

# Presentation to ESCCON 2021

Semiconductor Environment & Market Trends

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**AVNET**<sup>®</sup> SILICA



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# Semiconductor Market Environment

## Total semiconductor TAM (Total Available Market)

- **Market optimism continues in CY21, confidence in further expansion growing**
- Trade tensions and initial COVID-19 shock waning but still pose a risk for even growth
- WW Semiconductor market grew **5.7%** in CY2020

## Avnet served TAM (IP&E + Semi w/o DRAM, Flash, MPU)

- **2021 TAM \$406B; ↑ 7.9% Y/Y**; upward revisions gain traction after April CY20 depths
- 2022 TAM \$430B; **↑ 5.9%** ; upturn in cycle continues; GDP rebounds and lean inventory
- **3-year CAGR by region:** 5.4% Americas, 5.6% Asia, **5.2% EMEA**, 3.8% Japan

## Avnet Served semiconductor verticals

- **WW 2021 automotive ↑ 21.1% ; swift recovery expected but chip shortages growing concern**
- 2022 Y/Y growth in Automotive **↑ 10.6%** Industrial **↑ 8.6%** Communication **↑ 6.7%**
- 3-year CAGR growth led by Automotive **↑ 9.1%** and Industrial **↑ 8.6%**

## Semiconductor inventory

- Chip manufacturers have ramped up production as demand soars for auto applications
- Consistent demand in CY22 will continue to impact inventory mix and availability

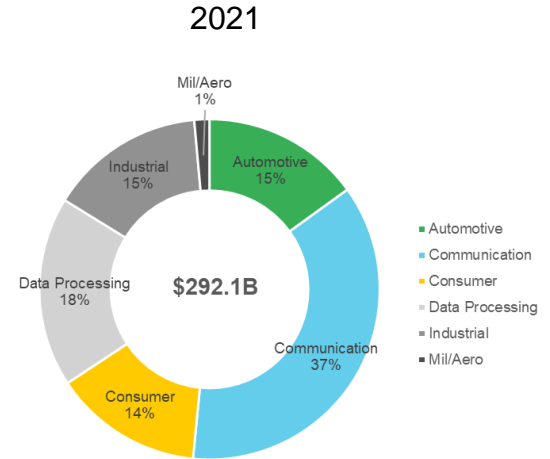
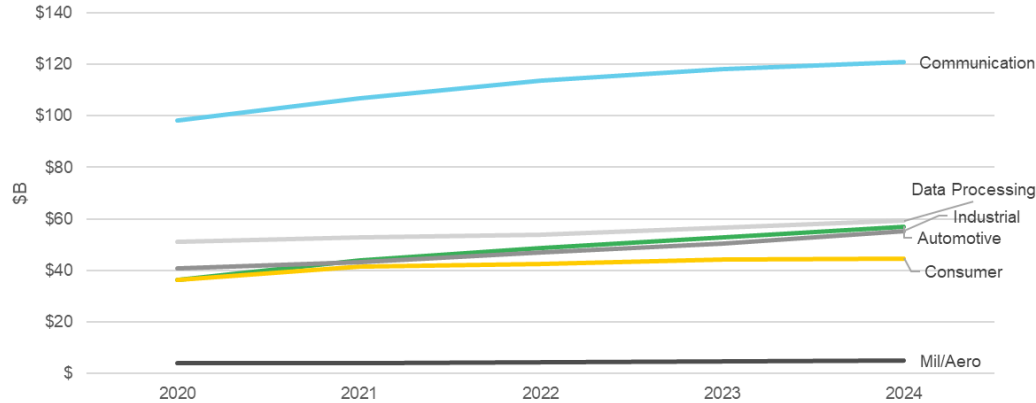
# EMEA market – availability is today's biggest challenge

- Order intake has increased dramatically since Q4 2020.
- Semiconductor suppliers are facing challenges on wafer and test capacities. Popular foundries TSMC, Global Foundries and UMS are all running at full capacity.
- The winter storms in Texas and an earthquake in Japan have also affected availability.
- Semiconductor suppliers have increased lead-times (many now 26+ weeks) & prices. They are asking for NCNR (non cancellable non returnable) orders, frozen backlog windows and order coverage for 2021.
- They are working hard on expanding capacities but, due to the major investment needed and the complexity of the production process, none of these expansions will materialize within a few months.
- We strongly encourage our customers to order their 2021 needs now.
- Stay up to date with leadtime info [here](#)



# WW served semiconductor TAM vertical market growth

Semi Vertical Forecast  
(excludes DRAM, Flash, MPU)

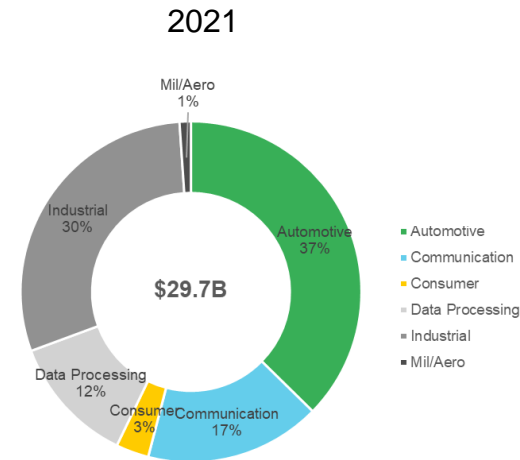
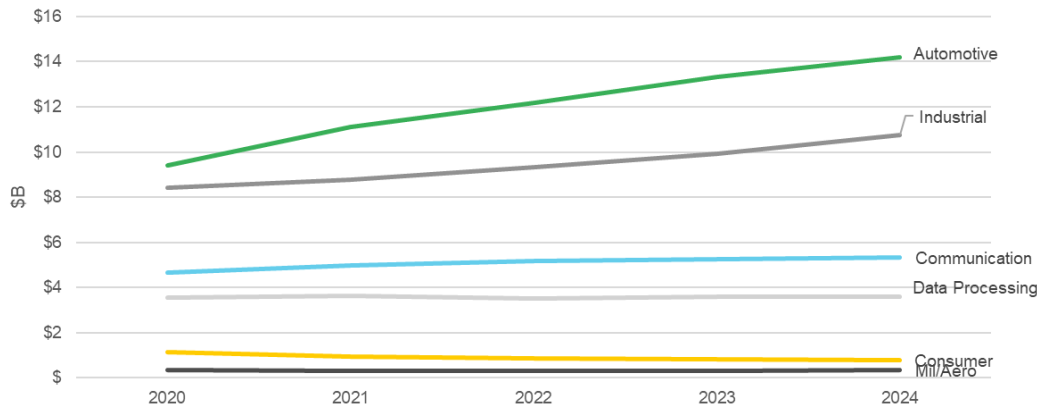


Vertical Market	2020	2021	2022	2023	2024	2021-2024 CAGR	2021-2024 Growth (\$B)
Automotive	-5.1%	21.1%	10.6%	9.0%	7.7%	9.1%	\$13.1
Communication	4.6%	8.8%	6.7%	3.8%	2.4%	4.3%	\$14.3
Consumer	11.4%	13.7%	2.8%	3.7%	1.2%	2.6%	\$3.3
Data Processing	13.9%	3.4%	2.4%	4.6%	4.9%	4.0%	\$6.5
Industrial	6.5%	6.1%	8.6%	7.3%	10.1%	8.6%	\$12.2
Mil/Aero	-6.4%	1.4%	4.4%	7.4%	6.8%	6.2%	\$.8
<b>Grand Total</b>	<b>5.7%</b>	<b>9.6%</b>	<b>6.2%</b>	<b>5.3%</b>	<b>4.8%</b>	<b>7.0%</b>	<b>\$50.3</b>

Vertical Market	2021 Spend \$B
Automotive	\$43.9
Communication	\$106.7
Consumer	\$41.4
Data Processing	\$52.8
Industrial	\$43.2
Mil/Aero	\$4.2
<b>Grand Total</b>	<b>\$292.1</b>

# Europe served semiconductor TAM vertical market growth

Semi Vertical Forecast  
(excludes DRAM, Flash, MPU)



Vertical Market	2020	2021	2022	2023	2024	2021-2024 CAGR	2021-2024 Growth (\$B)
Automotive	-3.6%	18.3%	9.7%	9.2%	6.8%	8.6%	\$3.1
Communication	2.9%	6.8%	4.0%	1.9%	1.3%	2.4%	\$4
Consumer	8.7%	-17.4%	-8.2%	-4.8%	-3.9%	-5.6%	-\$1
Data Processing	2.9%	1.6%	-2.8%	1.6%	0.2%	-0.4%	\$0
Industrial	4.1%	4.4%	6.4%	6.1%	8.5%	7.0%	\$2.0
Mil/Aero	-13.8%	-3.3%	-1.7%	3.0%	1.2%	0.8%	\$0
<b>Grand Total</b>	<b>0.9%</b>	<b>8.2%</b>	<b>5.6%</b>	<b>5.8%</b>	<b>5.4%</b>	<b>6.5%</b>	<b>\$5.3</b>

Vertical Market	2021 Spend \$B
Automotive	\$11.1
Communication	\$5.0
Consumer	\$0.9
Data Processing	\$3.6
Industrial	\$8.8
Mil/Aero	\$0.3
<b>Grand Total</b>	<b>\$29.7</b>

Source: Avnet estimate based on industry data - Jan 2021



Thank you!