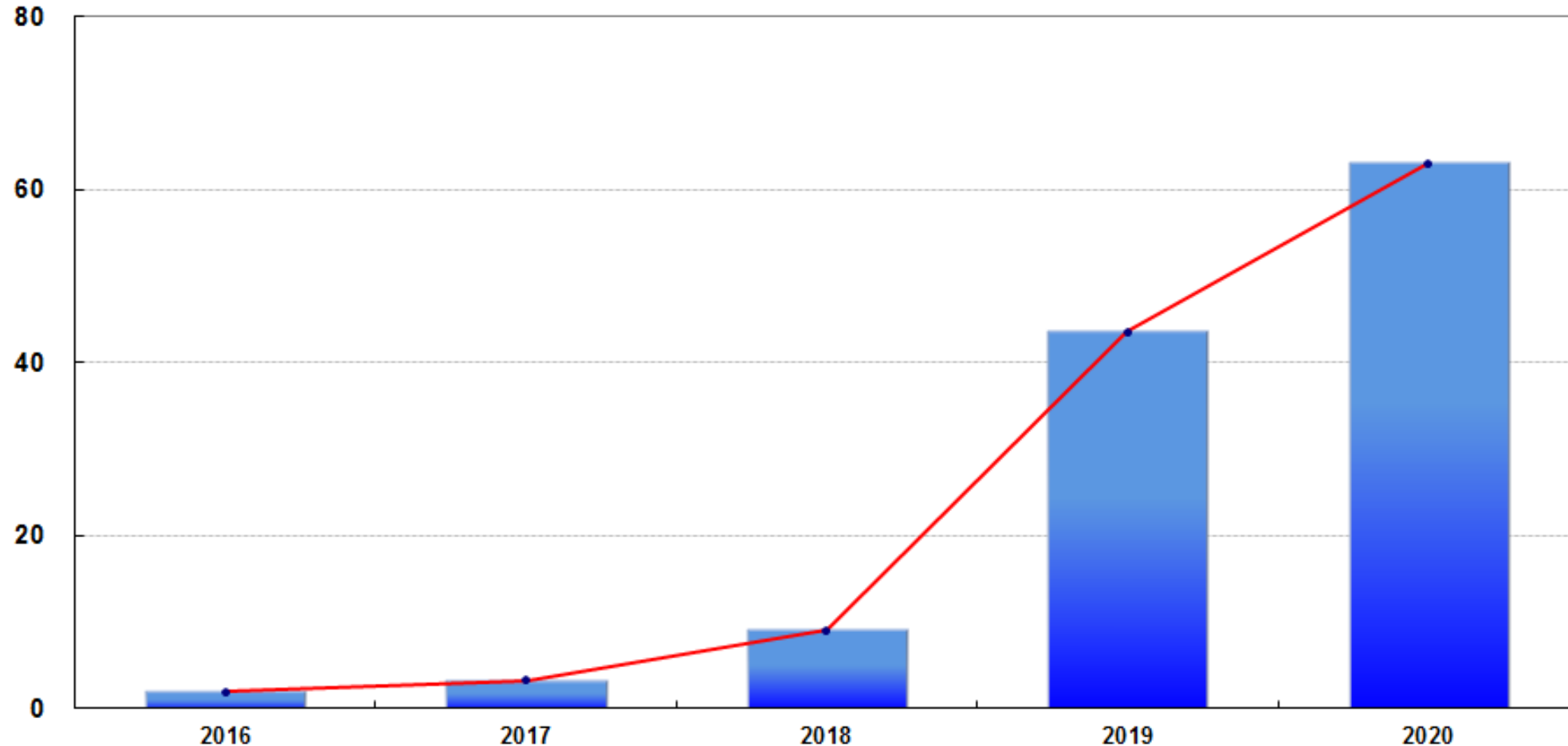
MVI Automobile Products Shipping Trend

茂矽車用產品出貨數量



Sales Quantity (Automobile)

Unit : KPcs



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IGBT and FRED Products Overview

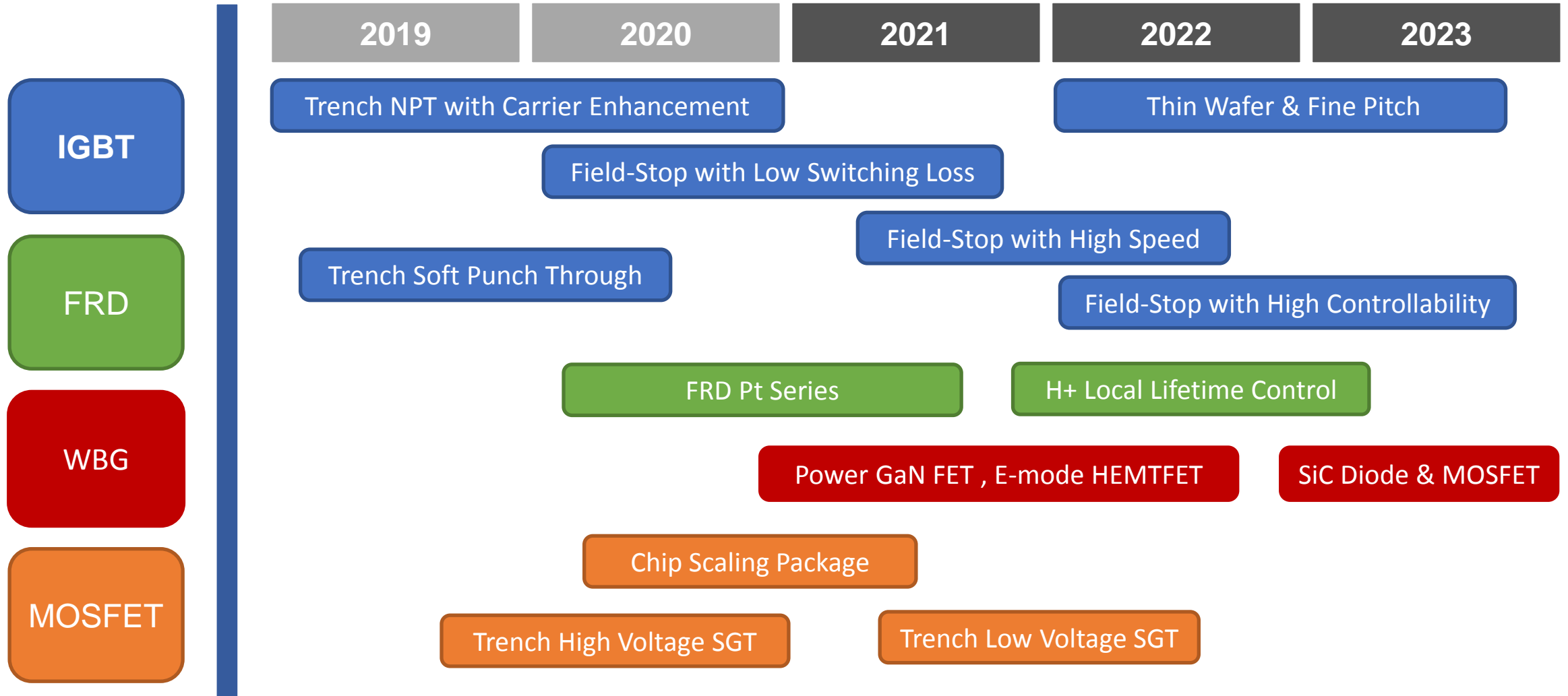


產品一覽表

Voltage Rating (V)	Current Rating (A)	Technology	Status
650V	10A,12A,15A	Trench NPT	Released
650V	20A,25A	Trench NPT	Released
650V	35A	Trench NPT	Released
650V	70A	Trench NPT	Released
750V	150A	Trench Field stop	under development
1250V	10A,20A,25A	Trench NPT	Released
1250V	30A,50A,90A	Trench NPT	Released
1250V	20A,30A,50A	Trench Field stop	Customer sample
1250V	>=75A	Trench Field stop	under planning
1700V	>=25A	Trench Field stop	under development
Voltage Rating (V)	Current Rating (A)	Technology	Status
650V	15A,30A,50A	FRED Pt series	Released
750V	225A	FRED Pt series	under development
1200V	25A	FRED Pt series	Customer sample

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Mosel Power Device Technology Roadmap



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Fab晶背產能擴充

八吋/六吋共用 8in/6in Compatible:

- 2020 Q2完成八吋/六吋共用之IGBT晶背製程無塵室建置及Q3-Q4大部份機台裝機
Fab construction for IGBT backside process completed in Q2 2020, majority tool move in Q3-Q4
- 關鍵設備雷射退火機延遲交機，於2月份運抵廠區，預估驗收完畢後，Q3-FS IGBT即可開始試產。
State of the Art Laser annealing tool delay delivery . Tentative release for pilot run in Q3/2021
- 陸續增加FRED產品系列及與車規匹配之FRED產品，持續優化效能
To expand FRED product portfolio , matching with IGBTs for automobile applications
- 第一期月產能約5000片
Phase 1 capacity- 5000wf/month

Summary- 經營現況總結



攻佔車用、工業及高端 MOSFET應用市場

Continuous growth in AUTOMOTIVE , INDUSTRIAL and HIGH END MOSFET Markets

- 2020年下半年開始，間接通過的車用產品種類及訂單量持續成長，預估2021年營收比重目標挑戰20%
In 2H/2020 continuous growth in automotive products shipment.
In 2021, with vigorous demand, >20% annual revenue projection from automotive applications
- 工業用600-1200V NPT IGBT產品出貨穩定，計畫Q3可推出FS IGBT新產品，並進一步擴充產品系列含1700V兼容FREDs產品
Continuous growth in 600-1200V NPT IGBT products shipment for industrial applications.
Plan to start delivery FS IGBT from Q3 and broaden IGBT product portfolio to 1700V with compatible FREDs
- 進入電動車及白色家電領先企業，並開發次世代功率產品GaN技術平台
Engaged with Electric Vehicle, Appliances manufacturing companies for FS-IGBT market
Deliver High End MOSFETs for Portable Devices .To develop Power GaN Technology Platforms with customers .

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Thank You !

Q and A !