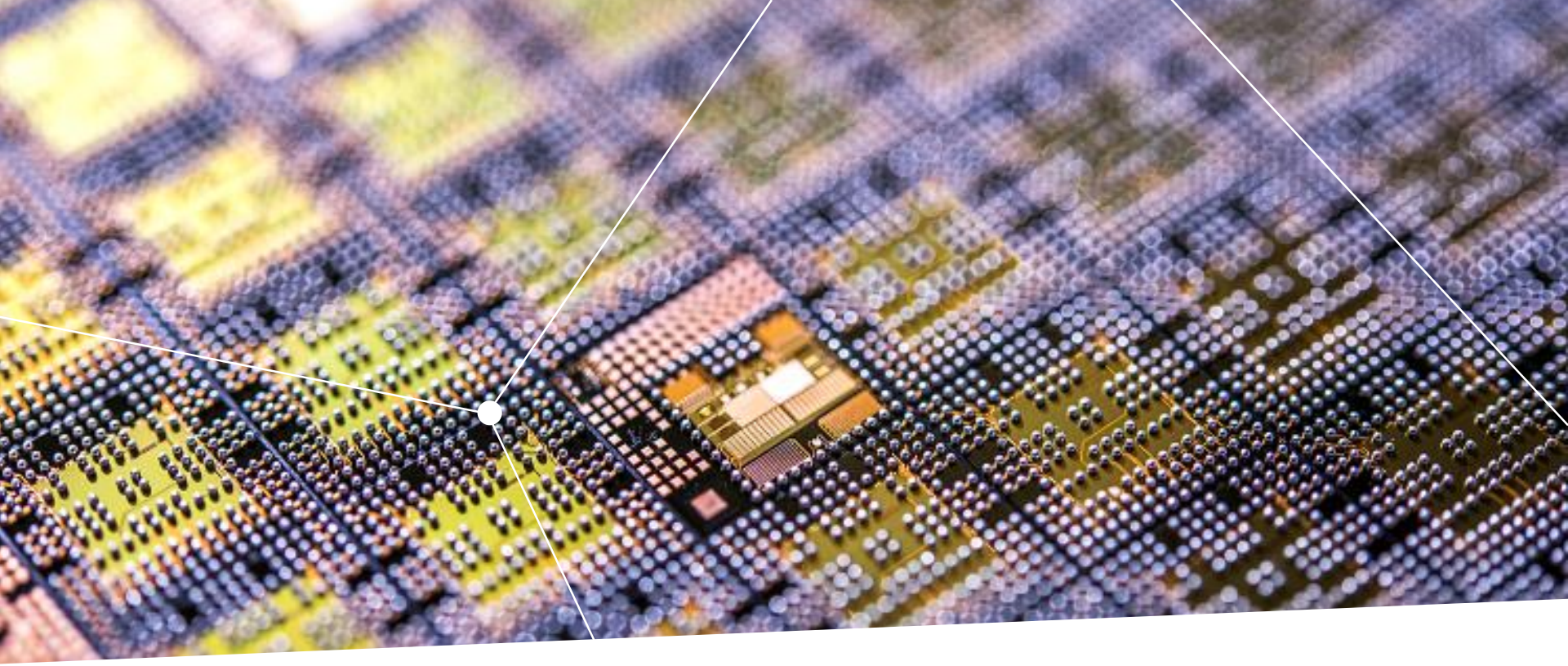


Second Quarter FY 2020 Quarterly Update

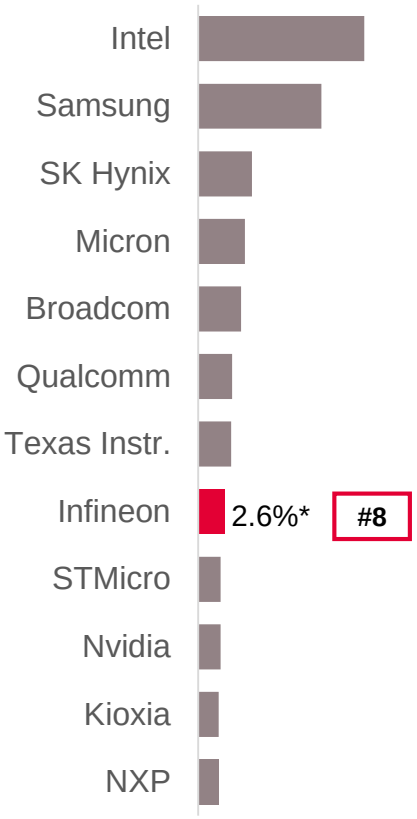
Infineon Technologies AG
Investor Relations

Agenda

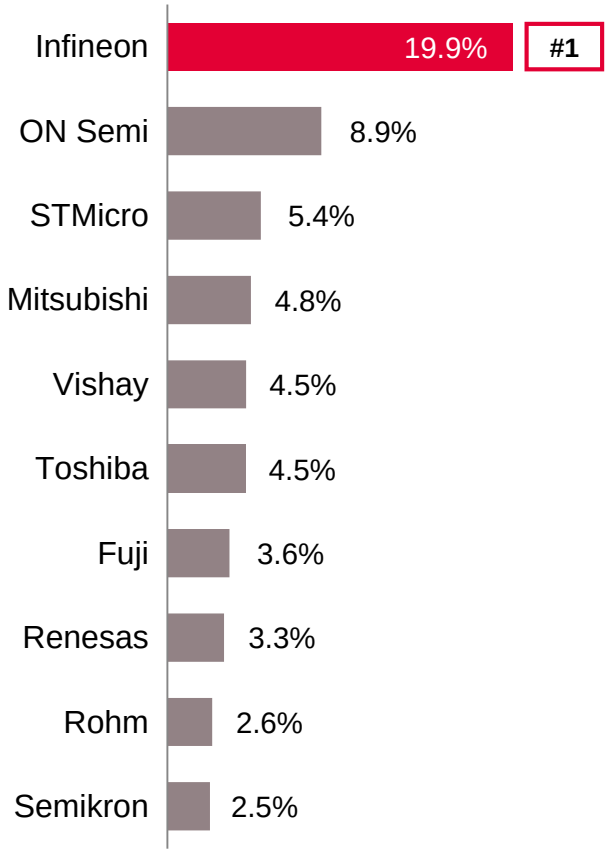
1. Cypress becomes part of Infineon
2. ESG: targets and achievements
3. Automotive
4. Industrial Power Control
5. Power & Sensor Systems
6. Digital Security Solutions
7. Selected financial figures

Infineon and Cypress create a global top-10 player, and the new #3 in the overall microcontroller market

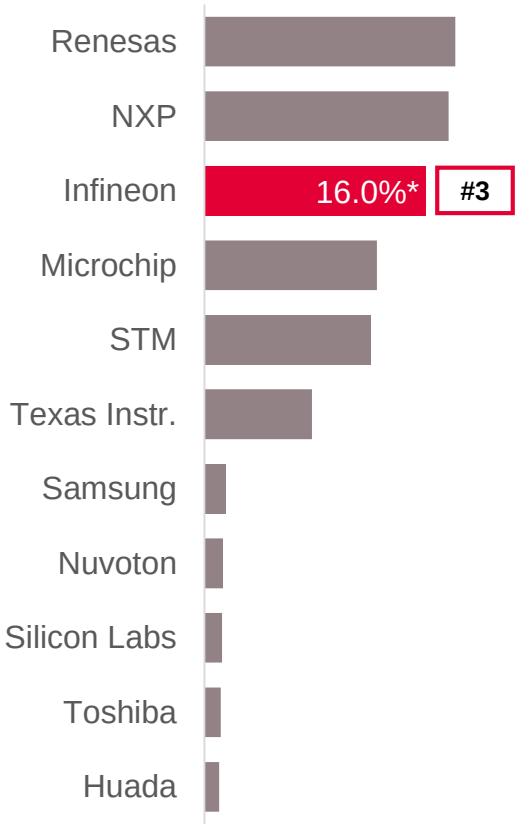
Semiconductor suppliers
2019 total market: $428bn[1)]



Power discretes and modules
2018 total market: $21.0bn[2)]



MCU suppliers
2019 total market: $17.5bn[1)]

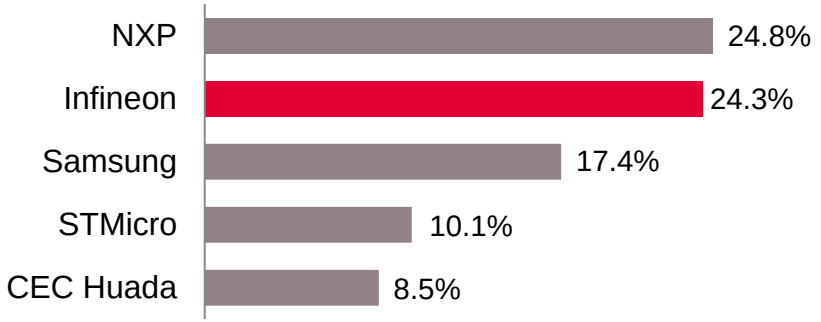


* pro forma figure

1) Based on or includes research from Omdia, "Annual 2001-2019 Semiconductor Market Share Competitive Landscaping Tool – Q4 2019 v2", March 2020.
2) Based on or includes research from Omdia, "Power Semiconductor Market Share Database – 2018", September 2019.
Results are not an endorsement of Infineon Technologies AG. Any reliance on these results is at the third party's own risk.

Infineon remains top player in its target markets: security ICs, NOR Flash, and MEMS microphones

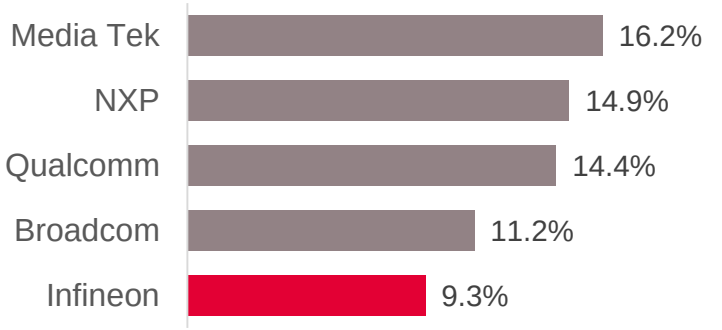
Security ICs
2018 total market: $3.2bn



ABI Research, "Smart card & secure ICs", September 2019

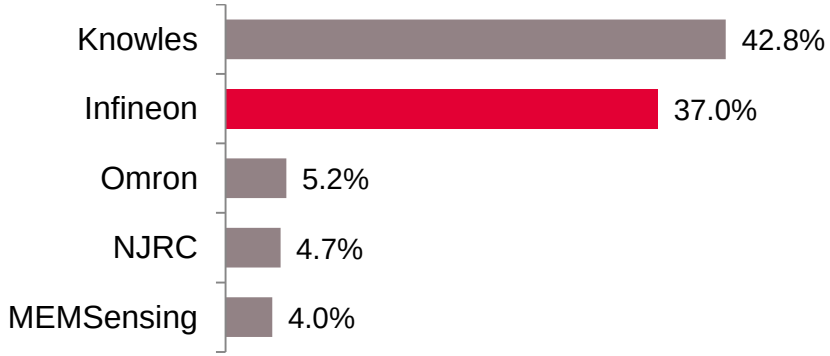
Wi-Fi standalone ICs
2018 total market: 917m units

Infineon is focusing on wearables and IoT but not addressing routers, PCs, notebooks, tablets.



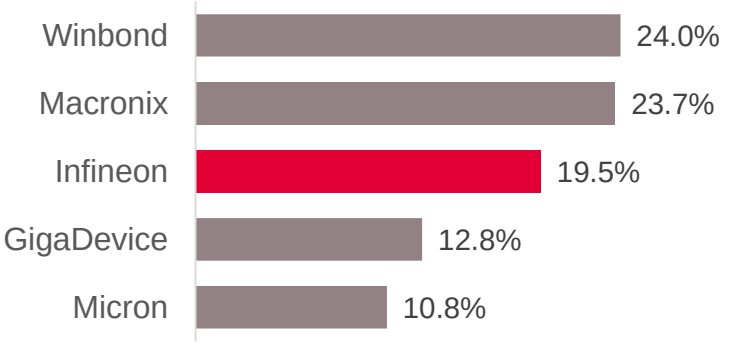
ABI Research, “Wireless Connectivity Technology Segmentation and Addressable Markets", November 2019.

MEMS microphones die supplier
2018 total market: 4.6bn units



Based on or includes research from Omdia, “MEMS Microphone Database 2019”, January 2020.

NOR Flash
2019 total market: $2.2bn



Based on or includes research from Omdia, "Annual 2001-2019 Semiconductor Market Share Competitive Landscaping Tool – Q4 2019 v2”, March 2020.

Two complementary companies in many aspects spawn a financially stronger and more balanced player

Complementary product scope

power management
security solutions
sensor systems

System solution leader in high-growth markets: automotive, industrial and IoT

MCUs
connectivity
low power
differentiated memories
software / eco-system

Broader base

- more structural growth drivers
- more balanced geographical mix
- enlarged customer base
- higher share of distribution

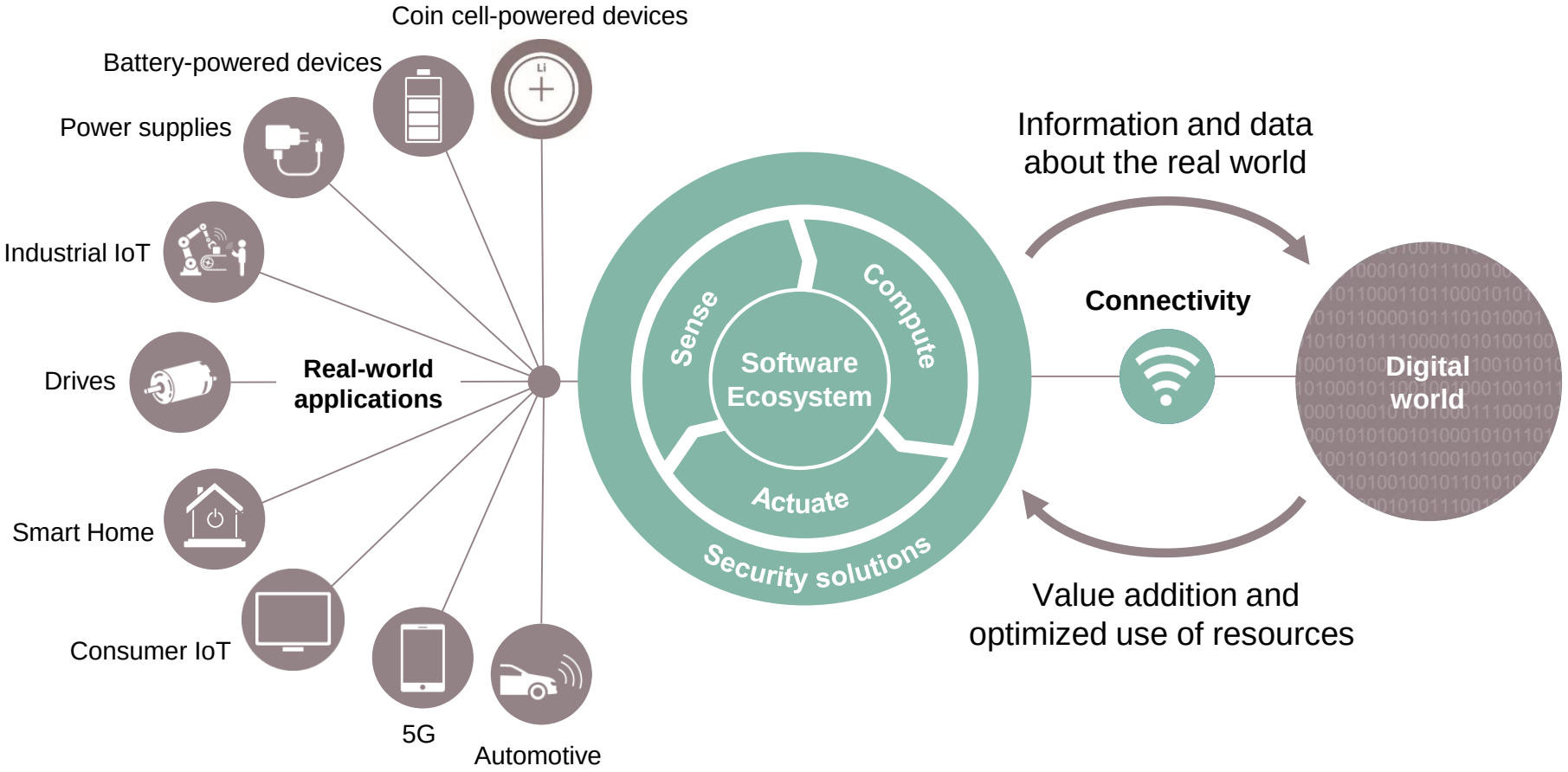
Larger scale

- combined FY19 revenue of ca. €10bn
- top 10 in the semiconductor industry
- leading player in automotive, systems for power management and drives, sensor systems, connected secure systems, wireless combos, differentiated memories

Value creation

- expected revenue synergy potential of > €1.5bn p.a. from FY28 onwards
- expected cost synergies of €180m p.a. gradually ramping up over approximately three years after closing
- expected to be accretive to adjusted EPS in FY21
- improved target operating model
  - 9%+ revenue growth
  - 19% Segment Result margin
  - 13% investment-to-sales

Infineon offers an unrivaled portfolio that links the real and the digital world



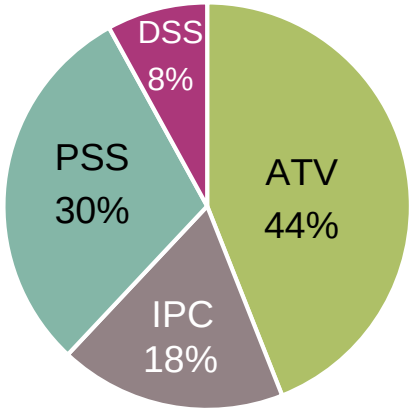
Sense: sensors Compute: microcontrollers, memories Actuate: power semiconductors Connectivity: Wi-Fi, Bluetooth, USB

Allocation of Cypress revenue leads to a more balanced portfolio

revenue by segment

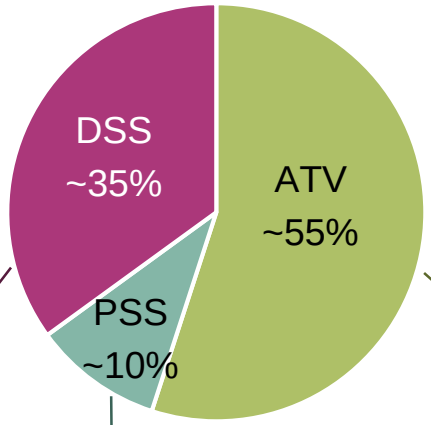
major product groups

Infineon_old



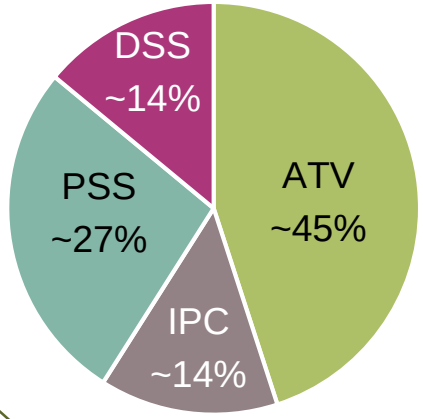
- Industrial PSoC
- general purpose MCUs
- Wi-Fi
- Bluetooth
- Bluetooth Low Energy

Cypress



- USB Type-A
- USB Type-B
- USB Type-C
- USB Type-C PD

Infineon_new



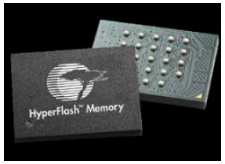
- Traveo
- Automotive PSoC
- NOR Flash
- SRAM
- F-RAM

Infineon has industry's broadest product portfolio covering entire range of auto applications

Body	Cluster/ Infotainment	Chassis	Powertrain	ADAS/AD
Sensors (magnetic, pressure, radar, current, 3D ToF, TrueTouch®, CapSense®)				
MCU (Embedded Power ICs, PSoC™, Traveo™)		**MCU (AURIX™)**		
Memory (NOR Flash, SRAM, nvSRAM, F-RAM)				
Power (MOSFETs, IGBTs, modules, driver ICs, power ICs, LDOs, PMICs, USB Type-C PD)				
Connectivity (USB)	**Connectivity (Wi-Fi, BT, BLE)**			
Application examples				
› HVAC › door control › pumps › seat adjustment	› instrument cluster › in-car entertainment › touch control › in-car charging	› braking › steering › stability program › suspension	› engine management › transmission › main inverter › auxiliaries	› speed control › emergency braking › blind spot detection › sensor fusion

NOR Flash benefits from growing use of flash-less processing units (MCUs, GPUs, FPGAs, SoCs)

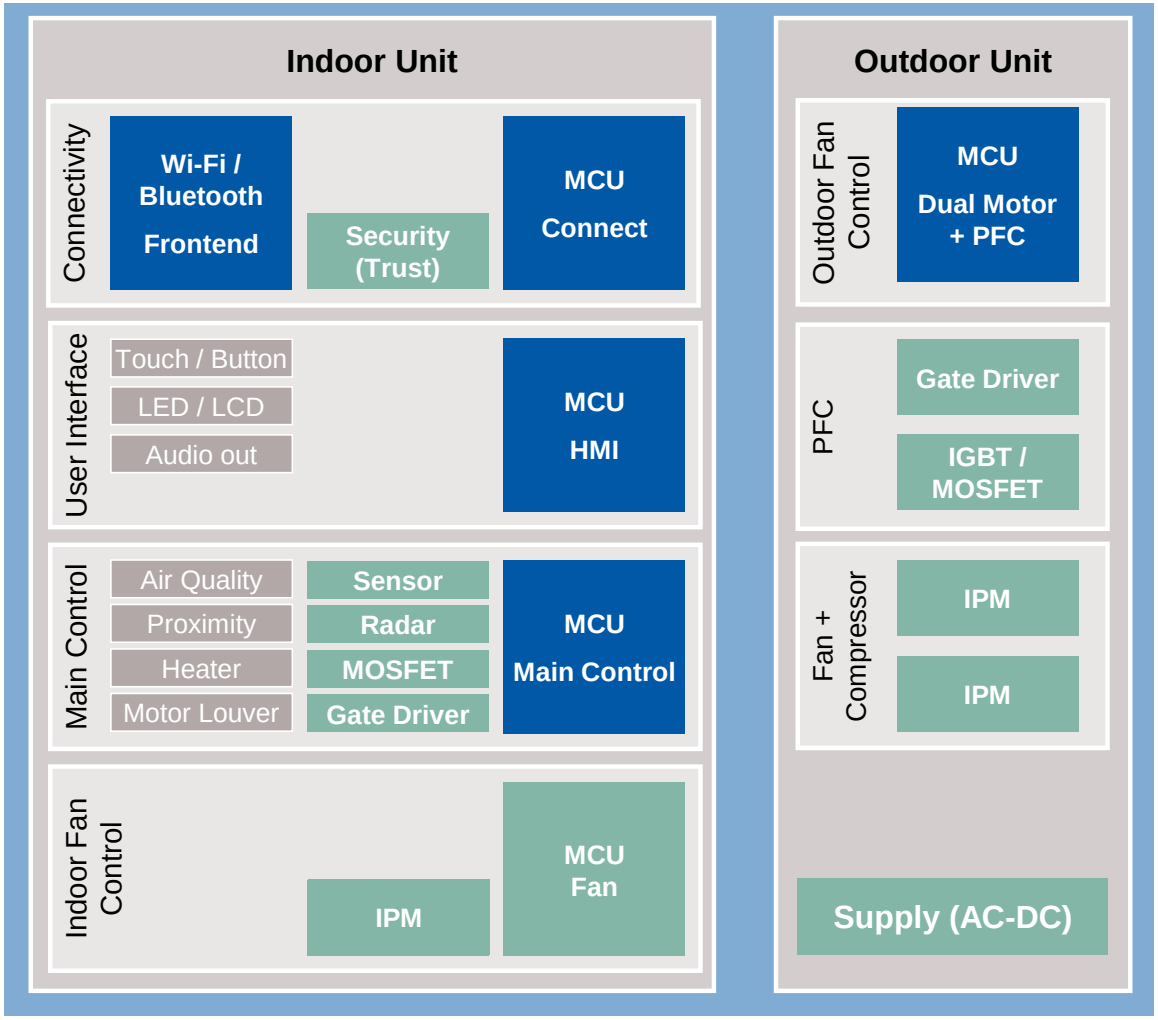
- Advanced process nodes (28 nm and below) no longer offer embedded NOR Flash economically → trends towards off-chip memory
- Infineon's high-density NOR Flash is used as
  - boot-up memory and
  - instant-on program memory
- Leader in high-density products (16 Mb – 4 GB)
- Semper™ Flash best positioned in functionally safety (ISO 26262 ASIL-B) and security for ADAS/AD
- focusing on safety-critical applications in automotive, industrial, and communications



Automotive	Industrial	Communications	Consumer
› ADAS/AD › instrument clusters › navigation systems › SOTA updates	› programmable logic controller	› 5G infrastructure (radio heads) › gateways	› ear pods › digital cameras

With the combined portfolio Infineon can offer full system solutions

Example: air-conditioning



What makes system solution attractive to customers?

- **Ease of design**
  ⇨ combined portfolio covers all relevant system components
- **Superior quality**
  ⇨ integrated solution ensures MCU, power stage and peripherals work perfectly together
- Faster **time-to-market**
  ⇨ no additional integration or software development costs

Infineon heritage | Cypress heritage

Infineon's and Cypress' competencies perfectly fit together; e.g. for smart wearables

Processing
microcontroller

Memory
NOR Flash
F-RAM

Connectivity
Wi-Fi/Bluetooth combo IC
RF switches
LNAs
antenna tuners

Human-machine interface
touch interface
voice user interface

Cypress heritage
Infineon heritage

Security
eSIM
secure element + NFC
cloud authentication

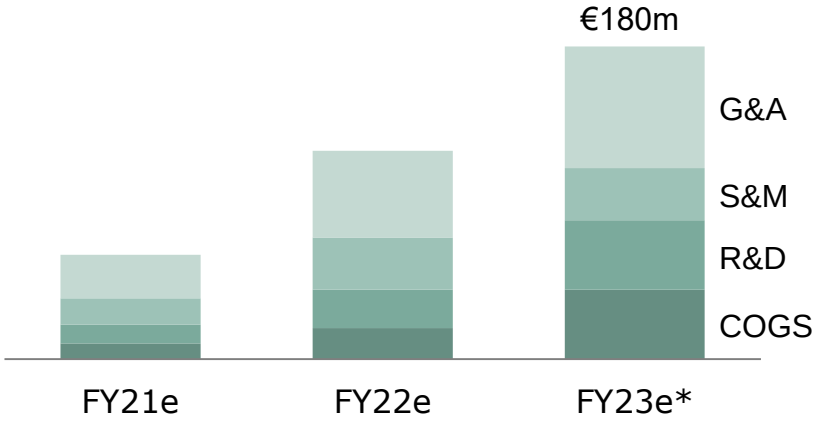
Device protection
ESD protection
battery authentication

Sensing
pressure sensor
radar IC
MEMS microphone

Wireless charging
2 W inductive solution
2.5 W resonant solution

Short-term reaping of cost synergies, long-term value creation of revenue synergies

Planned ramp-up of cost synergies



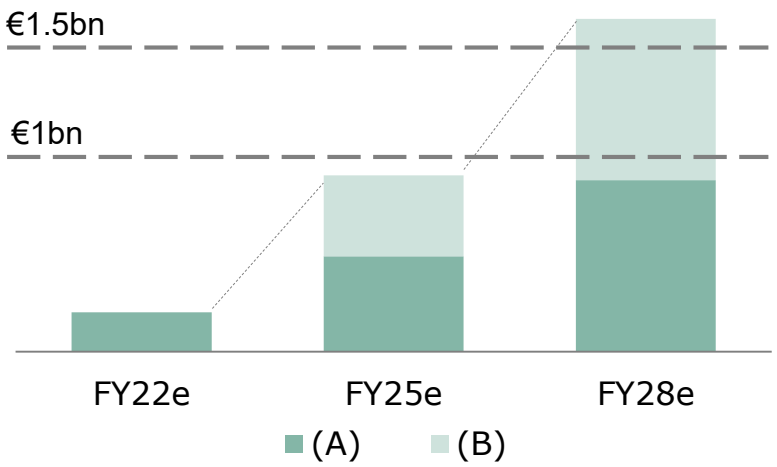
COGS
- Procurement for materials and manufacturing services

OpEx
- R&D: Optimize portfolio, reduce overhead
- S&M: Efficiency gains in account coverage
- G&A: Optimize corporate service providers

Expected integration and restructuring costs equivalent to ~1x cost synergies one-off over time

* Expected cost synergies of €180m p.a. gradually ramping up over approximately three years after closing. Ramp progression adjusted for later closing and COVID-19 implications.

Planned ramp-up of revenue synergies



(A) Near-term revenue synergy ramp up
- Improved customer access and cross-selling
- Optimize Cypress digital marketing potential to address revenue opportunities and grow customer numbers

(B) P2S for long-term revenue synergy ramp up
- Sensor systems and connectivity in IoT applications
- wireless connectivity in automation equipment
- Security-hardened controllers and connectivity
- systems for power management and drives
- differentiated memories in mission critical applications

Further improvement of through-cycle target operating model

	Target Operating Model Infineon financial performance to approach targets as integration progresses
Revenue growth	9%+ (up from “9%”)
Segment result margin	19% (up from “17%”)
Investment-to-sales	13% (down from “15%”)

Well-defined roadmap how to capture the value of the deal (delayed by unpredictable COVID-19 pandemic)

Phase 1
(16 Apr 2020 onwards)

- highest priority: ***ensure stability of Cypress' business performance and standalone operation***
- harvest one-time cost synergies (e.g. delisting) and overhead savings
- share existing IP and R&D roadmaps to cancel/avoid redundant development efforts
- launch customer portfolio management and kick-off G2M push programs

Phase 2
(2023+)

- have streamlined global shared service center set-up in place
- generate sustainable procurement effects
- have aligned and prioritized product roadmap with joint P2S concepts in place
- establish one interface to the customer (OITC)

Phase 3
(2025+)

- build on full leverage of revenue synergies
- launch new wave of P2S products
- identify additional adjacent and completely new target applications to fuel longer-term growth

Continuous implementation of planned cost and revenue synergy measures, e.g. harvesting early cross-selling opportunities, streamlining opex structures, optimizing manufacturing footprint

- Full commitment to new target operating model
- Several tools in place to track and measure the progress of the integration

Ample time and flexibility for further refinancing

2019

- Arranging and syndication of acquisition facility ✓
- Equity de-risking in two steps:
  - €1.5bn via ABB ✓
  - €1.2bn via dual-tranche hybrid bond ✓

2020

- Drawdown of acquisition facility and usage of raised funds ✓
- Investment grade rating of BBB- by Standard & Poor's ✓

NEXT

- Refinancing of acquisition facility with maturities from March 2022 to June 2024 through capital markets
- Liquidity: keeping gross cash target of €1bn plus at least 10% of combined revenue
- Deleveraging: return to target level ≤ 2x gross debt / EBITDA over mid-term

Outlook for Q3 FY20 and FY20 including Cypress

	Outlook Q3 FY20*	Outlook FY20*
Revenue	**€1.9bn to €2.3bn**	**~ €8.4bn** +/- 5%
Segment Result Margin	At the mid-point of the revenue guidance: **positive mid-single digit percentage**	At the mid-point of the revenue guidance: **~12%**
Investments in FY20		**€1.2bn – €1.3bn****
D&A in FY20		**~€1.0bn*****

* Based on an assumed average exchange rate of $1.10 for €1.00 (previously $1.13 for €1.00).

** Formerly ~€1.3bn for Infineon standalone.

*** Outlook does not yet include D&A on tangible and intangible assets from purchase price allocation of Cypress acquisition. On the other hand, outlook includes D&A on tangible and intangible assets from purchase price allocation of about €60m, primarily to International Rectifier.

Tight customer relationships, based on system know-how and application understanding

ATV

APTIV, BOSCH, DENSO, BYD, HITACHI Inspire the Next, Continental, LEAR CORPORATION, HELLA, KEIHIN, HYUNDAI, MITSUBISHI ELECTRIC, Mando, preh, Valeo, OMRON, veoneer, ZF

IPC

ABB, ALSTOM, BOMBARDIER, 中国中车 CRRC, Danfoss, EATON, GOLDWIND, Midea, Inovance, Nidec, Rockwell Automation, Schneider Electric, SEMIKRON innovation + service, SIEMENS, TOSHIBA, SUNGROW, Vestas, YASKAWA

PSS

阿里巴巴 Alibaba.com, amazon, ARTESYN EMBEDDED TECHNOLOGIES, Baidu 百度, BOEING, CISCO, DELL, DELTA, ERICSSON, Google, Goertek, Hewlett Packard Enterprise, HUAWEI, LG Life's Good, LITEON, makita, NOKIA, OSRAM, SAMSUNG, ZTE

DSS

GPO, hp, IDEMIA augmented identity, Lenovo, Microsoft, THALES, Watchdata

EMS partners

flex, FOXCONN

Distribution partners

ARROW, AVNET Reach Further, intron 英恒, JCET, MACNICA, NEXTY Electronics, RUTRONIK ELECTRONICS WORLDWIDE, SAC, 威健 WEIKENG

Agenda

1. Cypress becomes part of Infineon
2. ESG: targets and achievements
3. Automotive
4. Industrial Power Control
5. Power & Sensor Systems
6. Digital Security Solutions
7. Selected financial figures

Our products and innovations together with an efficient production are key elements to deal with climate change

We contribute a CO_2 reduction of more than 54 million tons

CO_2 burden[1]
Around **1.40** million tons of CO_2 equivalents

Ratio around 1:40

CO_2 savings[2]
Around **56** million tons of CO_2 equivalents

Net ecological benefit: CO_2 emissions reduction of more than 54 million tons

Our net ecologic CO_2 benefit is equal to…

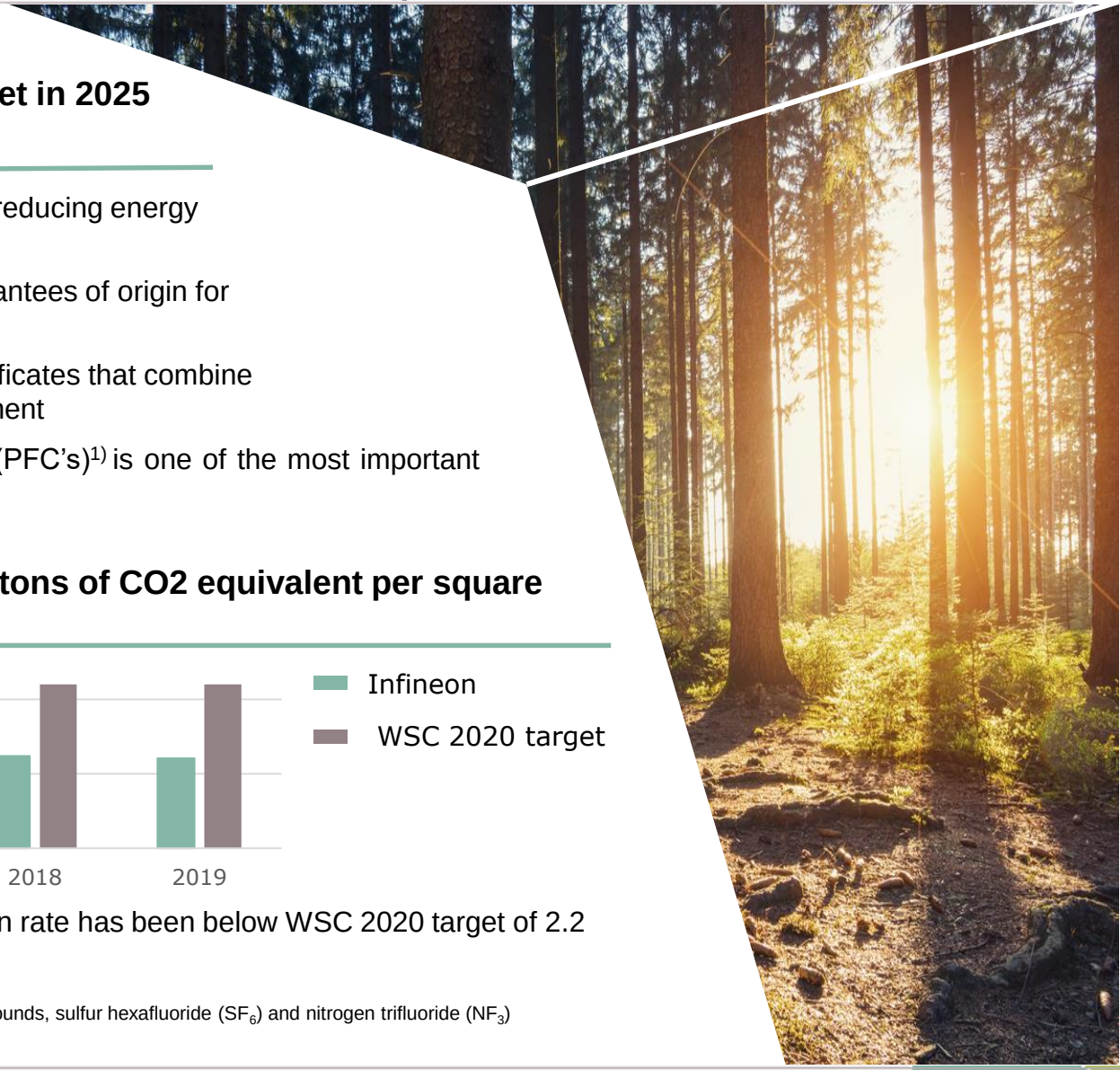
The savings of a 1,795 km^2 photovoltaic powerplant.[3)]

The average annual electricity consumption of about 86 million people living in Europe.[4)]

48,700 fully occupied flights of an Airbus A380 from Munich to Singapore.[5)]

For footnotes please see appendix

Infineon will become carbon-neutral by 2030

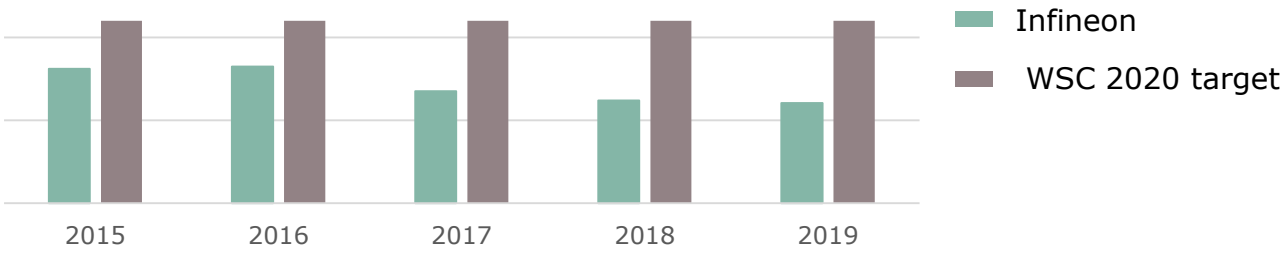


70% CO_2 emissions reduction target in 2025 (Scope 1 and 2 emissions)

1. Avoiding direct emissions and further reducing energy consumption
2. Purchasing green electricity with guarantees of origin for unavoidable emissions
3. Compensate the smallest part by certificates that combine development support and CO_2 abatement

Abatement of Perfluorinated Compounds (PFC's)[1] is one of the most important measures avoiding direct emissions.

Normalized PFC emissions rate in tons of CO2 equivalent per square meter wafer



Historically, Infineon's normalized emission rate has been below WSC 2020 target of 2.2 in tons of CO2 per square wafer

1) Namely perfluorinated and polyfluorinated carbon compounds, sulfur hexafluoride (SF_6) and nitrogen trifluoride (NF_3)

External recognitions confirm our engagement in contributing to a sustainable society

	Rating/Score	Scale	Date
MSCI ESG	AA	CCC to AAA	02/2020
CDP	B climate scoring B- water scoring	F to A	02/2020
Ecovadis	98th percentile “Gold” award	0 to 100	11/2019
Dow Jones Sustainability Index	79 DJ Sustainability™ World Index listing	0 to 100	09/2019
Ethibel Sustainability Index Excelence Europe”	Index member	-	09/2019
ISS-Oekom	C+ Prime Status	D- to A+	07/2019
FTSE4Good Index	Index member	-	07/2019
Euronext Vigeo Eurozone 120 Index Euronext Vigeo Europe 120 Index	Indices member	-	06/2019
Sustainalytics	76 “Outperformer” level	0 to 100	03/2019

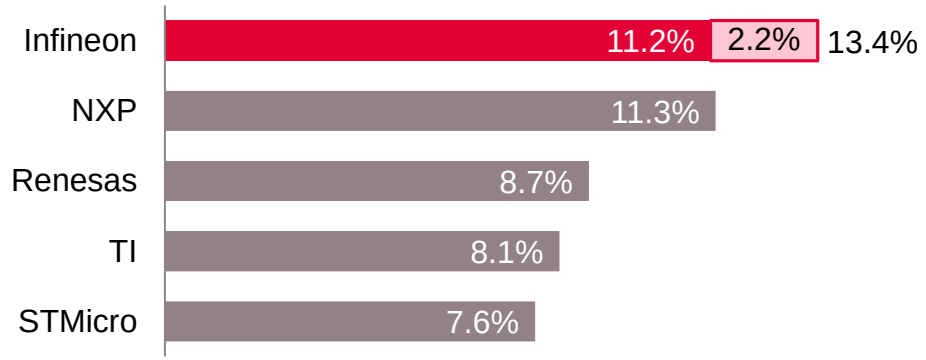
Appendix

1) This figure considers manufacturing, transportation, function cars, flights, materials, chemicals, water/waste water, direct emissions, energy consumption, waste, etc. and is based on internally collected data and externally available conversion factors. All data relate to the 2019 fiscal year. Manufacturing service providers are not included.
2) This figure is based on internally established criteria, which are explained in the explanatory notes. The figure relates to the calendar year 2018 and considers the following fields of application: automotive, LED, induction cookers, server, renewable energy (wind, photovoltaic), mobile phone chargers as well as drives. CO_2 savings are calculated on the basis of potential savings of technologies in which semiconductors are used. The CO_2 savings are allocated on the basis of Infineon market share, semiconductor content and lifetime of the technologies concerned, based on internal and external experts' estimations.
3) Calculation based on average polycrystalline photovoltaic cells and the average yearly solar radiation of central Germany.
4) Based on the average electricity consumption of private households in Germany and official energy conversion factors.
5) Calculation based on average passenger capacity and direct flight route using externally available data and conversion factors.

Automotive

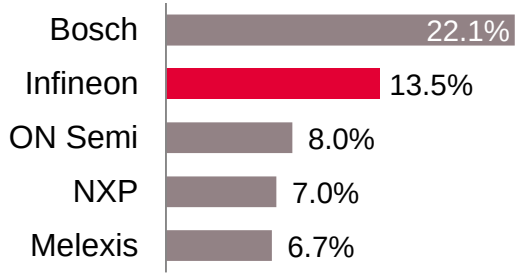
Infineon and Cypress create the new number 1 in the automotive semiconductor universe

Automotive semiconductors — 2019 total market: $37.2bn

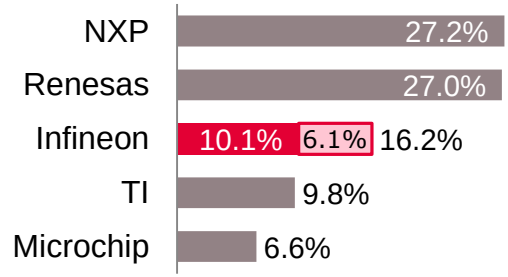


- Cypress contributed 2.2%-points to the combined automotive semiconductor market share of 13.4%
- Cypress contributed 6.1%-points to the combined automotive microcontroller market share of 16.2%
- Infineon is the #2 automotive memory supplier with a market share of 13.2%

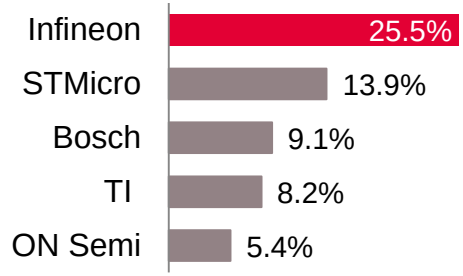
Sensors



Microcontrollers



Power

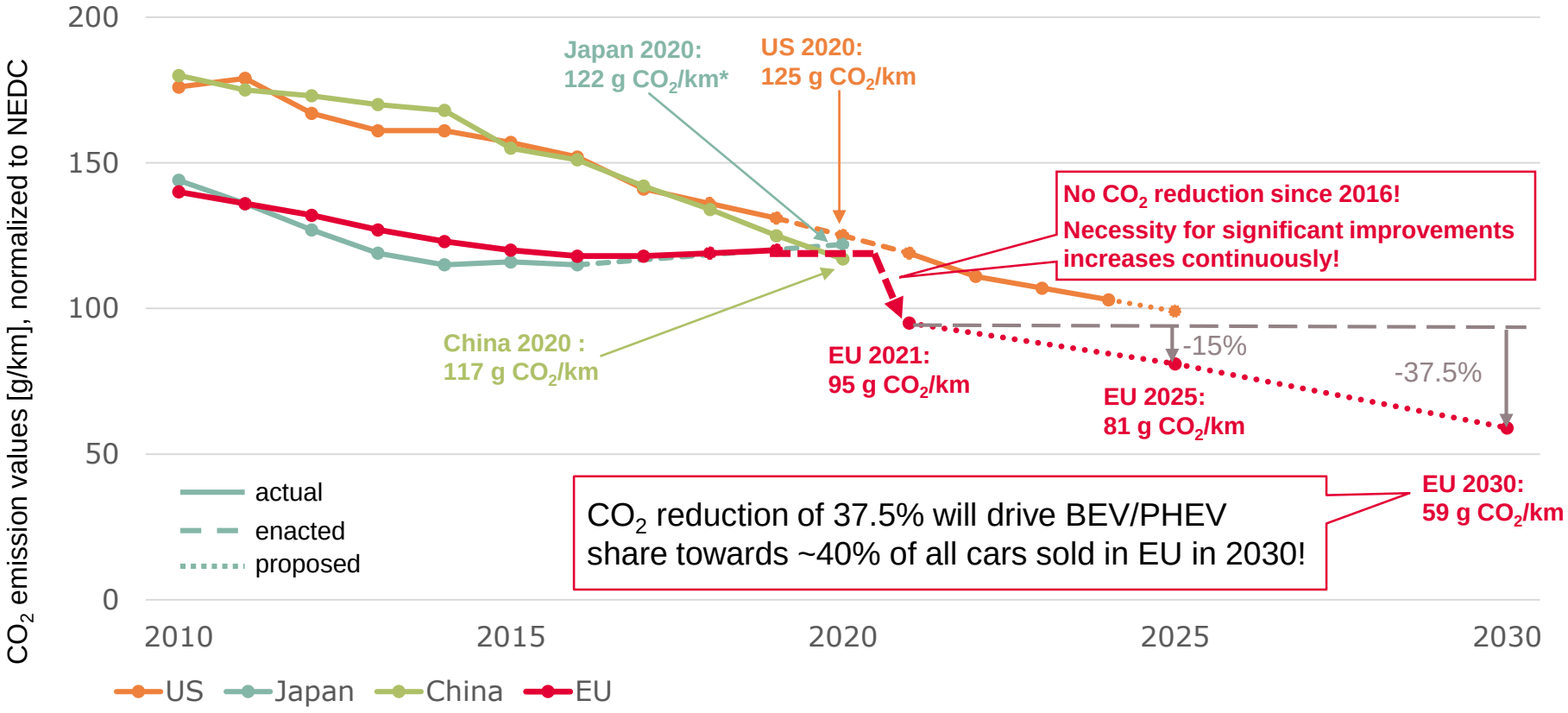


Source: Strategy Analytics, "Automotive Semiconductor Vendor Market Shares", April 2020. The acquisition of Cypress by Infineon closed on 16 April 2020. The market shares for 2019 shown here are the combined market shares of Infineon and Cypress based on their individual figures.

Electro-mobility

xEV growth driven by EU emission regulation; CO2 reduction of 37.5% by 2030 vs 2021

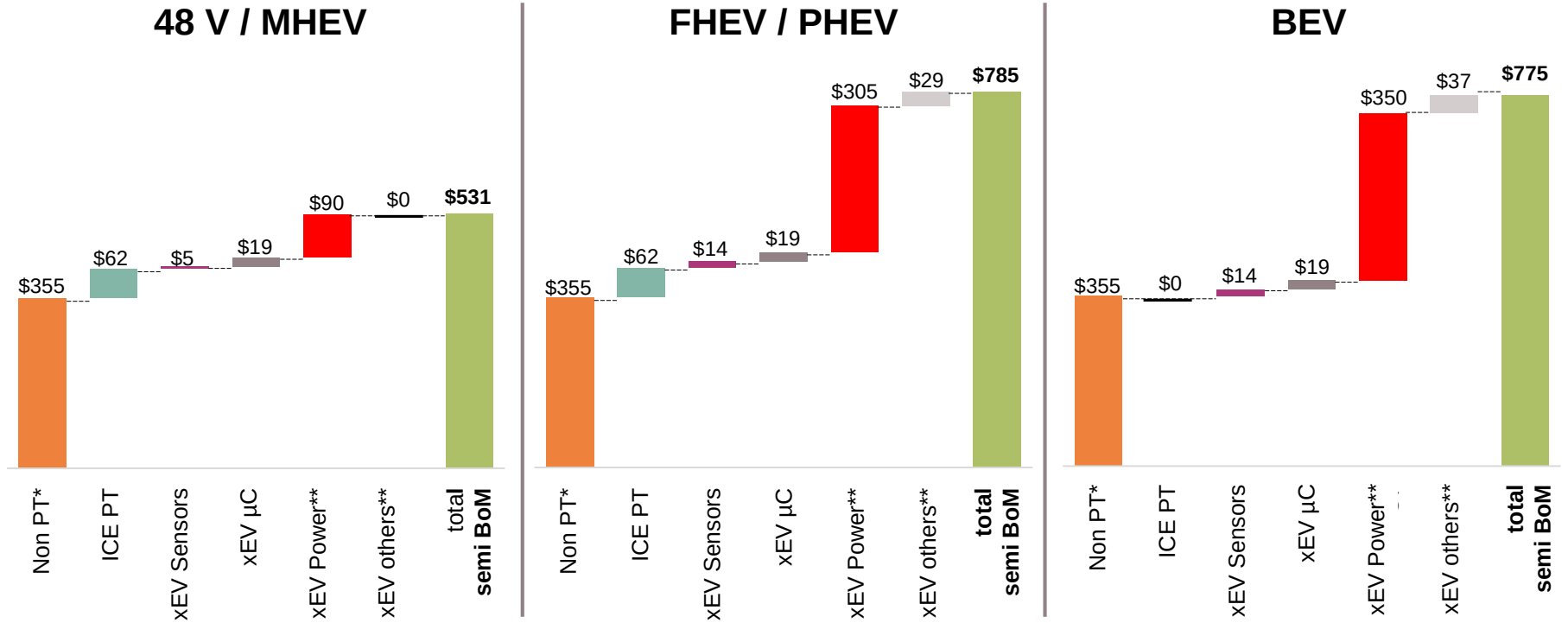
CO_2 emission development and regulations for main regions



* Japan has already met its 2020 statutory target as of 2013
Source: ICCT (www.theicct.org), August 2019

The incremental demand of power semiconductors is a significant opportunity

2019 average xEV semiconductor content by degree of electrification



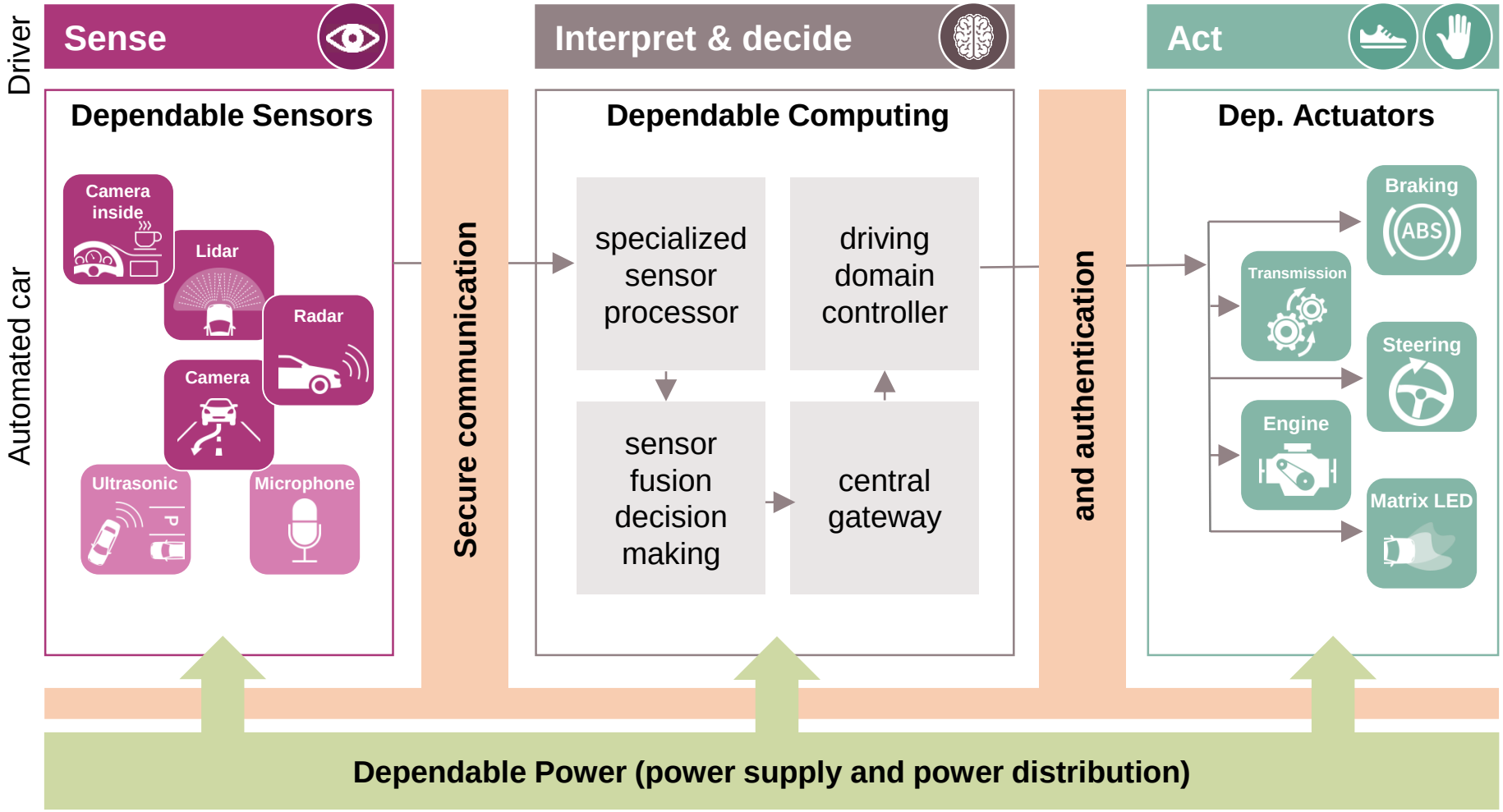
2018	0.3m vehicles	2.9m vehicles	1.7m vehicles
2020	2.3m vehicles	4.8m vehicles	3.2m vehicles
2025	20.6m vehicles	10.5m vehicles	10.2m vehicles
2030	30.0m vehicles	14.1m vehicles	15.8m vehicles

Source: Infineon; IHS Markit, Automotive Group, “Alternative propulsion forecast”, September 2019; Strategy Analytics, "Automotive Semiconductor Content", August 2019.
* Non PT (non powertrain): average semiconductor content in Body, Chassis, Safety & Infotainment application segments.
** "power" includes linear and ASIC; "others" include opto, small signal discrete, memory

Automated Driving

Vision Zero – AD requires failure-tolerant availability of the system in the environment, “better than a human”

A failure-tolerant system with high availability relies on dependable key functionalities



Increased sensor requirements drive the content in the next five years and beyond

More sensors required for any next level of automation

	NCAP 5 Star, AD L2	AD L2+/L3	AD L4/L5
Application*	Automatic emergency brake/ forward collision warning Parking assist Lane keep assist	Highway assist	Valet parking Highway and urban chauffeur
Radar # of modules**	Corner MRR/LRR ≥ 3 New: Corner; starting 2020	MRR/LRR ≥ 6 Corner	Imaging ≥ 10 Surround
Camera # of modules**	≥ 1	≥ 4	≥ 8
Lidar # of modules**	0	≤ 1	≥ 1
Others	› Ultrasonic	› Ultrasonic › Interior camera	› Ultrasonic › Interior camera › V2X

* Source: VDA (German Association of the Automotive Industry); Society of Automotive Engineers
** market assumption

ADAS/AD semi growth driven by radar and camera sensor modules over the next 5 years

Average semiconductor content per car by level of automation at the given years

NCAP 5 Star/AD L2

L2 vehicles in 2020: ~6m

AD L2+

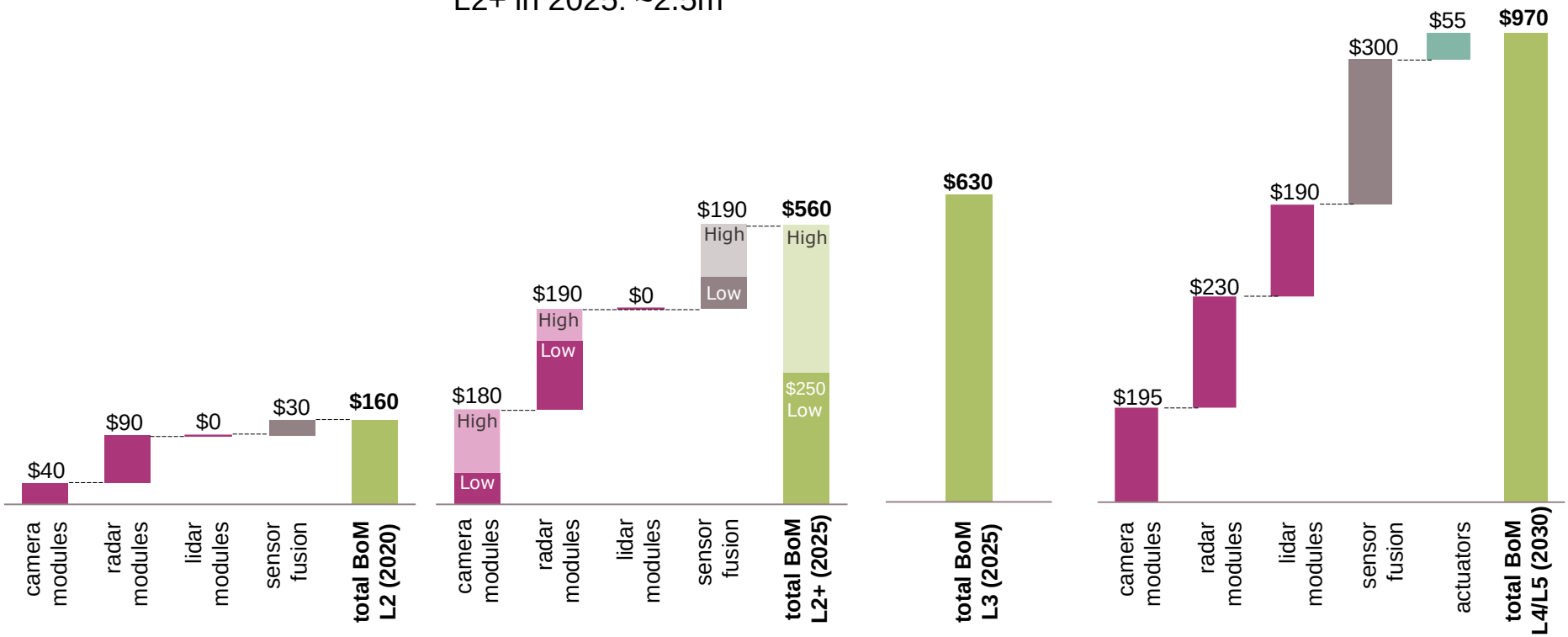
L2+ in 2022: ~1m
L2+ in 2025: ~2.5m

AD L3

L3 in 2025: ~1.5m

AD L4/L5

L4/L5 vehicles in 2030: ~4m

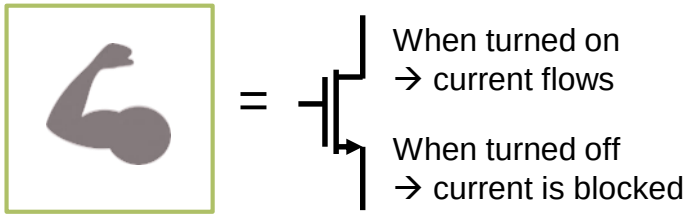


Source: Strategy Analytics; Infineon.
BoM contains all type of semiconductors (e.g. radar modules include µC); sensor fusion does not include memory.
BoM are projected figures for the respective time frame.

Infineon's Power Strategy

Infineon's portfolio covers the entire range of power and frequency

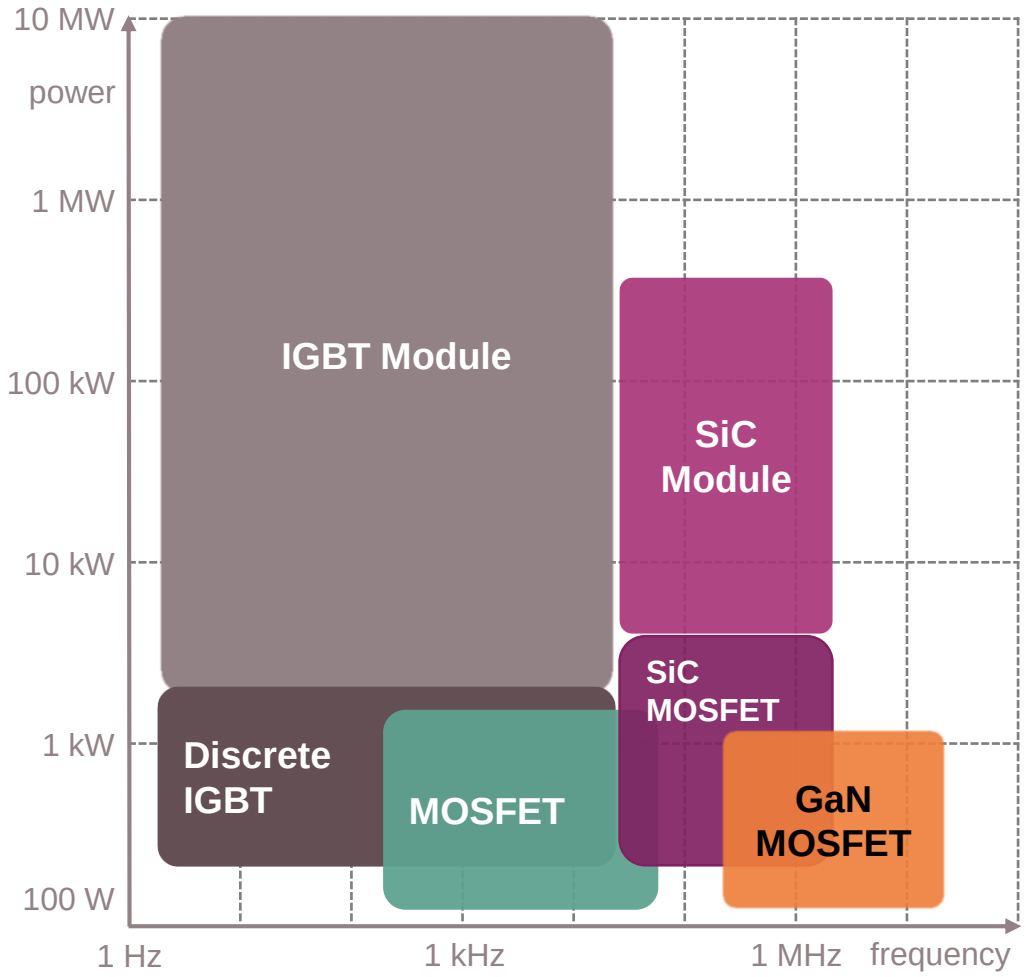
What is a power switch?



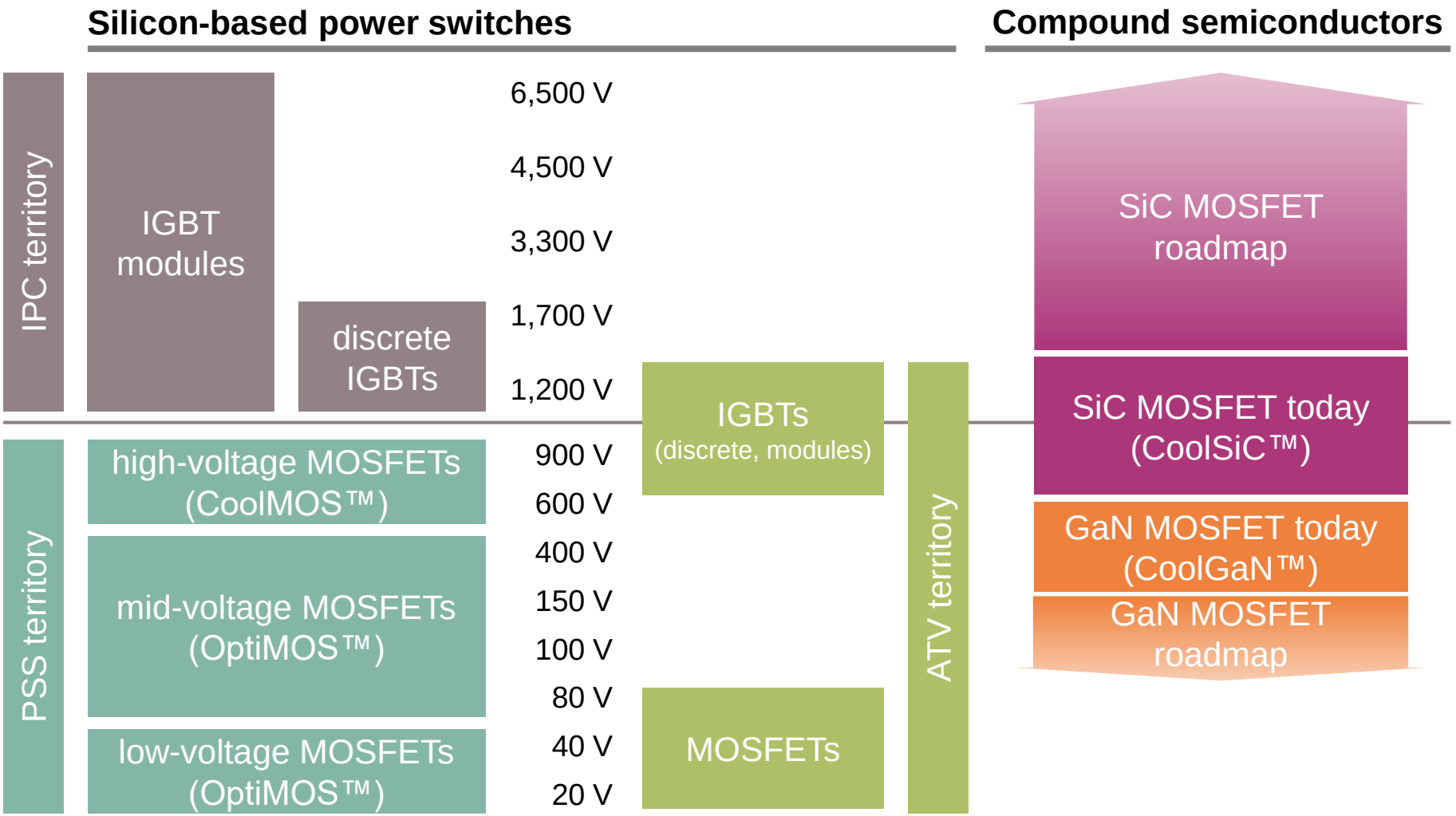
What counts?

- Losses in on-state ($R_{(DS)on}$)
- Heat dissipation
- Max. switching frequency
- Die size
- Package size (form factor)

How are power switches categorized?

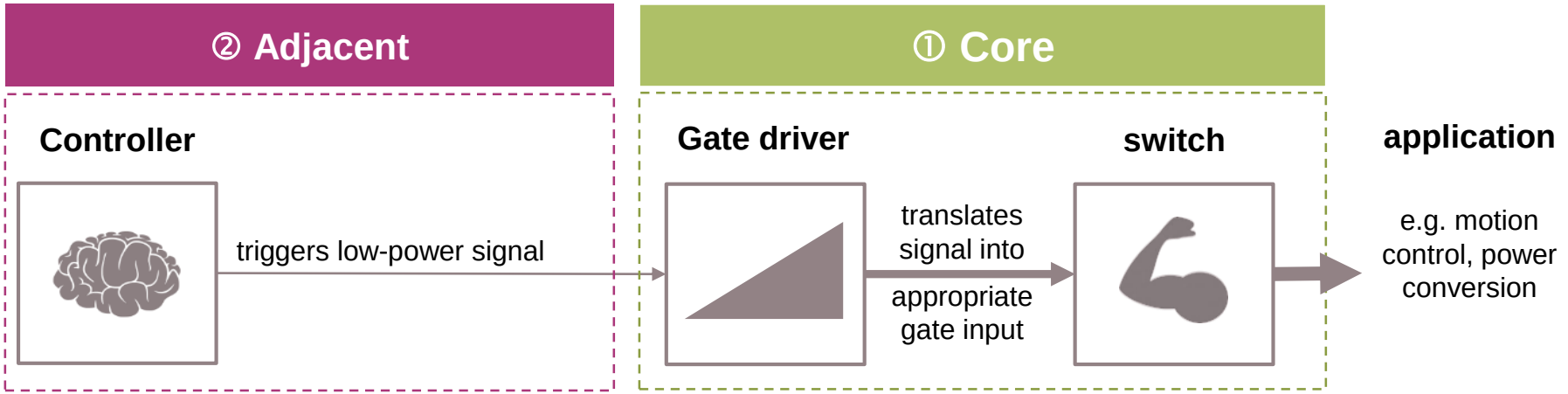


Infineon's discrete power portfolio* is basically separated by voltage classes



* excluding drivers and control ICs

Three strategic levers to outgrow the power semi market: "core – adjacent – new"



② Grow in adjacent fields

› Invest into products for digital control loop including algorithms for drives

① Strengthen core

› Complement leadership in today's discrete power and module portfolio with SiC and GaN

③ New

③ Broaden scope to new applications

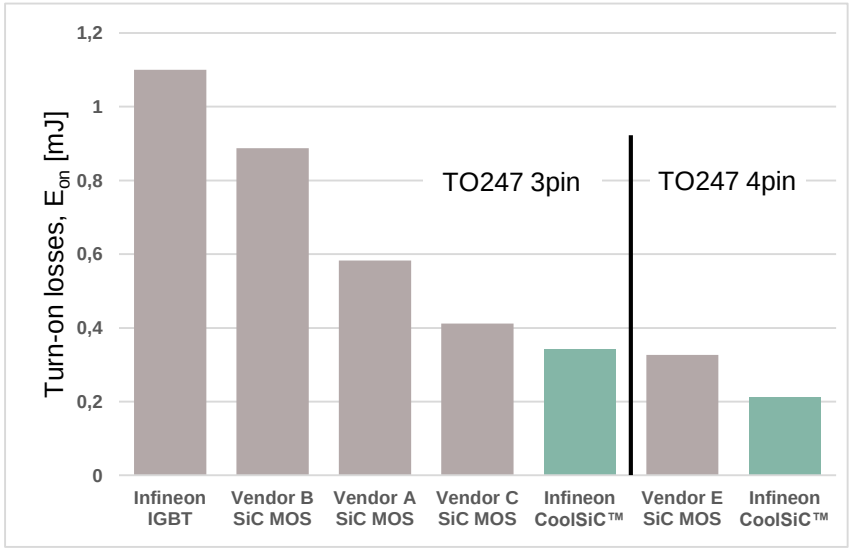
› System understanding and strong R&D force allow us to enter emerging power applications

Second generation (2nd Gen.) CoolSiC™ Trench MOSFET will increase the addressable market

1st Gen. CoolSiC™ Trench MOSFET is the leading technology today

2nd Gen. CoolSiC™ Trench MOSFET is in advanced development phase

1st Gen. with lowest losses



Source: Infineon, datasheets on supplier web pages, September 2019.

1st Gen. CoolSiC™ Trench MOSFET has set the industry benchmark

2nd Gen. will expand the lead

- Enhanced power handling capability by 25% – 30%
- Enhanced safe operating area without compromising quality
- Enabling SiC in further high volume applications

2nd Gen. CoolSiC™ Trench MOSFET will significantly enlarge the market size for SiC MOSFETs

Siltectra:
Status of implementation of Cold Split technology

Process tools	Clean room	Process flow
› Design and production of semi-automated process tool park completed in Dresden	› Clean room ready for manufacturing by end of calendar year 2020	› Integration of individual process steps into complete work flow

1/3 of the industrialization journey accomplished

Wafer splitting by 2022	Boule splitting by 2023
› Wafer for splitting are already available › Increases # of wafers up to a factor of 2	› Boules start to become available › Increases # of wafers by a factor of 2.0 in a first step, with potential for a factor of 2.6

Combining boule splitting and wafer splitting will make the most efficient process

Infineon is ready to support and shape the growing SiC device market

Today

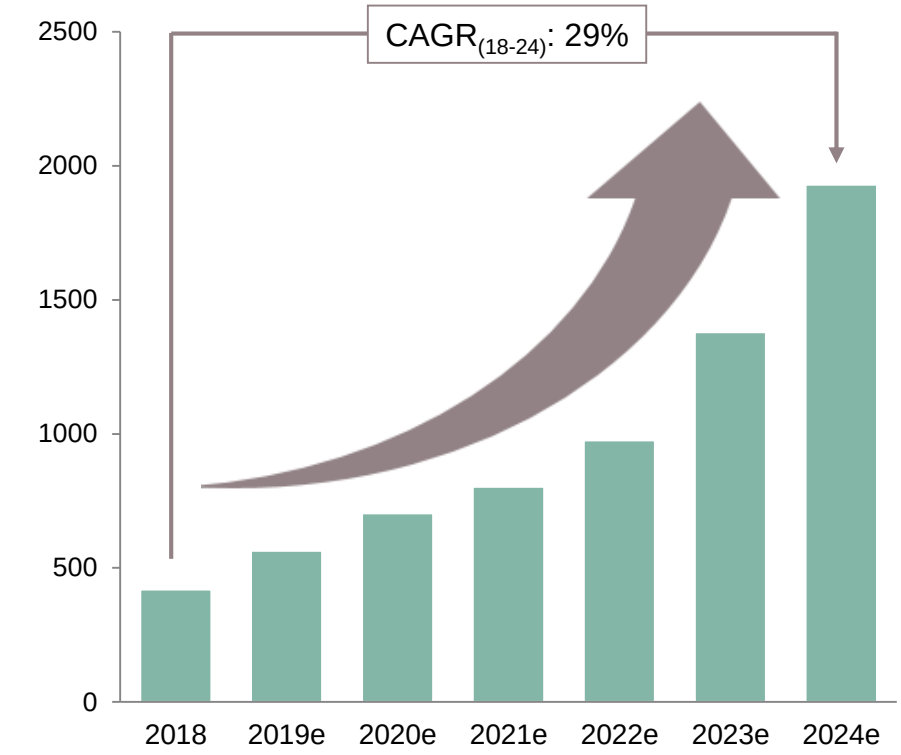
- Leading Infineon technology with 1st Gen. CoolSiC™ Trench MOSFET
- Already broad, fast growing portfolio
- System expertise and customer access

Strategic projects to support growth

- 2nd Gen. CoolSiC™ Trench MOSFET
- Cold Split: wafer and boule
- Manufacturing lines already capable of processing 200 mm diameter

SiC device market revenue

- Acceleration of revenue growth from 2023 onwards



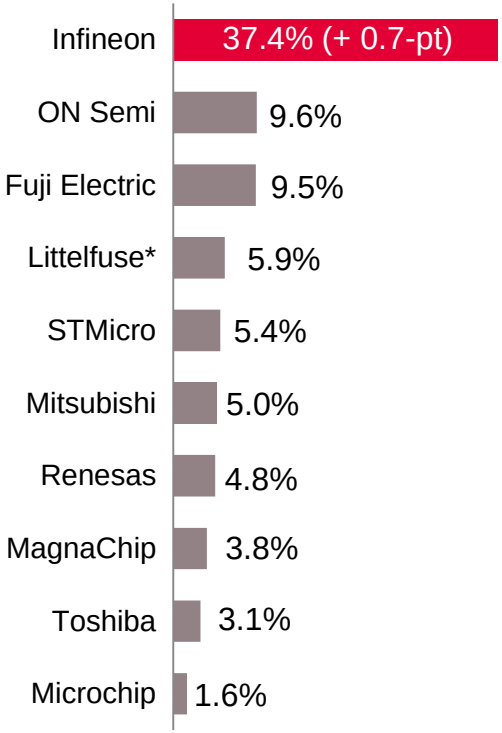
Source: Yole, " Power SiC 2019: Materials, Devices and Applications 2019", July 2019.

Industrial Power Control

Clear leader in discrete IGBTs and IGBT modules; IPMs strengthened again

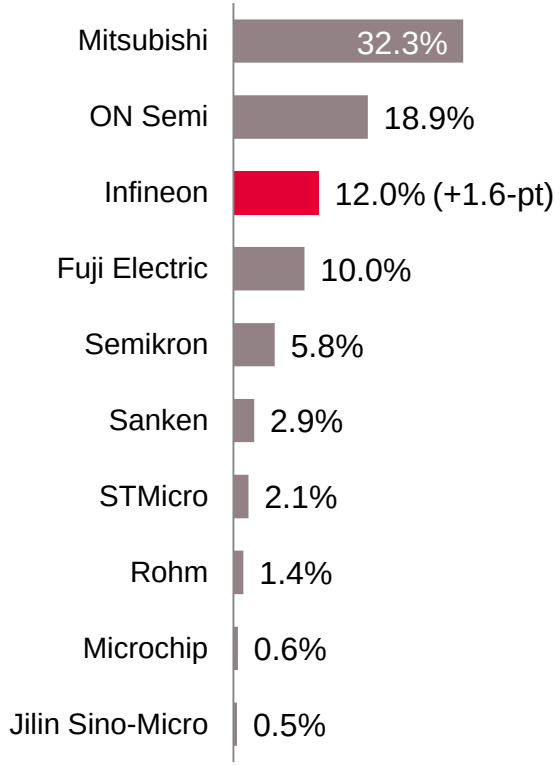
Discrete IGBTs

total market in 2018: $1.31bn



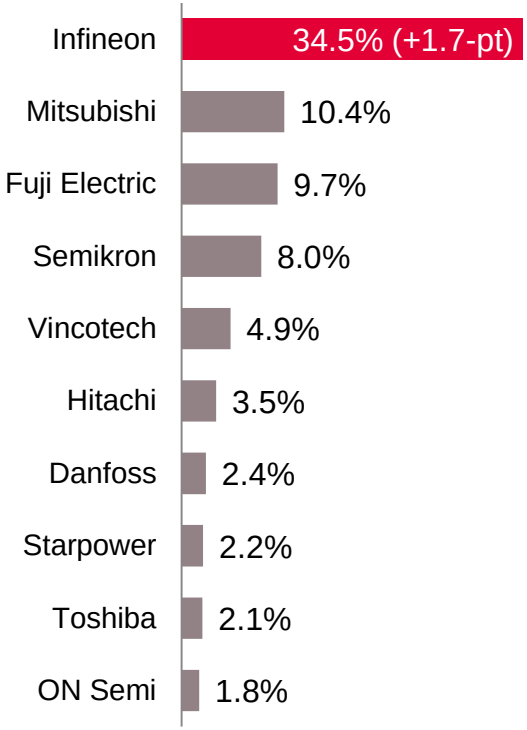
IPMs

total market in 2018: $1.68bn



IGBT modules**

total market in 2018: $3.25bn



* Littelfuse acquired IXYS Corporation in January 2018. Both companies are reported separately in 2017 and combined as Littelfuse in 2018.
** Including standard (non-integrated) IGBT modules and power integrated modules (PIMs) / converter inverter brake (CIB) modules.
Source: Based on or includes content supplied by Informa Tech (former IHS Markit Technology), "Power Semiconductor Market Share Database 2018", September 2019.

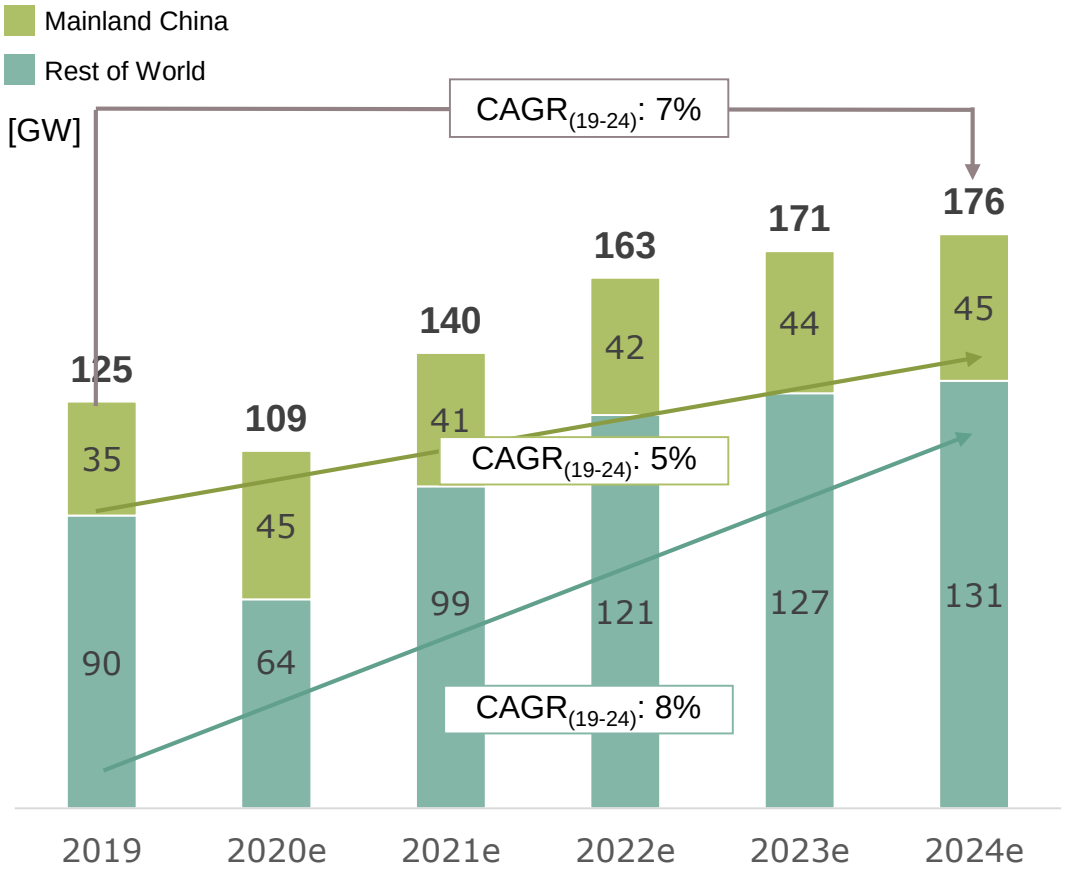
Due to the extensive power module portfolio Infineon can address the whole range of drives applications

	Servo drives	Low-power drives*	Mid- and high-power drives
	370 W – 75 kW	370 W – 500 kW	500 kW – 10 MW
Requirements	› high positioning accuracy › fast response with no overshoot › high reliability	› performance and reliability › safety features › good price/performance ratio	› safety › durability › high reliability and low downtime
Key applications	› robotics › material handling › machine tools	  › pumps and fans › process automation › cranes › marine drives 	› oil & gas industry › chemical industry (e.g. air compressors) › cement mills  
Infineon products	› CIPOS™ IPM › Easy 1B › Easy 2B   	› iMOTION™ › CIPOS™ IPM › EasyPACK™ › EconoPACK™    	› PrimePACK™ › IHM › IHV  

*Low-power drives include compact drives, standard drives, premium drives and brushed DC drives.

Infineon is a key player in the PV market providing solutions to the leading inverter manufacturers

Global PV installations p.a.[1]



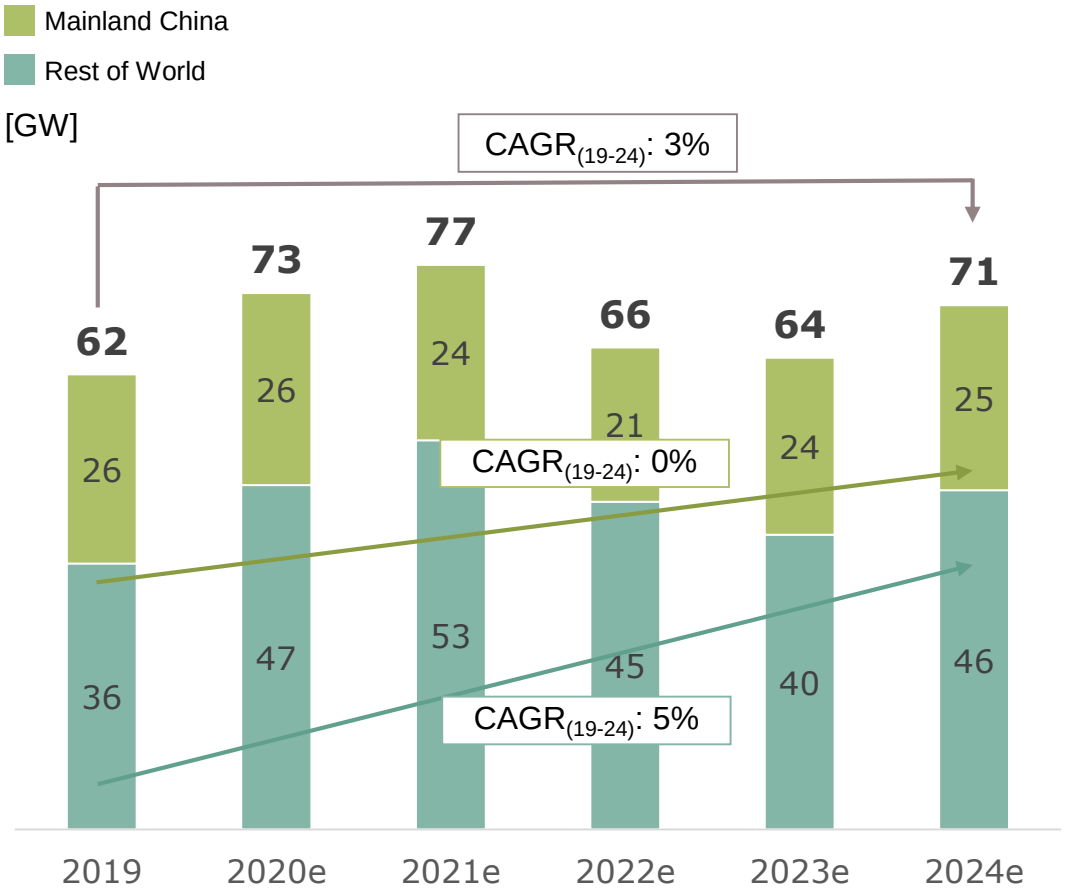
Infineon is present at top-10* inverter manufacturers (2018)[2]

1 | Huawei ✓
2 | Sungrow ✓
3 | SMA ✓
4 | Power Electronics ✓
5 | ABB[3] ✓
6 | Sineng Electric ✓
7 | TBEA Sunoasis ✓
8 | SolarEdge ✓
9 | Ingeteam ✓
10 | KSTAR ✓

* Infineon is serving the top-10 but not necessarily as a sole supplier.
1) based on or includes content supplied by IHS, "PV Installations Tracker – Q1 2020"; April 2020; including off-grid
2) by shipped capacity in MW: based on or includes content supplied by IHS, "PV Inverter Market Tracker – Q4 2019", October 2019
3) ABB sold its solar inverter business to Fimer in 2019

Infineon is the leading power semiconductor supplier for the wind turbine industry

Global wind energy installations p.a.[1]



Infineon is present at top-10* wind turbine manufacturers (2019)[2]

1 | Vestas ✓
2 | Siemens Gamesa ✓
3 | Goldwind ✓
4 | GE ✓
5 | Envision ✓
6 | Mingyang ✓
7 | Nordex ✓
8 | Enercon ✓
9 | Sewind ✓
10 | Senvion ✓

* Infineon is serving the top-10 but not necessarily as a sole supplier.
1) Wood Mackenzie Power & Renewables, "Market Outlook Update", Q1 2020
2) Forecast of market shares by installations in MW: Wood Mackenzie, Power & Renewables, "Global wind turbine OEM market share forecasts", October 2019

What comes next?
Mid- to long-term structural growth opportunities

Core

CoolSiC™ Silicon Carbide

new material

EV charging

collaborative robots

Adjacent

solar pumps

energy storage

eDelivery vehicles

New area

fuel cell

eMarine

eAviation

Power & Sensor Systems

PSS's growth is built on many applications from different sectors in power and non-power

Computing

- data center
- PC, notebook
- peripherals

Industrial

- power supplies
- EV on-board charger
- PV inverter
- power tools
- lighting
- Industry 4.0
- Internet of Things

Consumer / Misc

- eBikes, eScooter
- multicopter
- aviation
- LSEV
- space
- gaming
- smart home

Communications

- smartphones
- mobile devices
- wearables
- 5G massive MIMO

AC-DC (power)

DC-DC (power)

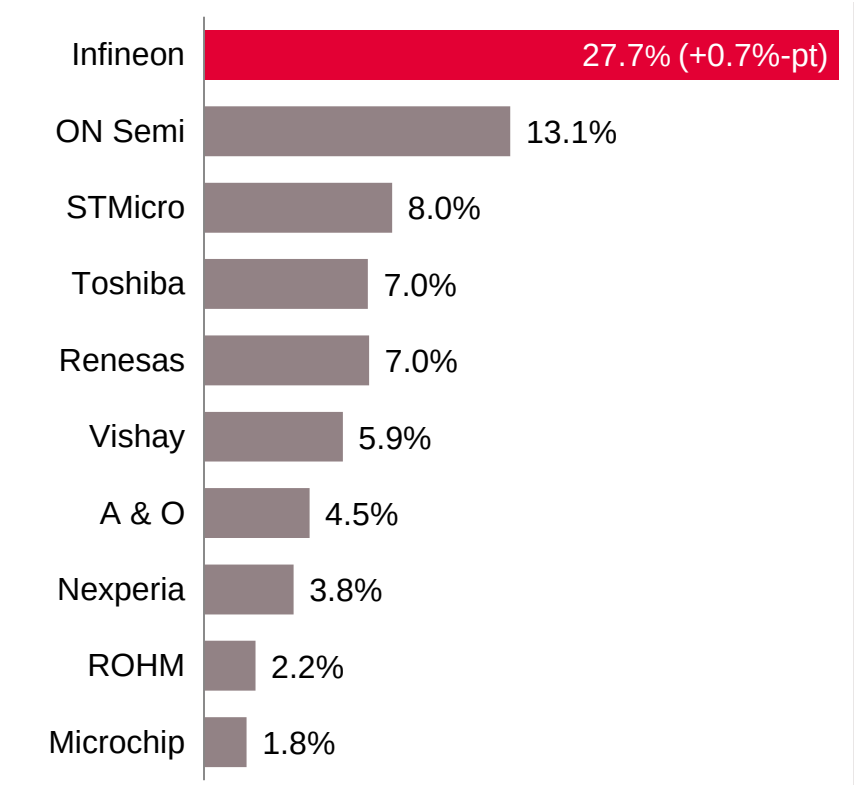
RF and sensors (non-power)

PSS – Power

Infineon is the clear leader in MOSFETs; growth potential in power ICs

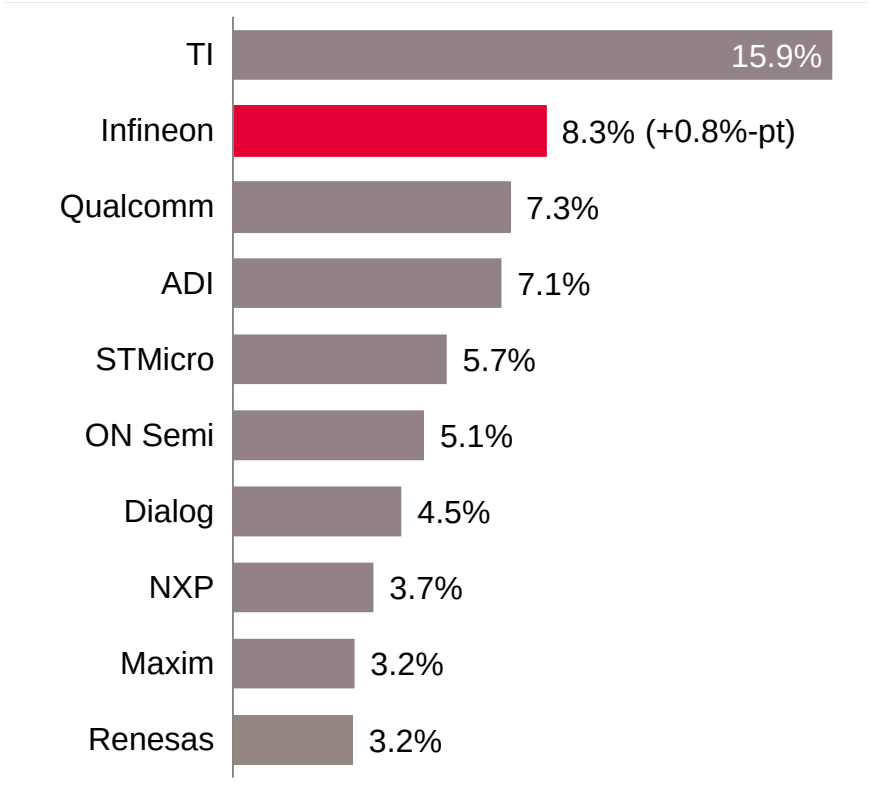
Discrete Power MOSFET market

total market in 2018: $7.58bn



Power IC market

total market in 2018: $25.62bn



Source: Based on or includes research from Omdia, "Power Semiconductor Market Share Database 2018", September 2019.
Discrete Power MOSFET market incl. automotive MOSFETs. Power IC market incl. automotive power ICs.

Technology leadership in MOSFETs and digital power: highest efficiency and power density

Adjacent

Controller

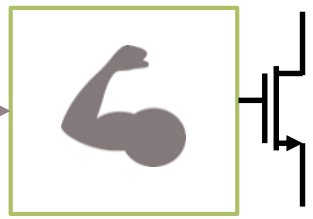
triggers low-power signal to switch on

Core

Driver IC

translates signal into high-current gate input

MOSFET

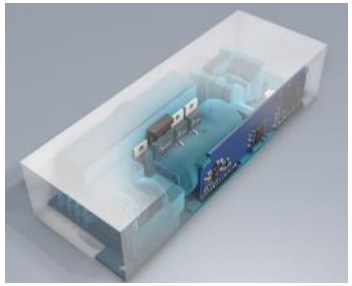


switches on, current flows

Power management solutions reduce TCO

More efficient semiconductors

- lower power consumption
- lower opex

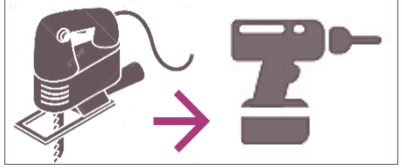


Higher power-density

- more compact system designs
- lower capex

Four interrelated trends drive power semiconductor BoM in battery-powered applications

Interrelated trends for battery-powered applications



1 From corded to **cordless** power tools

2 From brushed DC to **brushless** DC motors

3 Trend towards **higher power** and **higher battery** voltage

4 **New applications** with trend towards "batteryfication"

BoM increase:

power semiconductor content increase up to 4x for DIY tools

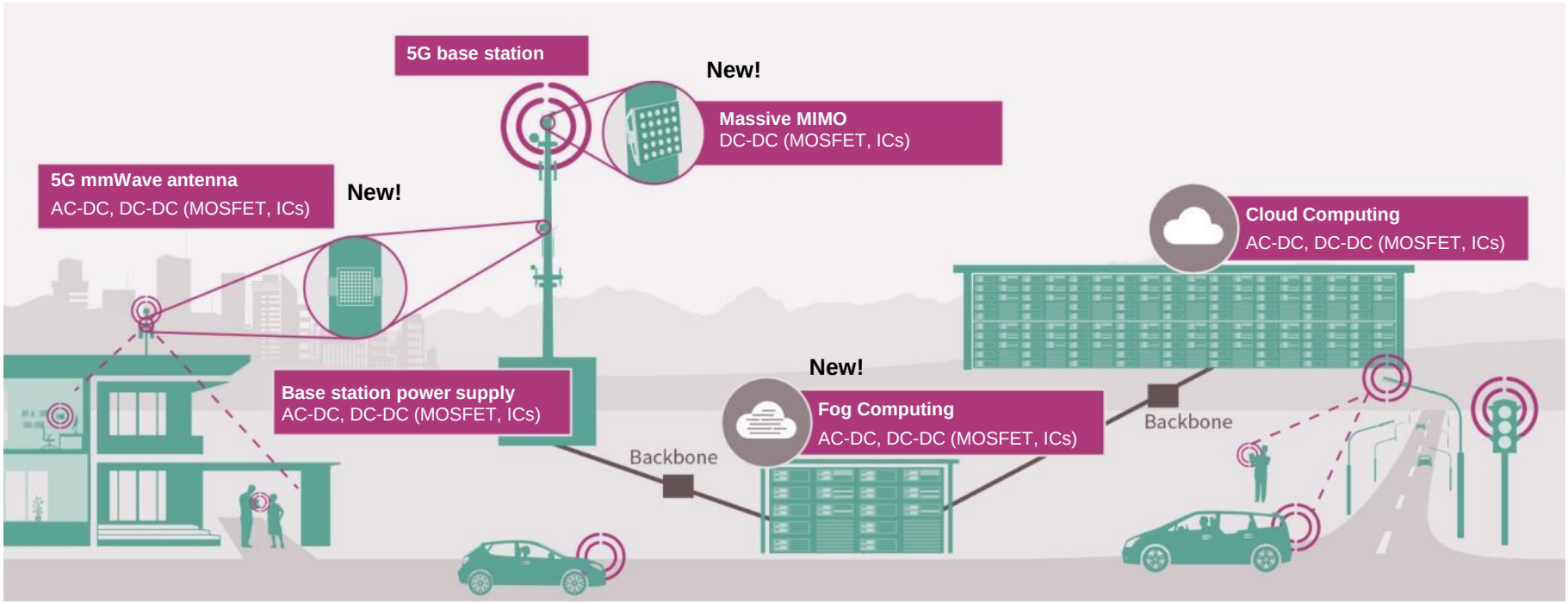
Premium products:

~15% higher ASP for MOSFETs and drivers

significant volume increase

In total battery-powered applications are a significant growth driver for PSS' power business

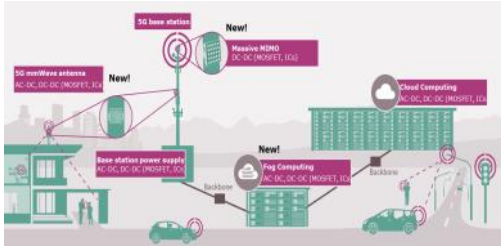
Transition from 3G/4G to 5G drives demand in power semis for antennas and power supplies



- driver #1: massive growth of data and computing power
- driver #2: higher number of base stations due to denser network
- driver #3: ~4x higher power semiconductor content per radio board:
  from ~$25 for MIMO antenna to ~$100 for massive MIMO antenna array
- driver #4: fog computing data center as a completely new market

What comes next?
Mid- to long-term structural growth opportunities

Core



5G infrastructure


hyperscale AI data center

new material

Adjacent


Courtesy: Nissan
on-board charger


power tools


home appliances

New area


collaborative robots


smart speaker


class D audio

PSS – RF and Sensing

RF and Sensing devices enable new services and will shape the way we live and work

Various use cases are enabled by a small set of versatile core technologies

Augmented Reality

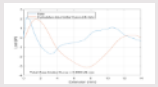
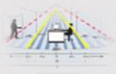

Voice-controlled devices


Gesture control


Commercial and consumer multicopters


Industrial robotics

We focus on MEMS sensors and target to become the leader in 3D sensing and radar

Microphone	Pressure	Environmental	3D radar	3D ToF
 No distortions	 Best-in-class resolution	 6x6mm² World smallest form factor	 Highest energy efficiency	 Best-in-class resolution
 Receive clear audio signals	 Measure height	 Measure CO2	 Biometrics	 3D mapping

Smart Ears, Smart Feeling, Smart Nose

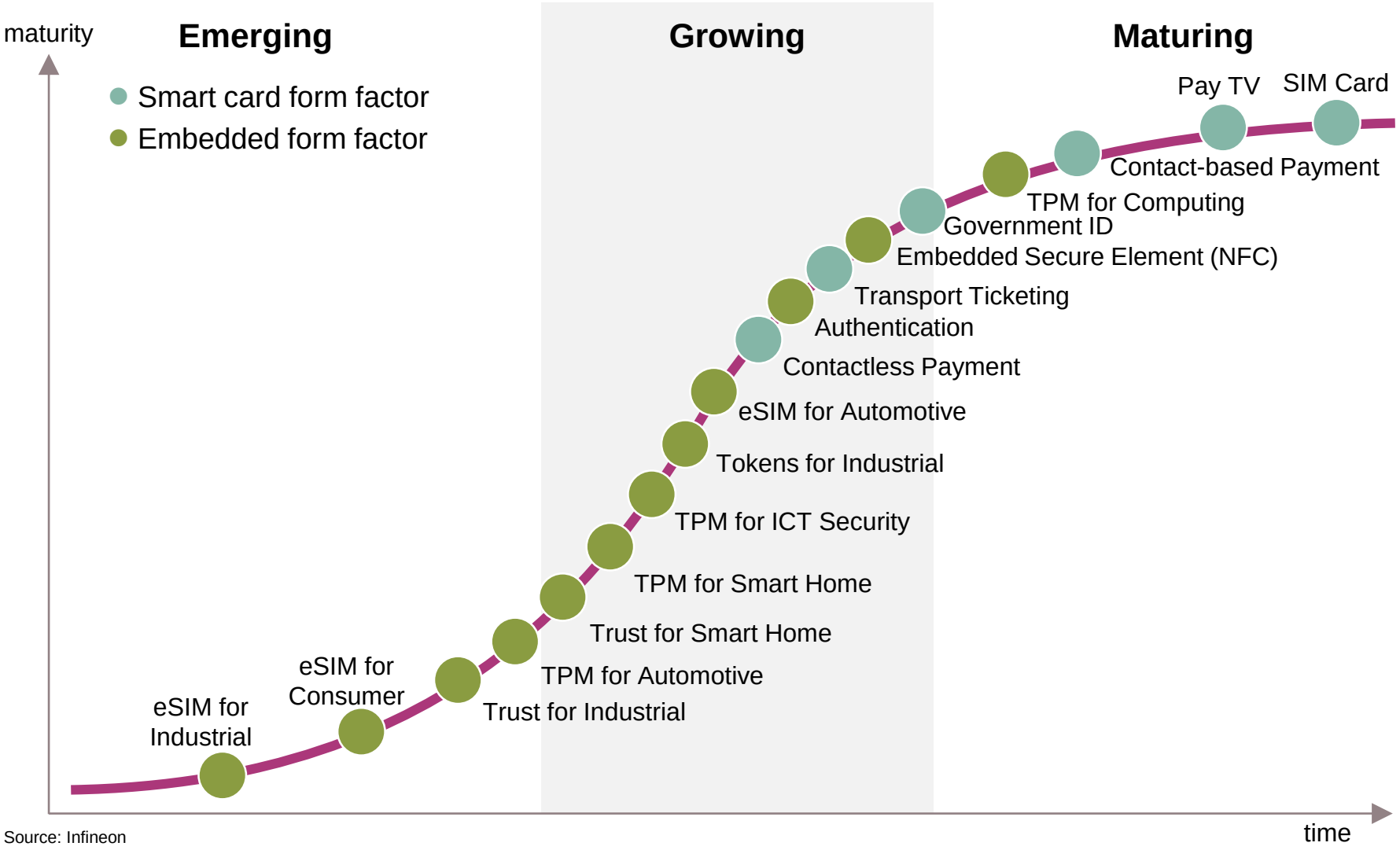
Smart Eyes & Sixth Sense

Key Use Cases – Examples

Voice authentication	Advanced fitness tracking	Smog alarm	Gesture sensing	3D AR gaming
			Face recognition & biometric identification	
Human Machine Interface				

Digital Security Solutions

Continuous stream of new topics aging and exiting



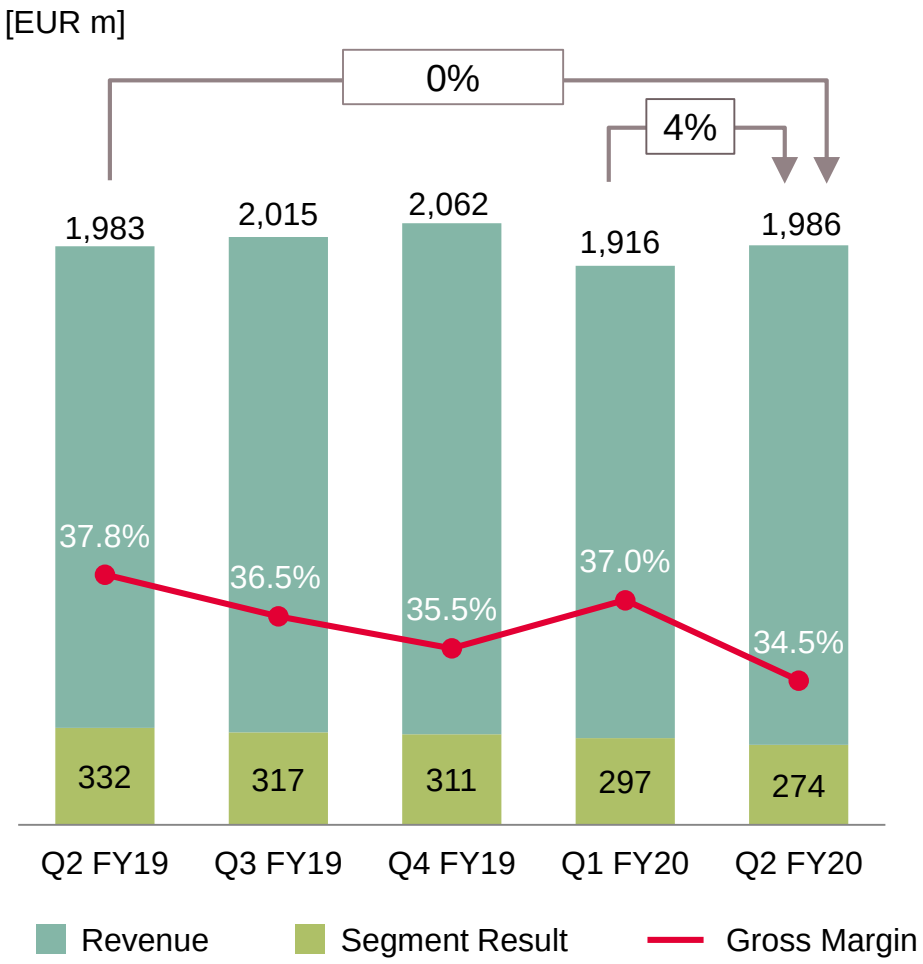
Source: Infineon

Agenda

1. Cypress becomes part of Infineon
2. ESG: targets and achievements
3. Automotive
4. Industrial Power Control
5. Power & Sensor Systems
6. Digital Security Solutions
7. Selected financial figures

Revenue increase in Q2 FY20 contributed from all four divisions

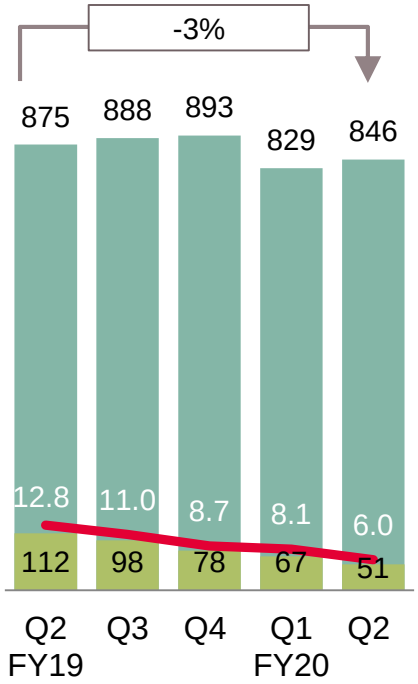
Revenue development



- Challenging market environment
- 4% q-q revenue increase
- Gross margin and segment result in Q1 benefited from a positive nonrecurring effect of approximate €36m

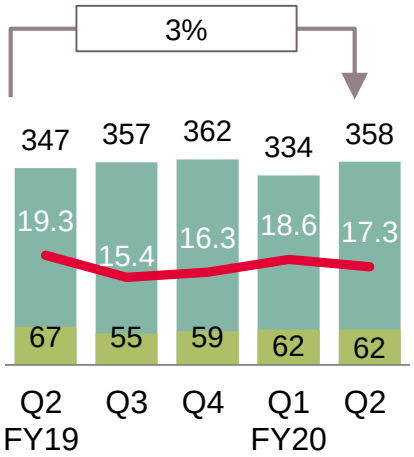
Q2 FY20 division performance

ATV
[EUR m]



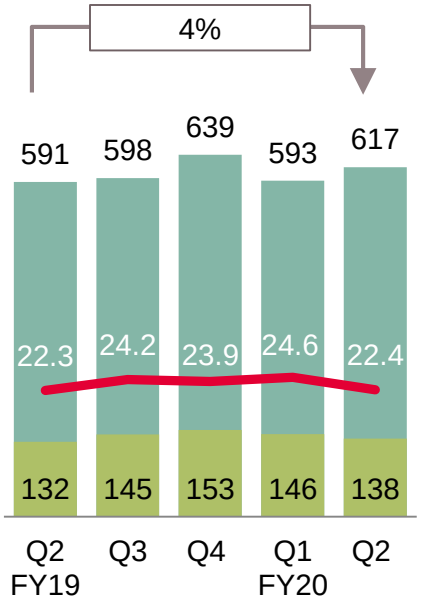
› Q2 FY20: Q-Q increase mainly due to a stronger demand for comfort electronics and microcontrollers

IPC
[EUR m]



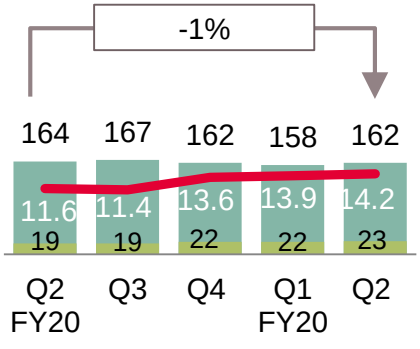
› Q2 FY20: Growing demand for wind turbines, home appliances and industrial drives. Solar and traction in line with previous quarter.

PSS
[EUR m]



› Q2 FY20: DC-DC power supply products and mobile device components showed a strong performance

DSS
[EUR m]

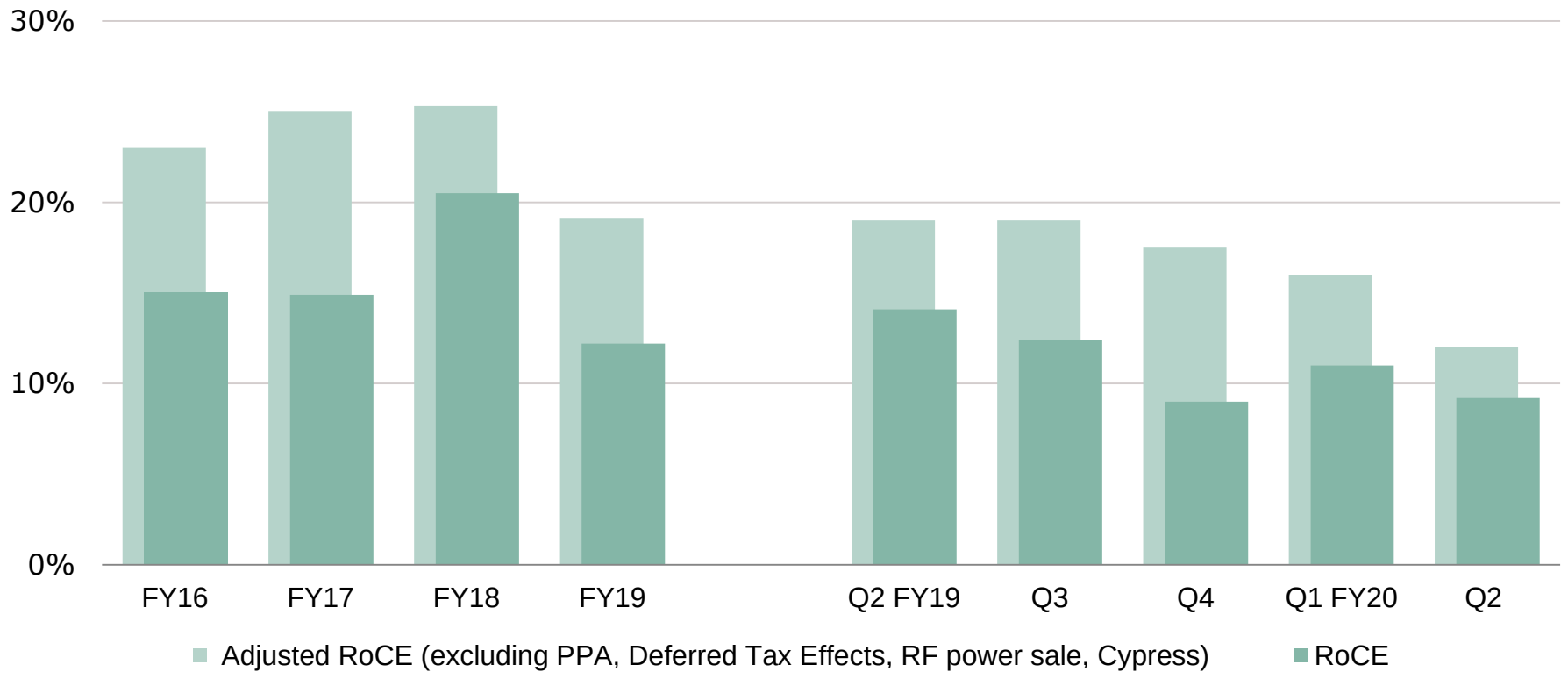


› Q2 FY20: Revenue growth in the areas of authentication as well as payment and ticketing

Revenue | Segment Result | Segment Result Margin in %

Adjusted RoCE above WACC

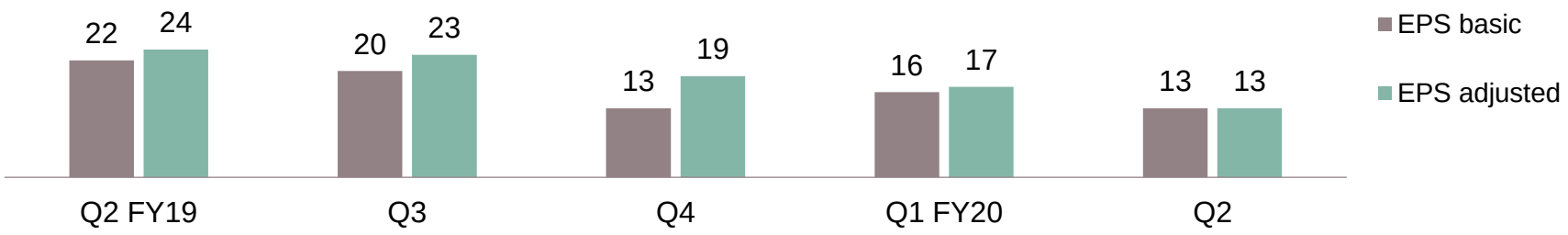
RoCE and adjusted RoCE



Earnings-per-share and total cash return

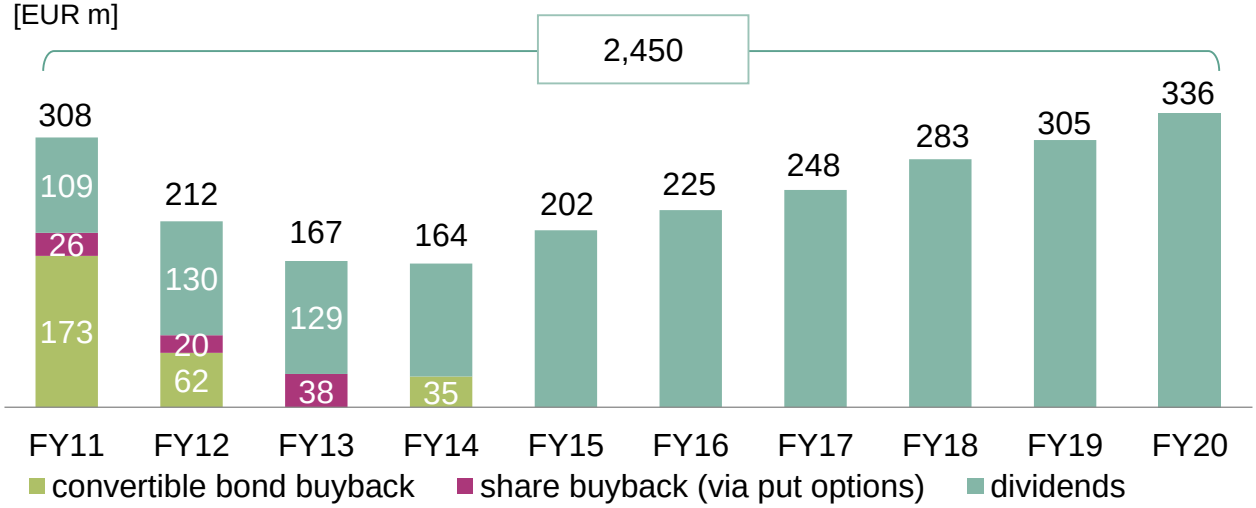
Development of earnings-per-share (EPS) from continuing operations

[EUR cent]



Total cash return to shareholders

[EUR m]

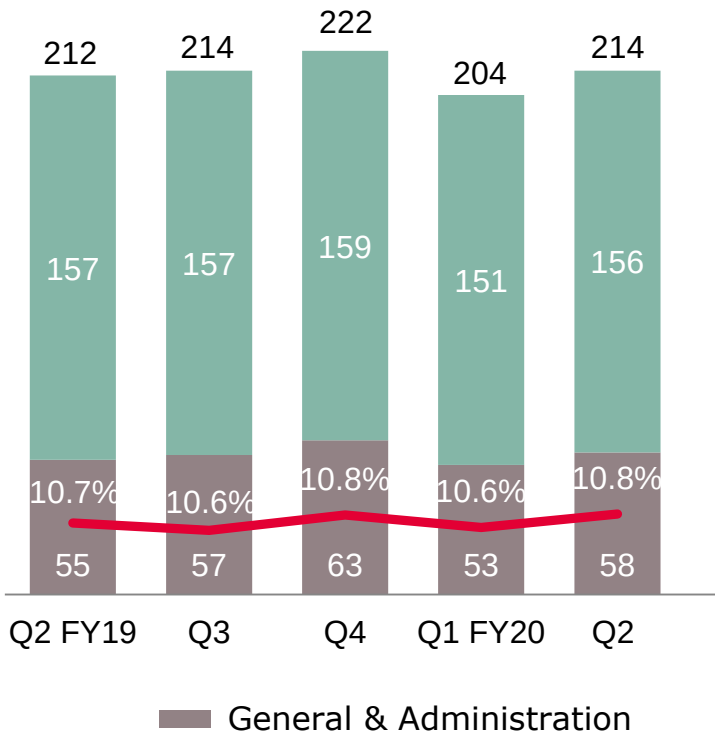


- Policy of sustainable dividend payout
- Dividend for FY19: €0.27 per share
- Dividend payout of €336m on 25 Feb 2020

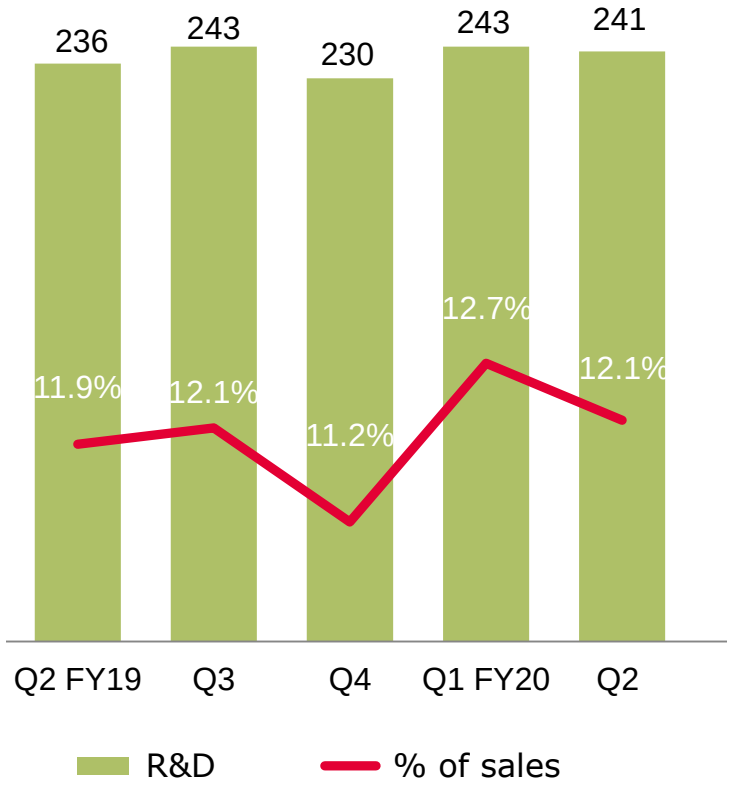
Opex within target range

Selling, General & Administration

[EUR m]



Research & Development*

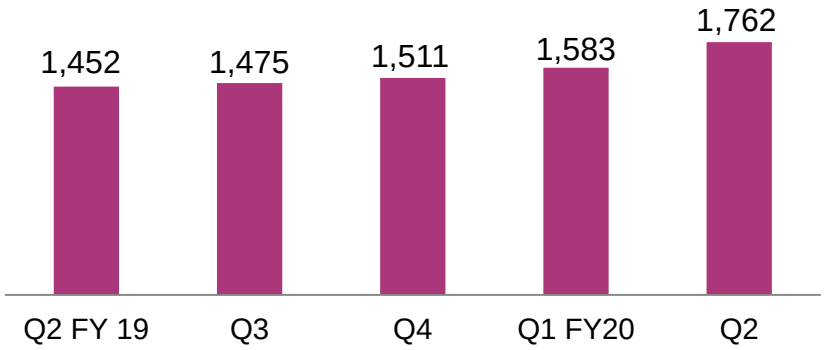


* In FY19, reported R&D expenses amounted to €945m, net of €111m of grants received and net of €125m of capitalized development costs.

Inventory coming down after reaching high in Q1

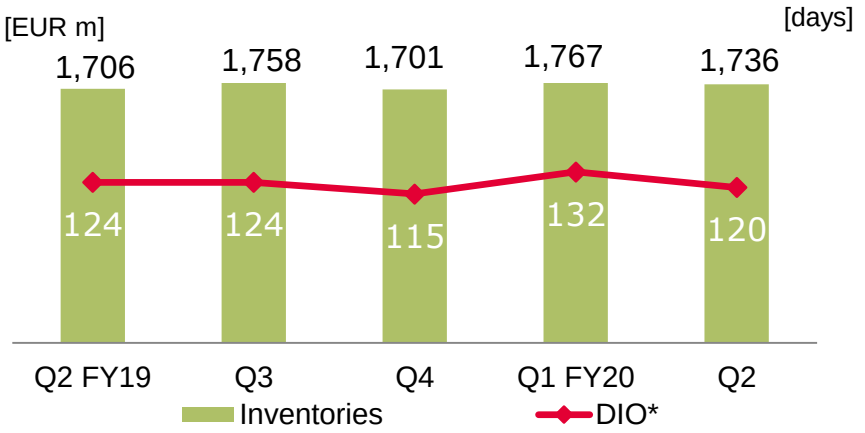
Working capital*

[EUR m]



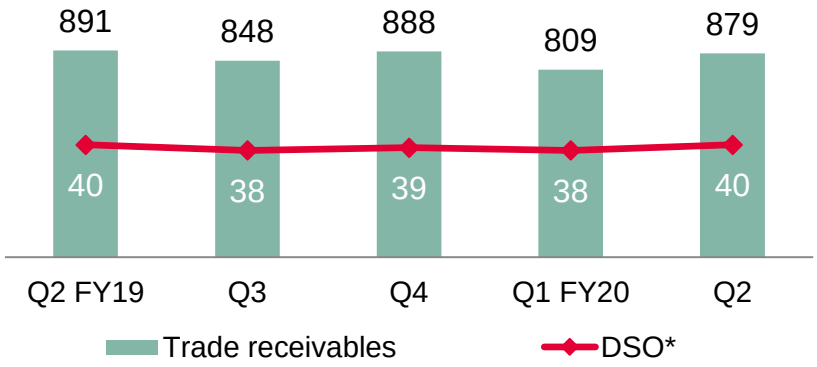
Inventories

[EUR m] [days]



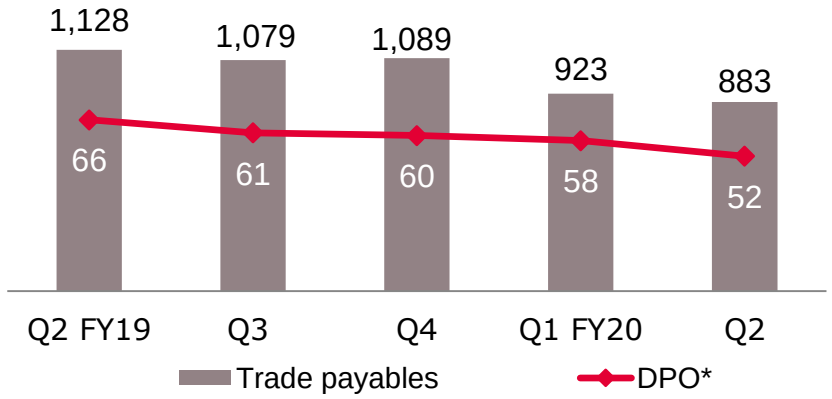
Trade receivables

[EUR m] [days]



Trade payables

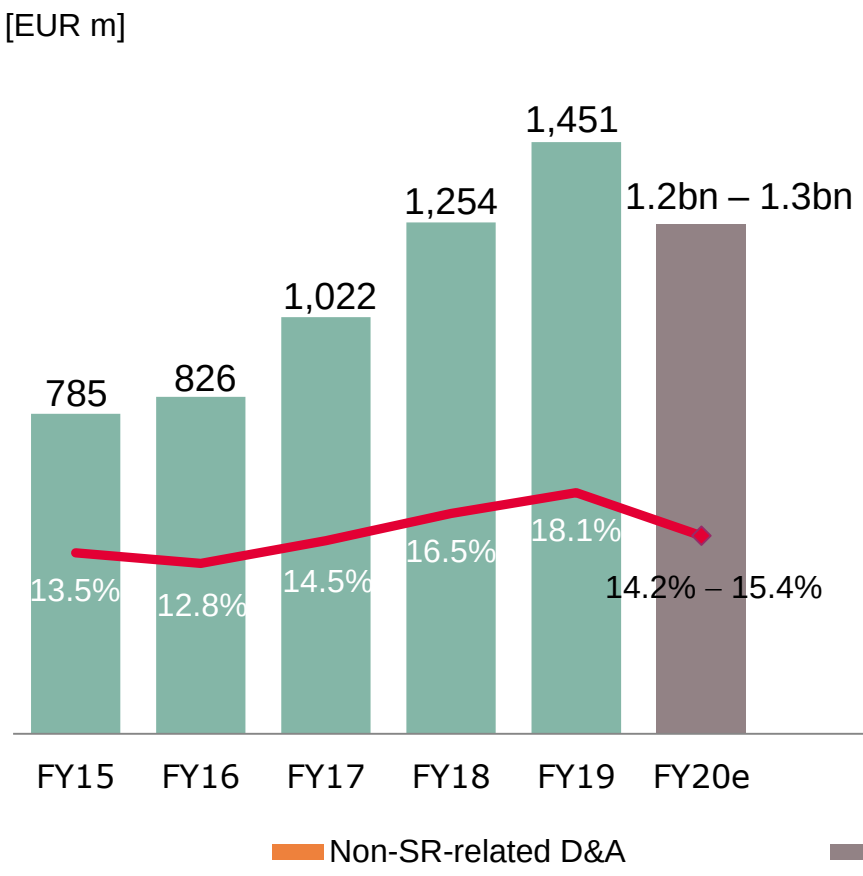
[EUR m] [days]



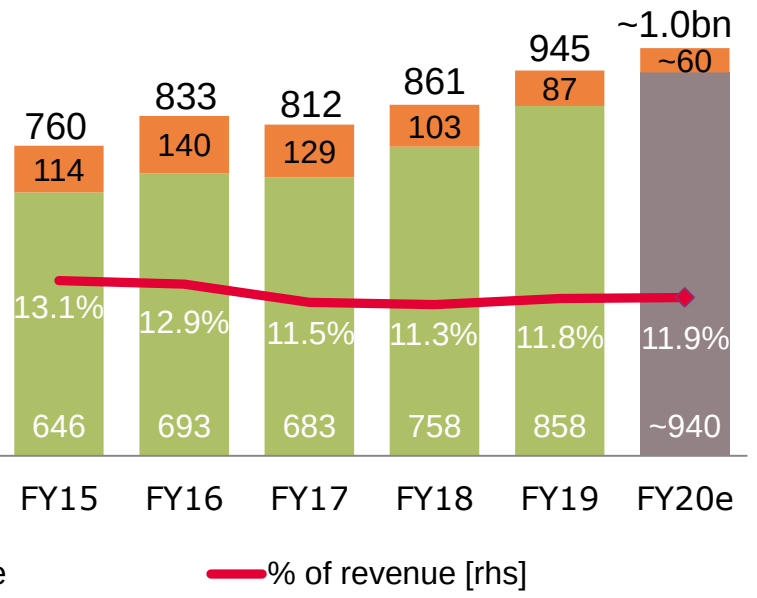
* For definition please see page "Notes".

Cycle management slows down investments

Investments*



Depreciation & Amortization

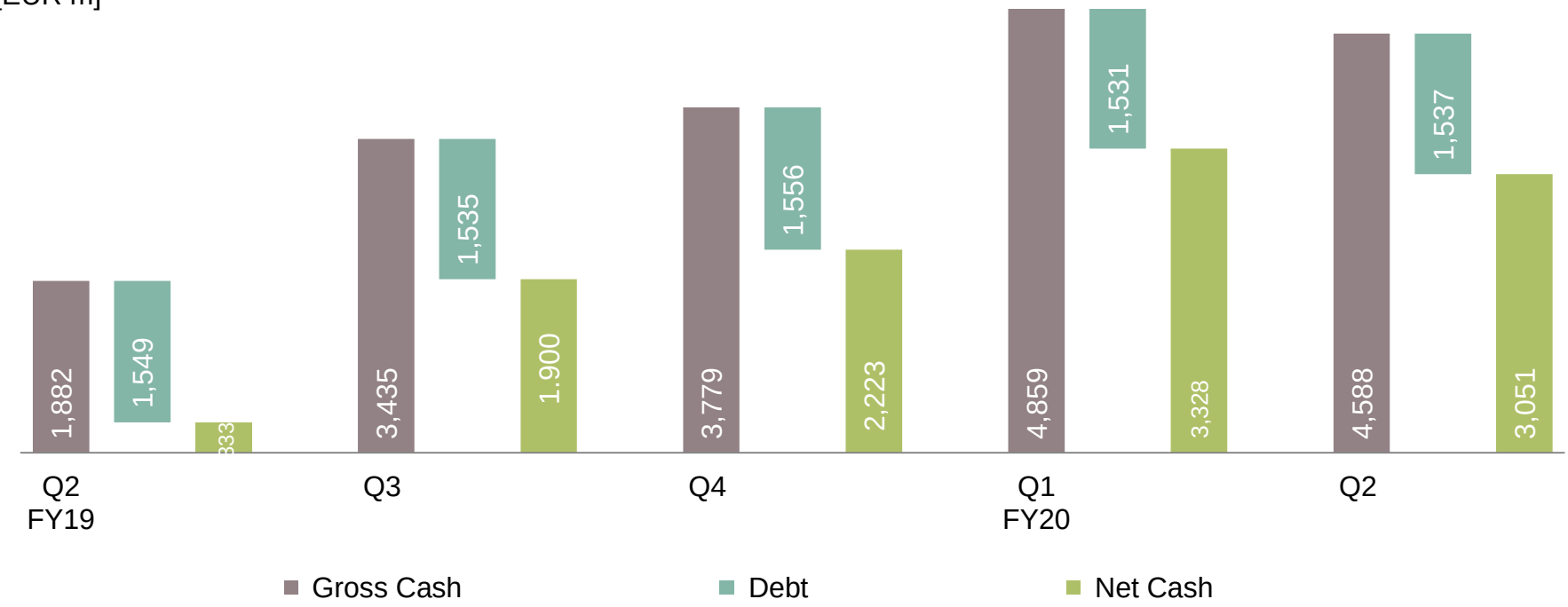


* For definition please see page "Notes".

Decrease in net cash reflects dividend payout

Liquidity development

[EUR m]



- Q3 FY19: Includes the proceeds of €1.5bn resulting from the capital increase executed on 18 Jun 2019 in connection with the planned acquisition of Cypress
- Q1 FY20: Proceeds from €1.2bn dual-tranche hybrid bond booked on 1 Oct 2019
- Q2 FY20: Dividend payout of €336m in February 2020

Part of your life. Part of tomorrow.

Glossary (1 of 2)

AC	alternating current
AC-DC	alternating current - direct current
AD	automated driving
ADAS	advanced driver assistance system
AEB	automatic emergency braking
AFS	advanced frontlight system
AI	artificial intelligence
AR	augmented reality
BEV	battery electric vehicle
BGA	ball grid array
BLE	Bluetooth Low Energy
BoM	bill of material
BT	Bluetooth
CPU	central processing unit
DC	direct current
DC-DC	direct current - direct current

DIY	do it yourself
DPM	digital power management
eCall	emergency call
ECU	electronic control unit
EPS	electric power steering
eSIM	embedded subscriber identity module
EV	electric vehicle
FPGA	field programmable gate array
GPU	graphics processing unit
HEV	mild and full hybrid electric vehicle
HMI	human machine interaction
HSM	hardware security module
HST	high-speed train
HW	hardware
ICE	internal combustion engine
IVN	in-vehicle networking

Glossary (2 of 2)

IPM	intelligent power module
iPoI	image processing line
IRF	International Rectifier
LSEV	low-speed electric vehicle
LSPS	LS Power Semitech Co. Ltd.
µC	microcontroller
MEMS	micro electro-mechanical systems
MHA	major home appliances
MIMO	multiple input, multiple output
micro-hybrid	vehicles using start-stop systems and limited recuperation
mild-hybrid	vehicles using start-stop systems, recuperation, DC-DC conversion, e-motor
MOSFET	metal-oxide silicon field-effect transistor
OBC	on-board charger
OEM	original equipment manufacturer
PHEV	plug-in hybrid electric vehicle
PoI	point-of-load
PV	photovoltaic
PSoC	programmable system-on-chip
RF	radio frequency
rhs	right-hand scale
Si	silicon
SiC	silicon carbide
SiGe	silicon germanium
SMPS	switch-mode power supply
SNR	signal-to-noise ratio
SOTA	software over-the-air
SRAM	static random access memory
SW	software
ToF	time-of-flight
TPM	trusted platform module
UPS	uninterruptible power supply
V2X	vehicle-to-everything communication
VR	virtual reality
VSD	variable speed drive
xEV	all degrees of vehicle electrification (EV, HEV, PHEV)

Disclaimer

Disclaimer

This presentation contains forward-looking statements about the business, financial condition and earnings performance of the Infineon Group.
These statements are based on assumptions and projections resting upon currently available information and present estimates. They are subject to a multitude of uncertainties and risks. Actual business development may therefore differ materially from what has been expected.
Beyond disclosure requirements stipulated by law, Infineon does not undertake any obligation to update forward-looking statements.

Specific disclaimer for Omdia – part of Informa Tech – reports, data and information referenced in this document:
The Omdia reports, data and information referenced herein (the “Omdia Materials – mostly former IHS Markit Technology Materials") are the copyrighted property of Informa Tech Research Ltd. and its subsidiaries or affiliates (together "Informa Tech") and represent data, research, opinions or viewpoints published by Informa Tech, and are not representations of fact. The Omdia Materials speak as of the original publication date thereof and not as of the date of this document. The information and opinions expressed in the Omdia Materials are subject to change without notice and neither Informa Tech nor, as a consequence, Infineon have any duty or responsibility to update the Omdia Materials or this publication as a result. Omdia Materials are delivered on an "as-is" and "as-available" basis. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in the Omdia Materials. To the maximum extent permitted by law, Informa Tech and its affiliates, IHS Markit and its Affiliates and their respective, officers, directors, employees and agents, disclaim any liability (including, without limitation, any liability arising from fault or negligence) as to the accuracy or completeness or use of the Omdia Materials. Informa Tech and/or IHS Markit will not, under any circumstance whatsoever, be liable for any trading, investment, commercial or other decisions based on or made in reliance of the Omdia Materials. The "IHS Markit" brand and logo have been licensed for use by Informa Tech. The "IHS Markit" brand and logo and any third-party trademarks used in the IHS Markit Technology Materials are the sole property of IHS Markit Group or their respective third-party owners.

Specific disclaimer for IHS Markit – reports, data and information referenced in this document:

The IHS Markit reports, data and information referenced herein (the "IHS Markit Materials") are the copyrighted property of IHS Markit Ltd. and its subsidiaries ("IHS Markit") and represent data, research, opinions or viewpoints published by IHS Markit, and are not representations of fact. The IHS Markit Materials speak as of the original publication date thereof and not as of the date of this document. The information and opinions expressed in the IHS Markit Materials are subject to change without notice and neither IHS Markit nor, as a consequence, Infineon have any duty or responsibility to update the IHS Markit Materials or this publication. Moreover, while the IHS Markit Materials reproduced herein are from sources considered reliable, the accuracy and completeness thereof are not warranted, nor are the opinions and analyses which are based upon it. IHS Markit and the trademarks used in the Data, if any, are trademarks of IHS Markit. Other trademarks appearing in the IHS Markit Materials are the property of IHS Markit or their respective owners.

Cover photography:
Deutscher Zukunftspreis 2015, laureate Infineon, photographer Ansgar Pudenz, Hamburg (Germany).

Financial calendar

Date	Location	Event
5 May 2020*		Q2 FY20 Results
7 May 2020		Call: IPC Business Update
13 – 14 May	Boston → virtual	JPM Global Technology, Media & Communications Conference
19 May 2020	London → virtual	JPM European TMT CEO Conference
27 May 2020	Milan → virtual	Equita Conference 2020
27 May 2020	New York → virtual	UBS Best of Europe 1-1 Conference
3 – 4 Jun 2020	Berlin → virtual	Deutsche Bank German, Swiss & Austrian Conference
9 – 10 Jun 2020	Paris → virtual	Exane 22nd European CEO Conference
4 Aug 2020*		Q3 FY20 Results
21 Sep 2020	Unterschleißheim (nearby Munich)	Berenberg Goldman Sachs German Corporate Conference
22 Sep 2020	Munich	Baader Investment Conference
6 Oct 2020		Call: ATV Business Update
9 Nov 2020*		Q4 FY20 and FY 2020 Results

* preliminary

Notes

Investments = 'Purchase of property, plant and equipment' + 'Purchase of intangible assets and other assets' incl. capitalization of R&D expenses

Capital Employed = 'Total assets' – 'Cash and cash equivalents' – 'Financial investments' – 'Assets classified as held for sale – ('Total Current liabilities' – 'Short-term debt and current maturities of long-term debt' – 'Liabilities classified as held for sale')

RoCE = NOPAT / Capital Employed
= ('Income from continuing operations' – 'financial income' – 'financial expense') / Capital Employed

Working Capital = ('Total current assets' – 'Cash and cash equivalents' – 'Financial investment' – 'Assets classified as held for sale') – ('Total current liabilities' – 'Short term debt and current maturities of long-term debt' – 'Liabilities classified as held for sale')

DIO (days inventory outstanding; quarter-to-date) = ('Net Inventories' / 'Cost of goods sold') * 90

DPO (days payables outstanding; quarter-to-date) = ('Trade payables' / ['Cost of goods sold' + 'Purchase of property, plant and equipment']) * 90

DSO (days sales outstanding; quarter-to-date) = ('Trade receivables' / 'revenue') * 90

Please note: All positions in ' ' refer to the respective accounting position and therefore should be applied with the positive or negative sign used in the relevant accounting table.

Most recent presentations

ATV Call
Peter Schiefer
8 October 2019

https://www.infineon.com/atv_call

IPC Business Update
Dr. Peter Wawer, Dr. Peter Friedrichs
7 May 2020

available on 7 May 2020

https://www.infineon.com/pcim_presentaion

IFX Day 2018
Capital Markets Day
London, 12 June 2018

https://www.infineon.com/ifxday_2018

Sustainability Report 2019
23 November 2019

https://www.infineon.com/sustainability_2019

Institutional Investor Relations contacts

Alexander Foltin

Corporate Vice President
Finance, Treasury & Investor Relations

+49 89 234-23766
alexander.foltin@infineon.com

Joachim Binder

Senior Director Investor Relations

+49 89 234-25649
joachim.binder@infineon.com

Isabell Diel

Manager Investor Relations

+49 89 234-38297
isabell.diel@infineon.com

Alexander Groschke

Senior Manager Investor Relations

+49 89 234-38348
alexander.groschke@infineon.com

Holger Schmidt

Senior Manager Investor Relations

+49 89 234-22332
holger.schmidt@infineon.com