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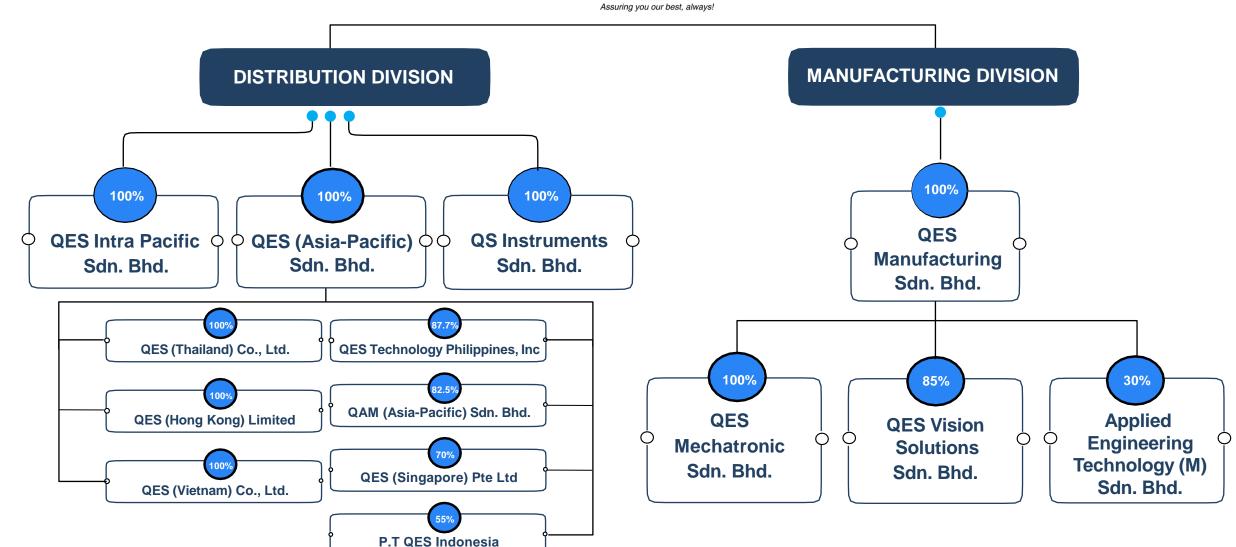
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# **Company Overview - Corporate Structure**







# **Company Overview- Corporate Milestones**

 QES was founded in October 1991 by Mr Chew Ne Weng as a distributor of test, inspection and measuring equipment



- Diversification into business of:
  - a) semiconductor test and assembly;
- b) semiconductor wafer fabrication;
- c) manufacturing and trading of industrial equipment and systems



- Official launch of SPECTRO SEA Centre of Excellence.
- Implementation of Business Fulfilment System within QES Group.
- Creden Intra Pacific Sdn. Bhd. gained QMS ISO 9001:2015 recognition for their Service Operation







1991

1992 - 1999

2000 - 2001

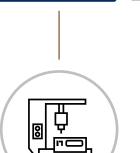
2006-2008



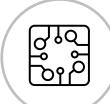
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2020

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- Expanded to Singapore, Thailand and Philippines.
- Set up new subsidiaries in Kuala Lumpur and Penang.



- Expanded to China, Indonesia and Vietnam and Clark, Philippines.
- Creden
  Mechatronic Sdn.
  Bhd. gained QMS
  ISO 9001: 2000
  recognition.



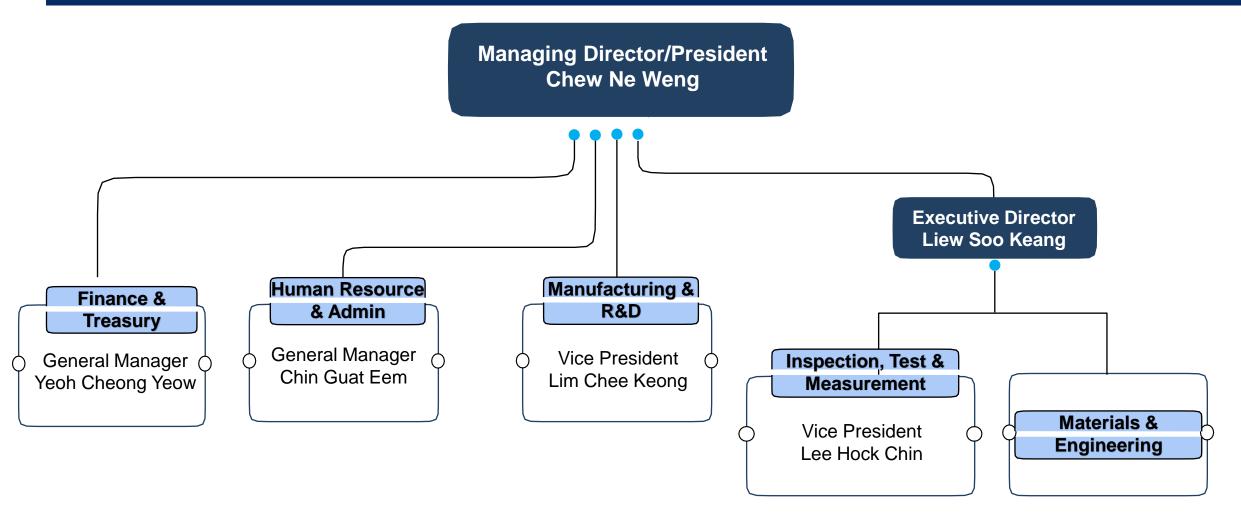
- Listed on the ACE Market on 8th March 2018.
- Diversification into providing vision software solution for automated equipment



- Acquired new Corporate HQ & manufacturing facility in Glenmarie, Shah Alam
- QES (Asia-Pacific)
  Sdn. Bhd. gained
  QMS ISO 9001:2015
  recognition for Sales
  & Service Operations
- Implementation of Oracle NetSuite ERP System within QES Manufacturing Division



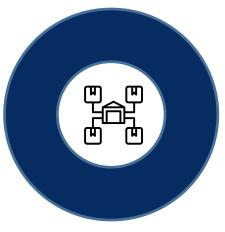
# **Company Overview - Organization Structure**





## **Business Overview - Business Segments**

#### **Distribution**

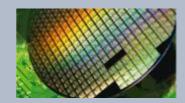




Analytical Instruments

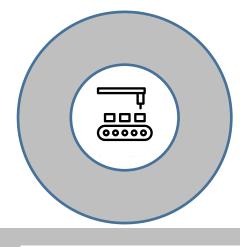


Inspection, Test & Measurement Equipment



Materials & Engineering Solutions

#### Manufacturing





Semiconductor Inspection & Measuring Equipment



Semiconductor Automated Handling Equipment



# **Business Overview - Distribution Division**

	Inspection, Test & Measurement	Materials	Engineering Solutions
Application	<ul> <li>Inspection for flaws</li> <li>Test and analyse composition of materials</li> <li>Measure dimensions</li> </ul>	<ul> <li>Consumable materials used in the semiconductor industry</li> <li>Polishing pad, diffusing and etching quartz</li> </ul>	Sub systems to process toxic gas in the fabrication process
Sector	<ul><li>Semiconductor</li><li>Electrical and Electronics</li><li>Automotive</li></ul>	Semiconductor	Semiconductor
Supplier	SPECTRO AMETEK MATERIALS ANALYSIS DIVISION NIKON	AKROSTRADING Akros Trading Co.Ltd.	MAT
dnS	Rigaku Hitachi High-Tech	SHINHAN DIAMOND	이 의 스 코 WESCO



#### Business Overview - Manufacturing Division (Semiconductor Equipment)

	Semiconductor Inspection & Measurement	Automated Handling Systems
ation	<ul><li>Automated Inspection Equipment</li><li>Semi-Automated Inspection Equipment</li></ul>	Automated Handling Equipment (Semiconductor)
Application	<ul><li>Wafer inspection</li><li>Post probing, post dicing and post wire bonding</li><li>Post die attach and post molding</li></ul>	<ul><li>Wafer sorting and handling</li><li>Wafer transfer</li><li>Wafer packing and unpacking</li></ul>
Product	Automatic Optical Inspection (AOI Series)  • PWB (Post Wire Bond)  • PDA (Post Die Attach)  • PMI (Post Molding Inspection)  Semi-Automated Optical Inspection (OIS Series)  • ISP3100, DIS8000, WIS1000, WIS8000  Advance Metrology System (AMS Series)  • MPT 1000 (Thickness and roughness)  • MPS 2100 (Roughness)  • WSM 1200 (Wafer surface metrology)	<ul> <li>WSS Series</li> <li>Wafer Sorting System</li> <li>WTS Series</li> <li>Wafer Batch Transfer System</li> <li>WPS Series</li> <li>Wafer Packing &amp; Unpacking System</li> <li>WID Series</li> <li>Wafer Batch ID Reader System</li> </ul>



#### **Business Overview - Semiconductor Equipment Line Up**

#### **Manufacturing Division - Equipment for Semiconductor Processes**



Automated Wafer Sorters (AHS Series)



1<sup>st</sup> Optical Semi-Auto Inspection (OIS Series)



Chapman Wafer Metrology (AMS Series)



2<sup>nd</sup> Optical Semi-Auto Inspection (OIS Series)



Post Die Attach Semi-Auto Inspection (AOI Series)



3<sup>rd</sup> Optical Semi-Auto Inspection (OIS Series)



Post Mold Panel Inspection (AOI Series)

#### Wafer Probing

Wafer Dicing

Die Attach

Wire Bonding

Molding

Test



Wafer Stocker (AHS Series)



Post Probing Inspection (AOI Series)



Post Dicing Inspection (AOI Series)



Post Die Attach Inspection (AOI Series)



Post Wire Bond AOI (AOI Series)



Automated Wafer Pack/Unpack (AHS Series)



Automated Wafer ID Print and Label (AHS Series)

# Assuring you our best, always!

# Business Overview - Manufacturing Division (IR4.0 & Smart Manufacturing)

	IR4.0 and Smart Manufacturing Solutions	Automated Vision Software
Application	<ul> <li>Smart Vending Solutions</li> <li>Smart Security Solutions</li> <li>RFID Integrated Warehouse Management</li> <li>Integrated IoT Sensing Solutions</li> </ul>	<ul> <li>Post Wire Bonding</li> <li>Post Die Attach</li> <li>Wafer Inspection and Post Probing</li> <li>Software for AMS Series</li> <li>Solar Panel Inspection</li> </ul>
Product	<ul> <li>QES Vision Solutions</li> <li>RFID WMS</li> <li>IoT Sensing for IR4.0 smart manufacturing</li> <li>RFID SVS (Smart Vending Solution)</li> <li>RFID SSS connect ware (Smart Security Solution)</li> <li>SDL (Smart Digital Locker)</li> <li>DSD (Document Storage Digitalization)</li> </ul>	<ul> <li>QES Mechatronic Equipment</li> <li>Post Wire Bonding PWB2000V</li> <li>Post Die Attach PDA1500V</li> <li>Post Probing PPI8000</li> <li>Advance Metrology System Chapman MPT1100</li> <li>Solar Panel Inspection Module</li> <li>Add on to existing production line system</li> </ul>



#### **Business Overview - IR4.0 and Smart Manufacturing Solutions**



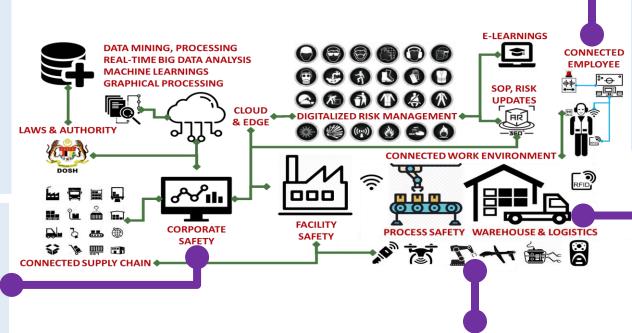
#### **SMART VENDING SOLUTIONS**

- Real-Time Database
- Requirement Personalized to Employees
- Automated Issuance
- PPE Integrity Monitoring
- Automated Replenishment



#### **SMART SECURITY SOLUTIONS**

- RFID Technology
- Zoning: High Risk Zone
- Real-time Connectivity and Monitoring/Control
- Full Awareness and Control of Employees and Visitors within Premise





#### INTEGRATED WAREHOUSE MANAGEMENT SOLUTIONS

- RFID Technology
- Fully end-to-end integration from Receiving to Issuance

#### INTEGRATED IOT SENSING SOLUTIONS

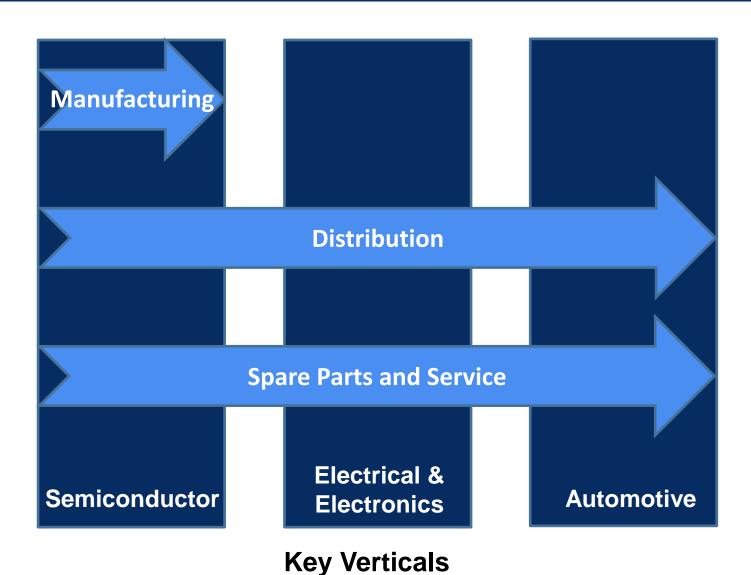
- Real-Time Sensors (Temp., Humidity, etc.)
- Dashboard Monitoring
- Indicator to React
- Various IOT integrated New Solutions





#### **Business Overview -Sector & Product Diversity**





- Diversified into 3 core sectors
- Counter cyclical
- Spare parts and service provide strong recurring revenue
- Sustainable revenue growth



## Financial Highlights - Quarterly Results QoQ and YoY

				For the v	ear ended	
RM'mil	Q4 21	Q3 21	QoQ%	Dec 21	Dec 20	YoY%
Revenue	<u> </u>	-				
Distribution	55.0	46.7	17.8%	197.3	130.1	51.7%
- Product	32.3	31.3	3.2%	124.2	72.6	71.1%
- Materials	9.2	4.5	104.4%	26.0	17.4	49.4%
- Spares & Service	13.5	10.9	23.9%	47.1	40.1	17.5%
Manufacturing	9.2	5.0	84.0%	25.5	25.1	1.6%
Total Revenue	64.2	51.7	24.2%	222.8	155.2	43.6%
GP		100	44.40/	10.0	20.0	5.5. <b>7</b> 0.4
Distribution	9.6	10.8	-11.1%	43.9	28.2	55.7%
- Product	6.2	6.9	-10.1%	27.8	15.0	85.3%
- Materials	0.7	0.3	133.3%	2.7	1.1	145.5%
- Spares & Service	2.7	3.6	-25.0%	13.4	12.1	10.7%
Manufacturing	2.9	1.2	141.7%	7.7	7.2	6.9%
Total GP	12.5	12.0	4.2%	51.6	35.4	45.8%
EBITDA	6.6	6.1	8.2%	29.0	15.4	88.3%
Operating Cost	(6.6)	(6.7)	-1.5%	(26.0)	(23.7)	9.7%
Shares of profit of						
associates, net of tax	(0.2)	-	0.0%	(0.2)	-	0.0%
PBT	5.7	5.3	7.5%	25.4	11.7	117.1%
Tax	(1.1)	(1.6)	-31.3%	(5.8)	(3.0)	93.3%
PAT	4.6	3.7	24.3%	19.6	8.7	125.3%
MI	(0.2)	0.1	-300.0%	(0.6)	-	0.0%
PAT Attributable (PATMI)	4.4	3.8	15.8%	19.0	8.7	118.4%



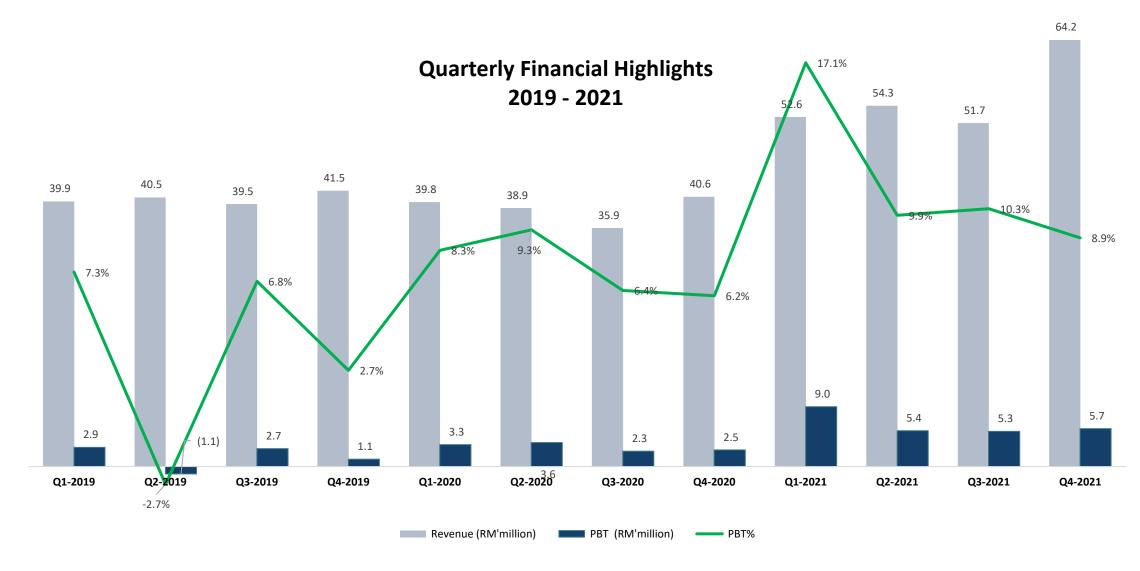
#### Financial Highlights – Quarterly Results Comparison

#### In RM 'mil

				_		For Year Ended		
	Q4'21	Q4'20	Q3'21	Q4'21 vs Q4'20	Q4'21 vs Q3'21	Dec'21	Dec'20	Dec'21 vs Dec'20
Revenue	64.2	40.6	51.7	<b>58.1%</b>	<b>1</b> 24.2%	222.8	155.2	43.6%
PATMI PATMI Margin	<b>4.4</b> 6.9%	2.0 4.9%	3.8 7.4%	<b>1</b> 20.0%	<b>1</b> 5.8%	19.0 8.5%	8.7 5.6%	<b>1</b> 18.4%
EBITDA EBITDA Margin	6.6 10.3%	3.5 8.6%	6.1 11.8%	<b>1</b> 88.6%	<b>8.2%</b>	29.0 13.0%	15.4 9.9%	<b>88.3%</b>

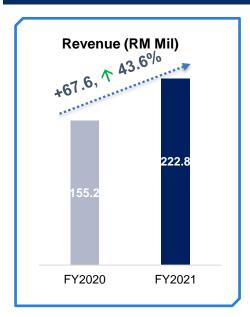


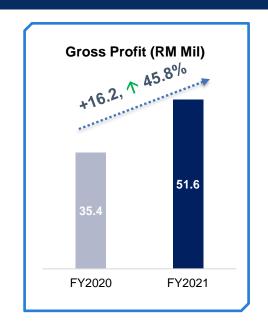
#### Financial Highlights – Quarterly Revenue and PBT trend

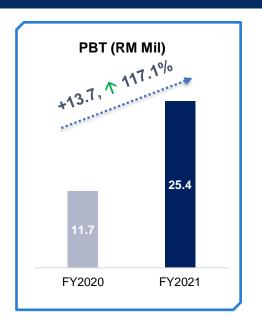


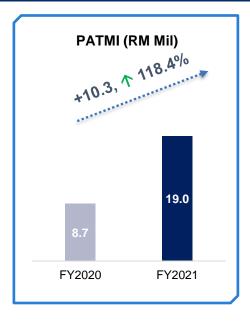


#### Financial Highlights of Q4'21 – 12M cumulative period





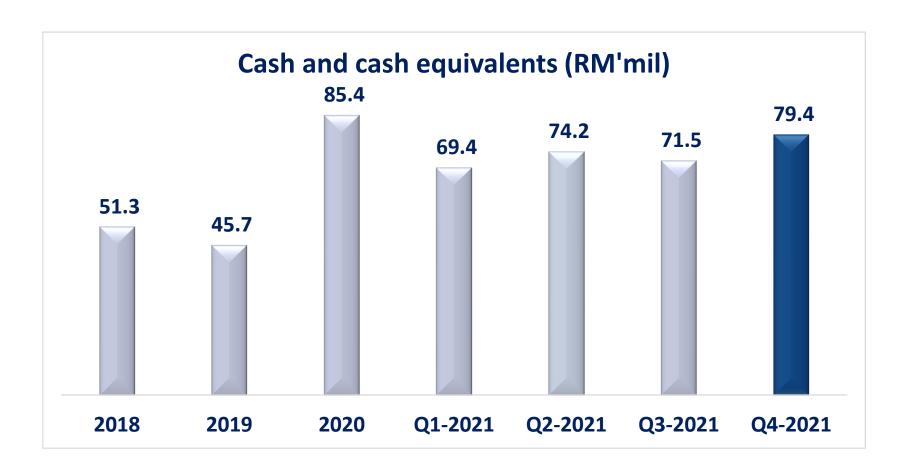




- On the back of the highest ever quarterly revenue in Q4FYE21, FYE21 revenue increased due to a jump in sales from both the distribution division and manufacturing division.
  - Distribution division revenue increased by 76.9% YoY mainly due to continued strong global demand in the semiconductor, automotive and electrical and electronic industries.
  - Manufacturing division revenue decreased slightly by 3.0% YoY, due to a decline in sales of vision software solutions as compared to the corresponding quarter last year.
- PBT and PATMI increased in tandem with the growth in revenue and a better gross profit generated by both distribution and manufacturing division.



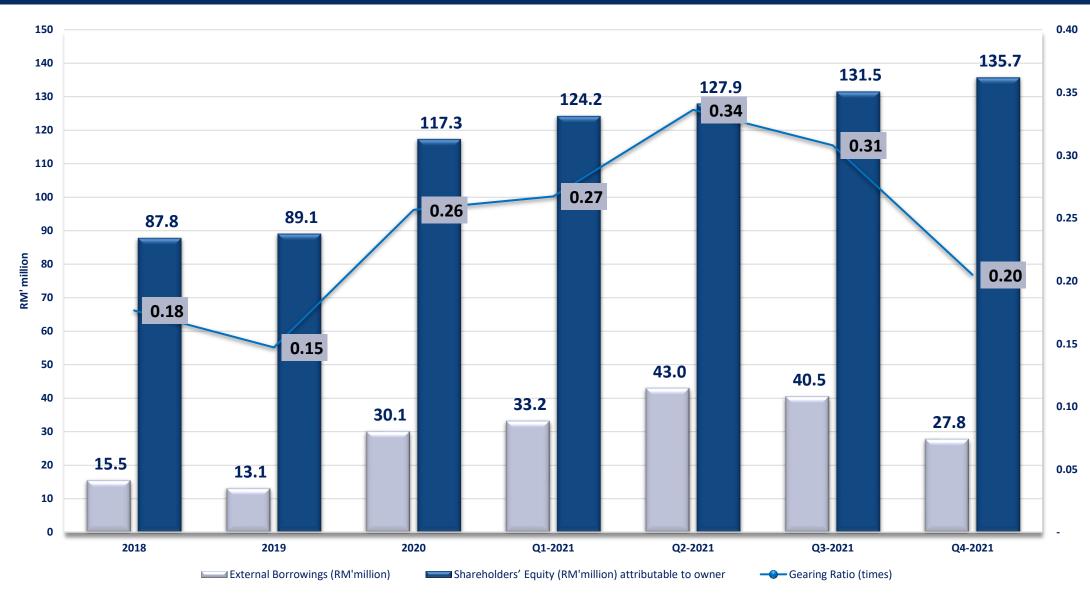
#### Financial Highlights – Cash & Cash Equivalents



<sup>\*</sup> Included in the financial year ended 2020 Cash and Bank Balances is RM17,850,000 being monies placed to vendor's financier in respect of the 5 storey detached factory property acquisition as part of the redemption sum due by the vendor to the vendor's financier. The property acquisition was completed on vacant possession being obtained on 4 January 2021.

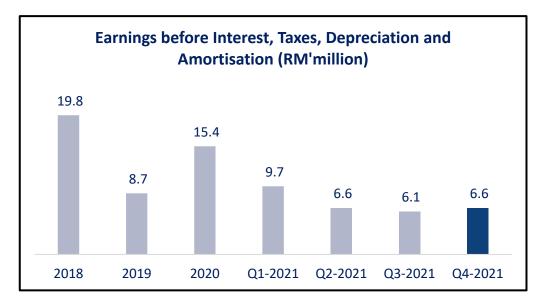


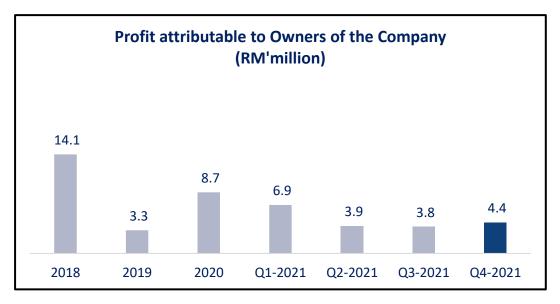
# Financial highlights – Gearing ratio

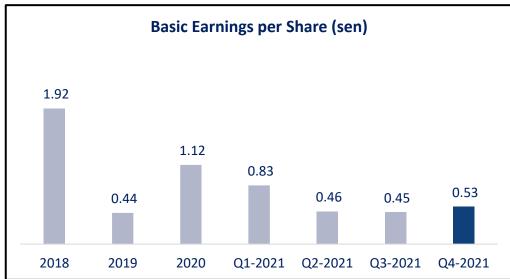


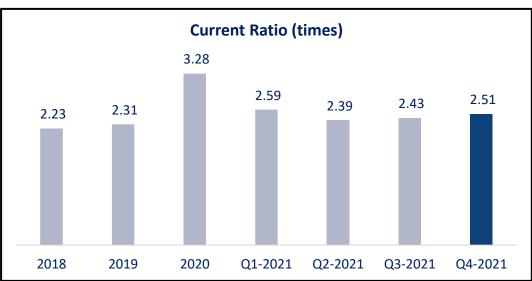


## Financial highlights – Other ratios











# Analysis: Revenue (QoQ and YoY) - By Countries

For the year ended							
RM m	Q4 21	Q3 21	QoQ%	Dec 21	Dec 20	YoY%	
Revenue							
Malaysia	28.8	21.7	32.7%	92.0	^ 59.5	54.6%	→ Malaysia grew strongly
ASEAN	29.1	28.1	3.6%	111.9	82.9	35.0%	Strong ASEAN recovery
Singapore	7.4	9.3	-20.4%	34.3	24.7	38.9%	Semicon driven growth
Vietnam	9.9	7.5	32.0%	26.0	24.4	6.6%	Recovering well
Thailand	4.0	4.9	-18.4%	19.9	14.6	36.3%	E&E and Automotive based
Philippines	4.2	2.7	55.6%	16.4	11.9	37.8%	Both Indonesia and
Indonesia	3.1	2.9	6.9%	13.0	7.2	80.6%	Philippines posted strong rebound from low base Yo
Other ASEAN *	0.5	0.8	-37.5%	2.3	0.1	2200.0%	repoulle from low base to
Others	<i>6.3</i>	1.9	231.6%	18.9	12.8	47.7%	
China	0.2	0.2	0.0%	8.0	^ 5.4	48.1%	Good growth potential
ROW **	6.1	1.7	258.8%	10.9	7.4	47.3%	0
	64.2	51.7	24.2%	222.8	155.2	43.6%	from Europe

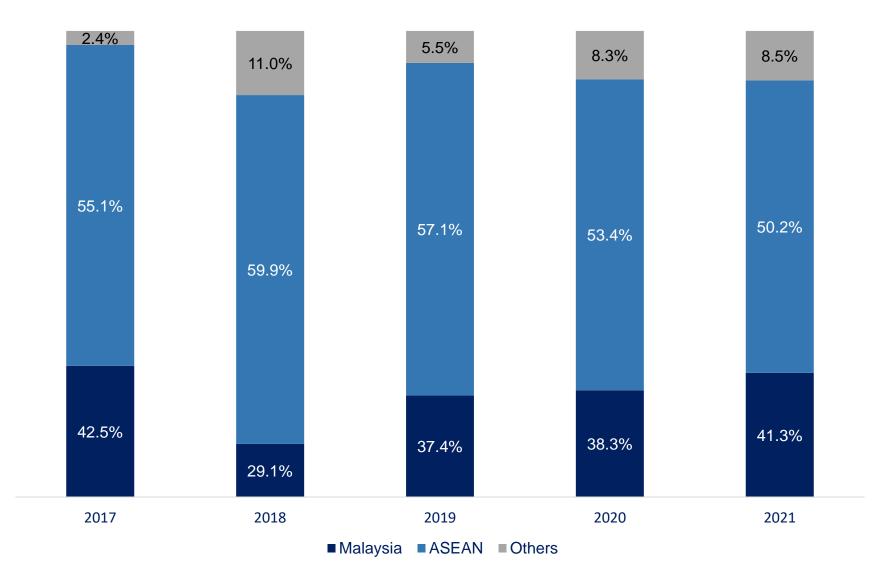
<sup>\*</sup> Other ASEAN includes Myanmar, Laos, Cambodia and Brunei.

<sup>\*\*</sup> ROW includes countries like France, Taiwan, Germany, Korea, Malta, Mexico, Morocco, India, Italy, Japan & etc.

<sup>^</sup> Omitted elimination for inter-companies' revenue which is now corrected

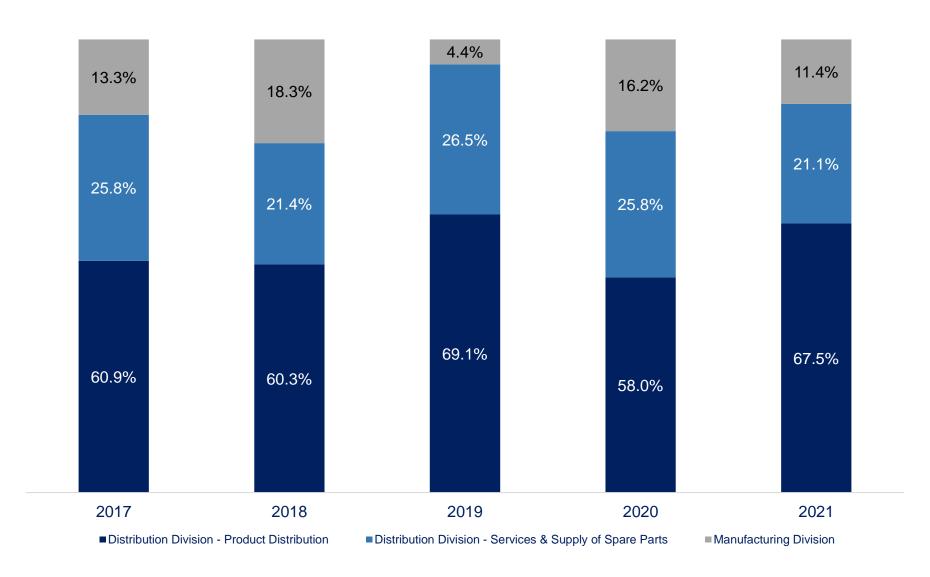


## **Analysis: Revenue Breakdown – By Country/Region**



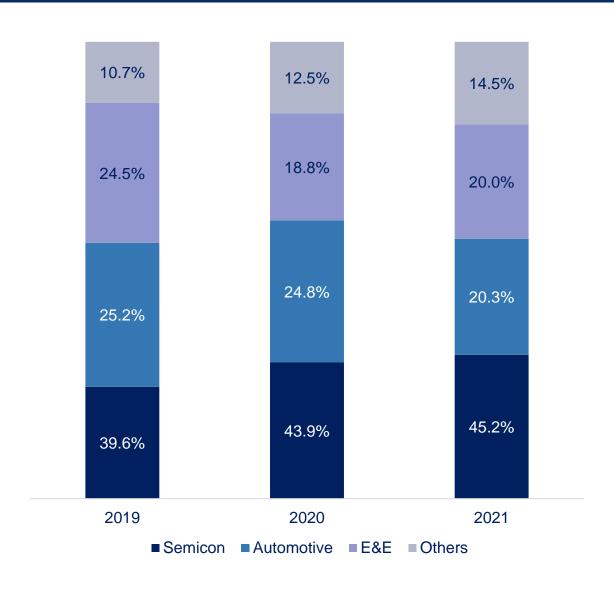


# **Analysis: Revenue Breakdown – By Division**





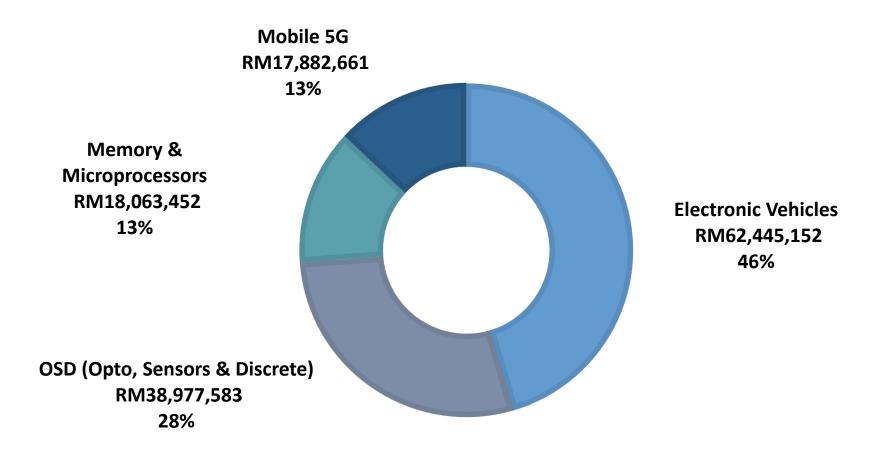
# Analysis: Revenue Breakdown – By Industry





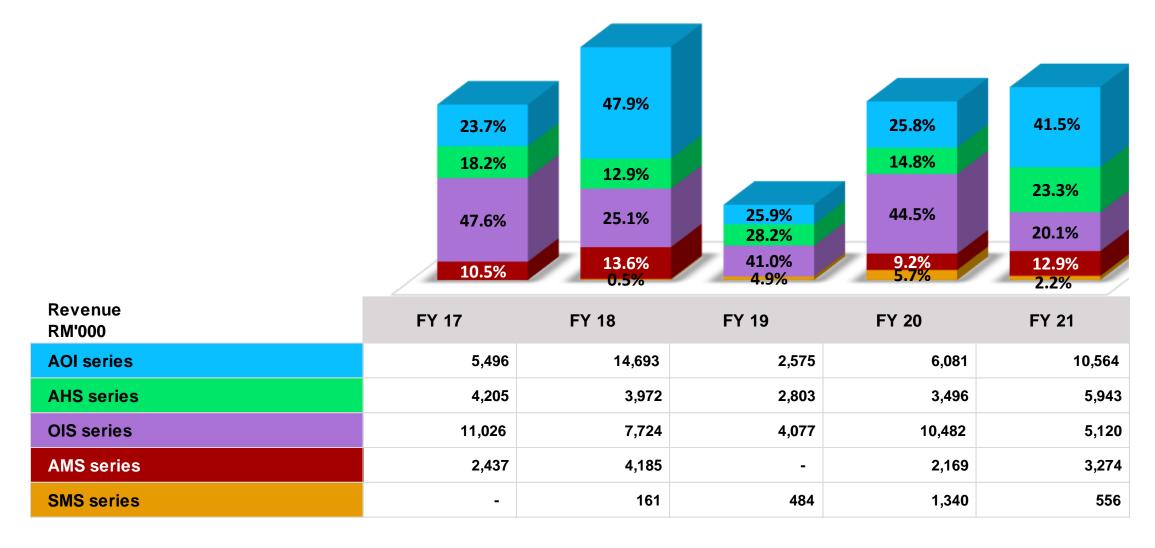
#### **Analysis: Revenue Breakdown – By Semicon Applications**





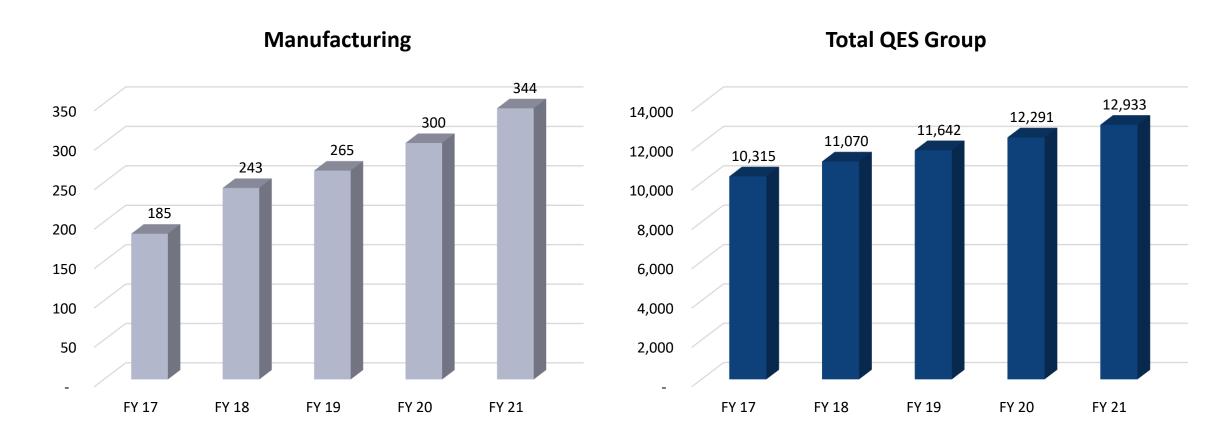
## QES Analysis: Manufacturing equipment series revenue trend

#### Manufacturing Division - Revenue Breakdown (YoY) by Product Series





#### **Analysis: Equipment Installed Base - Cumulative**



Installed base continues to grow for manufacturing and distribution products

<sup>\*</sup> Some machines which are more than 10 years old might not be active.



#### **QES Group – Advantages and Strengths**

Well established own subsidiaries regional infrastructure across ASEAN

Large installed base of more than 12,000 machines worldwide

Diversified base of more than 3,800 customers primarily from semiconductor, E&E, Metal & Automotive sectors

Large pool of more than 280 experience engineers and technicians

Extensive R&D on Semiconductor Equipment and IR4.0 Smart Manufacturing Solutions

One stop solution provider covering major industrial sectors



#### **Key Investment Merits**

# **Diverse Products and Market Segments**

- 30 years experience of being a one stop specialist in manufacturing, distribution and services of test, inspection and measuring equipment, materials and engineering solutions.
- Diversified market segments electrical & electronics, metal, automotive & semiconductor.

# Stable Recurring Income

 Consistent recurring annual income of ~RM40 million (20% to 25% of group revenue) via maintenance and service of large equipment installed base.

#### Regional Presence in ASEAN Market With Overseas Expansion Plans

- Extensive subsidiaries network in ASEAN region
- Expansion plans China via QES Hong Kong
- Sales channel partners worldwide

# Highly Qualified and Experienced Management

 Long-standing management team with an average length of more than 10 years in key technical and operational functions.

# Strong financial balance sheet

- Net cash of > RM 79.4 million as of 31-Dec 21
- Gearing ratio of 0.20
- Cash flow positive

#### **Extensive R&D**

- 7%~8% of manufacturing division revenue allocated for R&D
- Focus semiconductor equipment, IR 4.0 and Smart Manufacturing Solutions



# **QES**<sup>®</sup> Corporate Updates

Event	Planned activities and updates			
Renovation of new QES factory @ Hicom-Glenmarie, Shah Alam	<ul> <li>On track and almost completed</li> <li>Overall space increase from 39,000 sq ft to ~81,000 sq ft</li> <li>Capacity of manufacturing increases from 25,000 sq ft to 35,000 sq ft</li> </ul>			
Applied Engineering Technology (M) Sdn Bhd (AETM)	<ul> <li>A joint venture between Applied Engineering Inc, USA (70%) and QES Group (30%)</li> <li>Renovation estimated to be fully completed by end Feb 2022</li> <li>Production readiness by mid-Mar 2022</li> <li>AE USA will begin product transfers by mid-Apr 2022</li> </ul>			
QES Group acquisition of 2 acres land @ Batu Kawan Industrial Park, Penang	<ul> <li>❖ Completed SPA between PDC and QES</li> <li>❖ Paid 50% (~RM 2.4 mil) of the SPA price to PDC as of 15 Jan 2022</li> <li>❖ Construction of QES 2.0 @BKIP to start from 2H-2022 onwards</li> </ul>			



# **QES**<sup>®</sup> Corporate Updates

Event	Planned activities and updates
QES Penang Expansion	<ul> <li>QES 2<sup>nd</sup> factory will house a combined QES Mechatronic, QES Vision, AETM and QES Distribution Penang operations</li> <li>Manufacturing space of at approximately 100,000 sq ft</li> <li>Total employment forecasted to be at least 100 staffs within 3 years from moving in</li> </ul>
QES Penang leveraging eco- system of Semiconductor, E&E and Medical Technology sectors	<ul> <li>Leverage existing matured supply chain within Penang</li> <li>QES Mechatronic to further enhance our high technology equipment development through collaborations with Semiconductor and E&amp;E customers</li> <li>AETM joint venture to support high technology investment from MNCs especially in Semiconductor, Medical Technology and Aerospace sectors</li> <li>QES Vision to continuously developing IR4.0 and Smart Manufacturing Solutions for the large MNCs and the SME companies</li> </ul>



# **Outlook Summary for FY2022 and beyond**

Event	Planned activities and updates			
Manufacturing Division	<ul> <li>Order intake from semiconductor customers continues to be strong</li> <li>Deliveries impacted by supply chain issues and shortage of critical components</li> <li>Launched PDA1000V (AOI Series) automated inspection machines for IGBT power device (extensively use inside EV)</li> <li>Launched WSM1200 (AMS Series) automated metrology inspection for both bump wafer and SiC wafer (extensively use for EV semiconductor IC production)</li> <li>Wafer Inspection AOI (PPI series) 1st prototype is ready</li> </ul>			
Distribution Division	<ul> <li>Strong order intake from semiconductor as well</li> <li>Received multiple large orders from both front-end wafer fab and back-end test assembly customers but shipment will be next year due to lengthy delivery lead time</li> <li>Record revenue recorded from all Business Units for FY 2021</li> <li>Recurring income continues to be steady at ~21% of FY 2021 revenue</li> </ul>			



#### **AOI Series - Wafer Inspection (PPI Series) Updates**





Pictures taken at QES Hicom-Glenmarie factory on 13 Feb 2022



# **Outlook Summary for FY2022 and beyond**

Event	Planned activities and updates
FY2022	<ul> <li>Estimated 5~6 months to clear backlog of orders (~RM 92 mil) from FY 2021</li> <li>Order intake momentum remains strong for Jan and Feb of 2022</li> <li>QES Group is optimistic to see growth in FY2022 over FY2021</li> <li>Subject to meeting all the requirements, approval of BOD and relevant authorities, we plan to apply to migrate from Ace to Main market by 3Q-2022</li> </ul>
5 years road map (FY2022 to FY2026)	<ul> <li>AETM JV company to start full swing by end FY2022</li> <li>Planned to start building QES 2<sup>nd</sup> plant @ BKIP from 2H2022 onwards</li> <li>Target to start operations of QES 2.0 @BKIP from 2H2023 onwards</li> <li>QES China expansion to yield positive results next 2H2022 onwards</li> <li>With EV, 5G, IoT, Cloud, Edge Computing and AI continue to flourish, we expect demand for our products and services to be trending upwards over the next 5 years</li> <li>Forecasting CAGR of double-digit growth over the next 5 years based on the potentials outlined above</li> </ul>



#### **ESG Targets and Action Plans**



#### **Environmental**

- ➤ QES promoting **WEEE/ROHS** analytical equipment to check and monitor hazardous elements (lead, mercury, cadmium etc) coming into consumer electronic products. Playing our part to ensure planet Earth is environmentally free from these hazardous elements. QES has installed more than 1,600 equipment to monitor these ozone depleting and hazardous elements
- ➤ Rain harvesting systems to be installed at both new QES @Hicom-Glenmarie & QES 2.0 @BKIP
- ➤ Complete **digitalization** to reduce paper and energy wastage (FY2021 1626 reems, we aim to cut it down by **50%** for FY2022).
- Installation of solar panels QES @Hicom-Glenmarie will improve carbon footprint as per illustration



# 313 metric tonnes

of carbon avoidance per annum



68

passenger vehicles taken off the road for 1 year



5177

tree seedlings grown for 10 years



**57** 

Number of homes' average electricity use for 1 year



#### **ESG Targets and Action Plans**



- Gender and racial diversity within employees. Approximately 30% female; 70% male employee in the entire Group.
- ➤ Donation and contributions to university sponsorships and recent flood victims (Total donation was **RM42,728** to universities and flood relief) for FY2021.
- ➤ Clean, vibrant and happy workplace at the newly renovated QES HQ @ Hicom-Glenmarie scheduled to move in by end of Mar 2022.



#### Governance

- Appropriate checks and balance via separate roles and functions of Chairman and Managing Director / President
- Strong oversight and accountability on QES' board majority of independent directors
   (4) and executive directors (2).
- Consistent quarterly investor relations updates to **shareholders** e.g institutional fund managers and high net worth individual shareholders.



#### **QES Glenmarie Factory Progress – Dec '21/Feb '22**







# QES Glenmarie Factory Progress – Dec '21/Feb '22





#### **QES Group New Factory Progress – Feb '22**







## **QES Glenmarie Progress – Feb '22**





#### QES2@BKIP - Batu Kawan Industrial Park, Penang

Land Area: 2 acres

Amount: RM4,791,600 Investment: RM20 mil

Job Opportunities: Provide jobs for 100 engineers, technicians, administrative & executive personnel within 3 years from operation







# QES2@BKIP – Batu Kawan Industrial Park, Penang



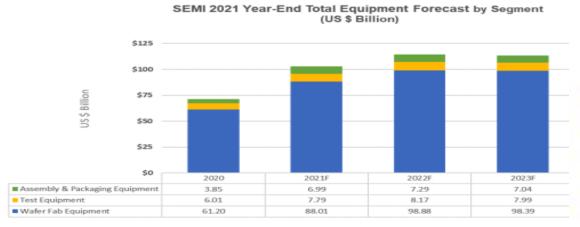
# **Utilisation of Private Placement Proceeds - Update**

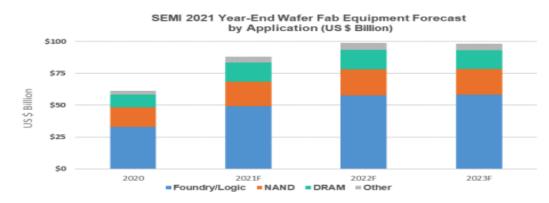
#### As at 31 December 2021

	Purposes	Proposed Utilisation RM'000	Actual Utilisation RM'000	Balance RM'000	Expected Timeframe for Utilisation
(i)	Factory capacity expansion	8,200	1,641	6,559	Within 18 months from 30 Oct 2020
(ii)	R&D on future product expansion	5,300	440	4,860	Within 24 months from 30 Oct 2020
(iii)	Market expansion to China	1,500	97	1,403	Within 18 months from 30 Oct 2020
(iv)	Future working capital and acquisition related investment	4,595	3,816	779	Within 24 months from 30 Oct 2020
(v)	Estimated expenses in relation to the proposed private placement	500	500	-	Immediately
		20,095	6,494	13,601	=



#### Semiconductor Market Outlook

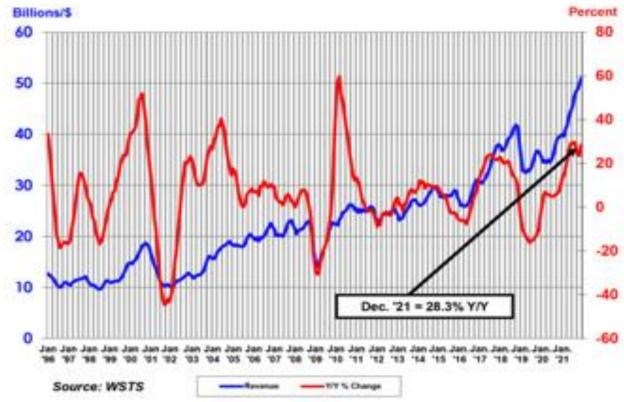




Source: SEMI December 2021, Equipment Market Data Subscription
Total equipment includes new wafer fab, test, and A&P. Total equipment
excludes wafer manufacturing equipment. Totals may not add due to rounding

#### Worldwide Semiconductor Revenues

Year-to-Year Percent Change





#### **Semiconductor Market Outlook**

CAGR Sales Growth of Major Semiconductor Product Categories (2021-2026F)

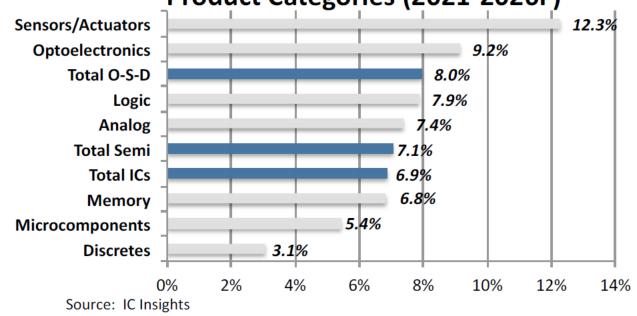


Figure 1

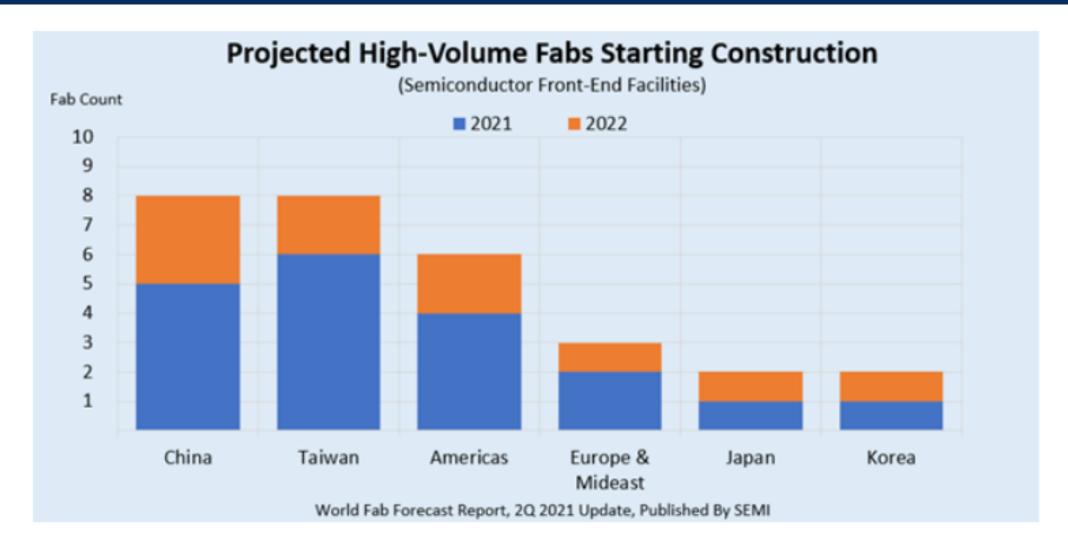
As a result, IC Insights now forecasts total semiconductor sales will rise over the next five years at a more moderate compound annual growth rate of 7.1% (Figure 1).

Feb 10, 2022

The 2021-2026 CAGR for total opto, sensor, discretes (O-S-D devices) is projected to rise at a healthy rate of 8.0% and total IC sales are expected to increase at a slightly lower pace of 6.9%. CAGRs among major semiconductor product categories are forecast to range from a high of 12.3% for sensors/actuators to 3.1% for discretes.



#### **Semiconductor Market Outlook**





# THANK YOU

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