

# APEX 泰鼎

Sam Wu, CSO



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# Company Profile

Founded: 2001.09.27

Listed: 2011.10.18 in OTC

2015.09.08 in TSE

Capital: NTD1.89Bn (as of Aug., 2020)

Market Cap: NTD13.7Bn (as of Aug., 2020)

Chairman: Woody Wang

CEO: Bill Chou

Products: Printed Circuit Boards

Ground Area: 148,680 M<sup>2</sup> in Samutsakorn

Apex 1: 35,000 M<sup>2</sup>, Apex 2: 105,000 M<sup>2</sup>

Apex S: 8,680 M<sup>2</sup> (obtained in Jan., 2020)

Employees: 7,075 (as of Aug., 2020)

Physical Lab: R&D Center, in-house testing Lab in 2019







# Production Capacity Plan



Plant	Dec. 31 2019	Jan. 1, 2020	Apr. 1, 2020	Q3, 2020	Future
<b>A 1</b>	250,000 m <sup>2</sup>	250,000 m <sup>2</sup>	280,000m <sup>2</sup>	280,000m <sup>2</sup>	280,000m <sup>2</sup>
<b>A 2</b>	250,000m <sup>2</sup>	250,000m <sup>2</sup>	250,000m <sup>2</sup>	300,000m <sup>2</sup>	300,000m <sup>2</sup>
<b>A S</b>	n. a.	100,000m <sup>2</sup>	100,000m <sup>2</sup>	170,000m <sup>2</sup>	170,000m <sup>2</sup>
<b>A 3</b>	n. a.	n. a.	n. a.	n. a.	250,000m <sup>2</sup>
	500,000m <sup>2</sup>	600,000m <sup>2</sup>	630,000m <sup>2</sup>	750,000m <sup>2</sup>	1,000,000m <sup>2</sup>



## A3 Plan: Jan., 2020 to Q3, 2021



■ Apex 2 Phase 1 = 18,095 m<sup>2</sup>  
111m(L) x 163m(W)  
Capacity: 340,000 m<sup>2</sup>/Month  
MP Q3 '2020

■ Apex 3 Phase 2 = 7,920 m<sup>2</sup>  
120m(L) x 66m(W)  
Capacity: 250,000 m<sup>2</sup>/Month  
MP 2021: Automotive + HDI

■ TBC: Future plan



# Advantages



## Excellent Management

- ◆ Centralized sale and procurement



## Integrated Total Solution

- ◆ All manufacturing processes in-house



## Cost Control

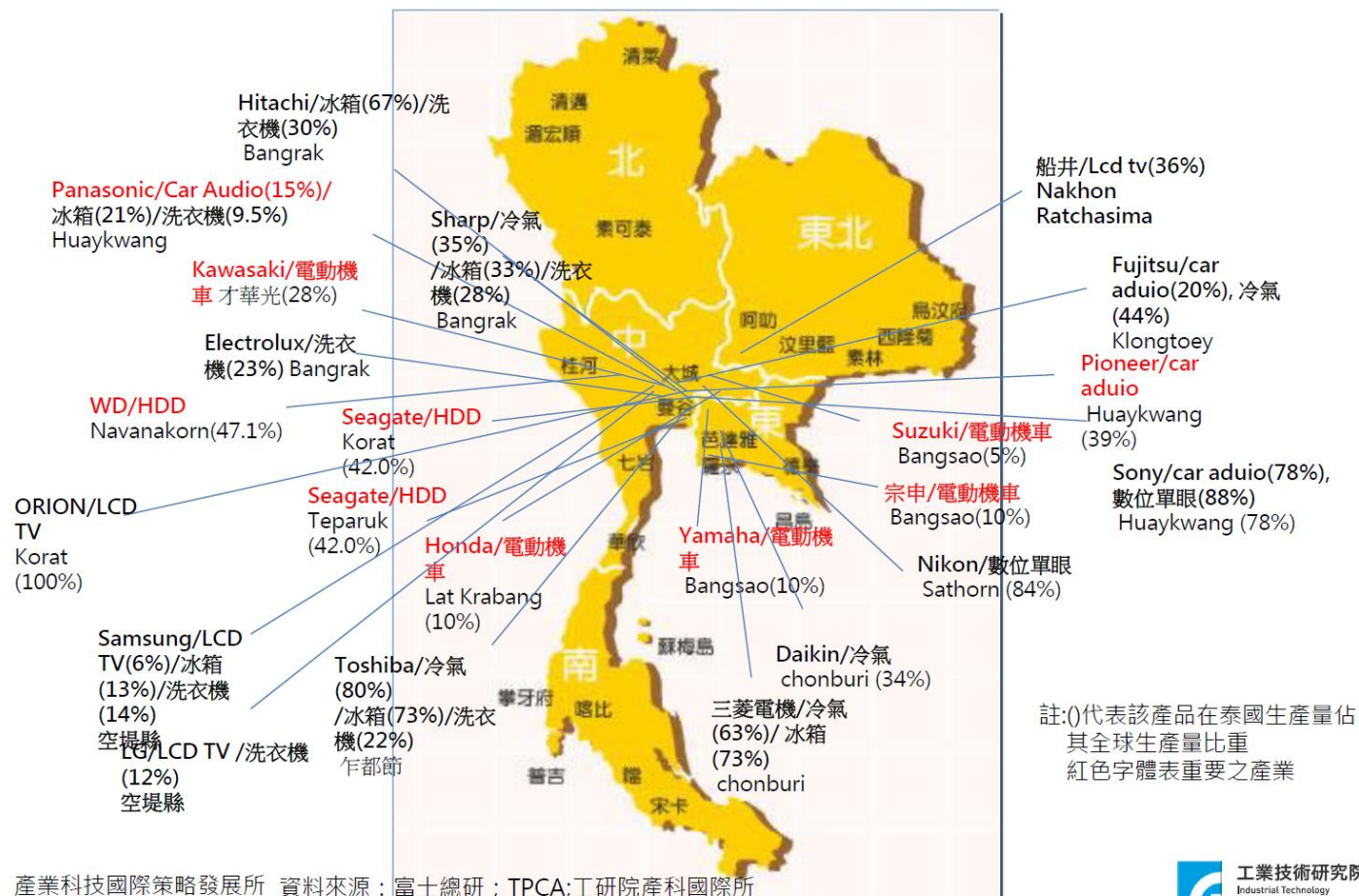
- ◆ Efficient cost control





# Advantages

## 泰國亦是全球電子產品生產重鎮



# Advantages

## 近年國際大廠布局以汽車為主

### Schaeffler

設廠位置:春武里府  
設廠內容:2016年投資2.4億美元生產汽車變速器零組件，供貨給Honda、Mitsubishi、GM、Toyota等車廠

### 愛知製鋼

設廠位置:春武里府  
設廠內容:投資2億美元設廠，生產變速箱，供貨給Toyota、Hino、JATH等汽車廠商

### DENSO

設廠位置:春武里府  
設廠內容:2017年投資7,000萬美元建置電動馬達零組件產線，供貨給Nissan、Honda、Mitsubishi、Toyota等車廠

### Continental

設廠位置:羅勇府  
設廠內容:2017年投資3億美元，預訂2019年開始生產汽車輪胎



產業科技國際策略發展所 資料來源：產科國際所機械組

# No. 1 Capacity in Thailand

## 泰國電路板廠主要集中在曼谷週邊

泰國電路板廠商生產據點分佈

### 依利安達

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能8.4萬平方米

### MEKTEC

- 主要產品:軟板
- 主要應用市場:硬碟、汽車

### 競億

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能10.5萬平方米

### 泰鼎

- 主要產品:硬板
- 主要應用市場:硬碟、消費性電子、汽車
- 2017擴產後每月45萬平方米

### 協峰銘版

- 主要產品:硬板
- 主要應用市場:家電

### Canon

- 主要產品:硬板
- 主要應用市場:辦公設備

### YKC

- 主要產品:硬板
- 主要應用市場:家電

### KCE

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能28萬平方米

### CMK

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能10萬平方米

### Fujikura

- 主要產品:軟板
- 主要應用市場:硬碟、汽車

### 敬鵬

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能18萬平方米

### KYODEN

- 主要產品:硬板
- 主要應用市場:汽車、家電



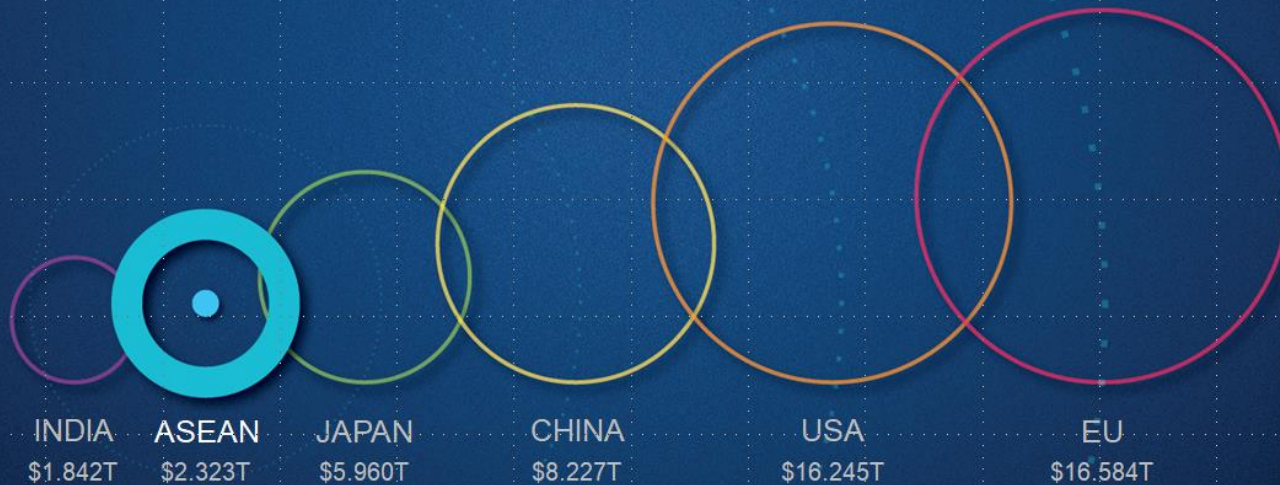
產業科技國際策略發展所 資料來源: NTI;TPCA;工研院產科國際所



## Alternative Solution

### Alternative Solution, Next To China

As World No.5 biggest economy unit, ASEAN countries can be next world manufacturing base. PCB suppliers have been clustering in the region.



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As World No.5 biggest economy unit, ASEAN countries can be next world manufacturing base. PCB suppliers have been clustering in the region.

National Policy



Environmental Issue



Rising Wages





## Alternative Solution

**TEAM WORK** makes us excellent performance.  
The unique team perfectly fits to PCB industry.







# Technology & Engineer

Design Aspect	Standard Capability	Advance Capability
Copper Thickness	0.5oz, 1oz	2oz, 3oz, 4oz, 5oz
Layer Count	8	12
Line Width and Spacing	0.076/0.076mm(3.0/3.9mil)	0.0635/0.0635mm(2.5/2.5mil)
PTH Diameter Tolerance	±0.076mm(3.0mil)	±0.040mm(1.6mil) For press fit hole
Minimum Hole Size	0.20mm	0.15mm
Maximum Aspect Ratio	8:1	TBD
Minimum BGA/SMD Pitch	0.60mm(Hole 0.20mm)	0.50mm(Hole 0.15mm)
Minimum Panel Thickness	0.48mm	0.40mm
Minimum S/M Registration	0.050mm(2.0mil)	0.050mm(2.0mil)
Minimum S/M Dam	0.076mm(3.2mil)	0.050mm(2.0mil)
S/M Plug Hole	0.20 - 0.45 hole(Aspect ratio Max. 6:1)	TBD
Resin Plug Hole	0.30 - 0.50 hole(Aspect ratio Max. 6:1)	TBD
Impedance Control	±10%	±8%
Working Panel Size	533mm x 610mm	601mm x 710mm
Surface Coating	OSP, ENIG, Immersion-Silver, Immersion Tin, LF HASL	



# Global Presence



## Valuable Customers







# World Class Partners

2019 TV PCB  
Global Share  
(43/223Mset)



2019 STB PCB  
Global Share  
(40/240Mset)



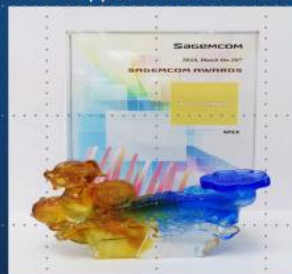
2019 Printer PCB  
Global Share  
(26/94Mset)



Samsung VD  
VD Global Partner in 2019



Sagemcom  
Best Supplier Awards in 2019



Canon Hi-Tech  
Best Supplier Awards in 2019



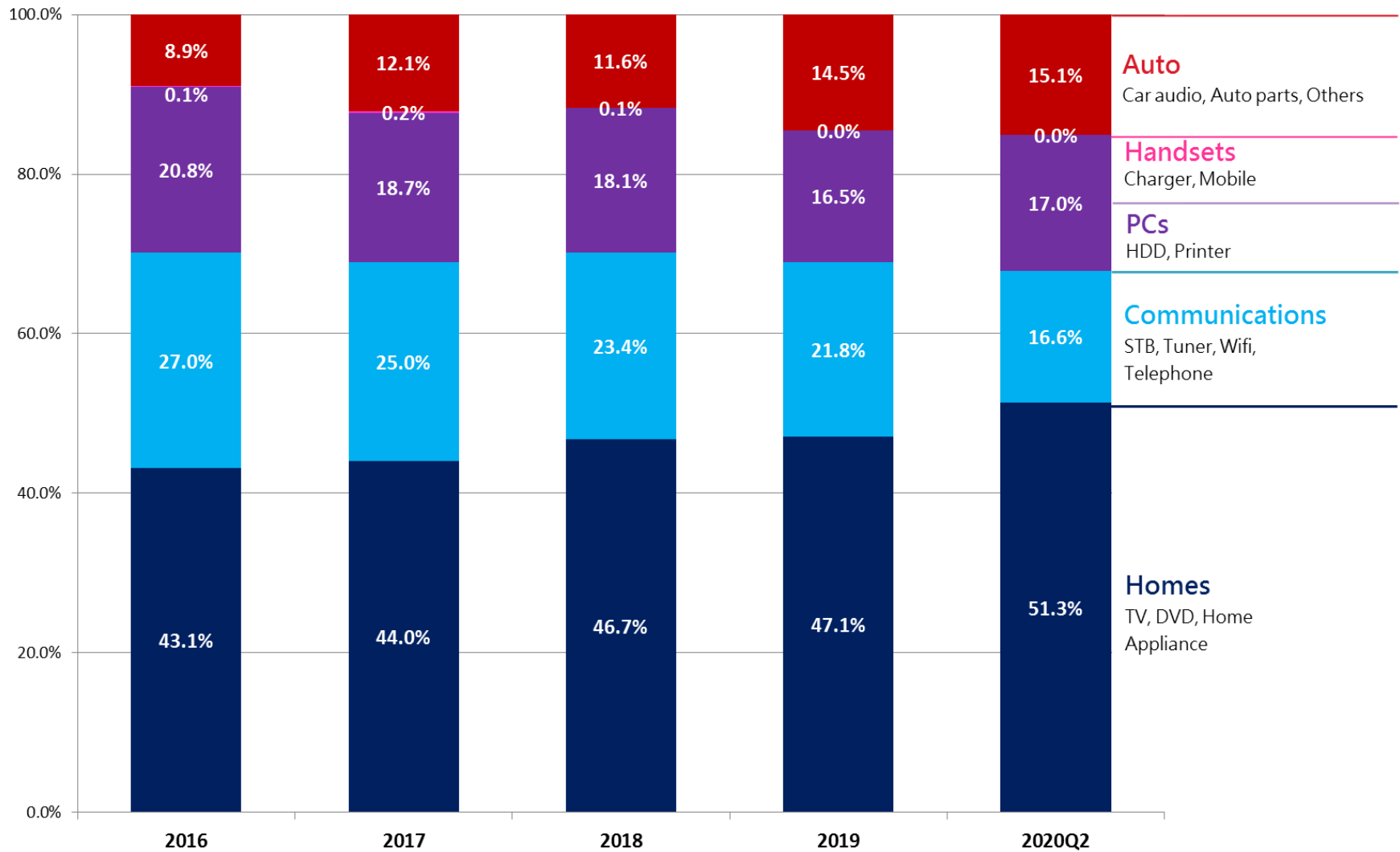


# Best Supplier Awards





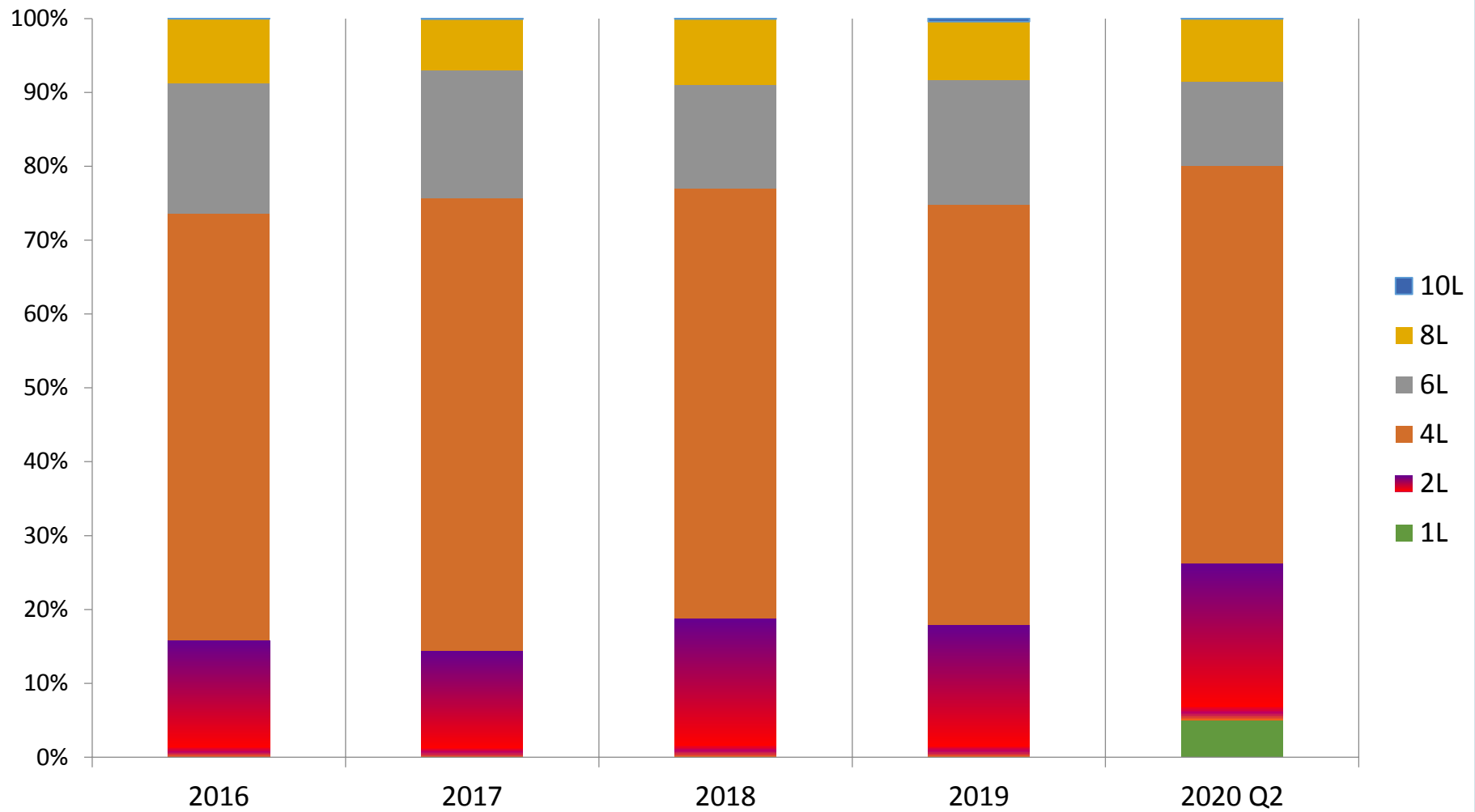
## Product Mix:





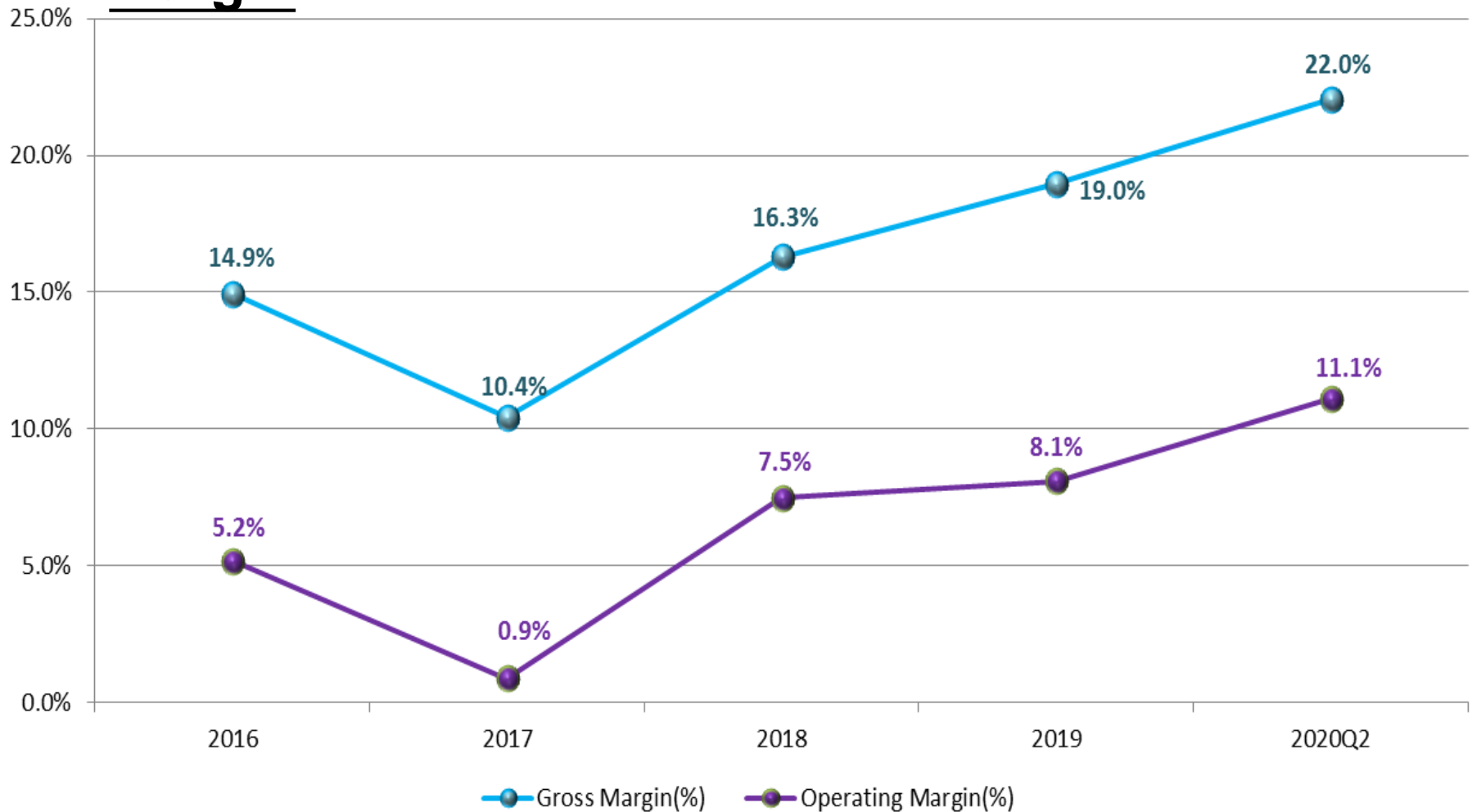


# Layer Count



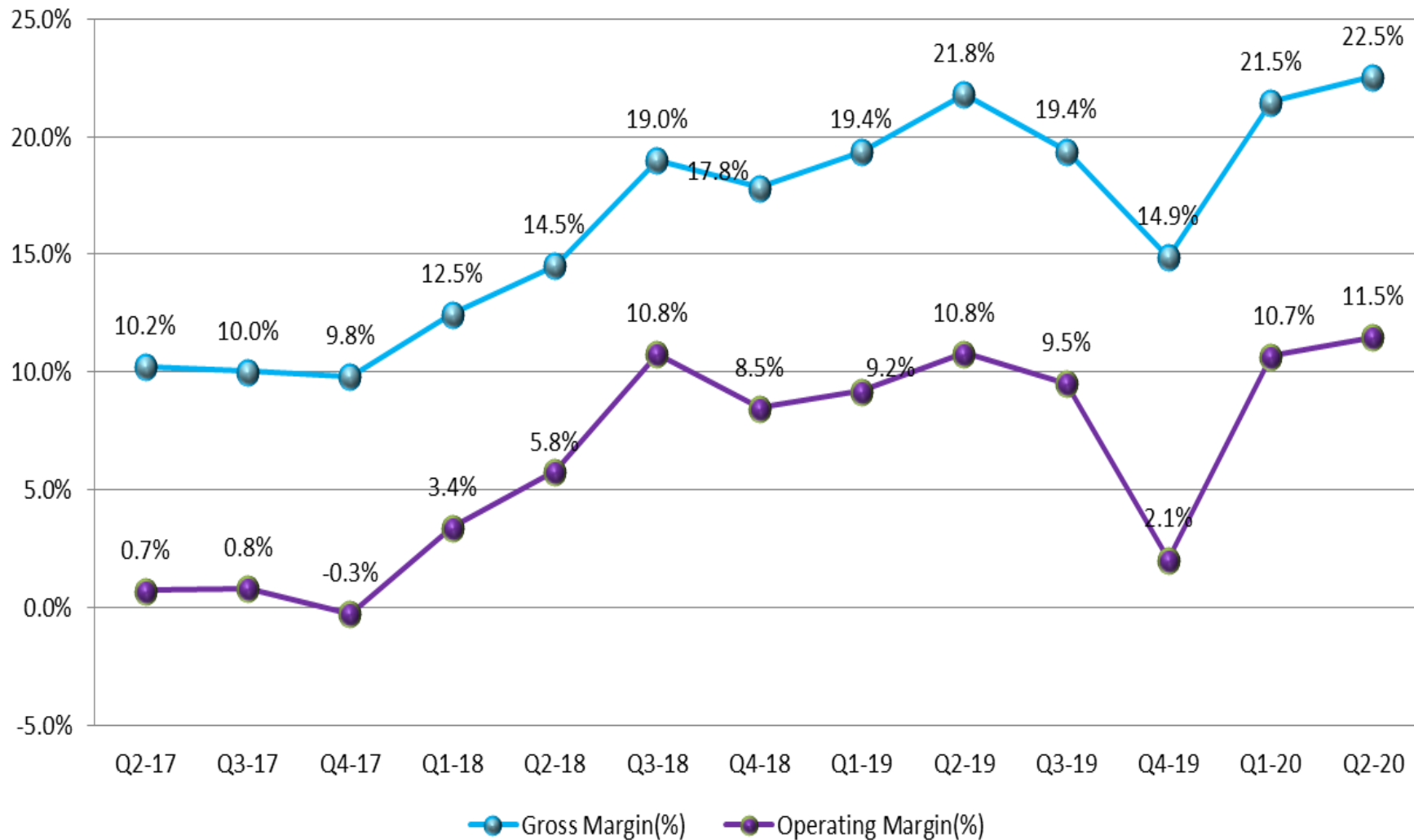


## Gross & Operating Margin





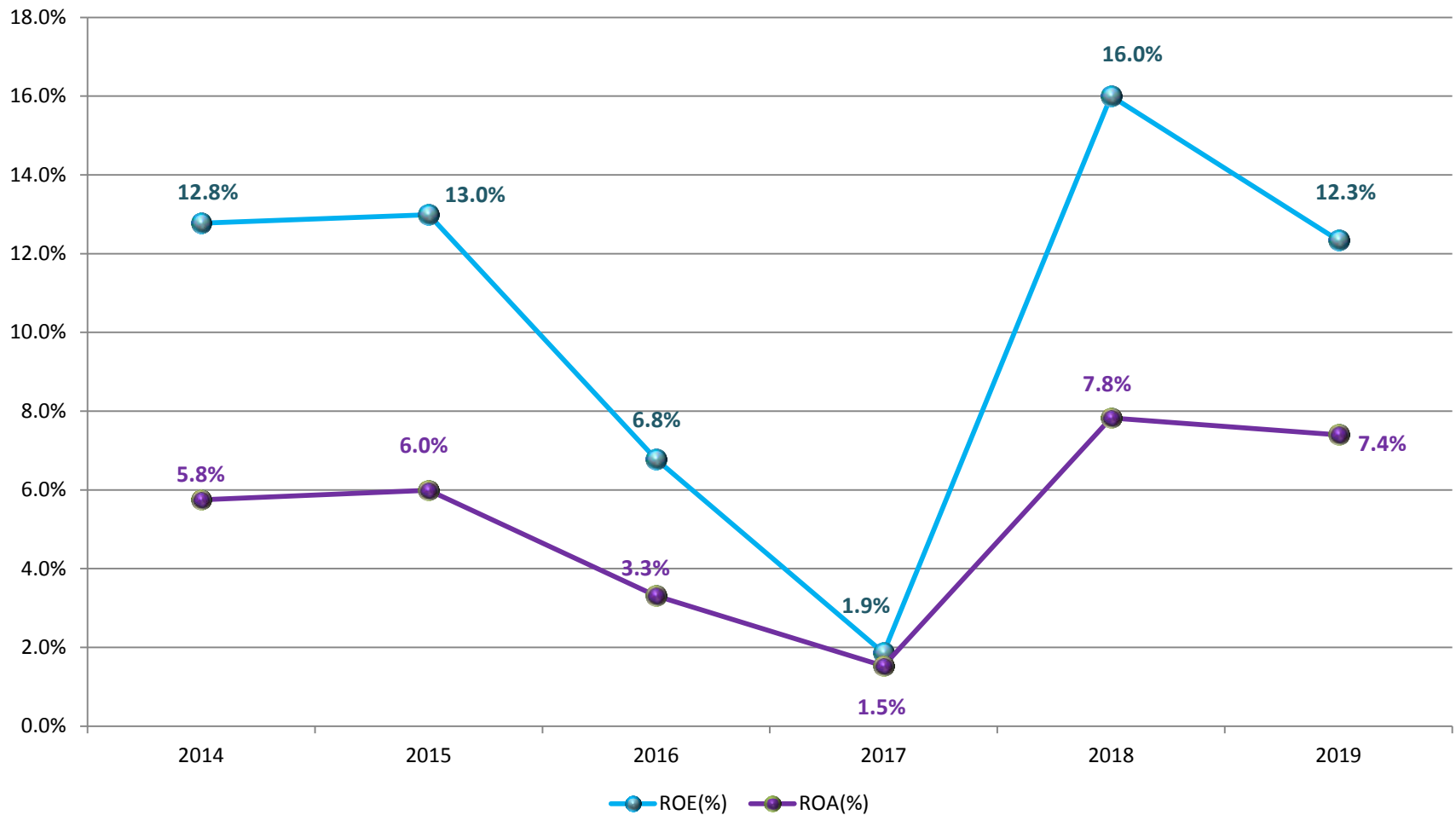
## Gross & Operating Margin





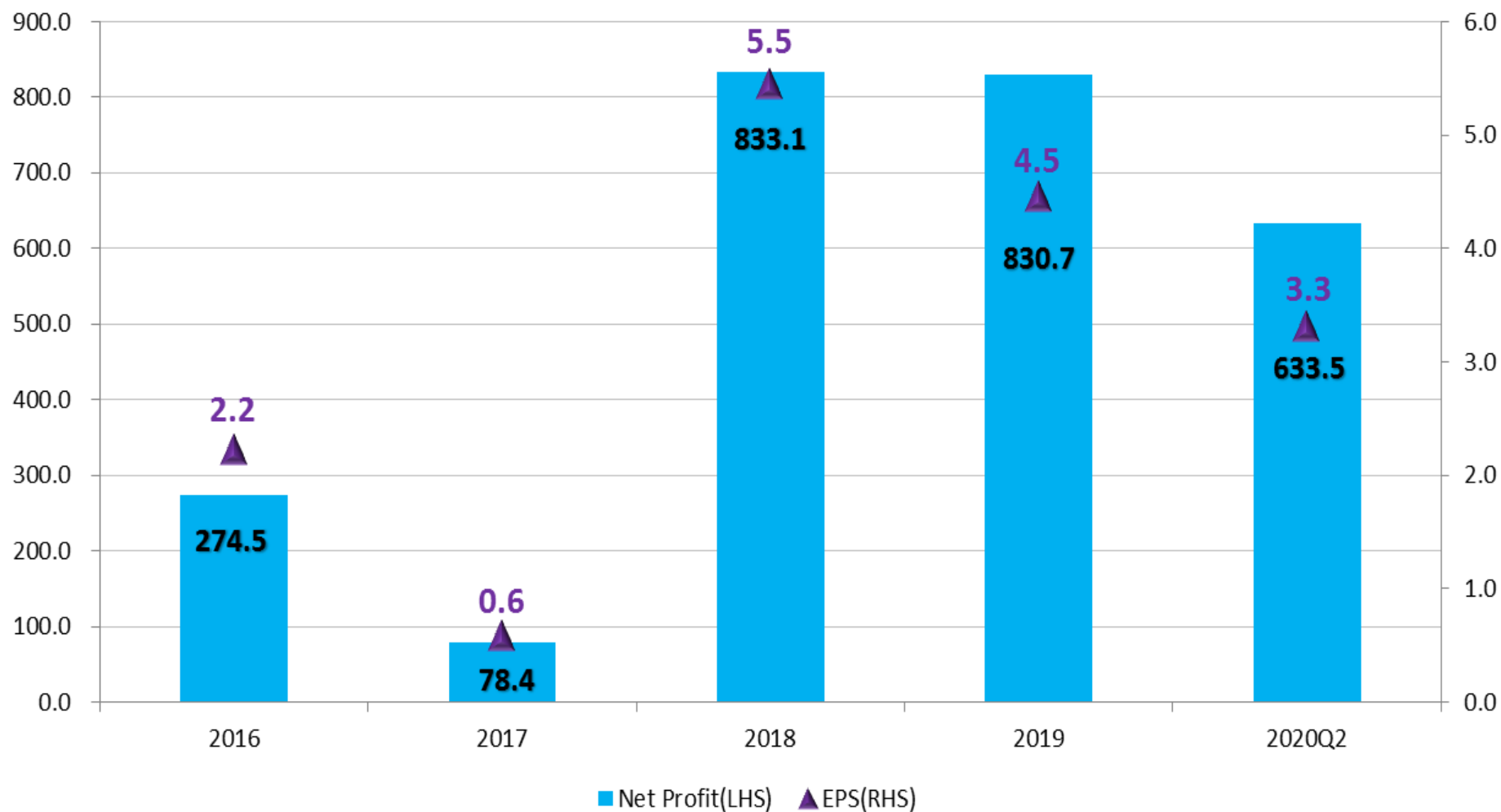


## ROE and ROA:



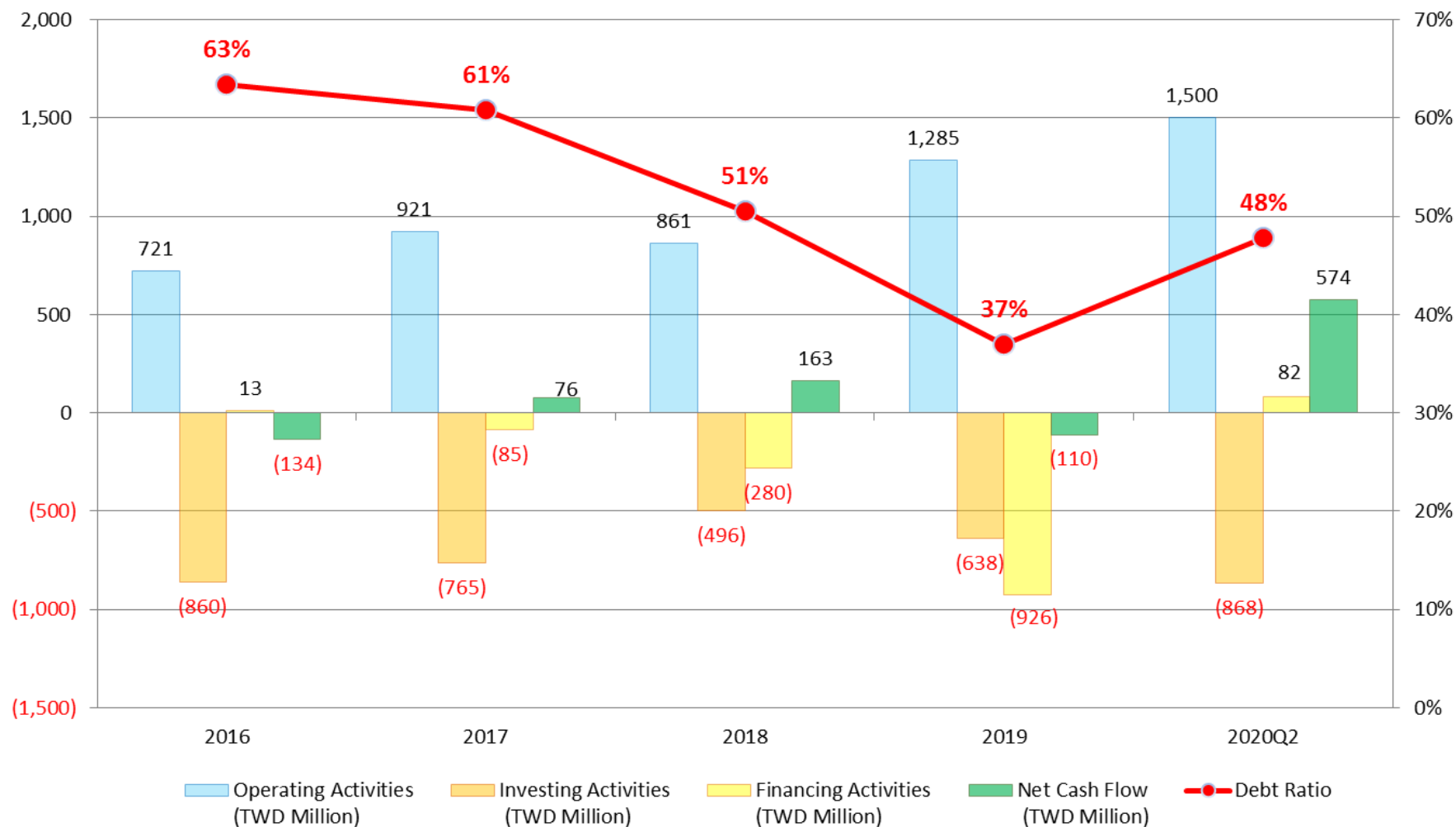


## Net Profit and EPS





## Improving Cash flow and Financial Structure







## **Dividend Policy**

Year	Cash Dividend	Stock Dividend	EPS	AGM Date
2019	3.00*	-	4.46	June 5
2018	2.46	-	5.45	June 5
2017	0.00	-	0.59	June 15
2016	0.78	0.32	2.23	June 15
2015	2.50	-	4.34	June 15
2014	2.50	-	4.06	June 2
2013	1.85	-	3.70	June 25

\*Based on fully-diluted shares



## Quarterly Results

	2019Q2	2020Q1	2020Q2
Revenue (In THB)	2,488M	2,707M	<b>3,179M</b>
QoQ			<b>17.4%</b>
YoY			<b>27.7%</b>
Revenue (in NTD)	2,454M	2,605M	<b>2,983M</b>
QoQ			<b>14.5%</b>
YoY			<b>21.5%</b>
Gross Margin	21.8%	21.5%	<b>22.5%</b>
Net Margin	10.7%	11.0%	<b>11.7%</b>



# APEX CSR







# APEX CSR



## Letter from the CSR Committee Chairperson

Apex has always believed that a sustainable enterprise must not only excel in its core business and pursue the highest revenues, profits, and shareholder returns, it must also fulfill its responsibilities to the environment and society, and serve as an uplifting force in society.



In 2015, Apex established its Corporate Social Responsibility Policy, aiming to build on a foundation of sustainable operations and carry out our three missions of “Corporate Governance”, “Sustainable Environment”, and “Social Care” in our daily operations. We gain understanding of the key issues of concern for our stakeholders through organizations in our company responsible for these issues, and try our best to disclose the results of our actions through Company announcements.

## Economic Dimension

Although Apex faced significant rise of material cost in 2017, under such turbulence, Apex started to proceed improvements in order to decrease production cost then was able to face challenges from the environment. During July of 2017 to June of 2018, Apex kept strengthening SOP of fundamental employees; built up costing control team to closely communicate with production line to find room for improvement; improved purchase strategy on supplies; improved manufacturing process etc. These made operating performance quickly improved in 2018. It was made by the whole members of Apex.

As the Top 2 rigid PCB manufacturer in Thailand, Apex hopes to leverage its hard-won leadership position in the industry and move our supply chain towards sustainable operations. We were making labor and environmental standards a part of our audits and requiring suppliers to follow the RBA (Responsible Business Alliance) Code of Conduct.

## Environmental Dimension

In 2018, in addition to achieving our targets in energy saving, water conservation, waste reduction, and other environmental goals, Apex plans to set up renewable energy supply device, wastewater reuse and carbon footprint inventories and disclosures.

## Social Dimension

Our focus is on employee rights and social participation. Employees are Apex’s greatest asset, and we pay close attention to their physical and mental health as well as their work environment. Each factory must maintain the ISO 14001 and the OHSAS 18001 (occupational health and safety) management system standards. In 2018, we provided more than 6,000 job opportunities, and retained talent with competitive compensation, diverse training courses, vacation time above regulatory requirements, and an array of work-life balance measures.

We take the initiative to care for employees, and our employees are happy to give back to society after work, creating a positive cycle to make society better. In 2018, Apex provided book donations to schools, blood/money/supplies donation to hospitals, and work opportunities to blind people among other things. Apex spends approximately 0.34M baht for Community/Social event and donation, total 9 events in 2018.



# APEX CSR



Top 6-20% in Corporate Governance Evaluation;  
AREA-Investment in People;  
Zero Fire Project



Community Services and Donations;  
Happy and Safe Workplace;  
Customer Services and Suppliers Cooperation



Energy Saving;  
Water Saving;  
Waste Recycling;  
GHG Inventory and Disclosure;







## APEX CSR



**Caring Homeless Program**



**APEX Green Program**



**Songkran-Donation Program**



**Community Services**





## APEX CSR



**Providing Scholarship for Local School**



**Providing Scholarship for Employee**



**Blood Donation**



**Anti-drug with Thai Government**



# 2019 Songkran





## **APEX CSR**

For more information, please refer to APEX's CSR report

URL : <http://www.apex-intl.com.tw/en/csr-7.php>





A photograph of a large, ornate golden temple complex at night. The temple features multiple tiers of golden roofs with intricate carvings and numerous tall, slender spires that reach into a dark blue sky. The lighting is warm, highlighting the golden surfaces of the architecture. The text "Thank You" and "大家平安" is overlaid in the center of the image.

Thank You  
大家平安