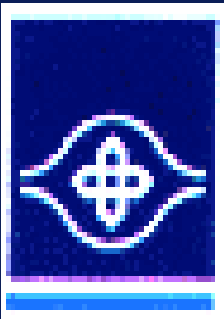


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# **2019 Operation Briefing of Nan Ya PCB Corp.**

**March 25<sup>th</sup> 2020**



# Disclaimer

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**The description of historical events might include the information that was not reviewed by accountants. Thus, it might be insufficient to fully exhibit the financial status or operation results of Nan Ya PCB Corp.**

**The actual operation results, financial status, and sales outlook in the future might be different from what will be indicated or implied in this meeting. The reasons may be including but not limited to the market demand, price fluctuation, competition dynamic, global economy, supply-chain, foreign exchange rate, and other risks that the Company cannot control.**

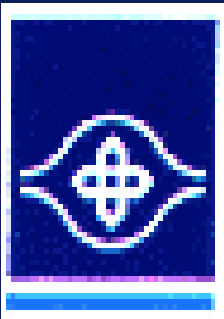
**Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.**



# Agenda

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- **Company Profile**
- **Financial Status**
- **Future Product Development**
- **Operational Goals**



# Company Profile

## Business Overview

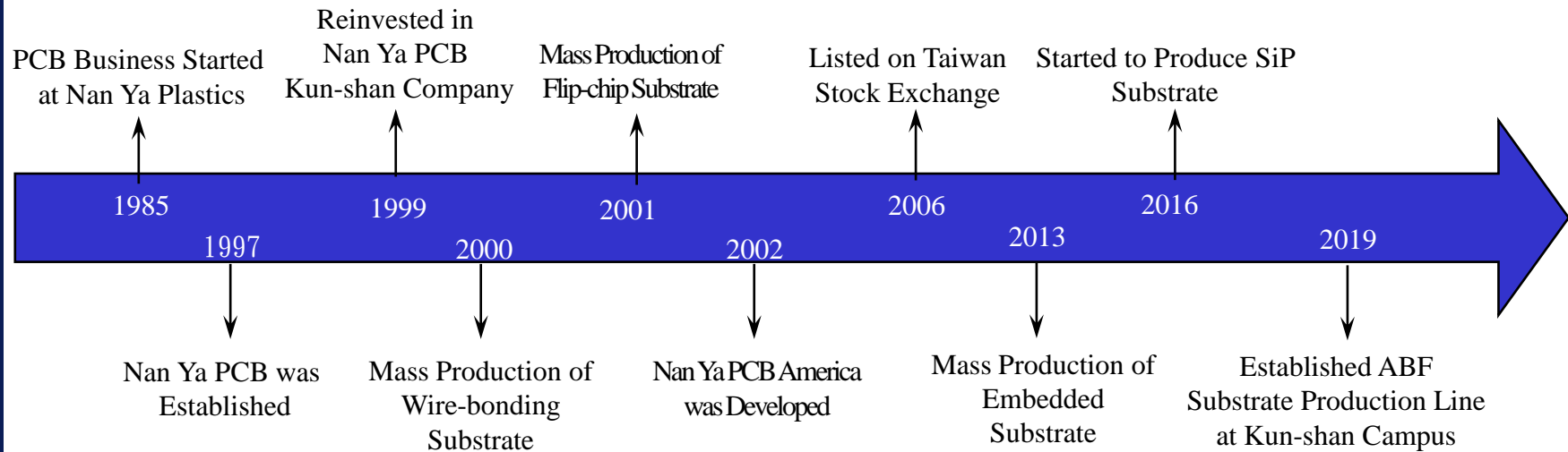
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- **Subsidiary Company of Nan Ya Plastics Corp.**
- **Manufacture and Sell PCBs and IC Substrates**
- **2019 Consolidated Revenues: NTD 31.1 Billion**
- **Market Value: NTD 29.7 Billion(December 31<sup>st</sup> 2019)**
- **Production Locations : Taiwan and China**



# Company Profile

## Milestone

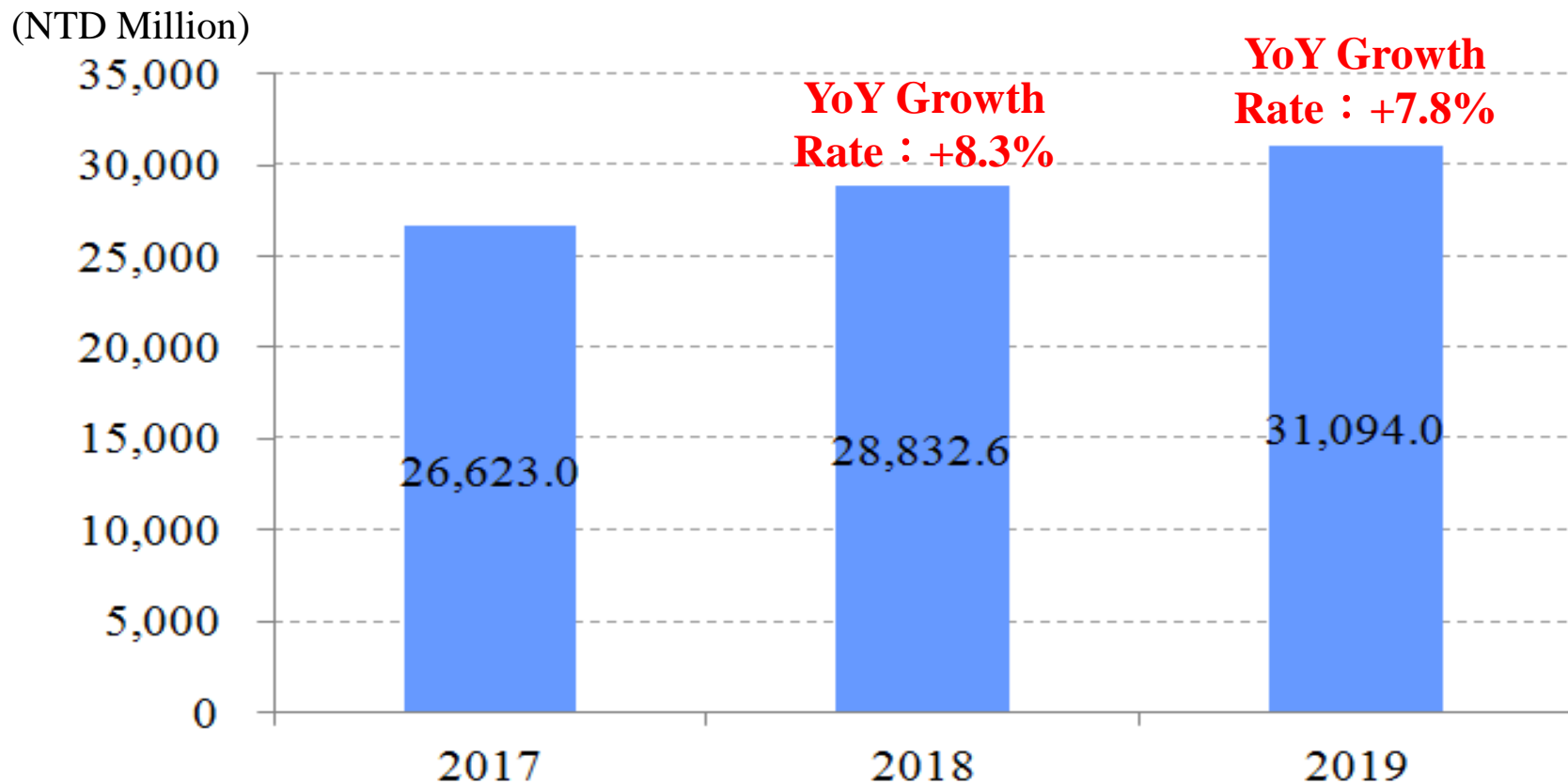


- **1985 : PCB business unit was formed at Nan Ya Plastics Corp. and started manufacturing PCBs**
- **1997 : Approved by the Board of Nan Ya Plastics, Nan Ya PCB Corp. was established via reinvestment**
- **1999 : Reinvested Nan Ya PCB Kun-shan Company with capital of USD29.8 million**
- **2000 : Started manufacturing wire-bonding substrates**
- **2001 : Upgraded technologies and produced flip-chip substrates**
- **2002 : Established Nan Ya PCB America Corp.**
- **2006 : Listed on Taiwan Stock Exchange with ticker 8046 TT**
- **2013 : Upgraded technologies and produced Embedded substrates**
- **2016 : Started to produce System in Package (SiP) substrates**
- **2019 : In response to market demand, Nan Ya PCB Corp. started to build ABF substrate production line at Kun-shan Campus**



# Financial Status

## Consolidated Revenues(IFRS) in Last 3 Years



- **Revenues in 2018 were 8.3% greater than those in 2017:**

Nan Ya PCB lifted average selling price by actively rolling out more high value products. Hence, revenues in 2018 grew from 2017.

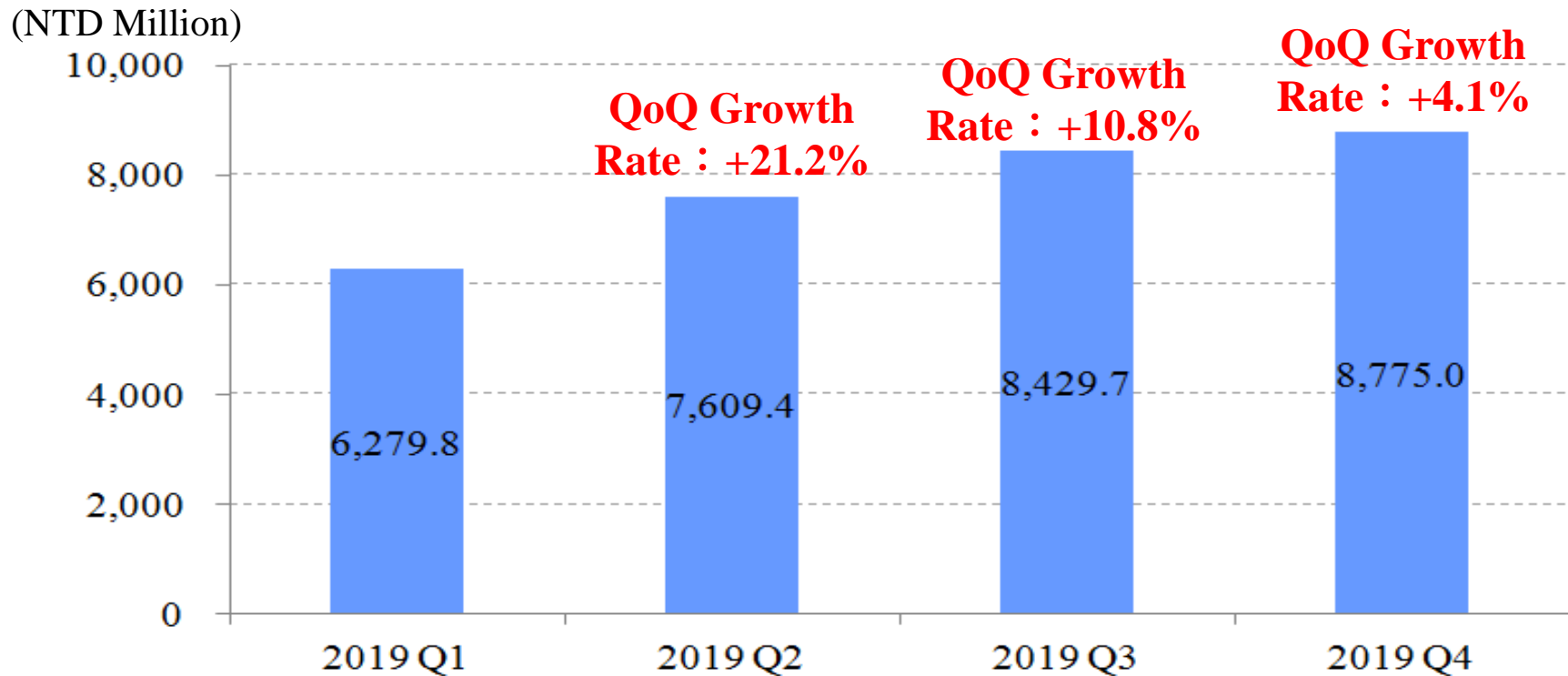
- **Revenues in 2019 were 7.8% greater than those in 2018:**

Nan Ya PCB continued to increase the sales ratio of high-value products, enabling the average selling price to rise. The revenues in 2019 kept growing from 2018.



# Financial Status

## Quarterly Consolidated Revenues(IFRS) in 2019

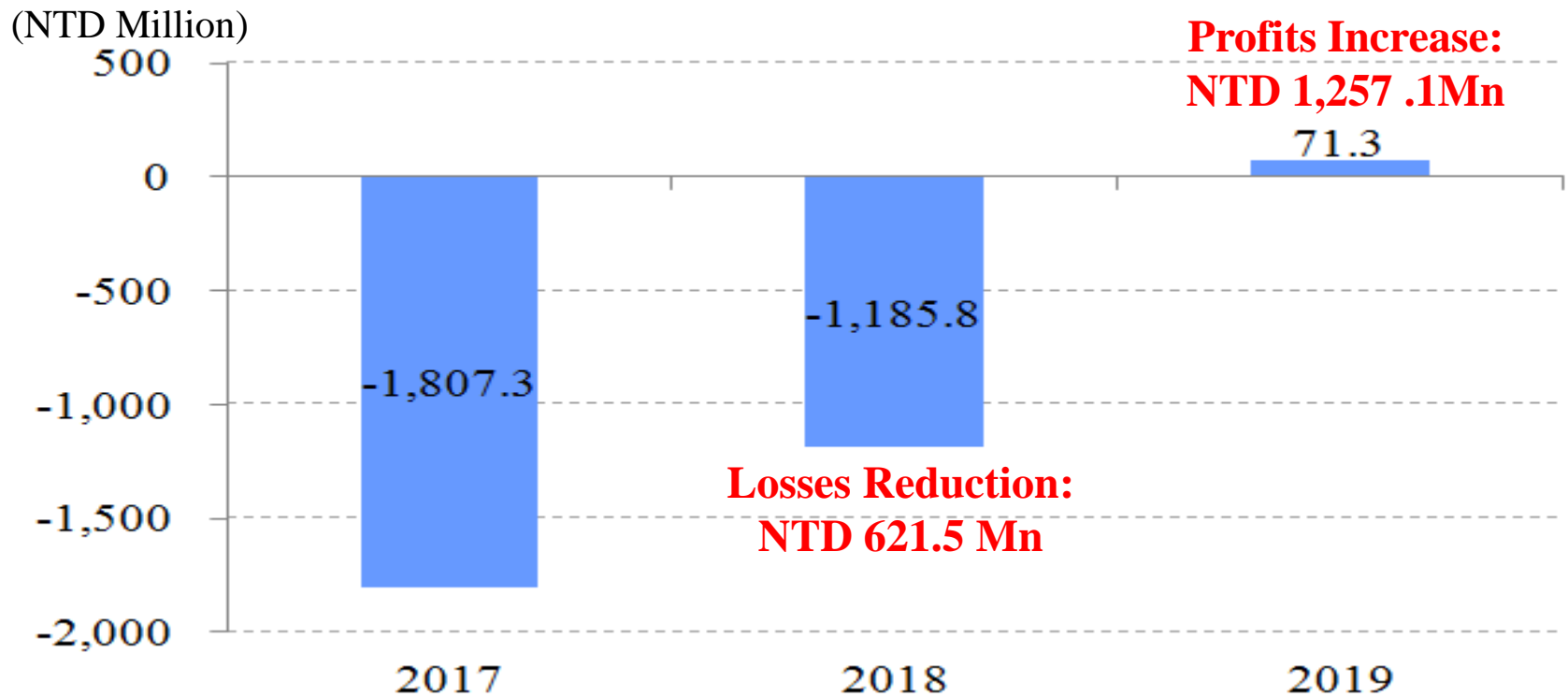


- **Revenues in 19Q2 were 21.2% greater than those in 19Q1:**  
Because the impacts of traditional slow season faded, the 19Q2 sales grew 21.2% from 19Q1.
- **Revenues in 19Q3 were 10.8% greater than those in 19Q2:**  
Helped by resuming demand in SiP substrates and interposers sales, 19Q3 sales kept growing.
- **Revenues in 19Q4 were 4.1% greater than those in 19Q3:**  
Thanks to the increasing demands in ABF substrates, 19Q4 sales continued to grow.



# Financial Status

## Operation Profits(Losses) in Last 3 Years



- **Operation losses in 2018 were narrowing NTD 621.5 Mn from 2017:**

Nan Ya PCB improved the product mix by actively rolling out more high value products. Thus, the operational losses in 2018 kept decreasing from 2017.

- **Operation profits in 2019 were increasing NTD 1,257.1 Mn from 2018:**

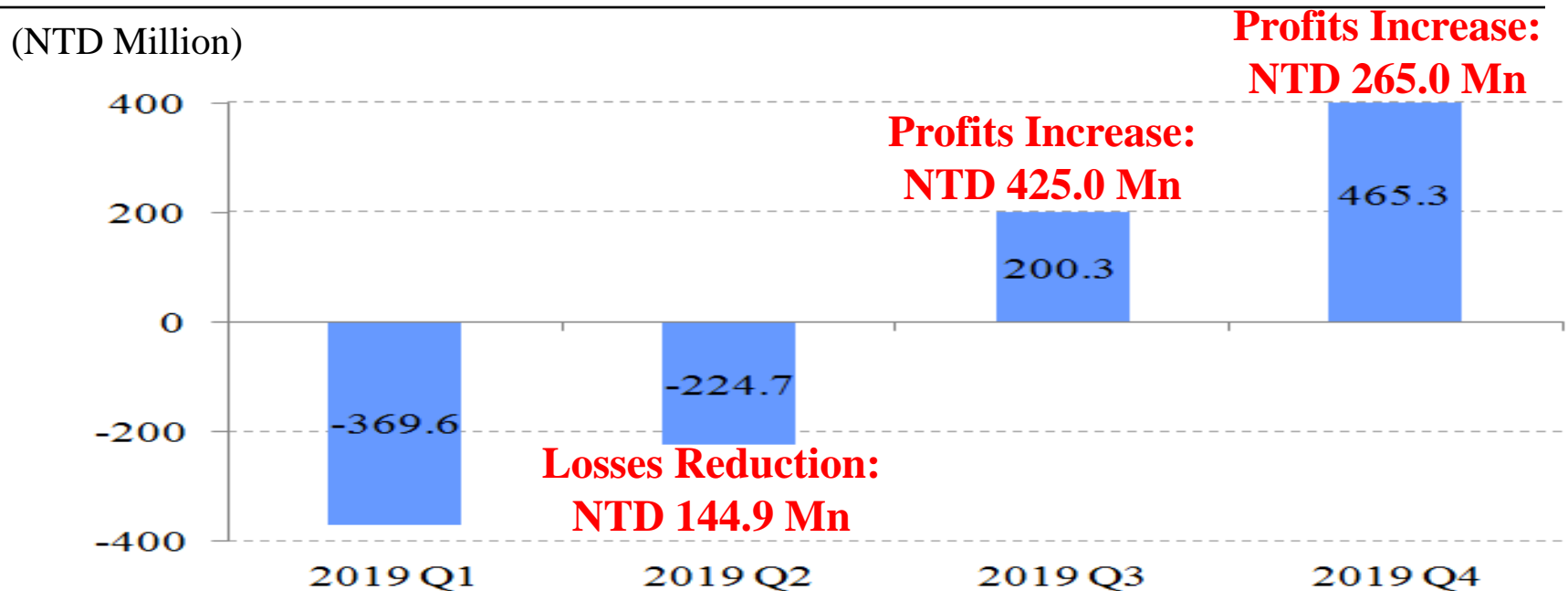
The sales ratio of high-layer counts and large body size telecom substrates increased and turned the 2019 operation profits of Nan Ya PCB in black ink.





# Financial Status

## Quarterly Operation Profits(Losses) in 2019



- **Operation losses in 19Q2 were narrowing NTD 144.9 Mn from 19Q1:**

The 19Q2 operation losses were less than 19Q1 because of fading slow seasonal influences.

- **Operation profits in 19Q3 were increasing NTD 425.0 Mn from 19Q2:**

The 19Q3 operation profits were greater than 19Q2 because of increasing sales in high value products such as SiP substrates and interposers.

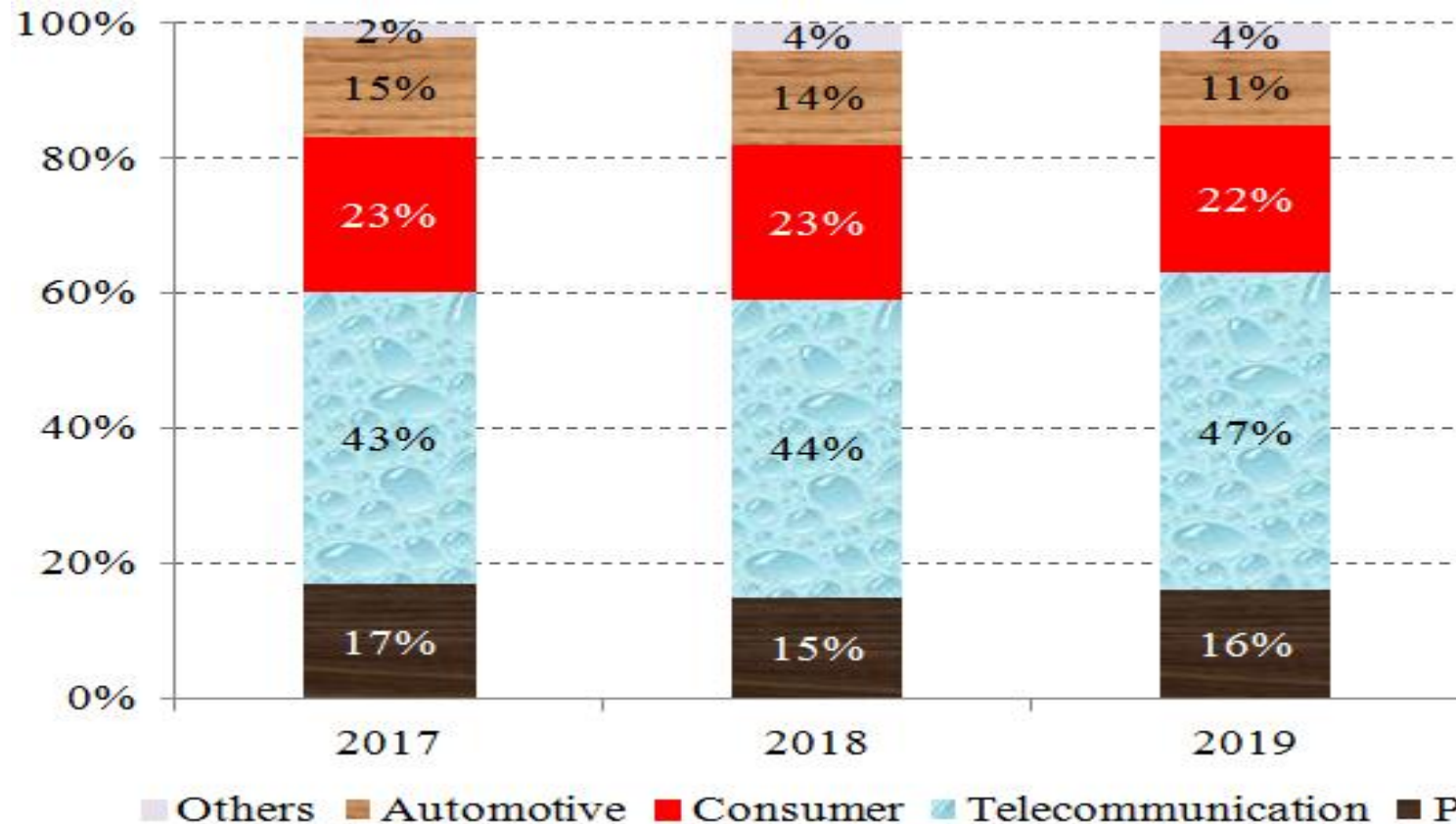
- **Operation profits in 19Q4 were increasing NTD 265.0 Mn from 19Q3:**

Because of continuous great demands in high-layer count and large body size telecom substrates, 19Q4 operation profits increased from 19Q3.



# Financial Status

## Revenue Structure(By Applications)

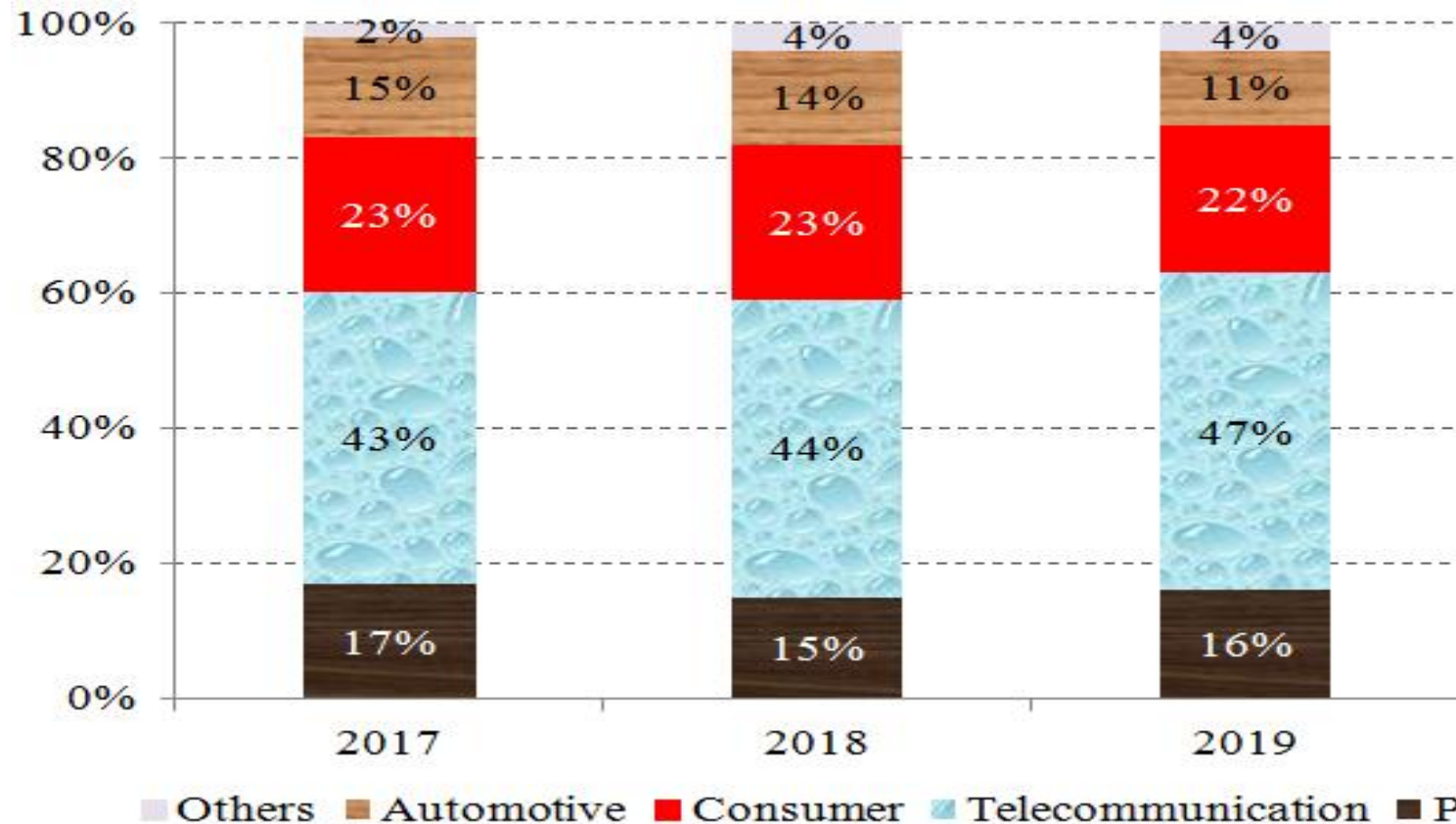


- Nan Ya PCB were benefited from the processor client, whose market share grew, and early tactical planning in high-end telecom equipment area. The sales ratio of PC and telecom application products grew.
- Impacted from the end of life cycle of game consoles and inventory adjustment of wearable device clients, Nan Ya PCB's consumer electronics contribution slightly dropped.



# Financial Status

## Revenue Structure(By Applications)



- The automobile market has been weak because of an unclear macro economy resulted from the trade issue between the U.S. and China. The automotive electronics were also affected and our sales contribution from automotive electronics declined.
- Nan Ya PCB continued to develop AI and HPC application products to mitigate the influences of decreasing demands in cryptocurrencies. Hence, The sales ratio of others in 2019 remains the same.



# Future Product Development

## Continue to Expand High Value Products

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### ■ High-end ABF Substrate

In 2020, we will collaborate with clients to manufacture high value products such as 5G telecom equipment, servers, and 7nm PC and game console processors substrates, which are featured with high layer counts and large body size. Also, we will roll out AR/VR and AI/HPC substrates, which are designed with complex circuits and required outstanding capabilities.

### ■ SiP(System in Package) Substrate

In response to the electronics product trend of thinner and smaller, the IC packaging technologies have shifted from single chip packaging to heterogeneous integration. The SiP substrates are not only applied to wearable devices but also adopted by mobile devices as camera modules and the AiP for 5G smartphones. Thus, the demand in SiP substrates will increase.

### ■ HDI

As the designs of handset, consumer electronics, and automotive electronics are becoming sophisticated, the consumption of high value HDI is increasing. Thus, we will roll out HDI for the MBs of high-end NBs and servers, and the control module of autopilot to drive the profits.



# Operational Goals

## The Company Seeks Becoming Operation Profitable

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- **Profits in 20H1 is expected to grow**

20H1 will be influenced by the traditional slow season; however, Nan Ya PCB continues to improve the manufacturing capability and efficiency, as well as implementing projects for capacity de-bottle neck and manufacturing process enhancement. In addition, the demand in high-layer counts and large body size telecom substrates is still growing . Thus, the profits of 20H1 are expected to exceed 19H1.

- **To Seek Becoming Operation Profitable in 2020**

**Sales Expansion:** Nan Ya PCB will continue the operation strategies in 2019 to develop high-end telecom equipment, AI/HPC, and SiP application substrates and PCBs. Also, we will expand our IC substrate capacities to rise our market share and enhance operations.

**Costs Reduction:** We will continue to improve the yield rate and efficiency through strengthening manufacturing processes. Also, we will enhance our operation performance via implementing cost control projects. This year, we will strive to achieve the goal of becoming operation profitable in each season.



# Thank You

