



ASM  Pacific Technology

# 2020 Interim Results Announcement

*29 July 2020*

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# Awards & Accolades

**Forbes Asia**  
— 2019 —  
**BEST OVER**  
**A BILLION**

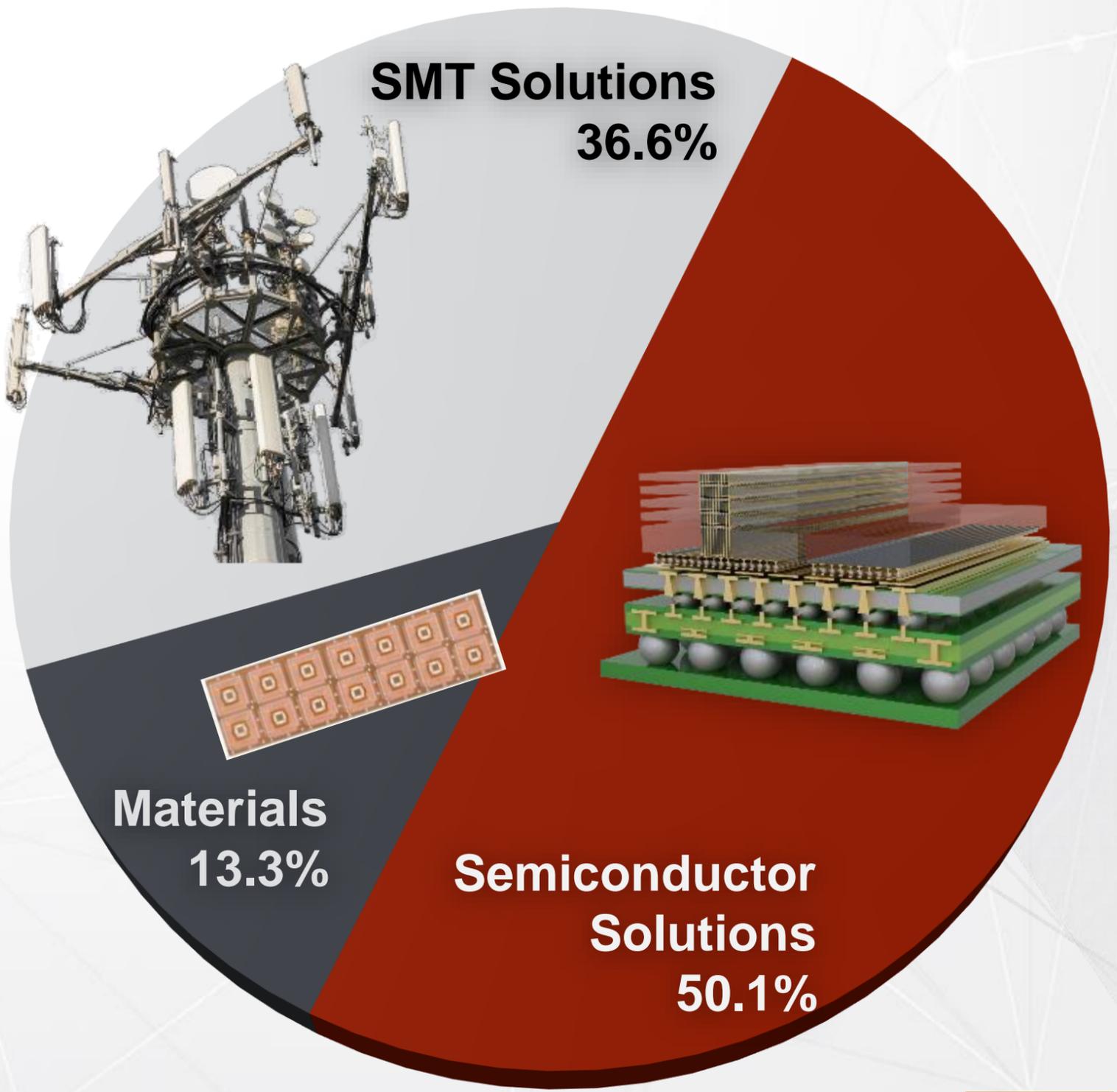


SINGAPORE  
QUALITY  
AWARD  
2019 WINNER



# The World's Technology & Market Leader

Q2 2020 Group Revenue:  
**USD 557m**



# ASMPT'S Major Facilities Around The World



- Sales Offices
- ⬡ Business Centre / R&D / Manufacturing Site

|  |   |  |  |
|--|---|--|--|
| <br><b>&gt;2,000</b><br>Global R&D staff | <br><b>&gt;1,400</b><br>Patents on leading edge technologies | <br><b>10</b><br>R&D centres worldwide | <br><b>12</b><br>Manufacturing facilities |
|--|---|--|--|

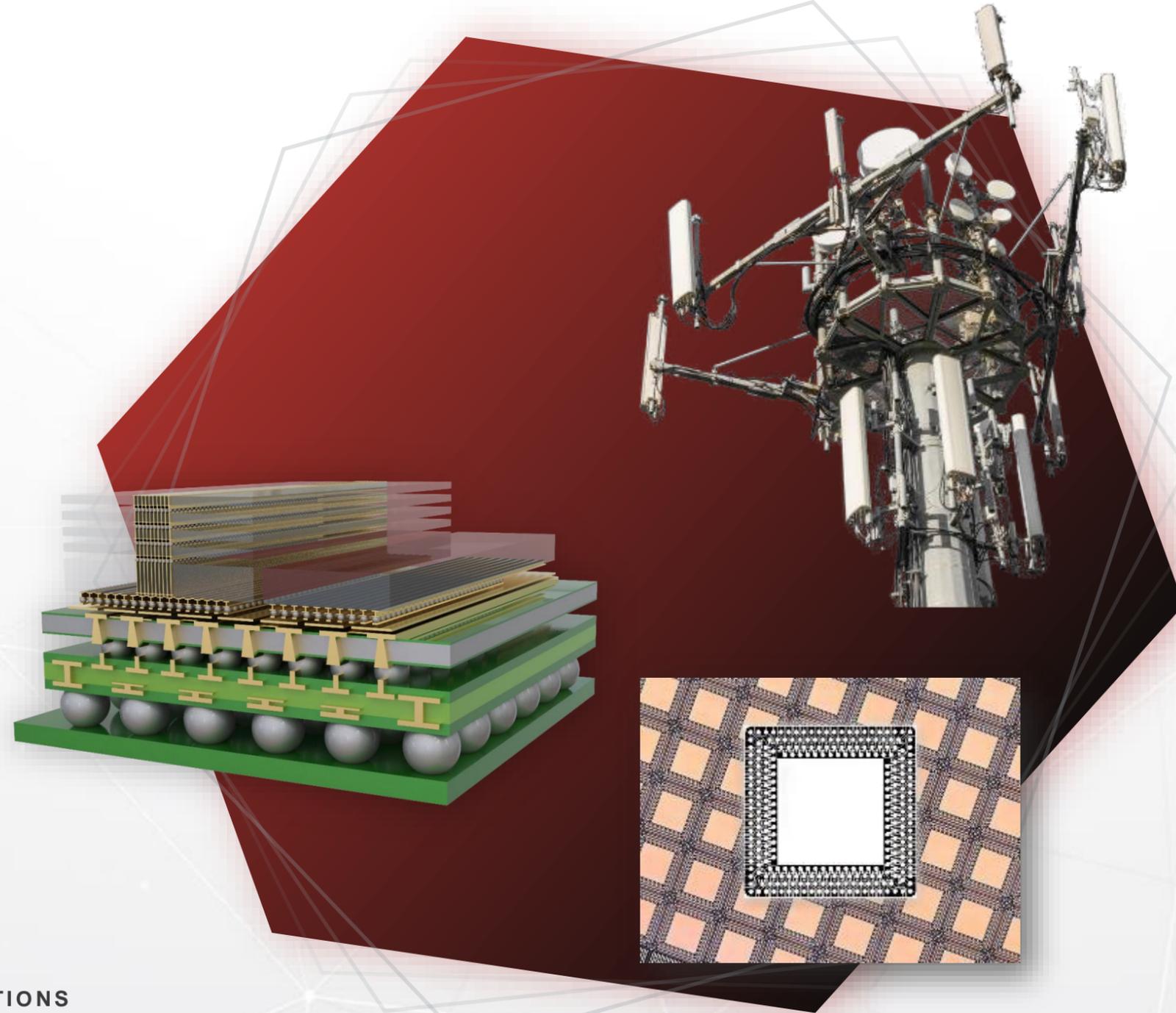
# Three Business Segments With Leading Market Positions

SEMICONDUCTOR  
SOLUTIONS<sup>1</sup>  
**#1 in Assembly  
& Packaging  
Equipment Market**

*Since 2002*

2019 Worldwide  
PAE Market Share:

**~29%**



SMT SOLUTIONS

**#2 in SMT  
Equipment Market**

2019 Worldwide  
SMT Market Share:

**~22%**

MATERIALS

**#3 in Leadframe  
Market**

2018 Worldwide  
Leadframe Market Share:

**~9%**

<sup>1</sup>FORMERLY BACKEND EQUIPMENT SOLUTIONS

# Our Strategic Value-added Acquisitions



## Advanced Packaging



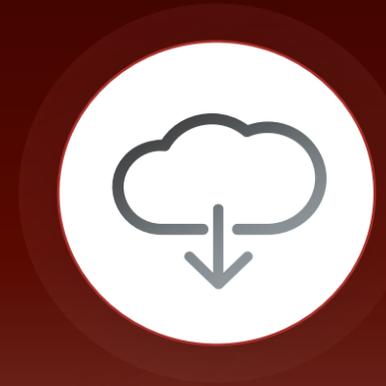
- Largest installed base of panel deposition tools
- Addition to the Advanced Packaging suite of solutions
- High Performance Computing (HPC)



## Silicon Photonics



- Ultra high precision sub-micron die attach equipment solutions
- In prime position to capture demand for future data centre bandwidth growth and next generation 5G deployments



## Manufacturing Execution Software



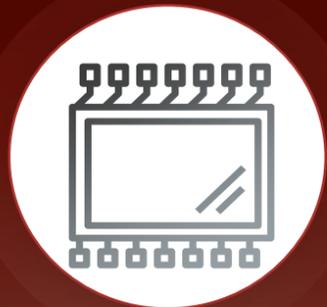
- Provider of automation and manufacturing software for high-tech industries
- Capture demand for SMART Factory software solutions



- Well-established MES solutions provider with a strong presence in China.
- Complements Critical Manufacturing MES solutions, reinforcing ASMPT's position in the China market.

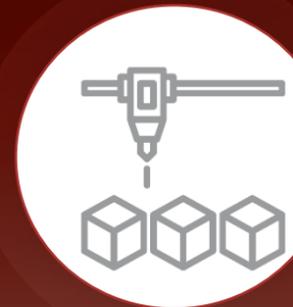
# Our Participation in Emerging and Disruptive Technologies

## Minority Investments in Start-ups



X-ray Inspection

- X-ray inspection of advanced semiconductor packages
- Up to 100X faster vs conventional X-ray using proprietary technology



3D Laser Printing

- Israeli company with cutting-edge technology
- Potentially disruptive technology to the SMT printing industry

## Strategic Collaborations



Data Analytics

- Industrial IoT Solutions to deliver holistic data analytics solutions
- Provide customer value through productivity, quality and reliability in manufacturing operations



AI Chip Technology

## IBM Research

- Development of Heterogeneous Integration (HI) to advance packaging technologies and tools



# 2020 Q2 Highlights

# Q2/1H 2020 Billings

|                               | Q2   |        |        | 1H   |        |        |
|-------------------------------|------|--------|--------|------|--------|--------|
|                               | USD  | QoQ    | YoY    | USD  | HoH    | YoY    |
| <b>Group</b>                  | 557m | +27.8% | +19.5% | 992m | -10.5% | +5.9%  |
| <b>Semi Solutions Segment</b> | 279m | +43.0% | +33.8% | 473m | -4.5%  | +16.6% |
| <b>Materials Segment</b>      | 74m  | +43.2% | +28.2% | 126m | -3.2%  | +15.6% |
| <b>SMT Solutions Segment</b>  | 204m | +8.0%  | +2.2%  | 393m | -18.7% | -6.9%  |

## Group

- 1H Group Billings ~US\$1B
  - ▲ 5.9% YoY ▼ 10.5% HoH
- Q2 Group Billings
  - ▲ 19.5% YoY ▲ 27.8% QoQ

## SEMI

Key drivers for Q2 YoY billings growth

- Advanced Packaging
  - NEXX delivered strong growth
- Other drivers: Optoelectronics and IC/Discrete
- Traditional wire/die bonders delivered relatively strong growth
- CIS billings relatively weaker due to soft smartphone market demand

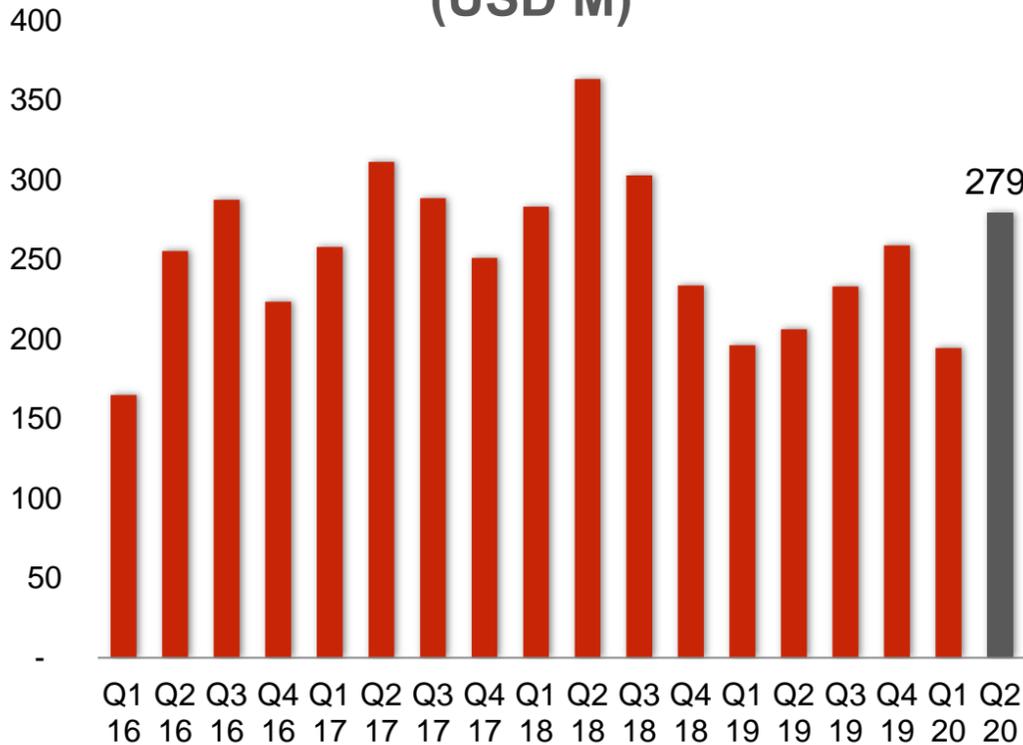
## SMT

- Driven by 5G & SiP applications

# Q2 2020 Billings – Business Segments

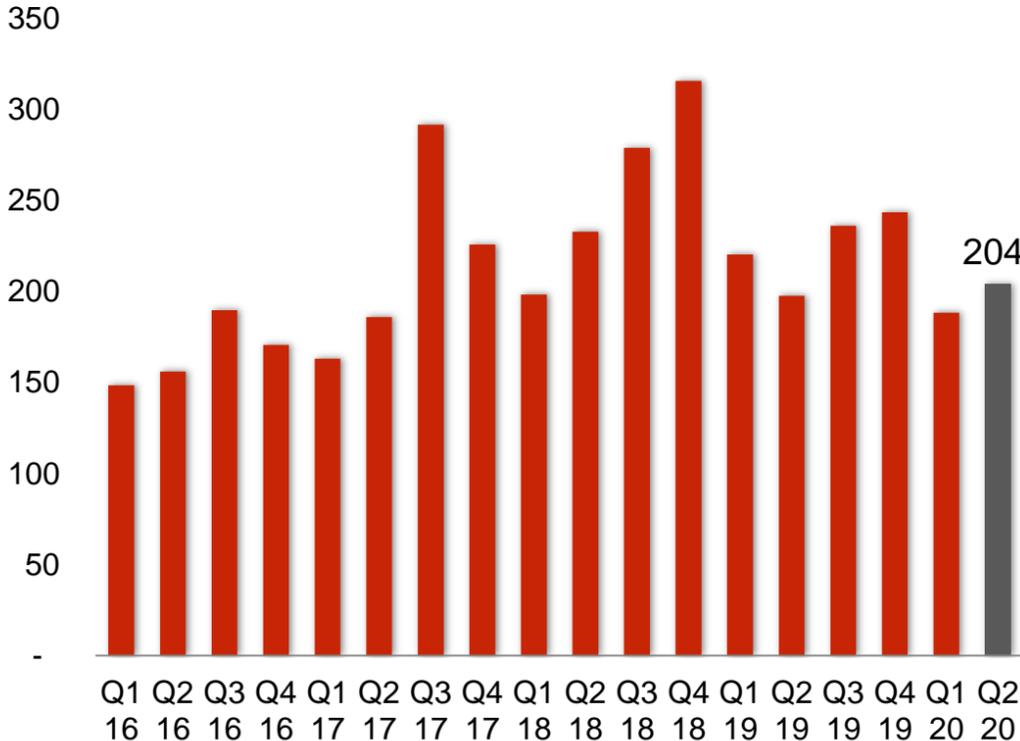
**QoQ Growth:**  
**+43.0%**

**Semiconductor Solutions (USD'M)**



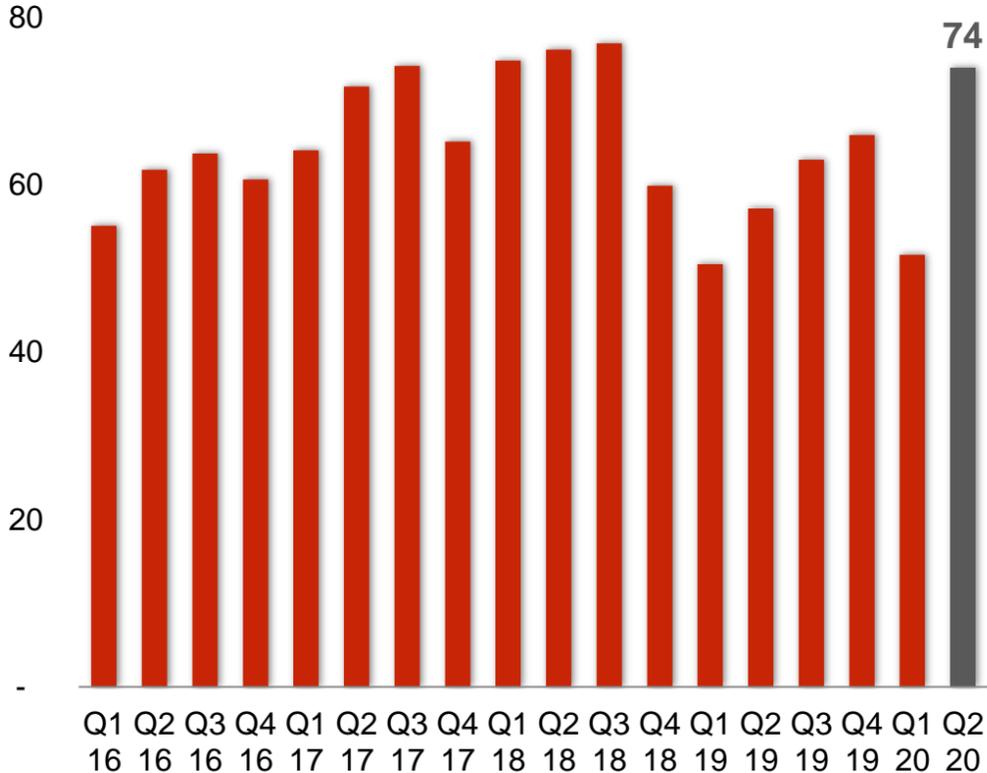
**QoQ Growth:**  
**+8.0%**

**SMT (USD'M)**



**QoQ Growth:**  
**+43.2%**

**Materials (USD'M)**



# Q2/1H 2020 Group Bookings

|                               | Q2   |        |        | 1H     |        |        |
|-------------------------------|------|--------|--------|--------|--------|--------|
|                               | USD  | QoQ    | YoY    | USD    | HoH    | YoY    |
| <b>Group</b>                  | 472m | -29.4% | -21.6% | 1,141m | +19.0% | +7.4%  |
| <b>Semi Solutions Segment</b> | 227m | -26.7% | -8.1%  | 537m   | +21.7% | +14.2% |
| <b>Materials Segment</b>      | 78m  | -11.8% | +32.7% | 167m   | +25.2% | +59.3% |
| <b>SMT Solutions Segment</b>  | 167m | -38.4% | -43.7% | 437m   | +13.7% | -10.3% |

## Group

- 1H Bookings ▲ HoH and YoY
- Q2 Bookings ▼ QoQ and YoY as a result of overall weak sentiment due to COVID-19

## SEMI

- Q2 Bookings ▼ QoQ due to higher Q1 base
- Key drivers of Q2 Bookings
  - Advanced Packaging
  - Optoelectronics and IC/Discrete
- Q2 Bookings for CIS relatively weaker due to soft smartphone market

## SMT

- Key driver of Q2 Bookings
  - 5G-related investments in China
  - SiP
- Q2 Bookings in Automotive and Industrial Applications were weak

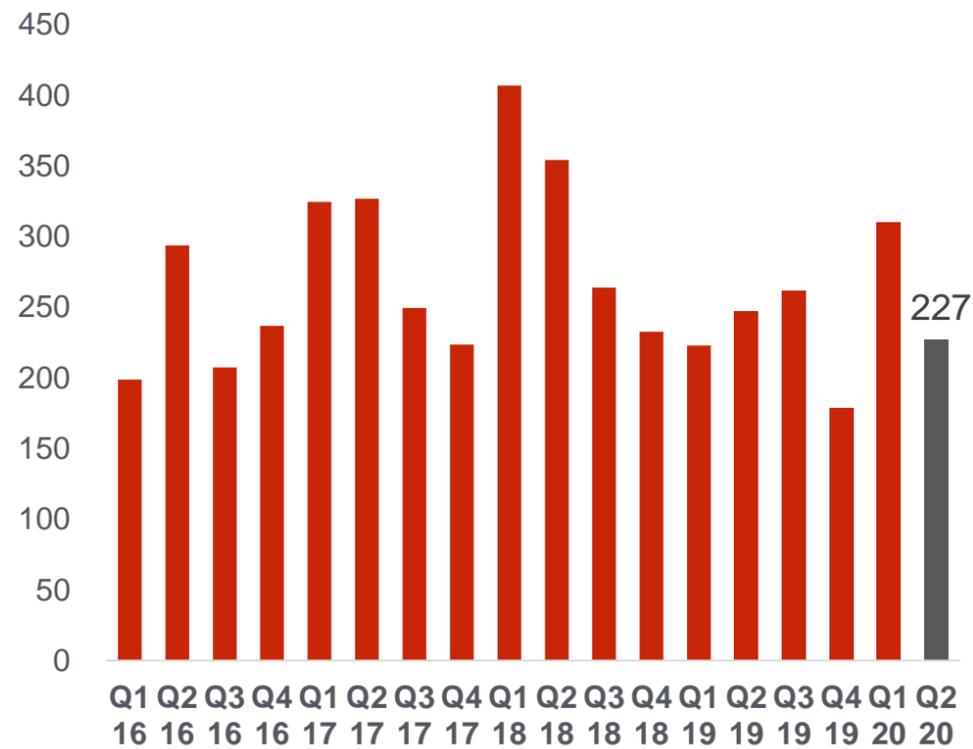
## Materials

- Q2 Bookings at high level despite decline QoQ after 5 consecutive quarters' growth

# Q2 2020 Bookings – Business Segments

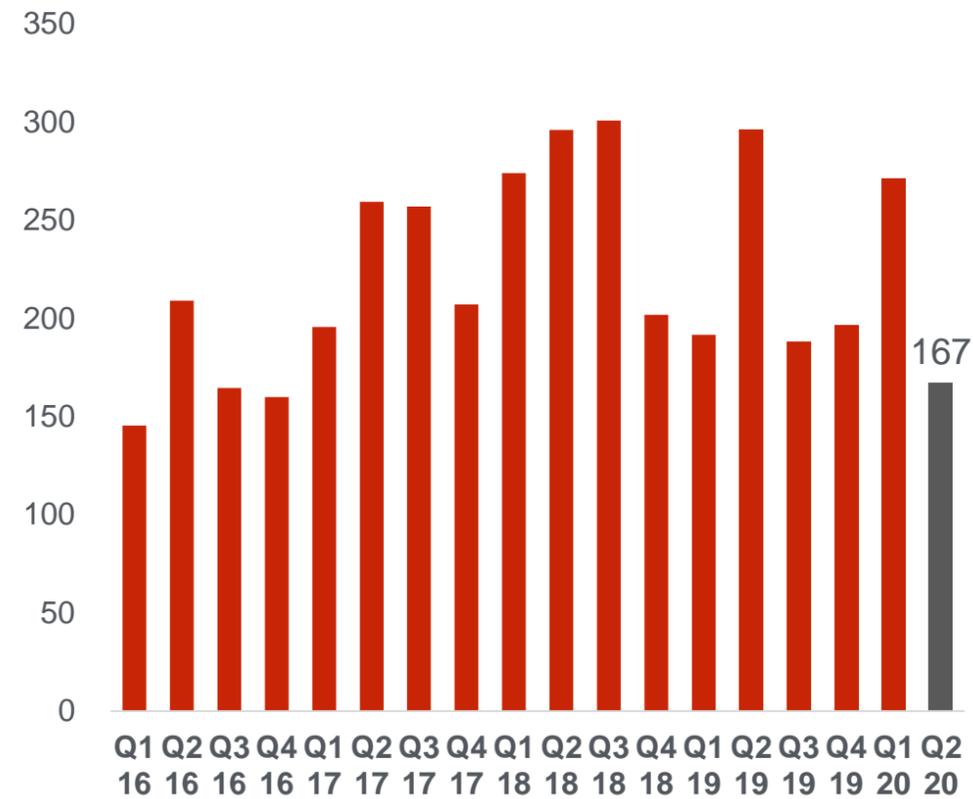
**QoQ Growth:**  
**-26.7%**

**Semiconductor Solutions  
(USD'M)**



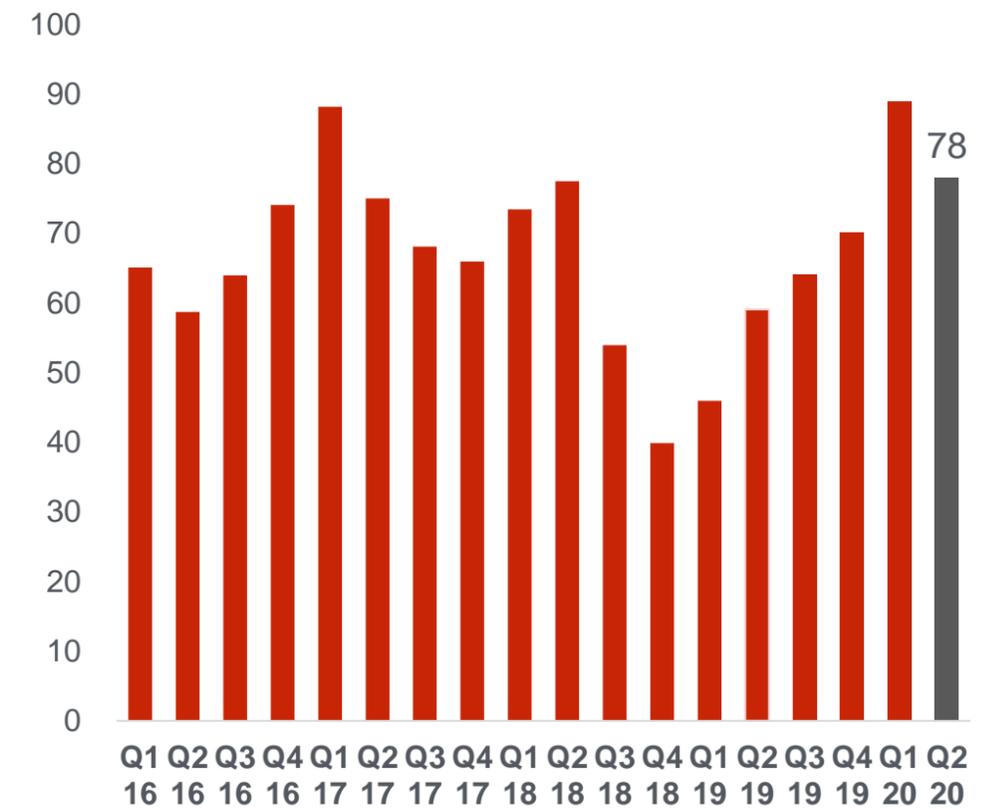
**QoQ Growth:**  
**-38.4%**

**SMT (USD'M)**



**QoQ Growth:**  
**-11.8%**

**Materials (USD'M)**



# Q2/1H 2020 Group GM & Profitability

| Gross Margin           | 1H    | HoH      | YoY      |  | Q2    | QoQ       | YoY      |
|------------------------|-------|----------|----------|--|-------|-----------|----------|
| Group                  | 34.5% | -29 bps  | -34 bps  |  | 35.2% | +169 bps  | -54 bps  |
| Semi Solutions Segment | 42.2% | +16bps   | +219 bps |  | 42.9% | +162 bps  | +211 bps |
| Materials Segment      | 13.5% | +409 bps | +250 bps |  | 16.9% | +838 bps  | +546 bps |
| SMT Solutions Segment  | 31.8% | -225 bps | -409 bps |  | 31.3% | -101 bps  | -616 bps |
| Group Billing (USD)    | 992m  | -10.5%   | +5.9%    |  | 557m  | +27.8%    | +19.5%   |
| Operating Profit (HKD) | 641m  | -16.7%   | +30.2%   |  | 496m  | +241.1%   | +95.8%   |
| Net Profit (HKD)       | 391m  | -12.0%   | +119.2%  |  | 365m  | +1,341.5% | +421.8%  |

## Group

- Q2 Group GM close to mid-point of guidance
- Q2 Group Billing, Operating Profit and Net Profit ▲ QoQ and YoY

## SEMI

- 1H GM ▲ YoY due to higher volume effect, increased productivity, product mix and cost reduction efforts

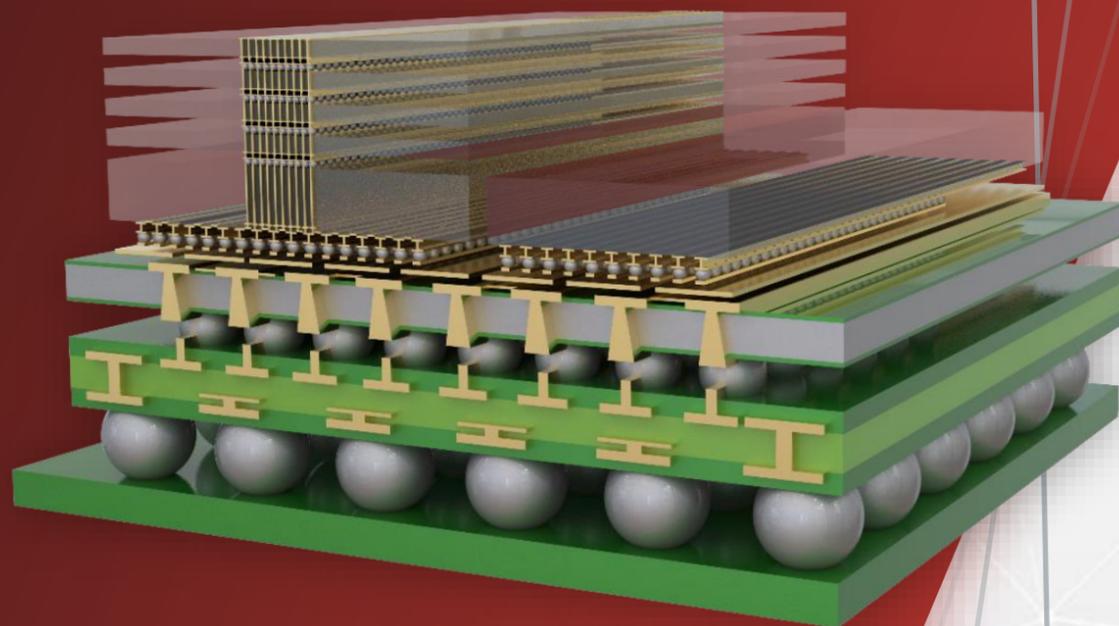
## SMT

- 1H GM ▼ YoY due to lower contribution from Automotive and Industrial Applications; and larger China customer base

## Materials

- 1H GM ▲ YoY due to higher volume effect and discontinuation of loss-making MIS business

1H YoY Bookings Growth:  
+14.2%



## Key Highlights:

### Semiconductor Solutions Segment

- Strong global demand for HPC for datacentre and 5G applications
  - Q2 Billings growth YoY underpinned by Advanced Packaging
  - Q2 NEXX Bookings ▲ ~100% YoY
- Largest installed base to-date worldwide for Thermo-Compression Bonding (TCB) solutions
- NEXX has largest installation of panel plating tools for HPC applications
- Frontier-focused joint development with IBM Research on integrated solutions for H1, using ALSI Laser dicing, Hybrid Bonding and other AP interconnect tools

1H YoY Bookings Growth:  
-10.3%

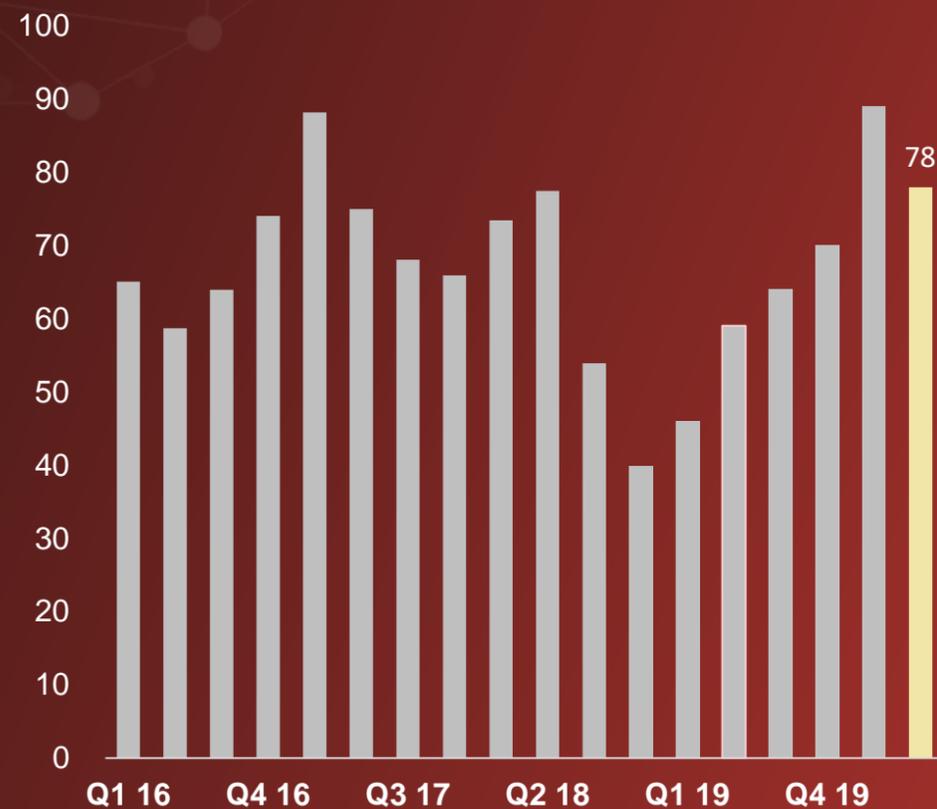
## Key Highlights:

### SMT Segment

- Market leader in System-in-Packaging (SiP)
- 1H booking momentum driven by
  - 5G-related investments
  - SiP – fast growing business within SMT

**1H YoY Bookings Growth:  
+59.3%**

**Materials Bookings (USD'M)**

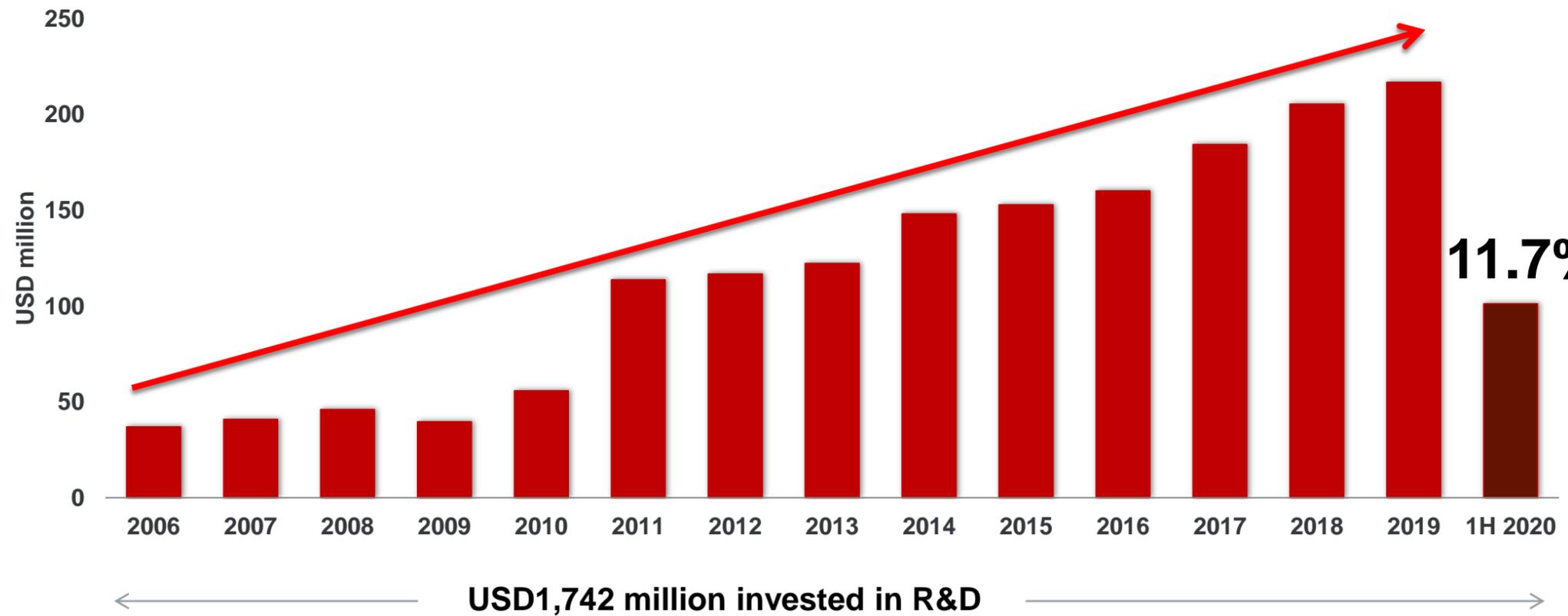


## Key Highlights:

### Materials Segment

- Segment new bookings increased five out of the last six quarters
- GM improvements resulted from higher volume effect and discontinuation of loss-making MIS business
- High level of Q2 Bookings indicates healthy demand for semiconductor devices
- Strategic JV expected to bring Materials Business to greater heights

# R&D Commitment Makes Us a Preferred Partner of Choice



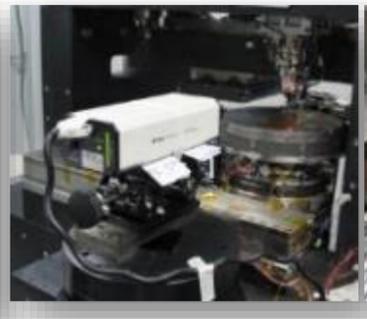
## 1H 2020 R&D expenditure

- US\$ 101 million
- 11.7% of Equipment Sales

← USD1,742 million invested in R&D →



Package Interconnection



Optics precision engineering



Vibration control



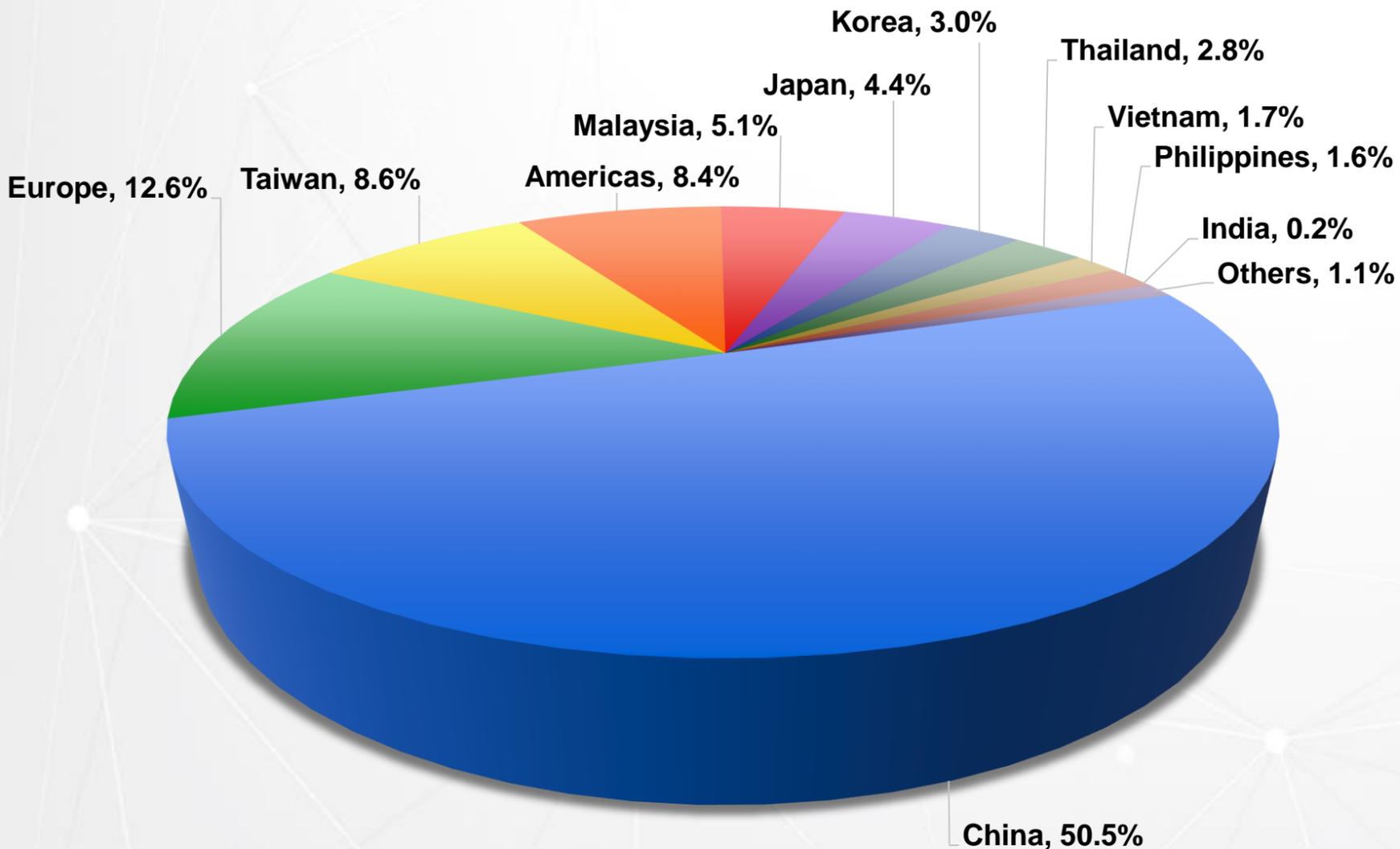
Laser dicing & grooving



SMT

## An Extensive Customer Base

1H 2020 Geographical Distribution of Revenue

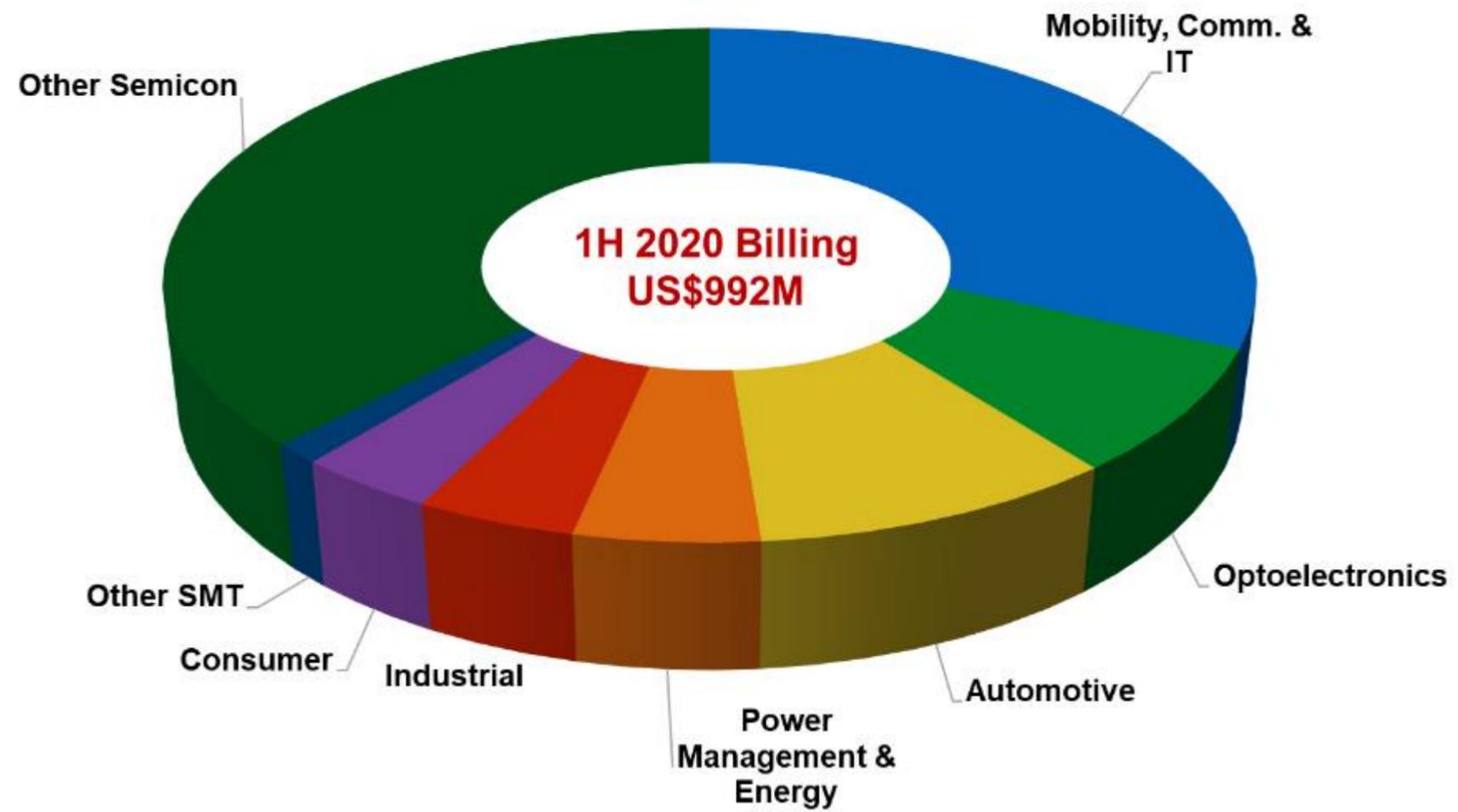


### China Leads Market Recovery

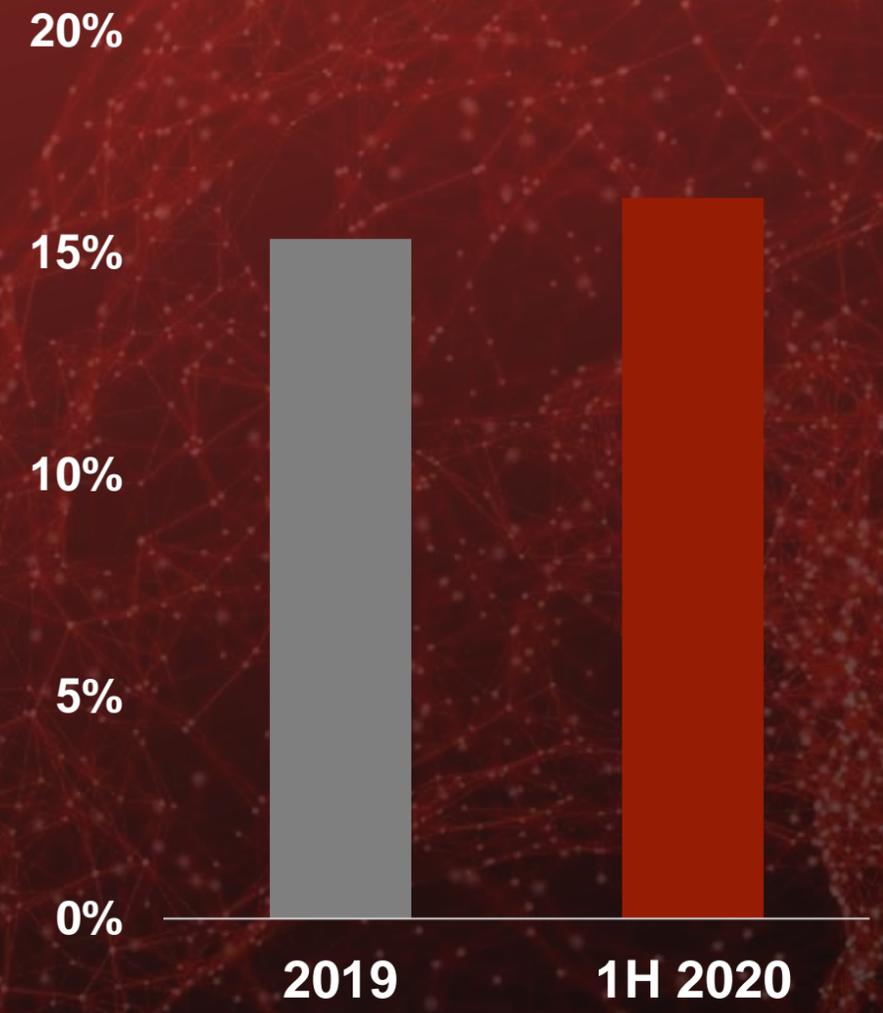
- No single customer accounted for more than 10% of Group revenue
- Top 5 customers accounted for 16.25% of Group's 1H 2020 revenue
- Top 20 customers include:
  - World's leading Telecommunication and Information Technology provider
  - Leading High-Density Substrate makers
  - World's leading IDMs
  - Tier 1 OSATs, major OSATs in China
  - Major camera module makers
  - Top EMS providers
  - Leading automotive component suppliers
- Among Top 20 customers of Group:
  - 4 from SMT Solutions segment
  - 8 from both Semi Solutions & SMT Solutions segment

# 1H 2020 Revenue Breakdown by Application Markets

## 1H 2020 Billing by Market Application



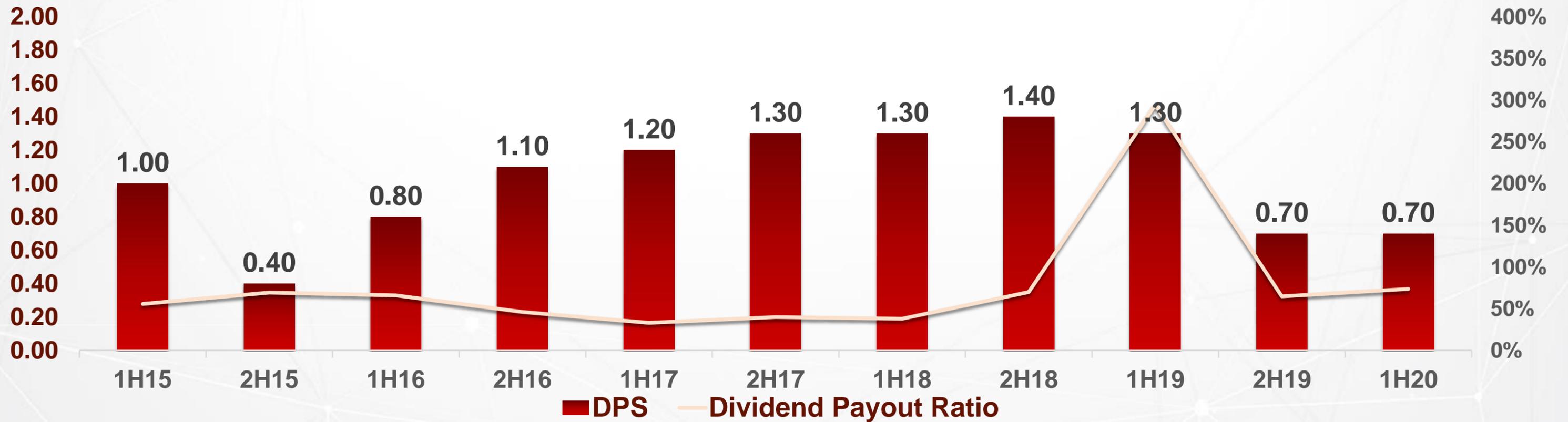
## Top 5 Customers Revenue Contribution



*More Resilient in a Downturn with Multiple Application Markets Strategy*

# 1H2020 Dividends

Dividends Per Share (HKD) & Dividend Payout Ratio



- Adopting a prudent stance in light of COVID-19 outbreak situation
- Dividend of HKD 0.70 for 1H20, representing a payout ratio of 74% for 1H20

# New Lifestyle Norms **Fast-tracking Digitalisation**



'Work from Home' Initiatives by Companies Worldwide

**"Zoom, Microsoft Teams usage are rocketing"**  
*Marketwatch, April 2020*



Home-based Learning adopted by schools

**"First-Quarter Demand Picked Up on Laptop Orders"**

*Intel*



Online "Live" Fitness Classes

**"Apple and Google partner on COVID-19 contact tracing technology"**

*Apple, Google, April 2020*



Harnessing Technology in Contact Tracing

# Data-Centric Era will spur Semiconductor Demand



## Collect

Camera, 3D Sensing, Industry IoT, Sensor, LIDAR



## Transmit

5G, WiFi, LiFi



## Store

Big Data Centre, Cloud Computing, Memory



## Analyse

AI, TPU, Data Analytics, HPC



## Visualise

AR, VR, Micro LED, Mini LED

ASMP T's Enabling Solutions

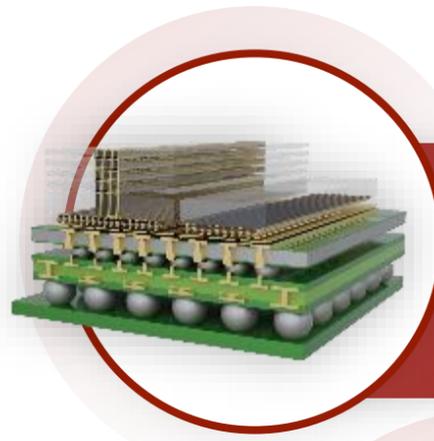
- CMOS Imaging Sensors
- Active Alignment
- Precision Die Attach

- Silicon Photonics
- RF Filters
- Wire Bonding
- SAW Filters
- BAW Filters
- SMT Solutions
- PVD

- Silicon Photonics
- TCB
- Wire Bonding
- PLFO
- Laser Dicing

- WLFO
- PLFO
- Pick & Place
- Laser Grooving
- TCB
- PVD/ECD
- Precision Die Attach
- Heterogeneous Integration

- High Precision Die Attach
- Mini/Micro LED Displays



## Advanced Packaging



## China Supply Chain Localisation



## 5G



## Optoelectronics

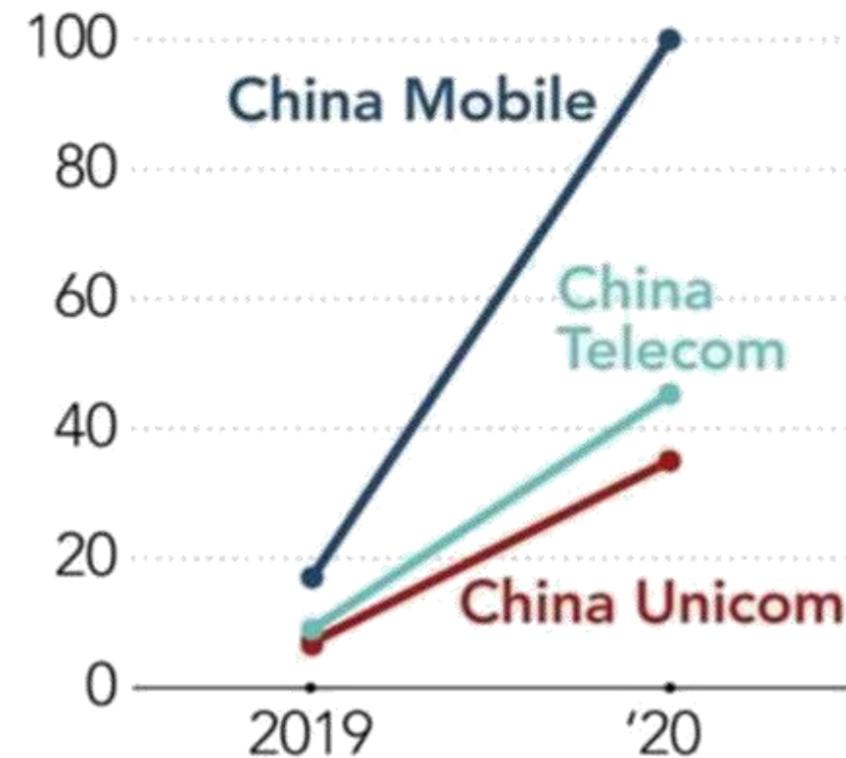
# Q2 2020 Growth Drivers For ASMPT

# Digital Acceleration Opportunities in China



## China's investment in 5G infrastructure

Investment (In billions of yuan)



Planned number of base stations\*



Source: Trendforce and Nikkei Asian Review reporting

# 5G Will Transform the World Beyond Our Imagination

# 5G

## Infrastructure

**2019-2025: 25-30mil  
New 5G  
Base Stations**

Source: Topology Research Institute 2019

**Big Data  
Cloud Servers**

**“Power” Up  
All Industries**

**Smart Consumer**

**50 MEMS & Sensors  
per car  
Automotive**

Source: Bosch, 2019

## Terminal

**2023: 417mil  
New 5G  
Handsets**

Source: IDC, 2019

### ASMPT Solutions for 5G:

**Photronics Solutions**

**IC & Discrete Solutions**

**Image Sensor Solutions**

**Advanced Packaging**

**SMT Solutions**

**Power Solutions**

**Wafer Separation**

# Complete CIS Camera Assembly Solution

Market Leader for Unique In-line Solutions



**IDEALine™**  
(CMOS Image Sensor Solution)

Smartphone  
Solutions

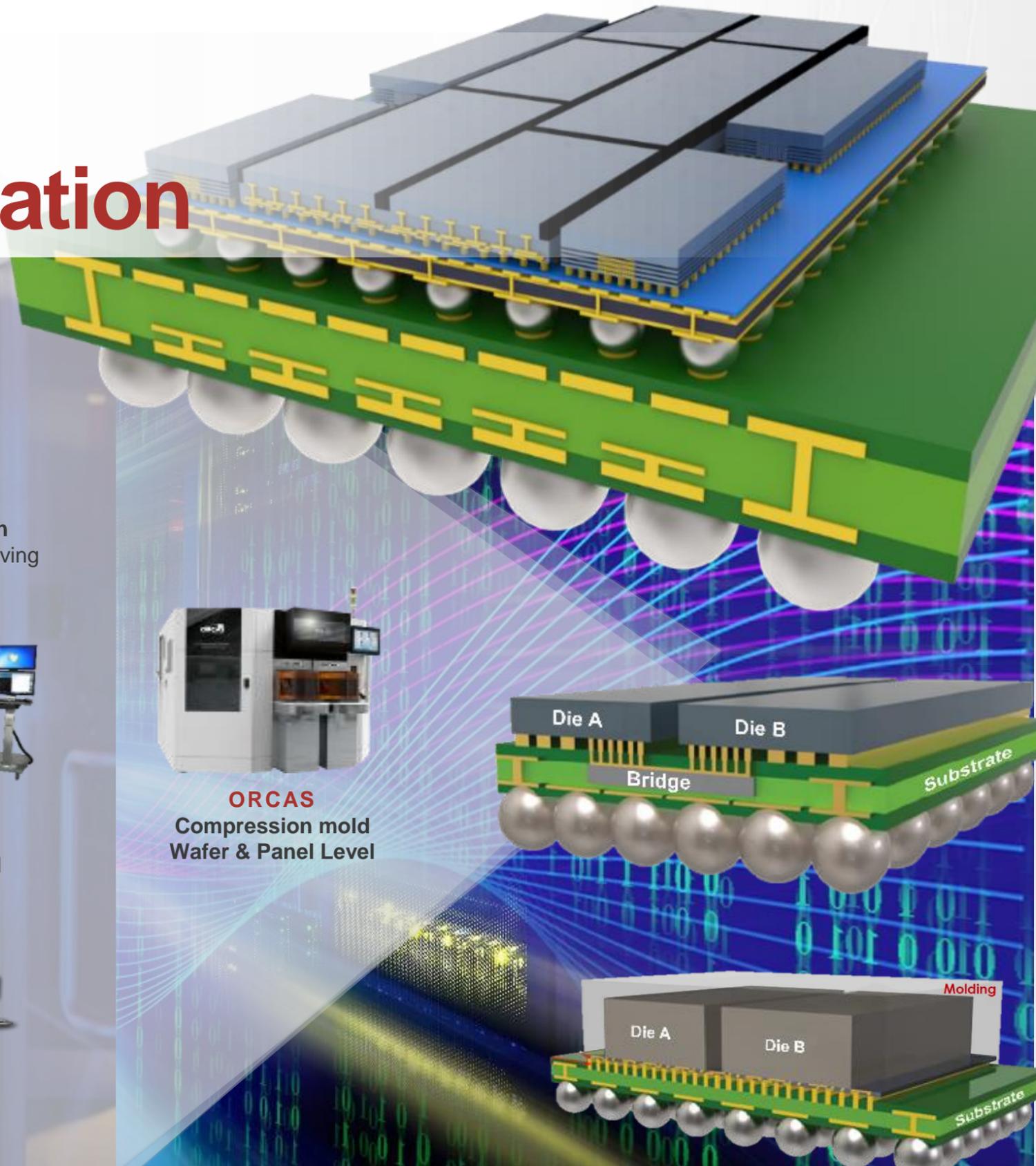


**ACamLine™**  
(Automotive Camera Assembly Solution)

**AUTOPIA FT**  
(Automatic Camera Testing System)

Automotive  
Solutions

# Advanced Packaging Enables Heterogeneous Integration



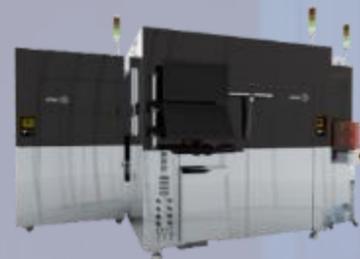
**SIPLACE CA**  
Die Attach & SMT  
Wafer & Panel Recon  
IPD tool



**NEXX**  
PVD | ECD  
Bumping, TSV & RDL



**LASER 1205**  
Laser Separation  
Wafer Dicing & Grooving



**NUCLEUS XPM**  
HBM Bonder



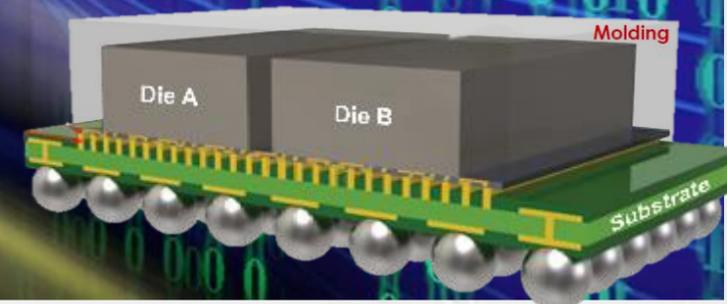
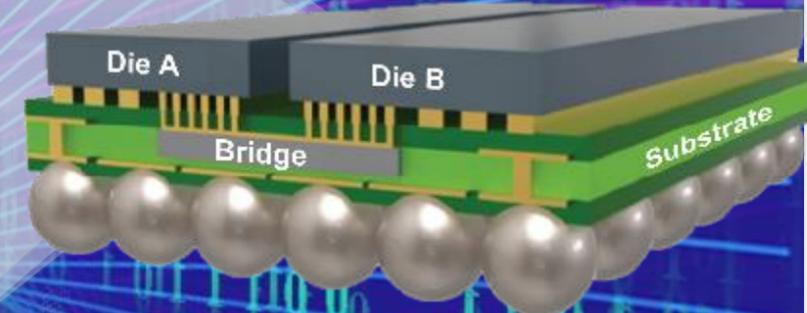
**NUCLEUS**  
Pick & Place  
Wafer & Panel Level



**ORCAS**  
Compression mold  
Wafer & Panel Level



**FIREBIRD**  
TCB, FLI



## End Applications:

**DATA CENTRES**  
for HPC, Machine Learning



**IoT ERA**  
Smart Wearables & Smart Machines (Factories)



**AUTOMOTIVE**  
Sensors, Camera, Body Electronics, Safety Systems, Infotainment

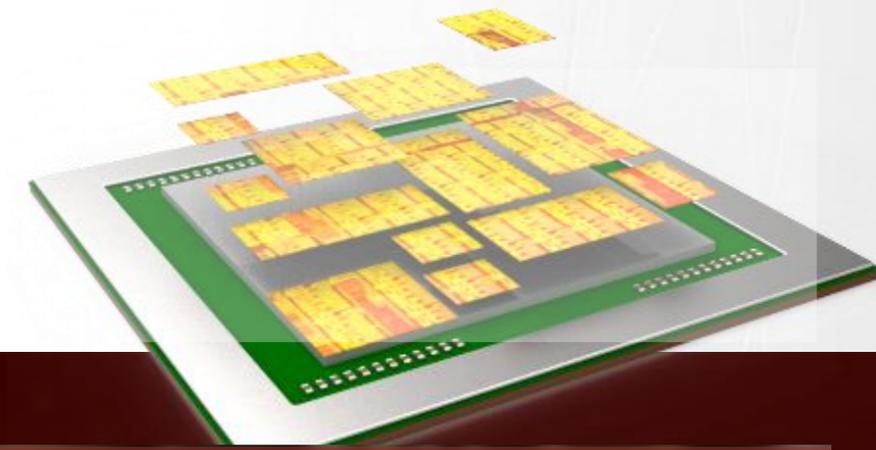


**GPU**  
for VR/AR & AI



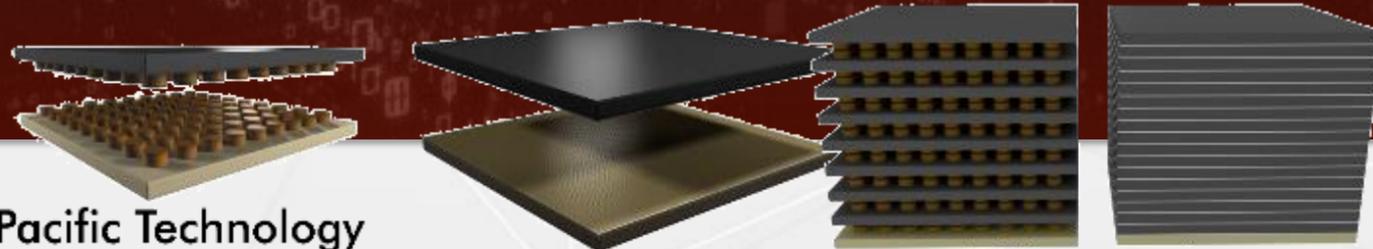
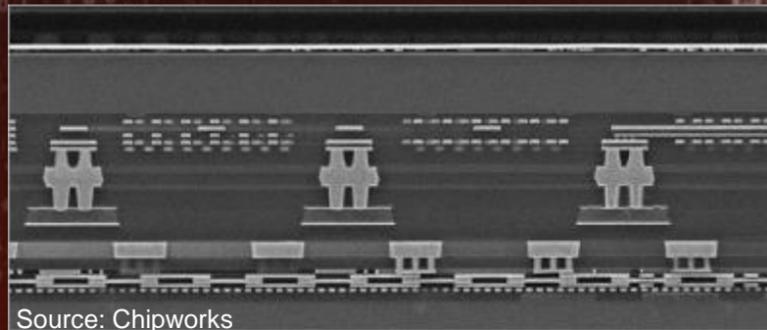
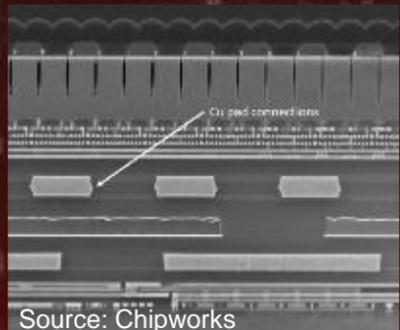
# Hybrid Bonding Solution

## Next Generation Heterogeneous Integration Technology



Bringing Heterogeneous Integration to the next level to enable high performance device, driving for future AI & HPC technology in a more cost effective way

- **Higher Interconnect density**  
Interconnect density  $> 10^5/\text{mm}^2$ , with connecting pad size and pitch down below 5um
- **Zero bond line with bump-less interconnect**  
With direct Cu-Cu hybrid bonding
- **Better signal integrity and thermal performance**



Source: Xperi

ASM Advanced Packaging Technology enables Hybrid bonding solution for Heterogeneous Integration



Ultra High Placement accuracy

Bond accuracy +/-200nm

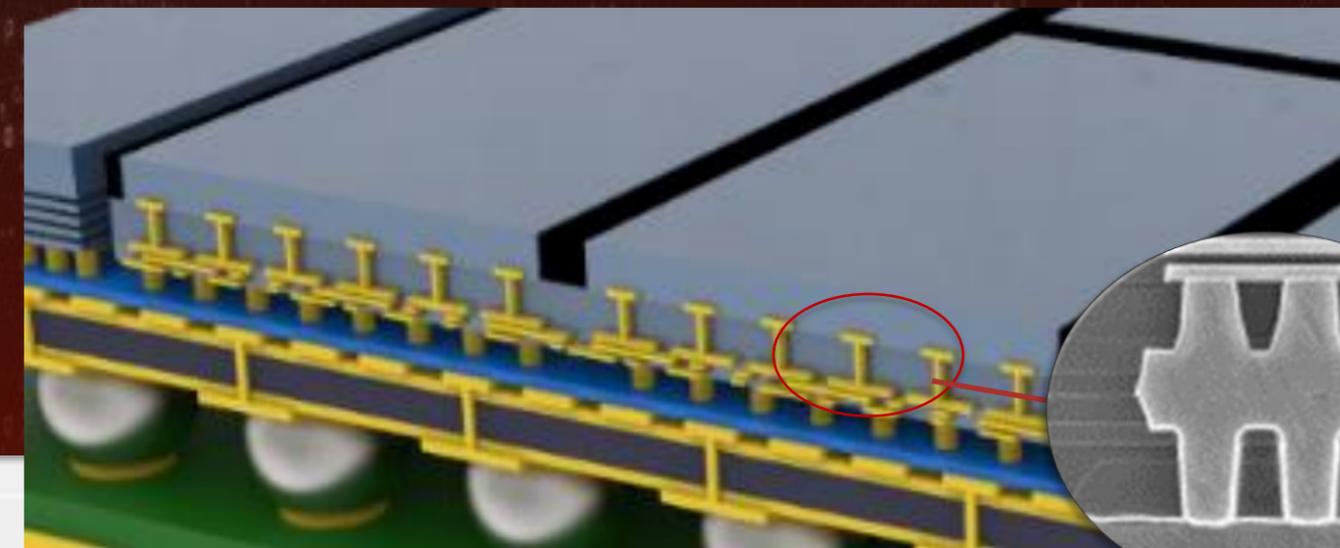


Ultra High Cleanliness



High Productivity

CPH > 2K



# Future Growth Drivers for **OPTO** Business

## MiniLED

Medium to Large  
RGB / BLU Display

Market Size CAGR (2019 – 2025)

~ **35%**

Market Size CAGR (2019 – 2025)

~ **131%**

## MicroLED

Small Gadget &  
Transparent Display

### Fast Growing Applications Source: LEDInside, Sep 2019



**63%**

Automotive  
Display CAGR (2019 – 2025)



**35%**

Digital  
Display CAGR (2019 – 2025)



**31%**

Large  
Display CAGR (2019 – 2025)



**118%**

Smartphone  
Display CAGR (2022 – 2025)



**91%**

Wearable  
Display CAGR (2020 – 2025)



**75%**

VR  
Display CAGR (2021 – 2025)



TCL  
(TCL Conference - 2019)



LEYARD  
(InfoComm - 2019)



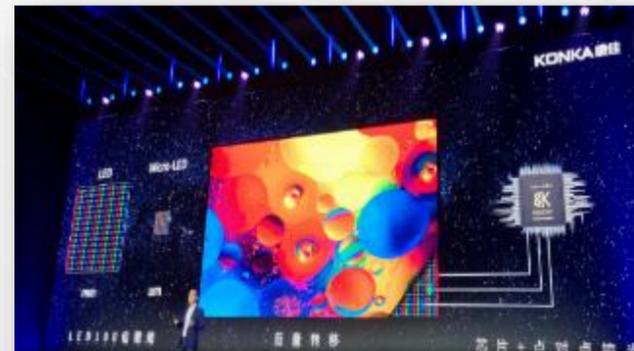
RitDisplay + PlayNitride  
(Touch Taiwan - 2019)



TIANMA  
(SID - 2019)



CEDAR ELECTRONICS  
(InfoComm - 2019)



KONKA  
(KONKA Conference - 2019)



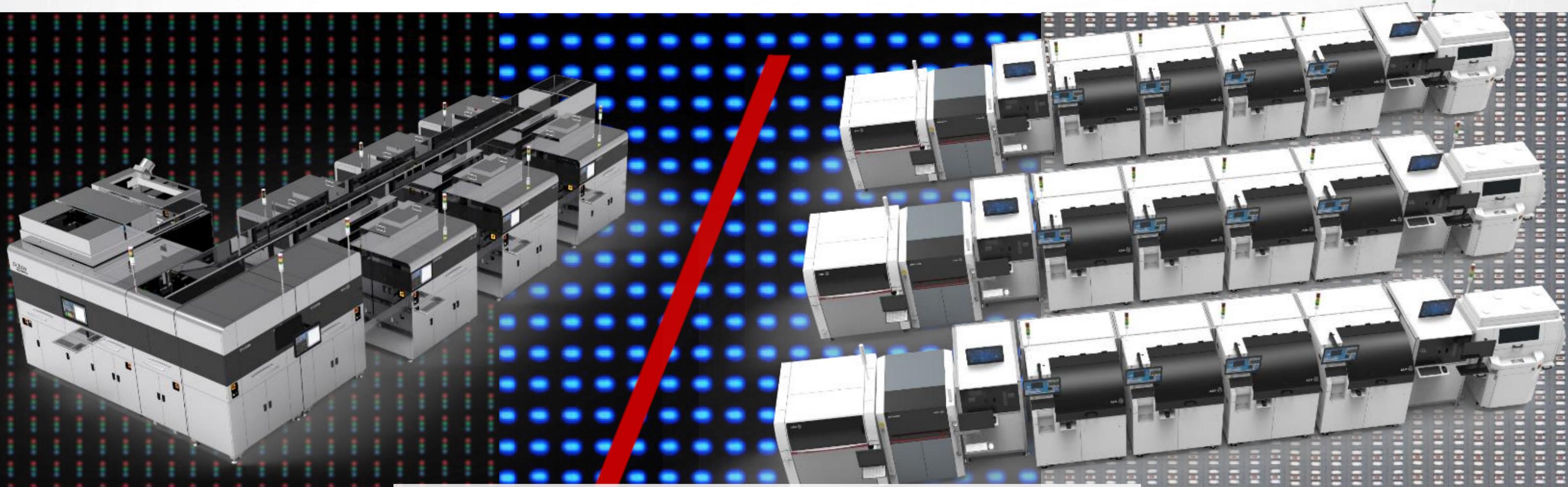
AUO  
(Touch Taiwan - 2019)



Samsung  
(CES - 2019)

# Unique and Ready for Mass Production

## Mini & Micro LED Solution



# MASS TRANSFER

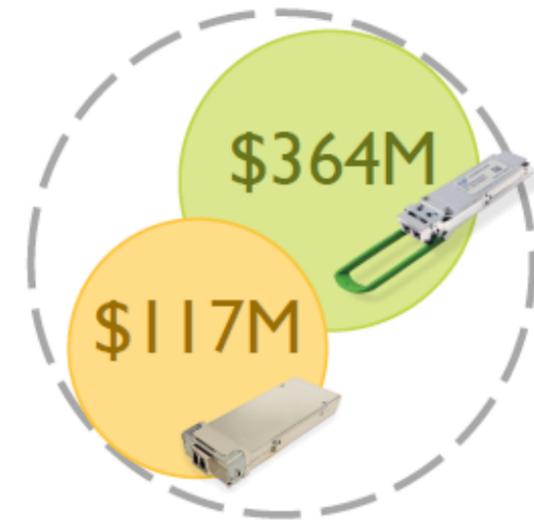
*Up to 300,000 chips per bonding cycle*

# Booming Applications in Photonics Market

- Datacenter transceivers
- Long haul transceivers
- Optical interconnects
- Automotive LiDAR
- Immunoassay tests
- Fiber-optic gyroscope
- 5G transceivers

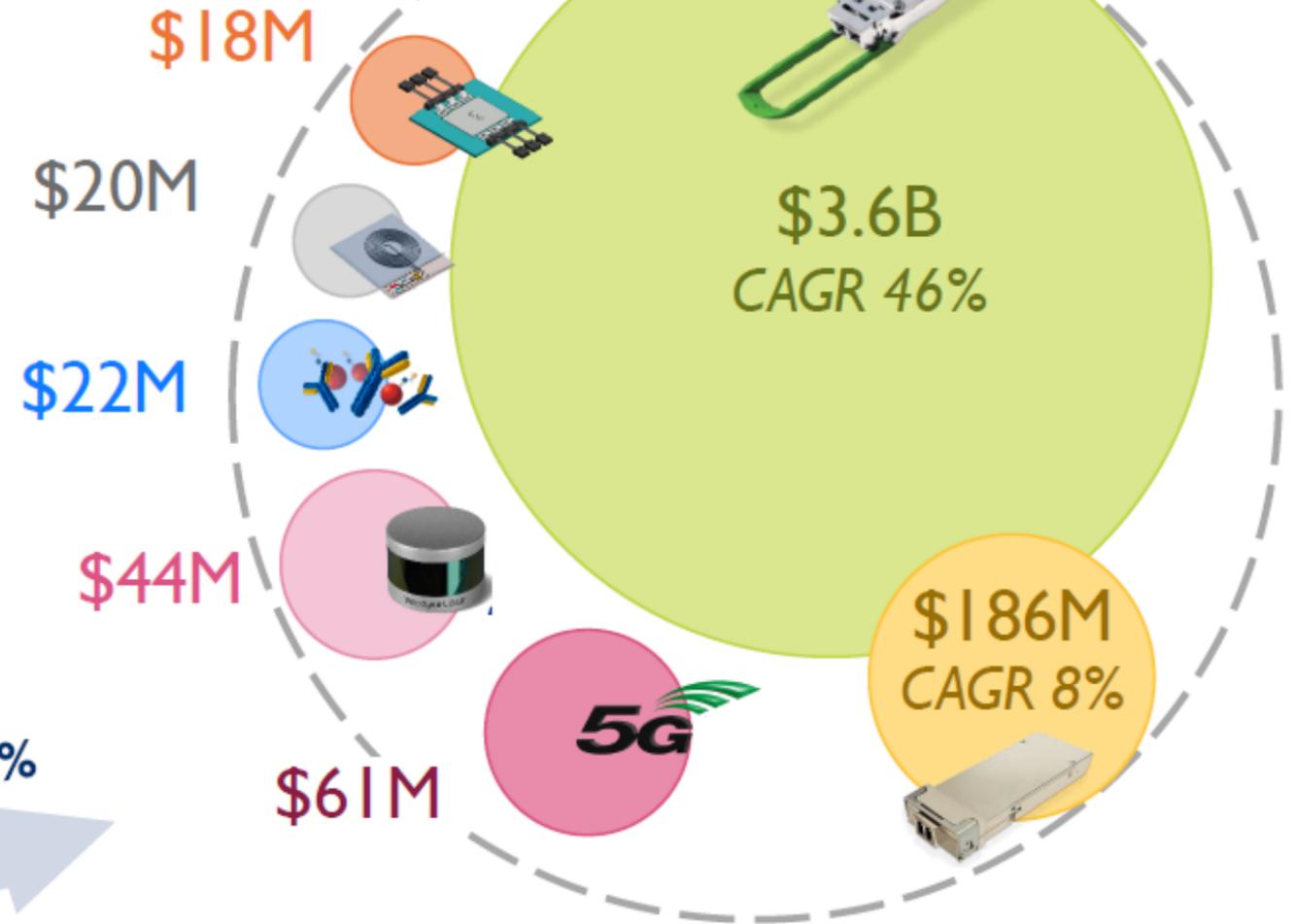


**2019**  
**\$480M**



**CAGR 40%**

**2025**  
**\$3.9B**

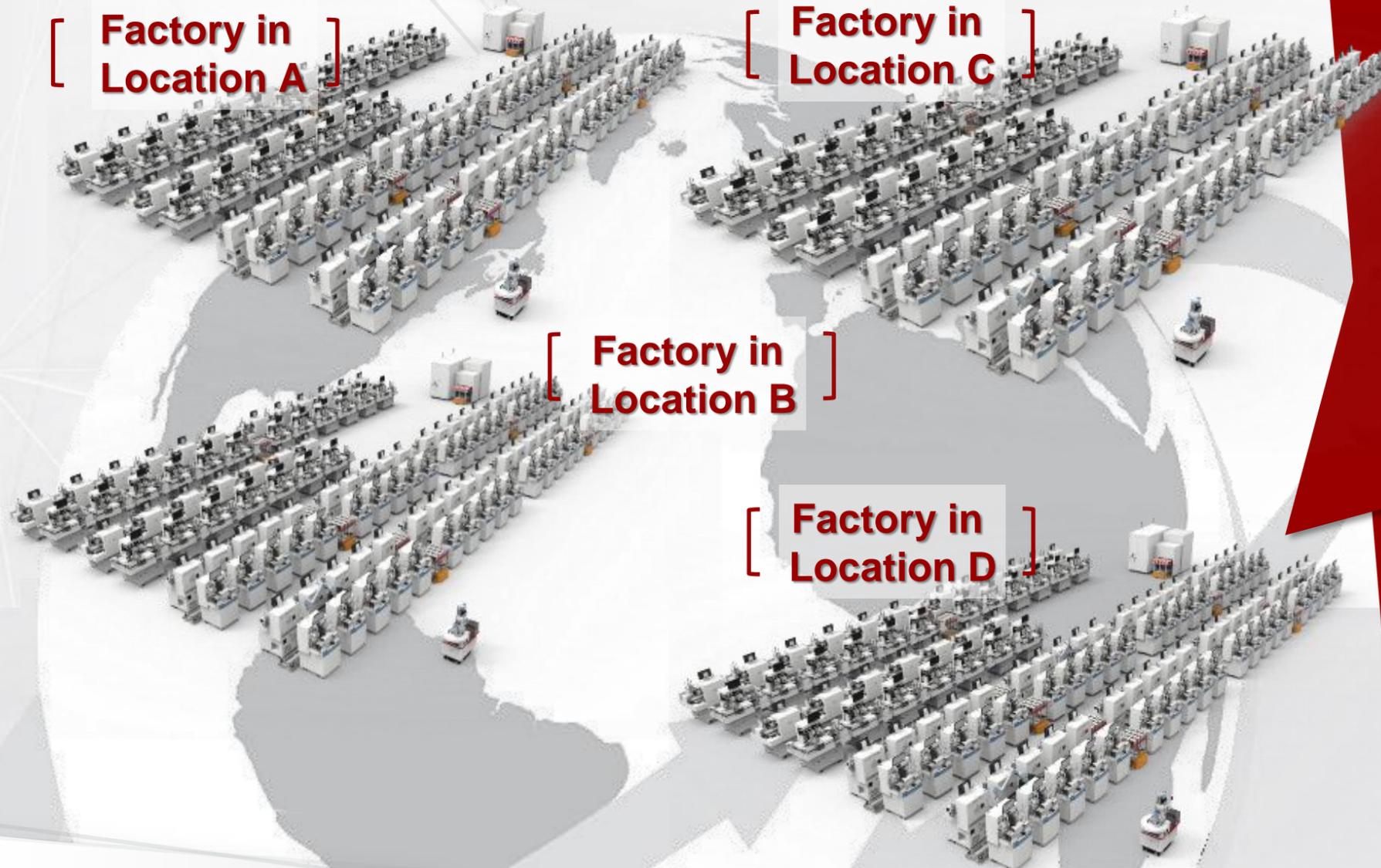


Si Photonics Market Size (USD'M)

Source: Yole, 2020



# IIoT & Smart Manufacturing Powered Up by 5G Network



Industrial IoT

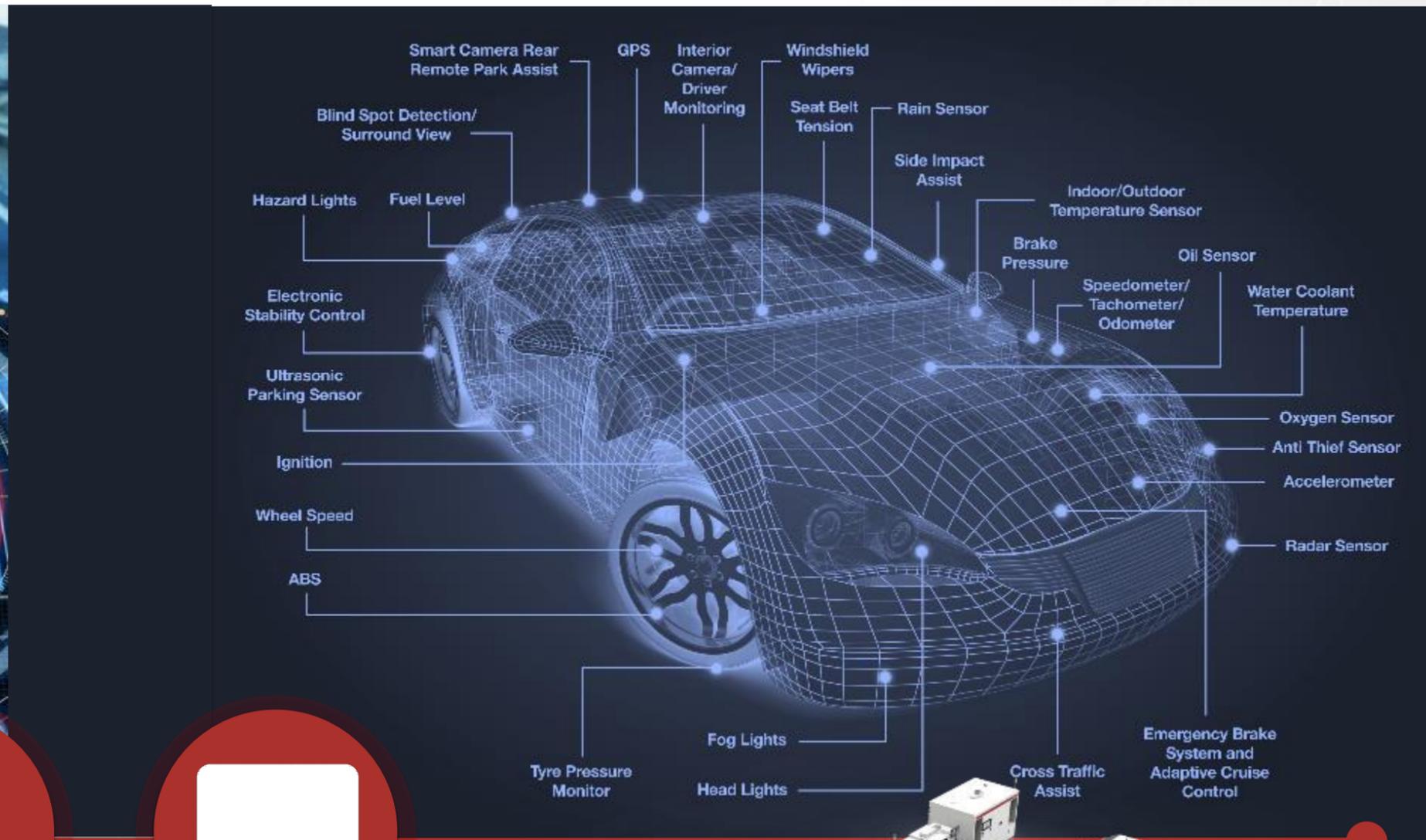
~ **24%**

CAGR (2019 – 2023)

Source: Marketwatch,  
Sep 2019



# Digital Technologies Enabling the Autonomous Driving Experience



5G NETWORK



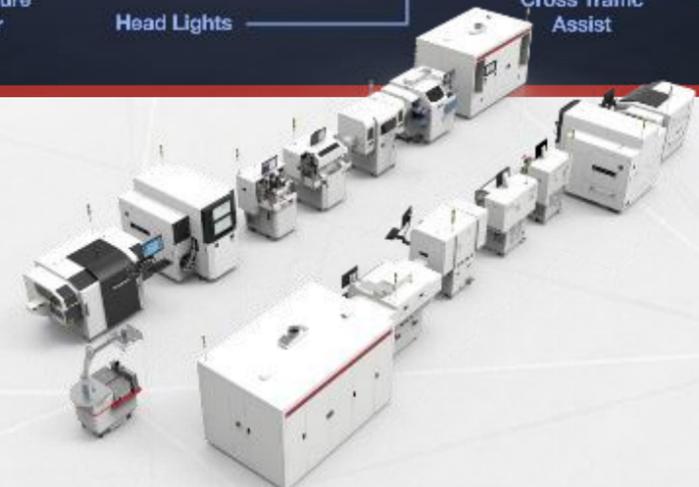
MEMS



POWER



DISPLAY



# Outlook

# Outlook

- Global full year 2020 growth projections revised downwards from -3.0% to -4.9% by IMF during June 2020 review.
- Threat from a second wave of COVID-19 infection and continued fallout from the worsening US-China tension remains a global concern for 2H2020.
- In light of these uncertainties, no guidance on Q3 Bookings will be provided.

## Q3 Group Billings Guidance

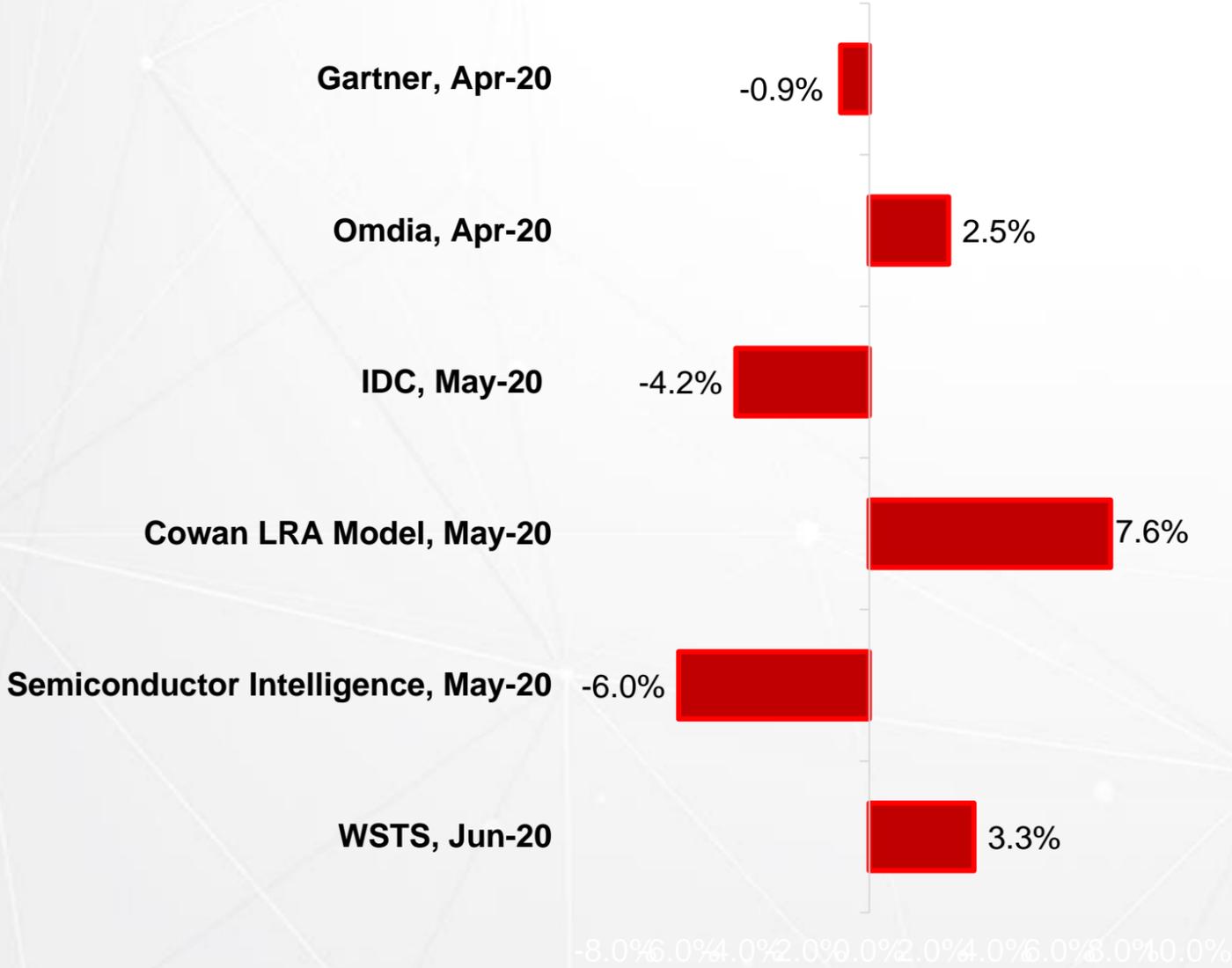
- US\$480m – US\$560m
- Subdued demand for Automotive and weakness in Eurozone

## Longer Term Outlook

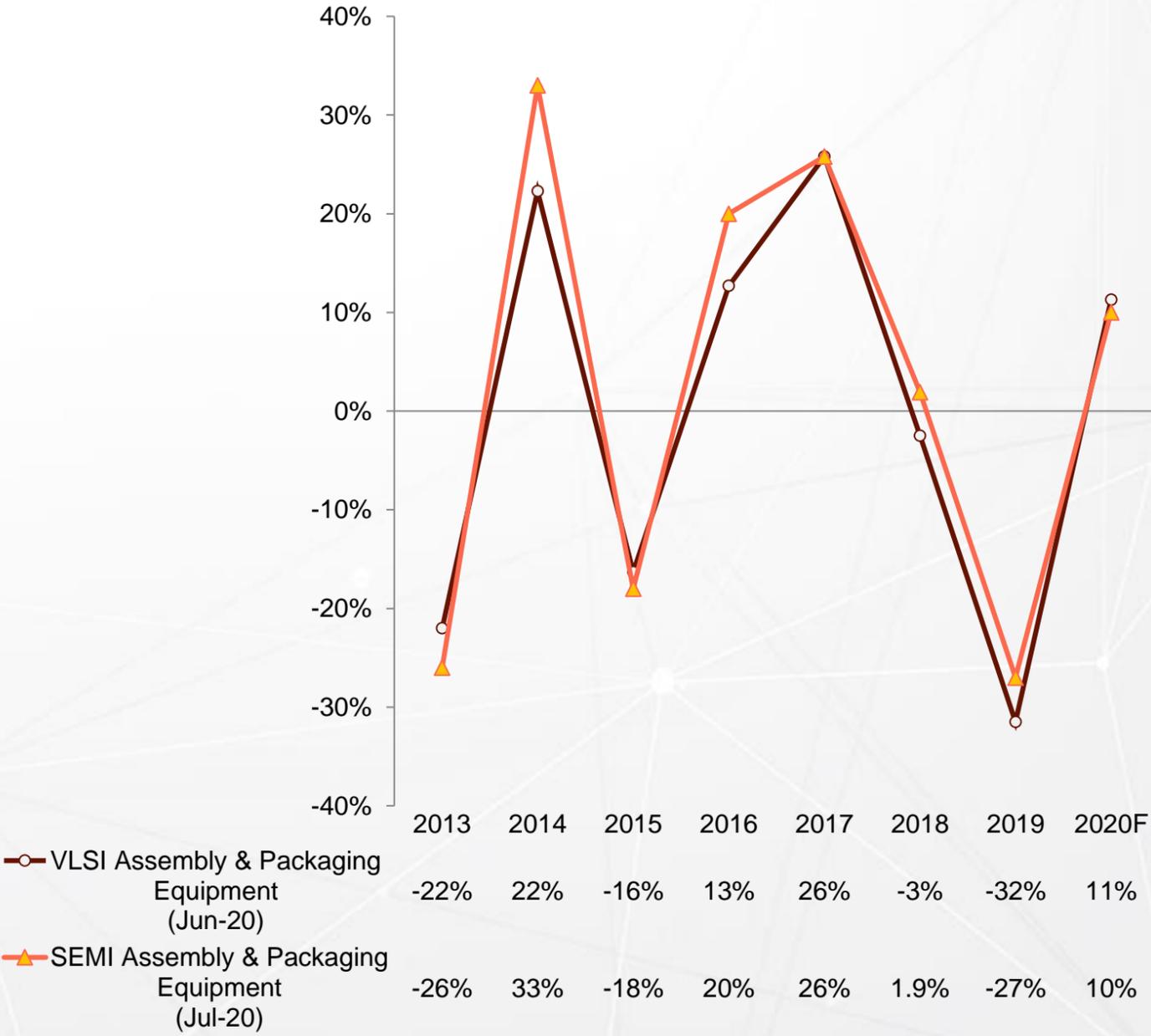
- Supply chain localization and deployment of 5G infrastructure opening up new market opportunities in:
  - AP, Silicon Photonics, IIoT, mini and micro LED solutions, Power semiconductor and Industry 4.0

# Industry Growth Forecast (2020)

## Semiconductor Industry



## Forecast Global Assembly & Packaging Equipment Market



# Recent Awards & Recognition

Latest



| 10 BEST Segment                 | Rank | 10 BEST CHIP MAKING EQUIPMENT SUPPLIERS OF 2020  | Rating | Stars |
|---------------------------------|------|--|--------|-------|
| L<br>A<br>R<br>G<br>E           | 1    | <b>ADVANTEST</b>   | 9.50   | ★★★★★ |
|                                 | 2    | <b>TERADYNE</b>  | 9.48   | ★★★★★ |
|                                 | 3    | <b>ASML</b>  | 9.31   | ★★★★★ |
|                                 | 4    | ASM  Pacific Technology         | 8.92   | ★★★★★ |
|                                 | 5    |  <b>KE</b><br>KOKUSAI ELECTRIC | 8.35   | ★★★★★ |
|                                 | 6    |  <b>TEL</b><br>TOKYO ELECTRON  | 8.34   | ★★★★★ |
|                                 | 7    |  <b>Lam</b><br>RESEARCH      | 8.21   | ★★★★★ |
|                                 | 8    |  <b>APPLIED MATERIALS</b>    | 8.00   | ★★★★★ |
|                                 | 9    | <b>Hitachi High-Tech</b>   | 7.64   | ★★★★★ |
| F<br>O<br>C<br>U<br>S<br>E<br>D | 1    |  <b>Plasma-Therm</b>         | 9.02   | ★★★★★ |
|                                 | 2    |  <b>FORMFACTOR</b>           | 8.91   | ★★★★★ |
|                                 | 3    |  <b>EVG</b>                  | 8.86   | ★★★★★ |
|                                 | 4    |  <b>Cohu</b>                 | 8.82   | ★★★★★ |
|                                 | 5    | <b>axcelis</b>   | 8.21   | ★★★★★ |
|                                 | 6    | <b>Canon</b>   | 7.91   | ★★★★★ |
|                                 | 7    |  <b>Nikon</b>                | 7.58   | ★★★★★ |
|                                 | 8    |  <b>SUSS MicroTec</b>        | 7.25   | ★★★   |

Source: VLSIresearch Doc: 10BEST\_v20.05  
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**WHAT THE BEST SUPPLIERS OF 2020 ARE BEST AT**

|  |   |   |  |
|--|---|---|--|
| <b>ADVANTEST</b>   | <ul style="list-style-type: none"> <li>Recommend Supplier</li> <li>Trust In Supplier</li> </ul>                         |    | <ul style="list-style-type: none"> <li>Technical Leadership</li> <li>Quality of Results</li> </ul> |
| ASM  Pacific Technology | <ul style="list-style-type: none"> <li>Field Engineering Support</li> <li>Partnering and Support After Sales</li> </ul> | <b>ASML</b>   | <ul style="list-style-type: none"> <li>Technical Leadership</li> <li>Recommend Supplier</li> </ul> |
| <b>axcelis</b>   | <ul style="list-style-type: none"> <li>Field Engineering Support</li> <li>Partnering</li> </ul>                         | <b>Canon</b>  | <ul style="list-style-type: none"> <li>Overall Value</li> <li>Partnering</li> </ul>                |
|  <b>Cohu</b>            | <ul style="list-style-type: none"> <li>Recommend Supplier</li> <li>Partnering</li> </ul>                                |    | <ul style="list-style-type: none"> <li>Quality of Results</li> <li>Partnering</li> </ul>           |
|                        | <ul style="list-style-type: none"> <li>Partnering</li> <li>Recommend Supplier</li> </ul>                                |  | <ul style="list-style-type: none"> <li>Technical Leadership</li> <li>Trust In Supplier</li> </ul>  |
| <b>Hitachi High-Tech</b>   | <ul style="list-style-type: none"> <li>Uptime</li> <li>Product Performance and Quality of Results</li> </ul>            |  | <ul style="list-style-type: none"> <li>Partnering</li> <li>Support After Sales</li> </ul>          |
|                       | <ul style="list-style-type: none"> <li>Support After Sales</li> <li>Uptime</li> </ul>                                   |  | <ul style="list-style-type: none"> <li>Technical Leadership</li> <li>Recommend Supplier</li> </ul> |
|                       | <ul style="list-style-type: none"> <li>Application Support</li> <li>Recommend Supplier</li> </ul>                       |  | <ul style="list-style-type: none"> <li>Overall Value</li> <li>Support After Sales</li> </ul>       |
|                       | <ul style="list-style-type: none"> <li>Spares Support</li> <li>Field Engineering Support</li> </ul>                     |  | <ul style="list-style-type: none"> <li>Application Support</li> <li>Quality of Results</li> </ul>  |
|                       | <ul style="list-style-type: none"> <li>Field Engineering Support</li> <li>Application Support</li> </ul>                | <b>TERADYNE</b>   | <ul style="list-style-type: none"> <li>Recommend Supplier</li> <li>Trust In Supplier</li> </ul>    |
|                       | <ul style="list-style-type: none"> <li>Product Performance</li> <li>Recommend Supplier</li> </ul>                       |   |  |

Source: VLSIresearch Doc: THEBEST\_v20.05  
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# Q2/1H 2020 Financial Highlights

# Q2/1H 2020 Group Bookings

**QoQ Growth:  
-29.4%**



**Quarterly Group Bookings  
(USD 'M)**

|                               | Q2 2020 Bookings |               |               | 1H 2020 Bookings |               |               |
|-------------------------------|------------------|---------------|---------------|------------------|---------------|---------------|
|                               | USD              | YoY           | QoQ           | USD              | YoY           | HoH           |
| <b>Group</b>                  | <b>472m</b>      | <b>-21.6%</b> | <b>-29.4%</b> | <b>1,141m</b>    | <b>+7.4%</b>  | <b>+19.0%</b> |
| <b>Semi Solutions Segment</b> | <b>227m</b>      | <b>-8.1%</b>  | <b>-26.7%</b> | <b>537m</b>      | <b>+14.2%</b> | <b>+21.7%</b> |
| <b>Materials Segment</b>      | <b>78m</b>       | <b>+32.7%</b> | <b>-11.8%</b> | <b>167m</b>      | <b>+59.3%</b> | <b>+25.2%</b> |
| <b>SMT Solutions Segment</b>  | <b>167m</b>      | <b>-43.7%</b> | <b>-38.4%</b> | <b>437m</b>      | <b>-10.3%</b> | <b>+13.7%</b> |

# Q2/1H 2020 Group Billings

**QoQ Growth:  
+27.8%**



**Quarterly Group Billings  
(USD'M)**

|                               | Q2 2020 Billings |               |               | 1H 2020 Billings |               |               |
|-------------------------------|------------------|---------------|---------------|------------------|---------------|---------------|
|                               | USD              | YoY           | QoQ           | USD              | YoY           | HoH           |
| <b>Group</b>                  | <b>557m</b>      | <b>+19.5%</b> | <b>+27.8%</b> | <b>992m</b>      | <b>+5.9%</b>  | <b>-10.5%</b> |
| <b>Semi Solutions Segment</b> | <b>279m</b>      | <b>+33.8%</b> | <b>+43.0%</b> | <b>473m</b>      | <b>+16.6%</b> | <b>-4.5%</b>  |
| <b>Materials Segment</b>      | <b>74m</b>       | <b>+28.2%</b> | <b>+43.2%</b> | <b>126m</b>      | <b>+15.6%</b> | <b>-3.2%</b>  |
| <b>SMT Solutions Segment</b>  | <b>204m</b>      | <b>+2.2%</b>  | <b>+8.0%</b>  | <b>393m</b>      | <b>-6.9%</b>  | <b>-18.7%</b> |

# Q2/1H 2020 Group Financial Highlights

|                   | Q2 2020 | Q2 2020  |           | 1H 2020 | 1H 2020  |         |
|-------------------|---------|----------|-----------|---------|----------|---------|
|                   |         | YoY      | QoQ       |         | YoY      | HoH     |
| Bookings (USD)    | 472m    | -21.6%   | -29.4%    | 1,141m  | +7.4%    | +19.0%  |
| Revenue (USD)     | 557m    | +19.5%   | +27.8%    | 992m    | +5.9%    | -10.5%  |
| Gross Margin      | 35.2%   | -54 bps  | +169 bps  | 34.5%   | -34 bps  | -29 bps |
| EBIT (HKD)        | 457m    | +107.4%  | +269.6%   | 581m    | +20.0%   | -14.9%  |
| Net Profit (HKD)  | 365m    | +421.8%  | +1,341.5% | 391m    | +119.2%  | -12.0%  |
| Net Profit Margin | 8.5%    | +652 bps | +771 bps  | 5.1%    | +262 bps | -9 bps  |

# Q2/1H 2020 Segment Results – Semiconductor Solutions

|                       | Q2 2020 |            |          | 1H 2020 |          |          |
|-----------------------|---------|------------|----------|---------|----------|----------|
|                       | Amount  | YoY        | QoQ      | Amount  | YoY      | HoH      |
| Bookings (USD)        | 227m    | -8.1%      | -26.7%   | 537m    | +14.2%   | +21.7%   |
| Billings (USD)        | 279m    | +33.8%     | +43.0%   | 473m    | +16.6%   | -4.5%    |
| Gross Margin          | 42.9%   | +211 bps   | +162 bps | 42.2%   | +219 bps | +16 bps  |
| Segment Profit (HKD)  | 336m    | +404.3%    | +297.2%  | 420m    | +251.8%  | +17.6%   |
| Segment Profit Margin | 15.5%   | +1,140 bps | +993 bps | 11.4%   | +764 bps | +215 bps |

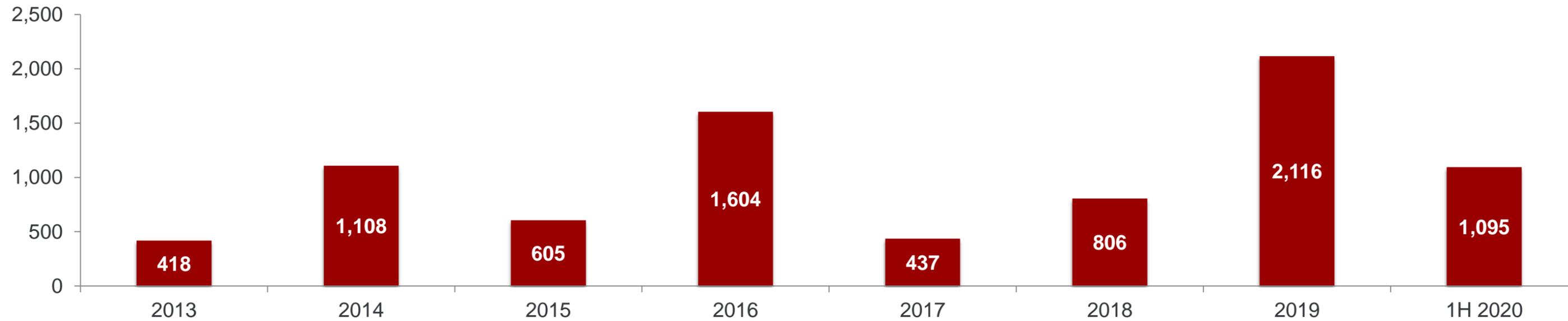
# Q2/1H 2020 Segment Results – Materials

|                       | Q2 2020 |          |          | 1H 2020 |          |          |
|-----------------------|---------|----------|----------|---------|----------|----------|
|                       | Amount  | YoY      | QoQ      | Amount  | YoY      | HoH      |
| Bookings (USD)        | 78m     | +32.7%   | -11.8%   | 167m    | +59.3%   | +25.2%   |
| Billings (USD)        | 74m     | +28.2%   | +43.2%   | 126m    | +15.6%   | -3.2%    |
| Gross Margin          | 16.9%   | +546 bps | +838 bps | 13.5%   | +250 bps | +409 bps |
| Segment Profit (HKD)  | 58m     | +193.7%  | +266.6%  | 74m     | +144.4%  | +163.4%  |
| Segment Profit Margin | 10.1%   | +569 bps | +616 bps | 7.6%    | +399 bps | +479 bps |

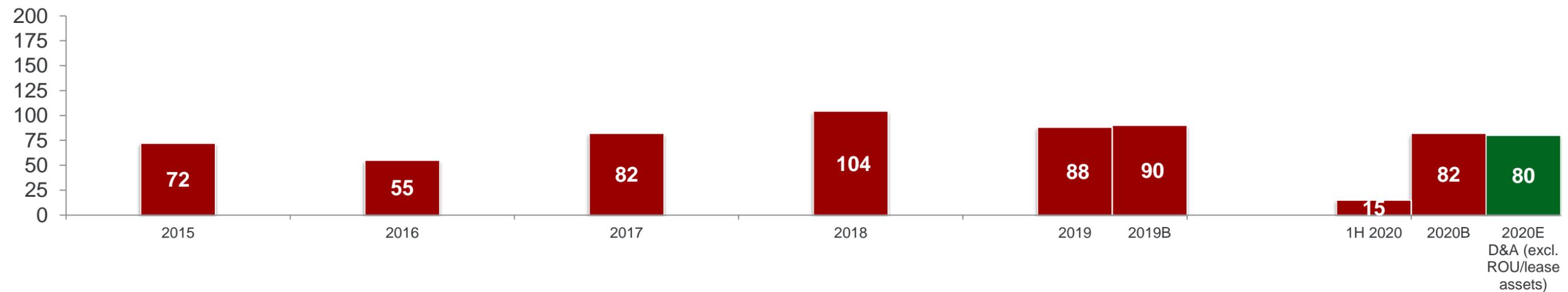
# Q2/1H 2020 Segment Results – SMT Solutions

|                       | Q2 2020 |          |          | 1H 2020 |          |          |
|-----------------------|---------|----------|----------|---------|----------|----------|
|                       | Amount  | YoY      | QoQ      | Amount  | YoY      | HoH      |
| Bookings (USD)        | 167m    | -43.7%   | -38.4%   | 437m    | -10.3%   | +13.7%   |
| Billings (USD)        | 204m    | +2.2%    | +8.0%    | 393m    | -6.9%    | -18.7%   |
| Gross Margin          | 31.3%   | -616 bps | -101 bps | 31.8%   | -409 bps | -225 bps |
| Segment Profit (HKD)  | 159m    | -24.0%   | +25.5%   | 285m    | -32.5%   | -43.5%   |
| Segment Profit Margin | 10.0%   | -346 bps | +140 bps | 9.3%    | -354 bps | -410 bps |

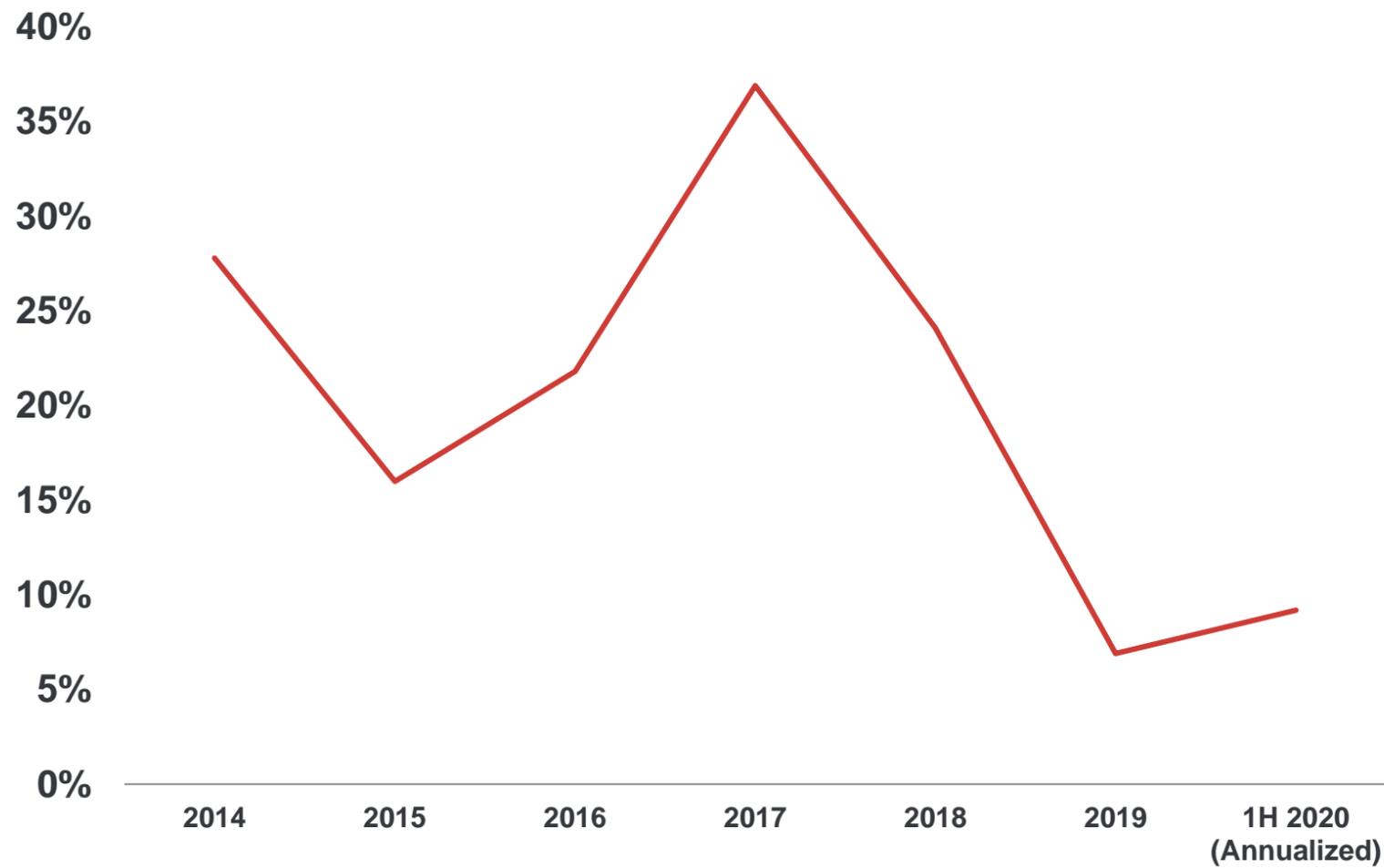
**Free Cash Flow  
(HK\$ m)**



**Capital Investment  
(US\$ m)**



### Return on Invested Capital (ROIC)



### Return on Equity (ROE)

