Needham Automotive Investor Conference 2020

A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

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June 3, 2020

SMART | CONNECTED | SECURE

Safe Harbor

Forward Looking Statement Safe Harbor:

During the course of this presentation, we will make projections or other forward-looking statements regarding the future financial performance of the company (including our guidance) or future events, including our strategy, growth drivers, industry outlook, industry trends, market size, financing terms, and our financial model. These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements involve risks and uncertainties that could cause our actual results to differ materially, including, but not limited to: any continued economic uncertainty due to the impact of the COVID-19 virus, monetary policy, political, geopolitical, trade or other issues in the U.S. or internationally, any further unexpected fluctuations or weakness in the U.S. and global economies (including China), changes in demand or market acceptance of our products and the products of our customers; our ability to successfully integrate the operations and employees, retain key employees and customers and otherwise realize the expected synergies and benefits of our acquisitions; the impact of current and future changes in U.S. corporate tax laws (including the Tax Cuts and Jobs Act of 2017), foreign currency effects on our business; the mix of inventory we hold and our ability to satisfy short-term orders from our inventory; changes in utilization of our manufacturing capacity and our ability to effectively manage and expand our production levels; competitive developments including pricing pressures; the level of orders that are received and can be shipped in a quarter; changes or fluctuations in customer order patterns and seasonality; the impact of any future significant acquisitions that we may make; our ability to obtain a sufficient supply of wafers from third party wafer foundries and the cost of such wafers, the costs and outcome of any current or future litigation or other matters involving our Microsemi acquisition, the Microsemi business, intellectual property, customers, or other issues; the costs and outcome of any current or future tax audit or investigation regarding our business or the business of Microsemi, our actual average stock price in the June 2020 quarter and the impact such price will have on our share count; fluctuations in our stock price and trading volume which could impact the number of shares we acquire under our share repurchase program and the timing of such repurchases; disruptions in our business or the businesses of our customers or suppliers due to natural disasters (including any floods in Thailand), terrorist activity, armed conflict, war, worldwide oil prices and supply, public health concerns (including the COVID-19 virus) or disruptions in the transportation system; and general economic, industry or political conditions in the United States or internationally.

For a detailed discussion of these and other risk factors, please refer to Microchip's filings on Forms 10-K and 10-Q. You can obtain copies of Forms 10-K and 10-Q and other relevant documents for free at Microchip's website (www.microchip.com) or the SEC's website (www.sec.gov) or from commercial document retrieval services. You are cautioned not to place undue reliance on our forward-looking statements, which speak only as of the date such statements are made. Microchip does not undertake any obligation to publicly update any forward-looking statements to reflect events, circumstances or new information after the date of this presentation or to reflect the occurrence of unanticipated events.

Use of Non-GAAP Financial Measures: In this presentation, we have included certain non-GAAP financial information, including for example, adjusted EBITDA, non-GAAP gross profit, free cash flow and end-market demand. Our non-GAAP results, where applicable, exclude the effect of share-based compensation, COVID-19 shelter-in-place restrictions on manufacturing activities, expenses related to our acquisition activities (including intangible asset amortization, inventory valuation costs, excess capacity charges to normalize acquired inventory levels, severance and other restructuring costs, and legal and other general and administrative expenses associated with acquisitions including legal fees and expenses for litigation and investigations related to our Microsemi acquisition), professional services associated with certain legal matters, IT security remediation costs, non-cash interest expense on our convertible debentures, losses on the settlement of debt, and gains and losses related to available-for-sale investments. For the fourth quarters of fiscal 2020 and fiscal 2019, our non-GAAP income tax expense is presented based on projected cash taxes for the fiscal year, excluding transition tax payments under the Tax Cuts and Jobs Act. Following our required adoption of the new revenue recognition standard effective April 1, 2018, we disclose "end market demand" which is the net dollar amount of our products, licensing revenue and other services delivered to our direct (non-distributor) customers and by our distributors to their customers. Our determination of our nonGAAP measures might not be the same as similarly titled measures used by other companies, and it should not be construed as a substitute for amounts determined in accordance with GAAP. There are limitations associated with using non-GAAP measures, including that they exclude financial information that some may consider important in evaluating our performance. Management compensates for this by presenting information on both a GAAP and non-GAAP basis for investors and providing reconciliations of the GAAP and nonGAAP results. Non-GAAP measures should not be considered in isolation or as an alternative to net income, cash from operations or other measures of profitability, liquidity or performance under GAAP. These non-GAAP and GAAP results are included in the appendix to this presentation. Certain supplemental information and reconciliations are available on our website at www.microchip.com/investors under the heading “Supplemental Financial Information”.

FQ1’21 Business Update

- **Our business is performing better than we expected when we issued our May 7, 2020 press release**
- **COVID-19 related supply chain disruptions have eased. We have begun to make up for lost production in our factories in the Philippines and our Malaysia subcontractors**
  - We have seen a quicker recovery from supply chain disruptions versus our earlier expectations
  - We expect to continue to gain ground through the end of FQ1’21
- **Our customers’ factories in China are fully back to work. Other customer factories in Europe and North America are starting to reopen, including Automotive factories where we saw the largest demand destruction**
  - We experienced a lower level of June quarter cancellations and pushouts than earlier anticipated
- **Microchip now expects its June 2020 quarterly net sales to be between $1.247 and $1.326 billion, and non-GAAP EPS to be between $1.35 and $1.53**
  - Prior net sales guidance from May 7, 2020 was for net sales between $1.194 and $1.3 billion
  - Previous non-GAAP EPS guidance was to be between $1.25 and $1.45

Financial Results, Guidance and Long-Term Model

Actual Results																
	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20
Net Sales	$844.0	$873.8	$881.2	$902.7	$972.1	$1012.1	$994.2	$1002.3	$1216.8	$1513.3	$1416.0	$1329.8	$1322.6	$1337.8	$1287.4	$1326.4
Gross Profit	$471.1	$499.9	$509.7	$534.7	$587.2	$617.8	$610.6	$618.4	$756.7	$933.7	$881.1	$826.9	$820.1	$832.7	$791.2	$822.3
Gross Margin	55.8%	57.2%	57.8%	59.2%	60.4%	61.0%	61.4%	61.7%	62.2%	61.7%	62.2%	62.2%	62.0%	62.2%	61.5%	62.0%
Operating Expenses	$240.0	$233.6	$220.6	$213.6	$222.9	$227.3	$218.9	$222.8	$283.2	$354.5	$351.1	$342.8	$341.6	$341.9	$339.1	$336.6
Operating Income	$231.1	$266.3	$289.1	$321.2	$364.3	$390.5	$391.7	$395.6	$473.5	$579.3	$530.0	$484.1	$478.5	$490.8	$452.1	$485.7
Operating Margin	27.4%	30.5%	32.8%	35.6%	37.5%	38.6%	39.4%	39.5%	38.9%	38.3%	37.4%	36.4%	36.2%	36.7%	35.1%	36.6%
Net Income	$194.0	$219.6	$246.5	$276.9	$319.1	$344.1	$341.2	$351.3	$405.8	$454.6	$405.6	$370.4	$357.6	$365.7	$340.8	$375.5
Diluted EPS	$0.84	$0.94	$1.05	$1.16	$1.31	$1.41	$1.36	$1.40	$1.61	$1.81	$1.66	$1.48	$1.41	$1.43	$1.32	$1.46
EBITDA	$264.1	$298.8	$321.3	$356.5	$395.6	$422.5	$425.9	$429.6	$537.5	$574.0	$556.3	$544.4	$537.1	$540.2	$503.4	$548.1

Q1 FY21 Updated Guidance from 6/2/20	
Net Sales	$1,247- $1,326
Gross Profit %	60.5% - 61.3%
Operating Expense %	23.4% to 24.2%
Operating Income	36.3% to 37.9%
Diluted EPS	$1.35 - $1.53

Long Term Model Including Microsemi	
Gross Margin	63.0%
Operating Expense	22.5%
Operating Margin	40.5%

* Amounts above are reflected in millions of dollars except for diluted EPS and percentages. Microchip does not utilize a GAAP long-term model. All figures are Non-GAAP except for net sales. Figures prior to Q4 FY19 and are measured off of end market demand (instead of GAAP net sales). In Q4 FY19, based on discussions with the SEC, Microchip changed to providing Non-GAAP guidance based on GAAP revenue. Excludes share-based compensation, acquisition related charges, and other items. A reconciliation of our GAAP to non-GAAAP results is available at www.microchip.com.

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FQ1’21 Debt Financing Activities

- Issued $1.0 billion in senior secured notes with a 2.67% interest rate and $1.2 billion in senior notes with a 4.25% interest rate
- $615 million of the proceeds from the notes was used to retire the senior secured bridge loan that was issued in March 2020
- $383.3 million of proceeds from the notes was used to retire principal of convertible senior subordinated notes due 2025
- $643.9 million of proceeds from the notes was used to retire principal of convertible senior subordinated notes due 2027
- Remaining net proceeds from the newly issued notes will be used for general corporate purposes, which may include repayment of a portion of the amounts outstanding under Microchip’s revolving line of credit
- ~ 6.7 million shares were issued in the convertible notes exchange

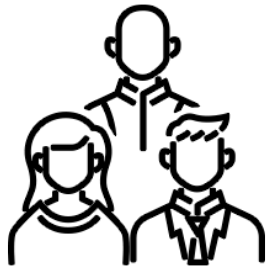
Corporate Snapshot

Leading Total Systems Solutions Provider:

- High-performance standard and specialized Microcontrollers, Digital Signal Controllers and Microprocessors
- Mixed-Signal, Analog, Interface and Security solutions
- Clock and Timing solutions
- Wireless and Wired Connectivity solutions
- FPGA solutions
- Non-volatile EEPROM and Flash Memory solutions
- Flash IP solutions

$5.3 Billion Revenue
FY2020

Headquartered near
Phoenix in Chandler, AZ



~18,000
Employees

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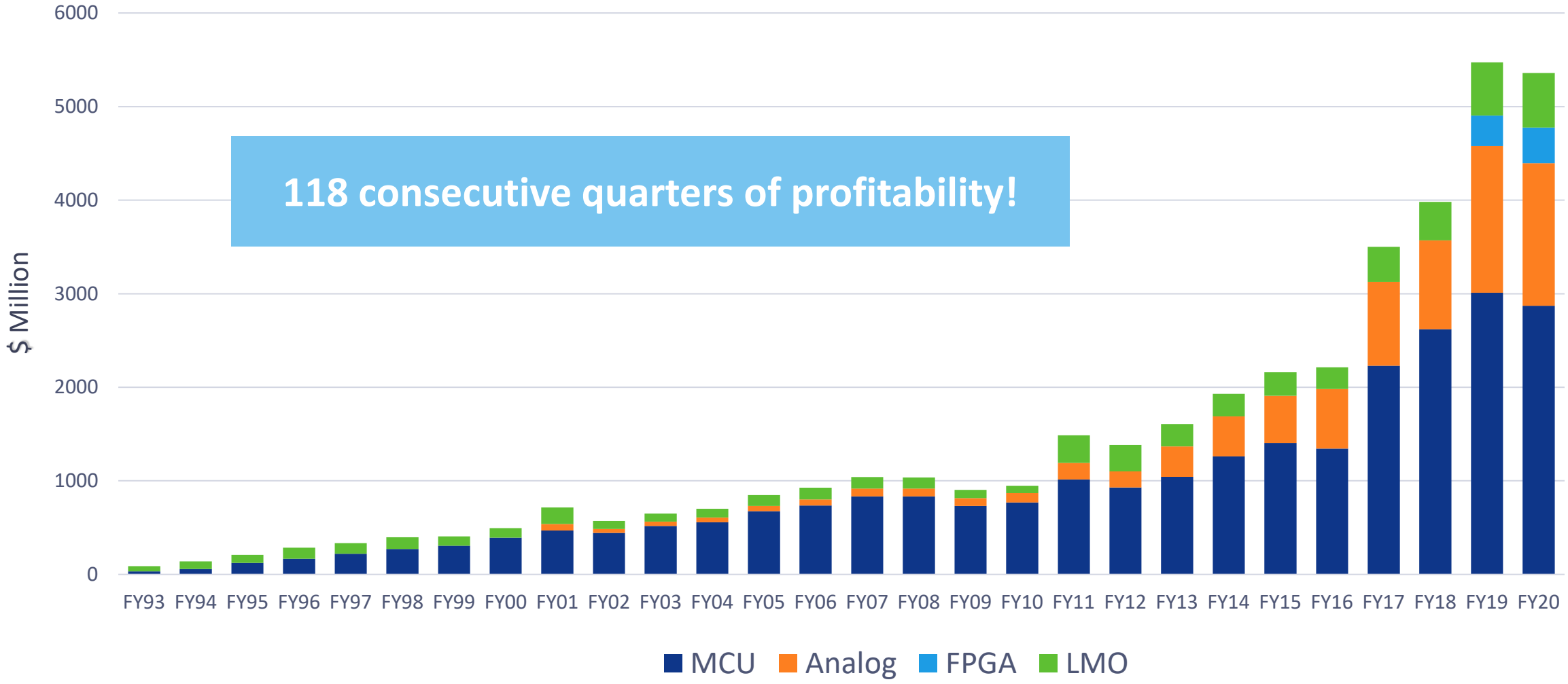
Annual Net Sales Growth

End Market Demand



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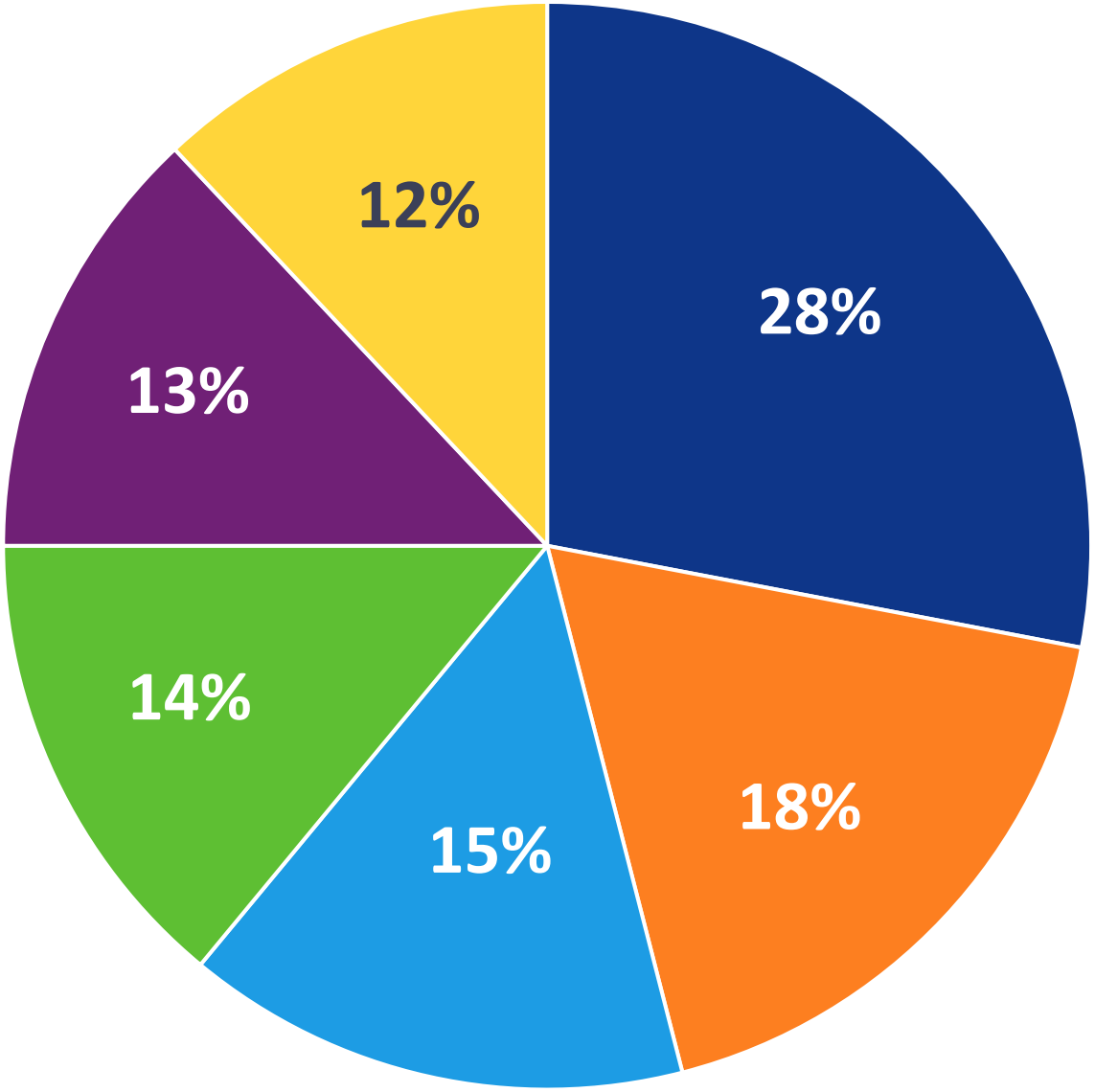
Revenue By End Market



Market Megatrends

Converging in the Car of Tomorrow

Market Megatrends

Industrial

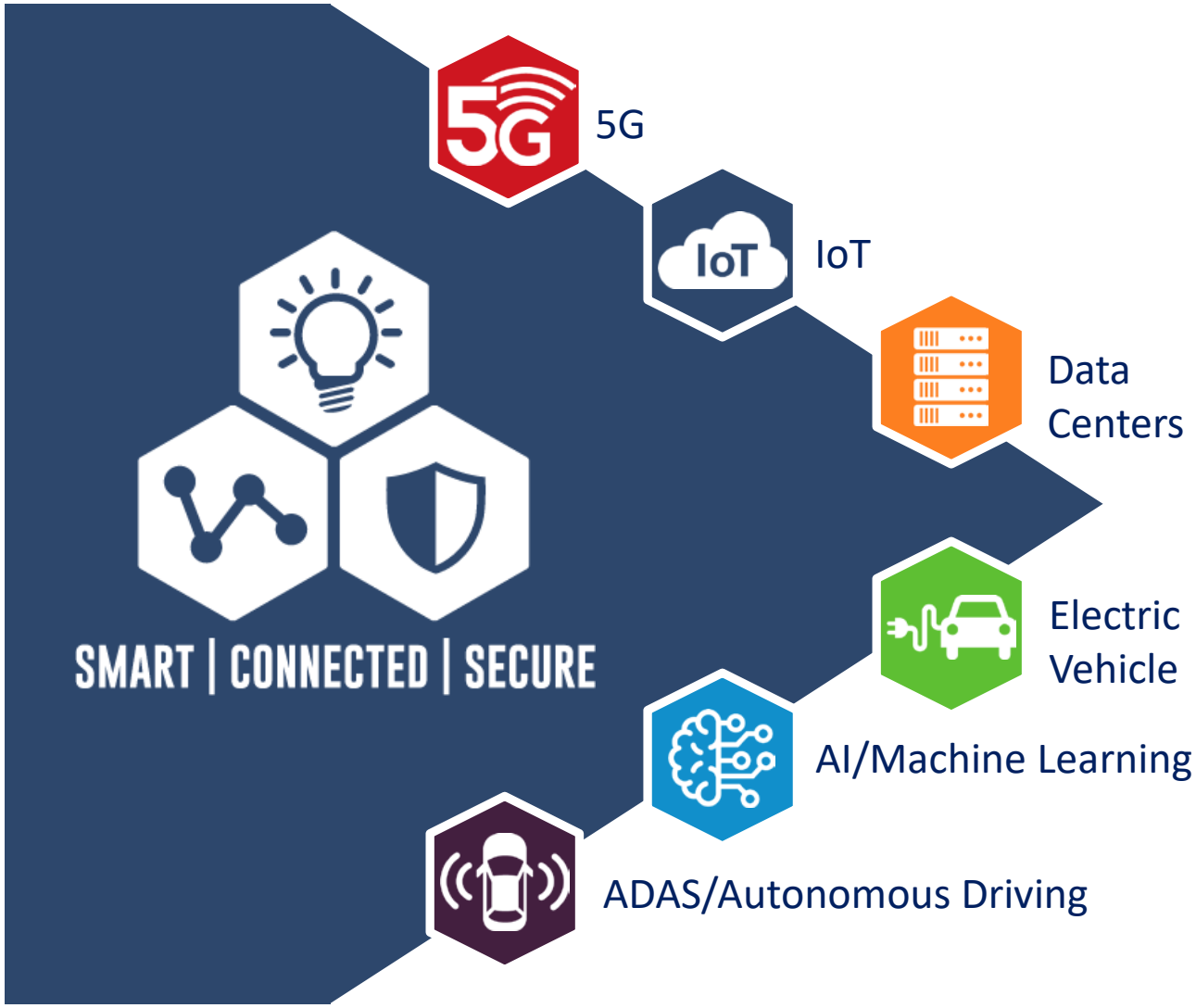
Data Center & Computing

Automotive

Communications

Aerospace & Defense

Consumer



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Market MegaTrends…

… go hand in hand with the automotive future

Connected

One hour per day in the vehicle & enabling features – revenue potential

Automated

> 1 Million fatalities globally through road traffic, driver convenience, fleet cost reduction

Electrified

CO2 emission regulations, “green“ consumer conciousness

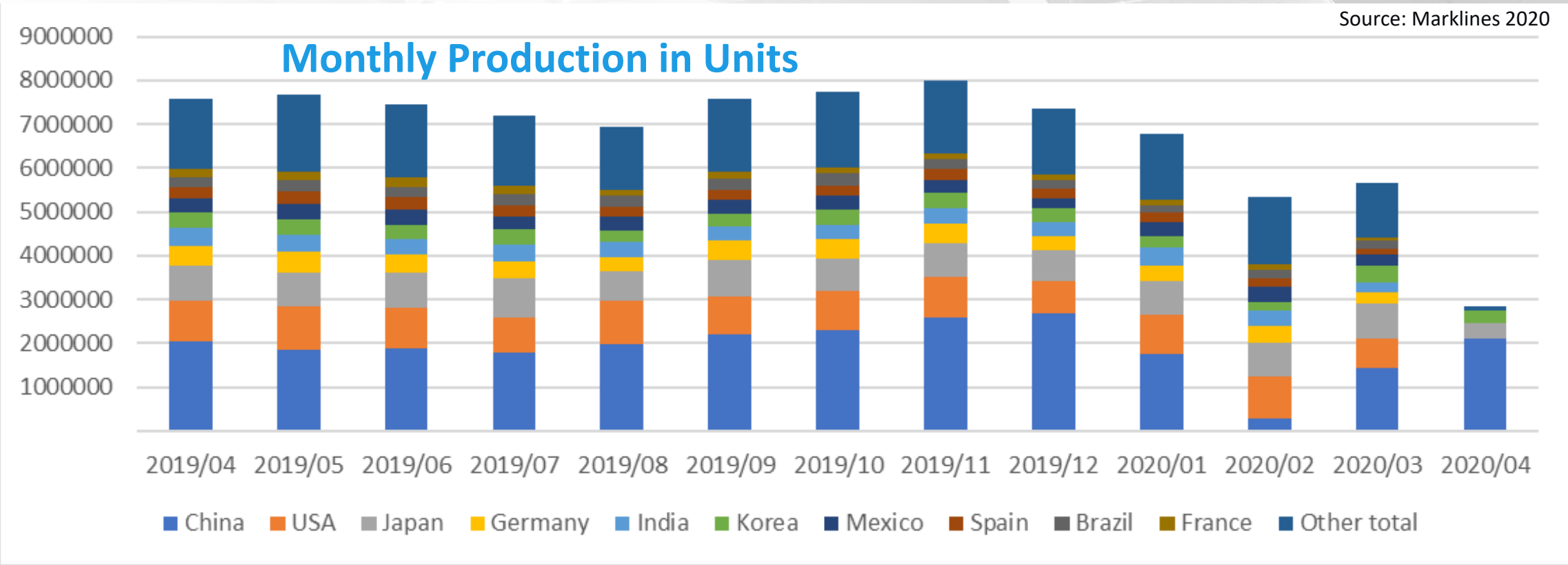
Automotive Market Overview

Covid-19 impact

Automotive Market - Production

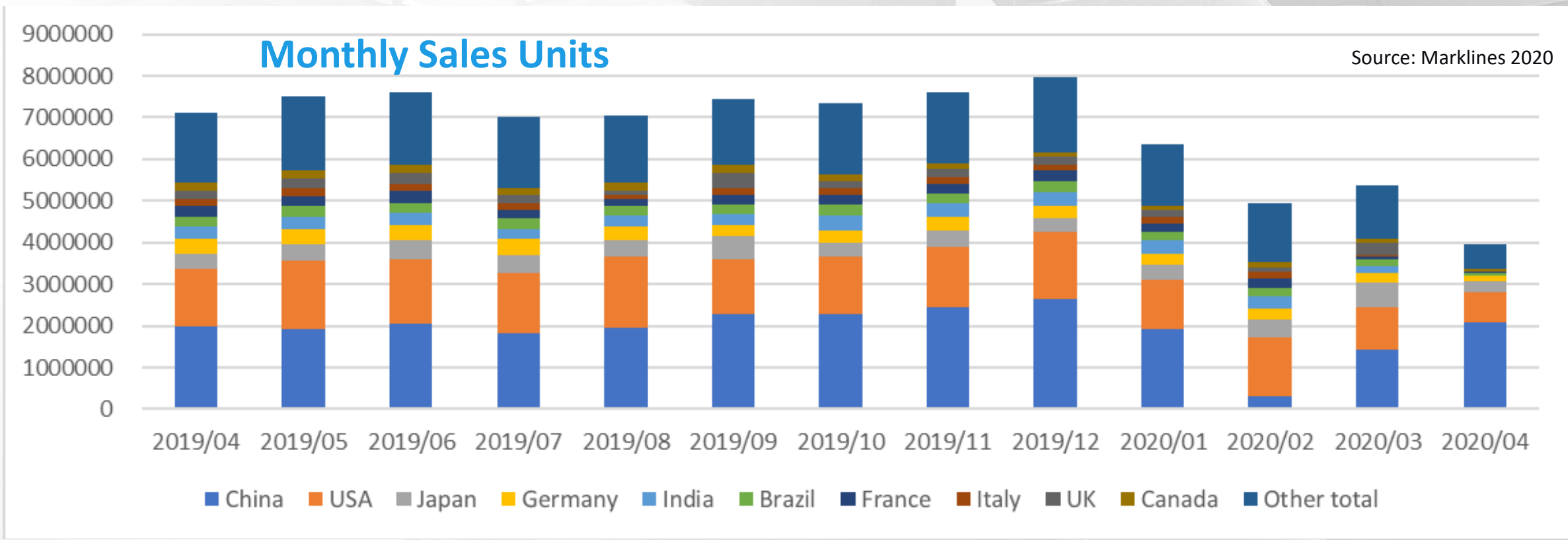
- The Automotive Market is declining since the last peak in 2017
- 2020: Plants and Dealerships closed due to Covid-19 Pandemic, disrupted supply chains
- Global car production dropped by 65% YoY in April 2020
- China car production almost fully recovered in April

Source: Marklines 2020



Automotive Market - Demand

- Global consumer confidence Index is at the lowest level – massive unemployment
- Stimulus packages for the Automotive Sector discussed and expected around the world
- The China market recovered in April to pre-crisis levels – up 4.4% YoY
- Delayed Car Purchases may result in pent up demand – recovery of lost sales possible



ADAS & Autonomous

Cars and beyond

ADAS Market Today: L2/L3 for Safety and Comfort

- Lane Keep Assist
- Lane Departure
- Front Collision Avoidance
- Pedestrian Detection
- Blind Spot Detection
- Adaptive Cruise Control
- Hands on Detection Steering Wheel
- Back up Camera
- Surround View Camera
- Autonomous Parking
- Parking Sensors
- Tire Pressure Management
- Rain Sensor
- Adaptive Lighting
- LED Matrix Lighting
- Automatic Emergency Braking
- Traffic Sign Recognition

Sensor Processing

MCUs, MPUs & FPGAs
Security/Trust Anchor
Oscillators
Memory
Power Management
Amplifiers
ADC &DAC
Thermal Management

Communications

LIN
CAN& CANFD Controllers
802.3 Ethernet controllers
10Base-T1S
100Base-T1
1000Base-T1
CoaXPress

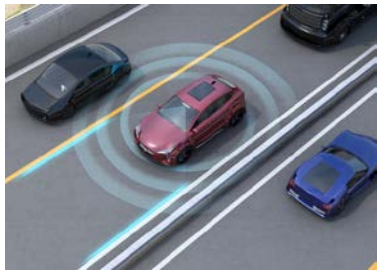
Vehicle Computer/ ADAS Controller

PCIe Switch
FPGA & MPUs
Power Management
Ethernet
Security/Trust Anchor
MEMS Clock
Clock Retimers
Memory

ADAS - L4/L5

Requirements for Autonomous Driving

- **Knowing the environment:** Reliable Sensing using multiple technologies that – once combined - work in all situations
- **Knowing the Position at a given time:** Exact positioning on a precise map which is updated real time
- **Making driving decisions:** High Speed Centralized Computing & AI
- **Safety:** implement sufficient redundancy – “fail operational modes”



ADAS L4/L5 Tech Trends and Challenges

Centralized Computing

- Autonomous car = datacenter on wheels! Sensor data processing and decision making is highly centralized.
- Several SoCs, high speed memory and high bandwidth sensors are interconnected
- The PCIe Switch Fabric that provides this connectivity is the same one used in large datacenters – Gen 4 = 16GBit/s/lane

High Precision Location

- Knowing the precise position of the car is key to full autonomous driving
- Precise cloud-based maps are updated on the fly – each car is a sensor providing input for the updates, 5G is the link to the cloud, OEMs invest and own the maps.
- GPS is not good enough in urban canyons, requires line of sight to satellites

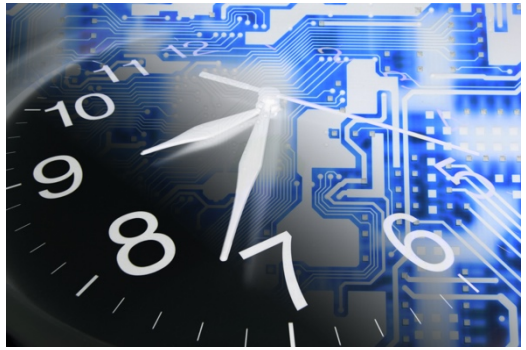
ADAS - L4/L5 Microchip Solutions

Centralized Computing

- Microchip aggressively invests in a broad family of PCIe switches, using leading edge process technology
- Switchtec™ PCIe Gen4 solutions for L3/L4/L5 vehicles
- Switchtec™ PCIe is on major SOC vendors reference designs

High Precision Timing

- micro-PNT (Positioning, Navigation, Timing) closes the gap caused by Urban Canyons and inaccuracy of vehicle sensors to achieve +/-2 cm – also eliminates the risk of GPS “spoofing”
- Microchip micro-PNT ensures a link to a common precise time base and holds precise time without GNSS
- Microchip engaged in test bed projects in 3 Cities



ADAS Technology Beyond Cars…

Autonomous Objects

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Electrification

Accelerating Change

EV Market

- Electrification is gaining momentum – combustion free cities
- Traditional OEMs make massive investments in EVs and are starting to catch up
- Carrot and stick approach: Tax breaks, R&D $$ & hefty fines
- Automotive buying incentives are often tied to environmental goals

Positive growth curve in EV segment likely to continue post Corona disaster

Source: DATAQUEST - May 13, 2020

Sales growth of e-vehicles continues to be high in Europe *Source: oekonews.at – April 28, 2020*

CHINA ECONOMY

Electric cars take the spotlight in China's post-coronavirus stimulus plans

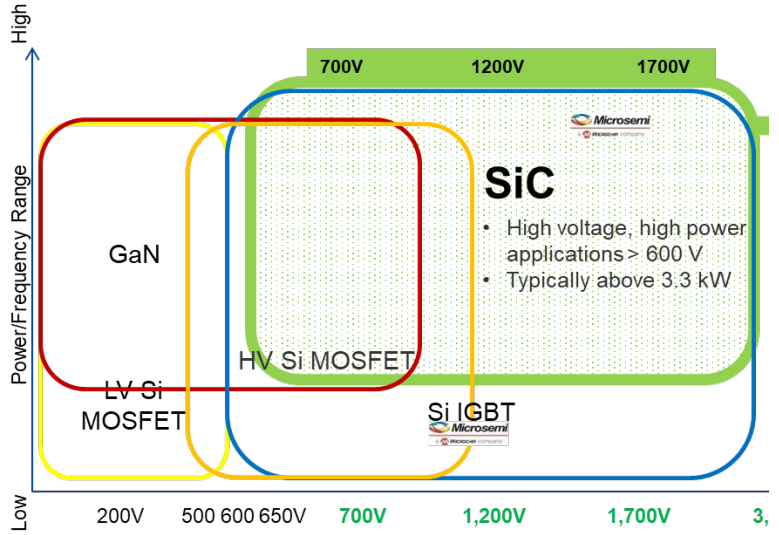
Source: CNBC - May 5, 2020

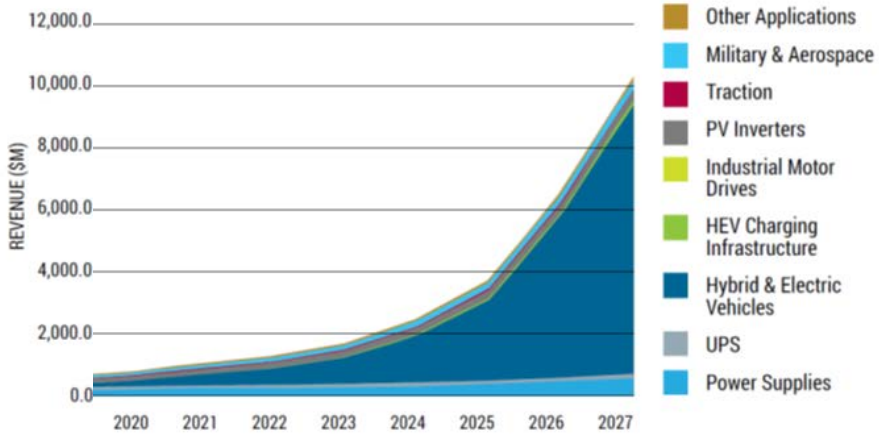
Regarding the important topics e-mobility and digitization, VW will invest 60 billion euros in these areas over the next four years. VW boss Herbert Diess has to start the chase towards Tesla. *Source: www.deraktionaer.de – May 12, 2020*

EV Tech trend – Silicon Carbide

Best technology for EV power train and for EV charging

- Lowest switching losses:
  => high efficiency, longer range
- High temp stability:
  => relaxed thermal design, less cooling
- High switching frequencies:
  => smaller and lighter passives





*IHS MARKIT TECHNOLOGY - SiC and GaN Power Semiconductor Report - 2018

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Microchip EV Solutions

- SiC power product family: 700V & 1200V & 1700V MOSFETS & Diodes
- Supporting 400V & 800V power trains and 1000V high speed DC charging
- TTM: SiC Power Modules & complete reference designs
- Leading 16/32-bit MCU portfolio for Digital Power Conversion
- Inductive Positioning Sensors: robustness in strong magnetic fields

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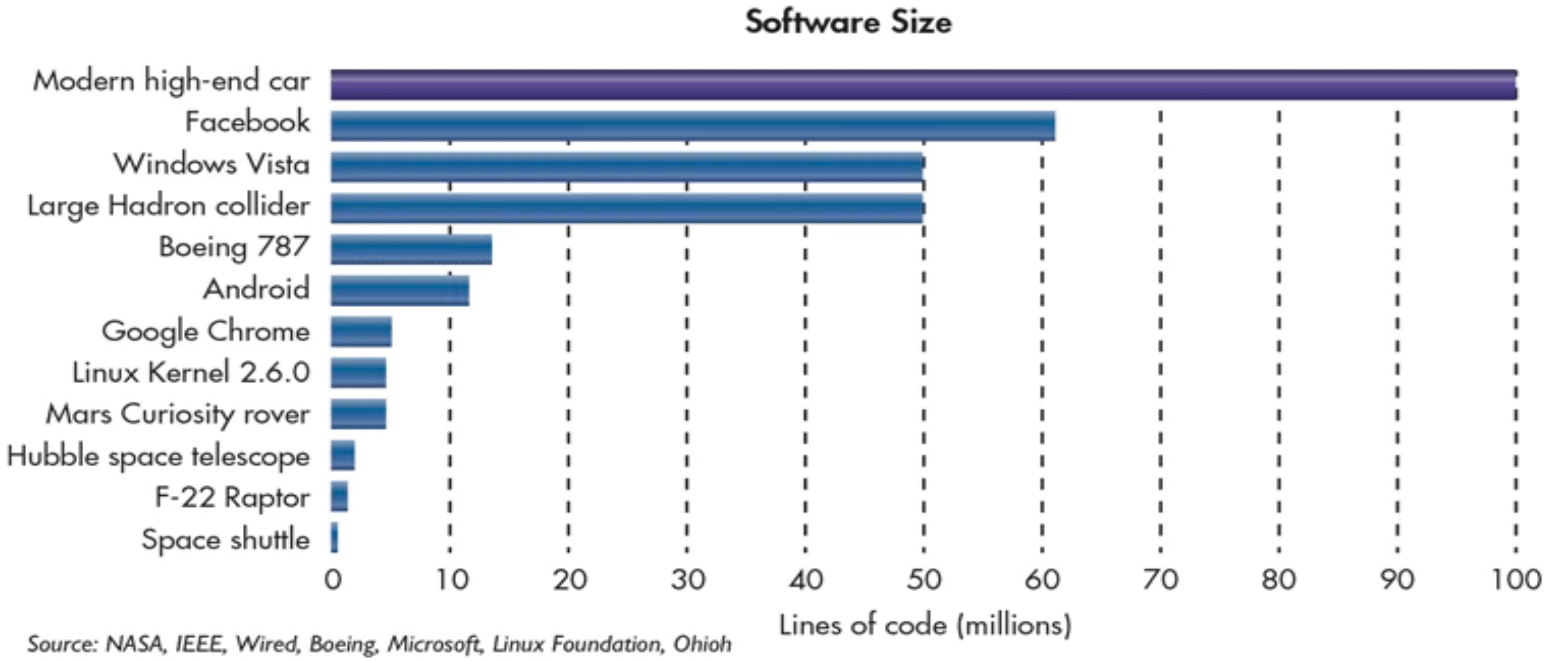
R&D Complexity Challenge

Ethernet will Rule the Car

Software Defined Car

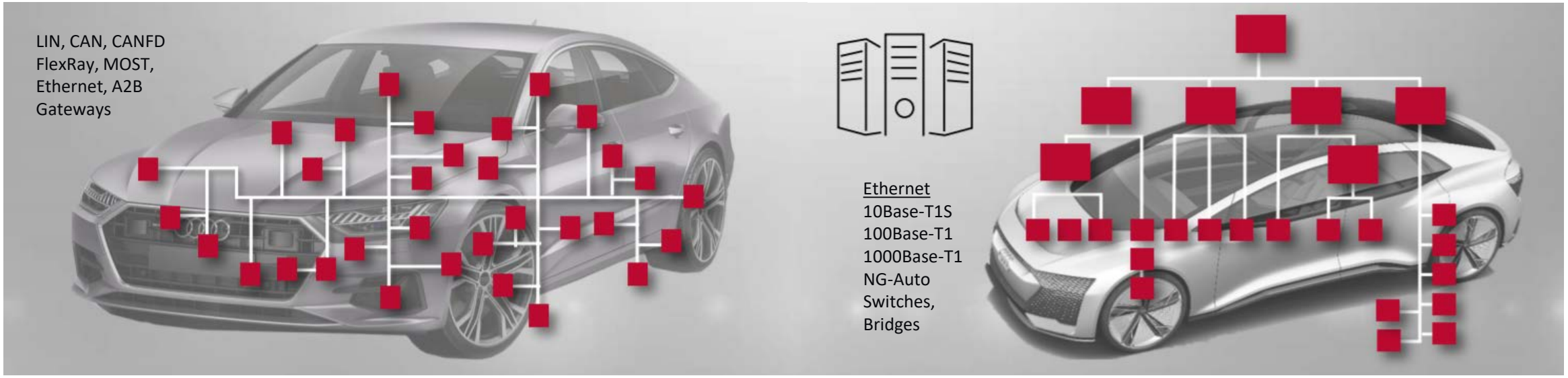
- R&D cost and R&D cycle time for a new car model is increasing rapidly...
- ... driven by new features, security & safety, cloud connectivity, ADAS, distributed architectures and the many legacy communication networks...
- ...and by the exponential growth in SW complexity



Source: NASA, IEEE, Wired, Boeing, Microsoft, Linux Foundation, Ohioh

Auto Networking Tech Trend – All Ethernet

- **Today – Decentralized, hardware optimized**
- **Tomorrow – Homogeneous, software optimized**



Source: Audi, Ludwigsburg

Ethernet is the enabler for the connected and autonomous vehicle

- One IP communication stack for all networks / speed grades – from 10Mbps to multi-Gbps
- Proven IP communication protocols with some level of built in security
- Removes need for complex gateways – seamless communication using switches
- Reduces verification & validation efforts and simplifies wiring

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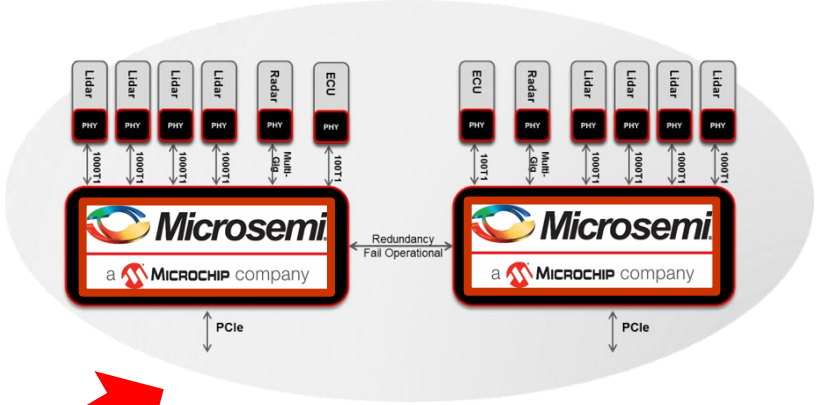
Microchip Solutions Support the Evolution

Ethernet Total System Solutions

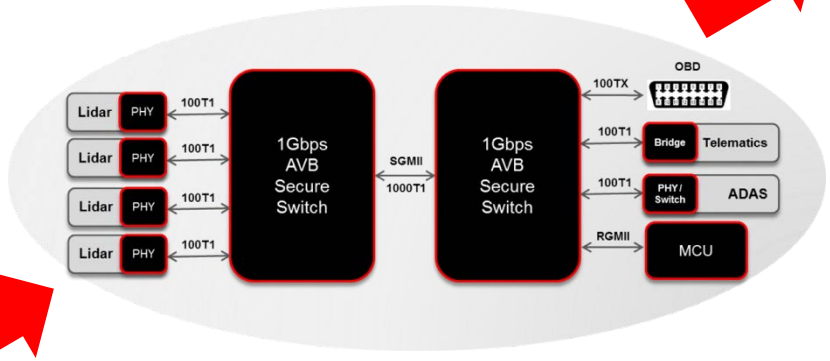
- Support from 10 Mbps to Multi Gigabit Ethernet
- Broadest portfolio: Phy, Switches, Bridges
- 100Base-TX and 10BASE-T1S market leader
- Complete suite of development tools

Zonal ECU, Autonomous Centralized Computing



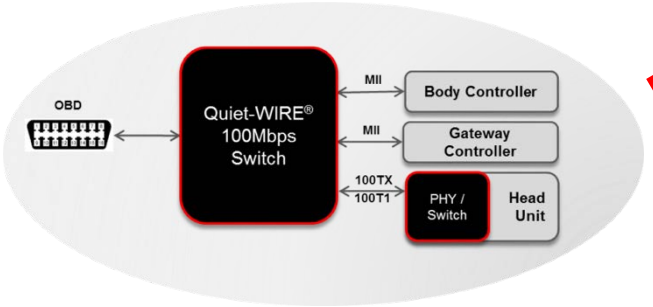
- TSN
- Multi-Gigabit
- PCIe

Distributed, Domain ECUs



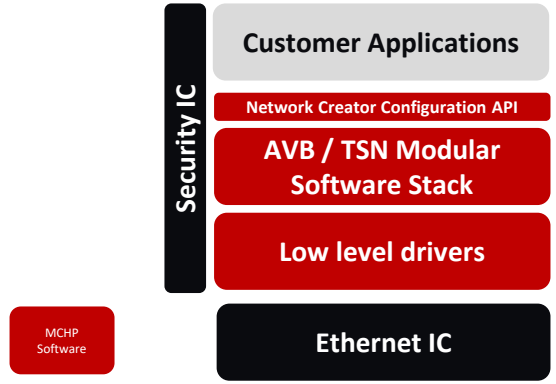
- AVB Ethernet Backbone
- 10/100/1000BASE-T1

ECU based EE



- OBD Gateway
- 100BASE-TX

Microchip Products



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Security

Required for connected systems

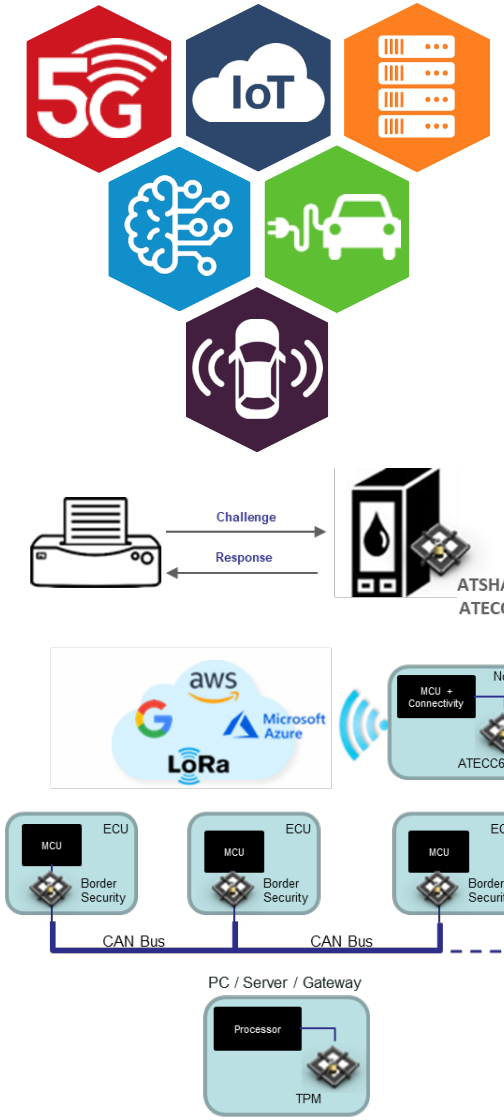
Security Market Needs

- Car owners expect security – not optional!
- ADAS => requires safety => requires security

Automotive Attack Surfaces:

- Car => always connected => IoT Device
- Car => OTA SW upgrades
- Car => Cellular emergency call system
- EV charging => communication with charger by wire
- USB data connectivity => phone connected to car

Growing need for Automotive Cyber Security!



Security Requirements

Securing what:

- Secure Boot – no fraudulent SW to start a function
- Authentication – authorizing communication on the network
- Encrypted communication – protecting message content

Security in the car – at the module level:

- Connected modules – secured by a dedicated security IC
- Connected modules – security provided by the Microcontroller

Microchip Automotive Security Solutions

TA100

- Trust Anchor - automotive hardware-based security solution, external HSM
- JIL “High” rated secure key storage
- Code Authentication (Secure Boot), Message Authentication
- Multiple key management protocols including TLS
- Cost efficient and easy to implement, minimizing re-design efforts
- Trust Platform Service: customizable key provisioning in Microchip’s certified factories

Secure MCUs with HSM

- 32Bit Arm based Automotive SAM MCUs with built in security - HSM

Summary

Summary

- Microchip's market segments are well aligned with Six Global Megatrends
- The three Automotive Megatrends: Connected, Electrified & Autonomous align with all of the Six Global Megatrends
- Microchip's broad product portfolio is the enabler for our Total System Solutions approach
- Microchip will continue to invest in automotive innovation despite the current automotive market turbulence
- Microchip is well positioned to participate in the long-term growth of the market, incl. EVs and autonomous vehicles

Thank You – Questions, please!