

# First Quarter FY 2020 Quarterly Update

Infineon Technologies AG  
Investor Relations



# Agenda

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1

Infineon at a glance

2

Planned acquisition of Cypress

3

Quarterly highlights

4

Automotive

5

Industrial Power Control

6

Power Management & Multimarket

7

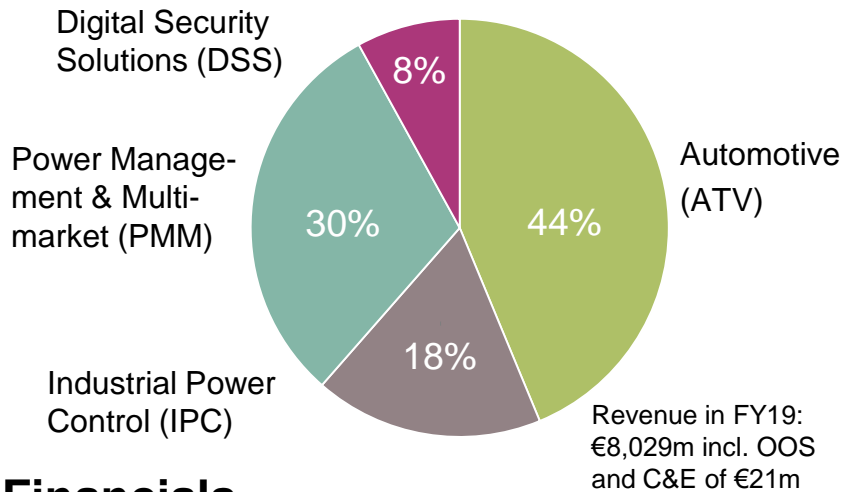
Digital Security Solutions

8

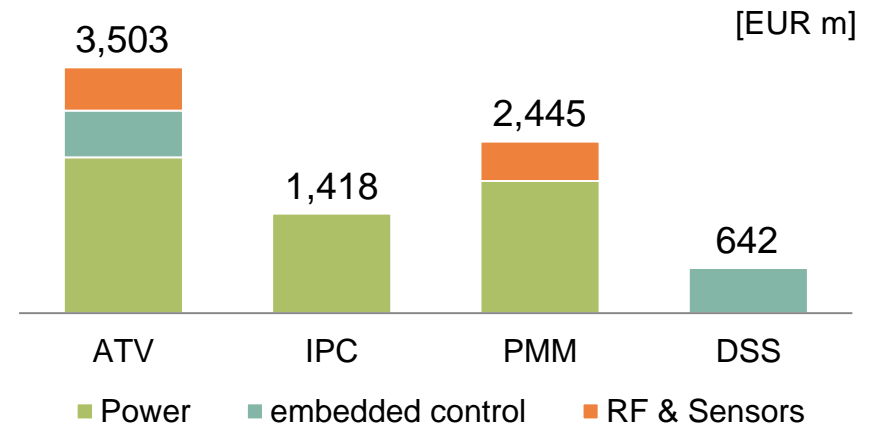
Selected financial figures

# Infineon at a glance

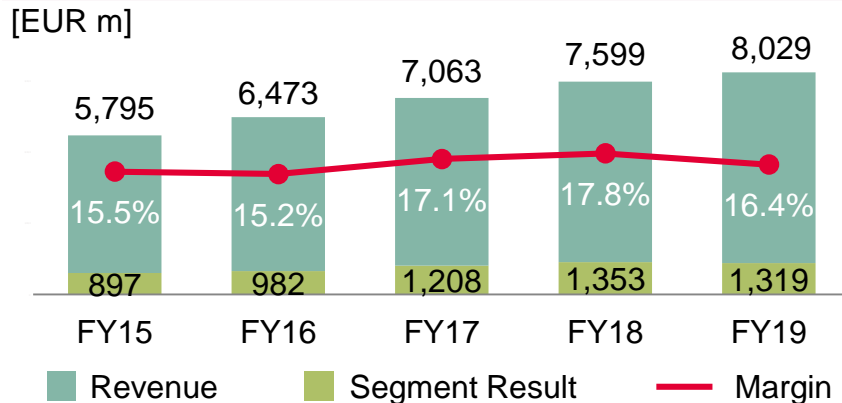
## FY19 revenue by segment



## FY19 revenue by product category



## Financials



## Market Position



# Infineon is a long-standing member of Europe's leading sustainability indices



## Infineon's most recent achievements



- › Feb 2019: Infineon is listed in the Sustainability Yearbook for the 9<sup>th</sup> consecutive year



- › Sep 2019: Infineon is listed in the DJS Index for the 10<sup>th</sup> consecutive year



- › Mar 2019: Sustainalytics rated Infineon as an Outperformer in its ESG rating, with an overall score of 76

- › Feb 2019: Infineon received a rating of "AA" (on a scale of "AAA" – "CCC") in the MSCI ESG Ratings assessment



FTSE4Good

- › Jul 2018: Infineon was added to the FTSE4Good Index Series in 2001 and has been confirmed as a member since then



- › Since 2014, Infineon has been publishing information on opportunities and risks due to climate change through the "Carbon Disclosure Project" (CDP)



- › Mar 2019: Infineon has been reconfirmed as a constituent of the Ethibel Sustainability Index (ESI) Excellence Europe



- › Mar 2019: Infineon has been reconfirmed for inclusion in the Ethibel EXCELLENCE Investment Register

# Our strategy is targeted at value creation through sustainable organic growth



| Focus  | Technology leadership  | System understanding   |
|--|--|--|
| <ul style="list-style-type: none"> <li>&gt; Focus on fastest growing segments of semi market</li> <li>&gt; Tackle global megatrends</li> </ul> | <ul style="list-style-type: none"> <li>&gt; Leverage core competencies in different end markets to maximize ROI</li> </ul> | <ul style="list-style-type: none"> <li>&gt; Create value for customers through system understanding</li> </ul> |

| Auto                        | Power                            | RF & Sensors                             | Security                 |
|-----------------------------|----------------------------------|--|--------------------------|
| System leader in automotive | #1; system and technology leader | Broad RF and sensor technology portfolio | #2 in Security Solutions |

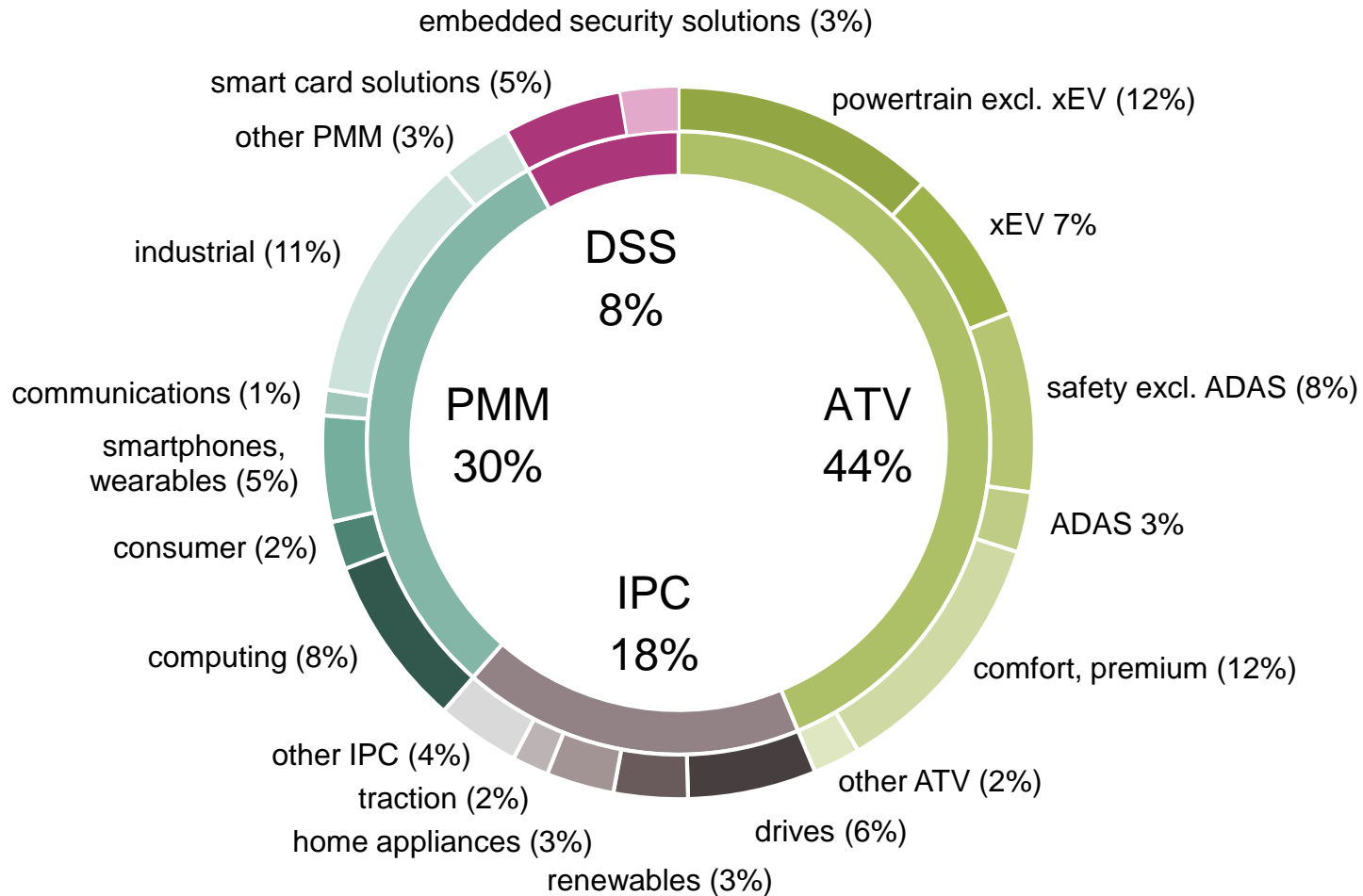
| Target operating model: average-cycle targets |                               |                            |
|---|-------------------------------|----------------------------|
| Revenue growth<br>9%                          | Segment Result margin<br>17%+ | Investment-to-sales<br>15% |

## Continued value creation for shareholders

|   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>&gt; Organic RoCE <math>\cong</math> ~2x WACC</li> </ul> | <ul style="list-style-type: none"> <li>&gt; Paying at least an unchanged dividend even in a year of slower or no growth</li> </ul> | <ul style="list-style-type: none"> <li>&gt; continuous EPS increase</li> </ul> |
|---|--|--|

# Well diversified exposure to end-markets and applications provide resilient growth model

## FY19 revenue of €8,029m by target application



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

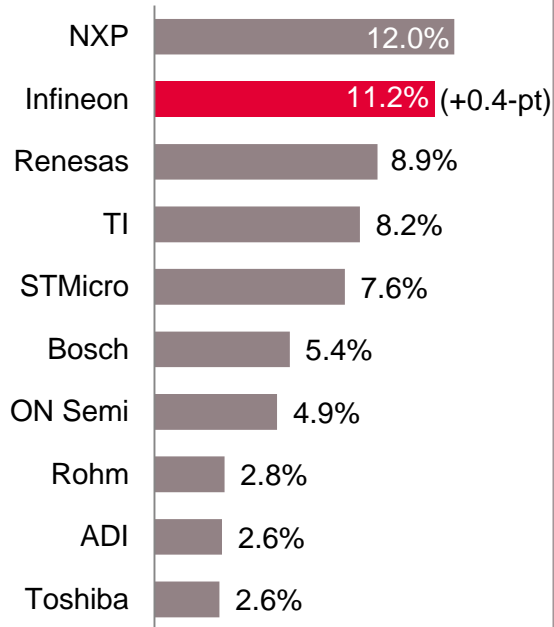


| ATV          | IPC | PMM                   | DSS |
|--------------|-----|-----------------------|-----|
|              |     |                       |     |
| EMS partners |     | Distribution partners |     |
|              |     |                       |     |

# Infineon gained market share in all target markets

## Automotive semiconductors

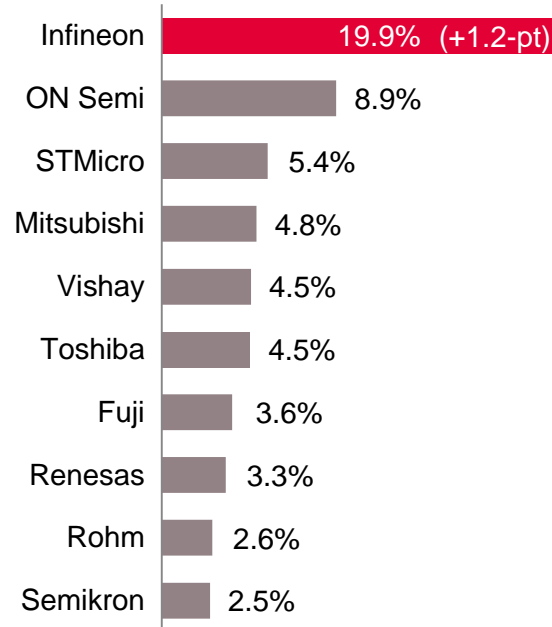
total market in 2018: \$37.7bn



Source: Strategy Analytics, "2018 Automotive Semiconductor Vendor Share", April 2019

## Power discretes and modules

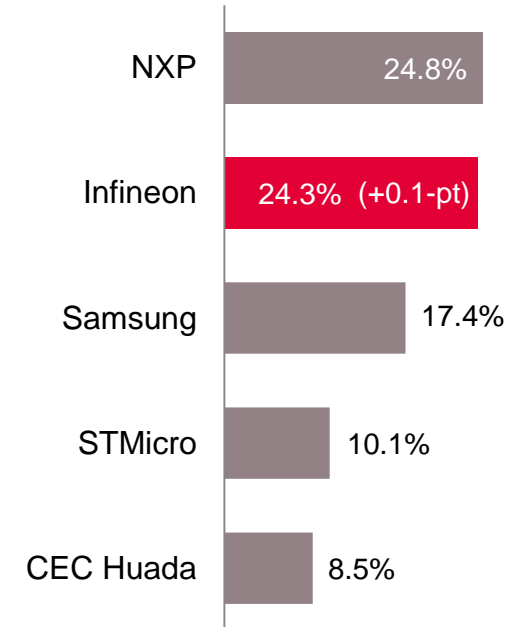
total market in 2018: \$21.0bn



Source: Based on or includes content supplied by Informa Tech (former IHS Markit Technology), "Power Semiconductor Market Share Database – 2018", September 2019

## Security ICs

total market in 2018: \$3.2bn



Source: ABI Research, "Secure Smart Card and Embedded Security IC Technologies", September 2019



# Outlook for Q2 FY20 and FY20

|                       | Outlook Q2 FY20*<br>(compared to Q1 FY20)         | Outlook FY20*                                     |
|-----------------------|---|---|
| Revenue               | Increase of 5%<br>+/- 2%-points                   | Increase of 5%<br>+/- 2%-points                   |
| Segment Result Margin | At the mid-point of the revenue guidance:<br>~14% | At the mid-point of the revenue guidance:<br>~16% |
| Investments in FY20   |   | ~€1.3bn**   |
| D&A in FY20           |   | ~€1.0bn***  |

\* Based on an assumed average exchange rate of \$1.13 for €1.00

\*\* Includes ~€400m for cleanroom, office buildings and structural changes

\*\*\* Including D&A on tangible and intangible assets from purchase price allocation of about €60m

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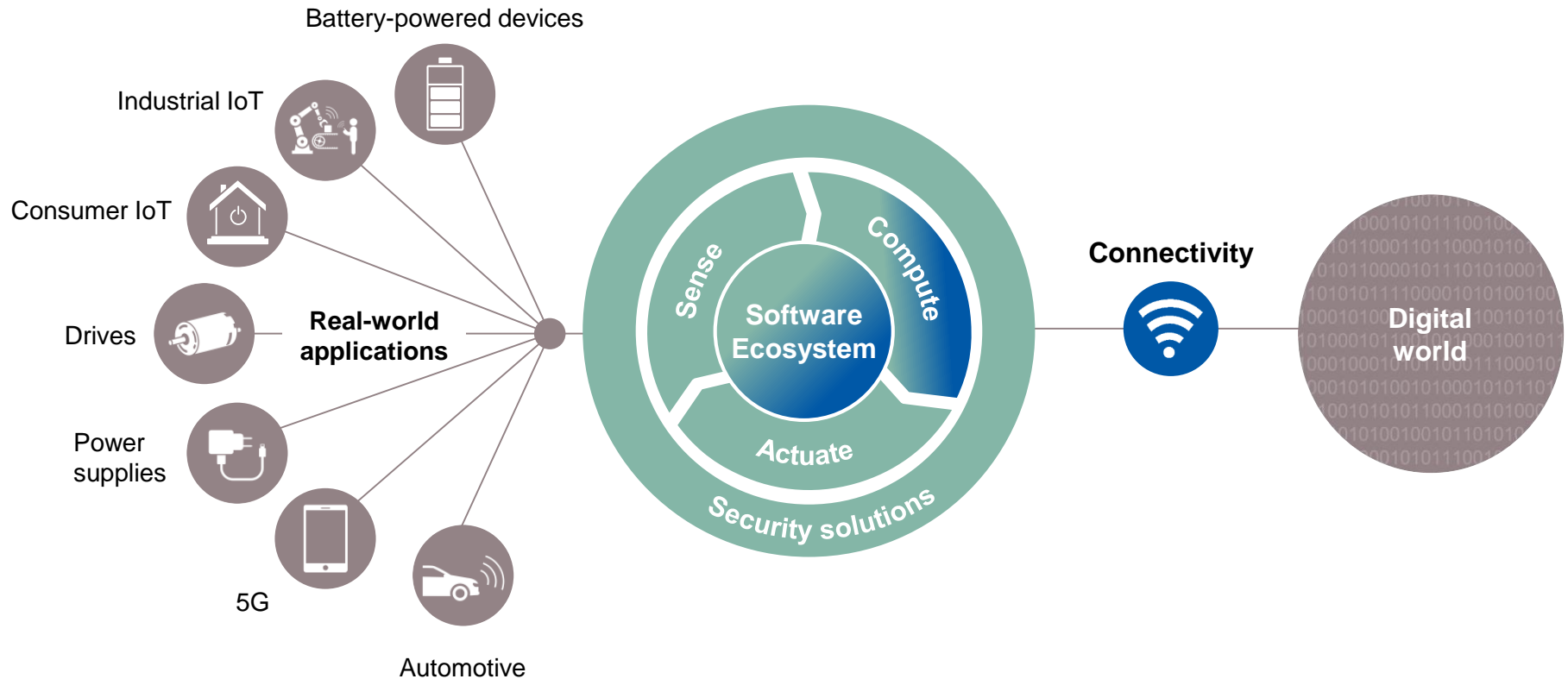
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8

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# The deal shapes a portfolio that perfectly links the real and the digital world

## Linking the real and the digital world



■ Infineon   ■ Cypress

Sense → sensors

Compute → microcontrollers, memories

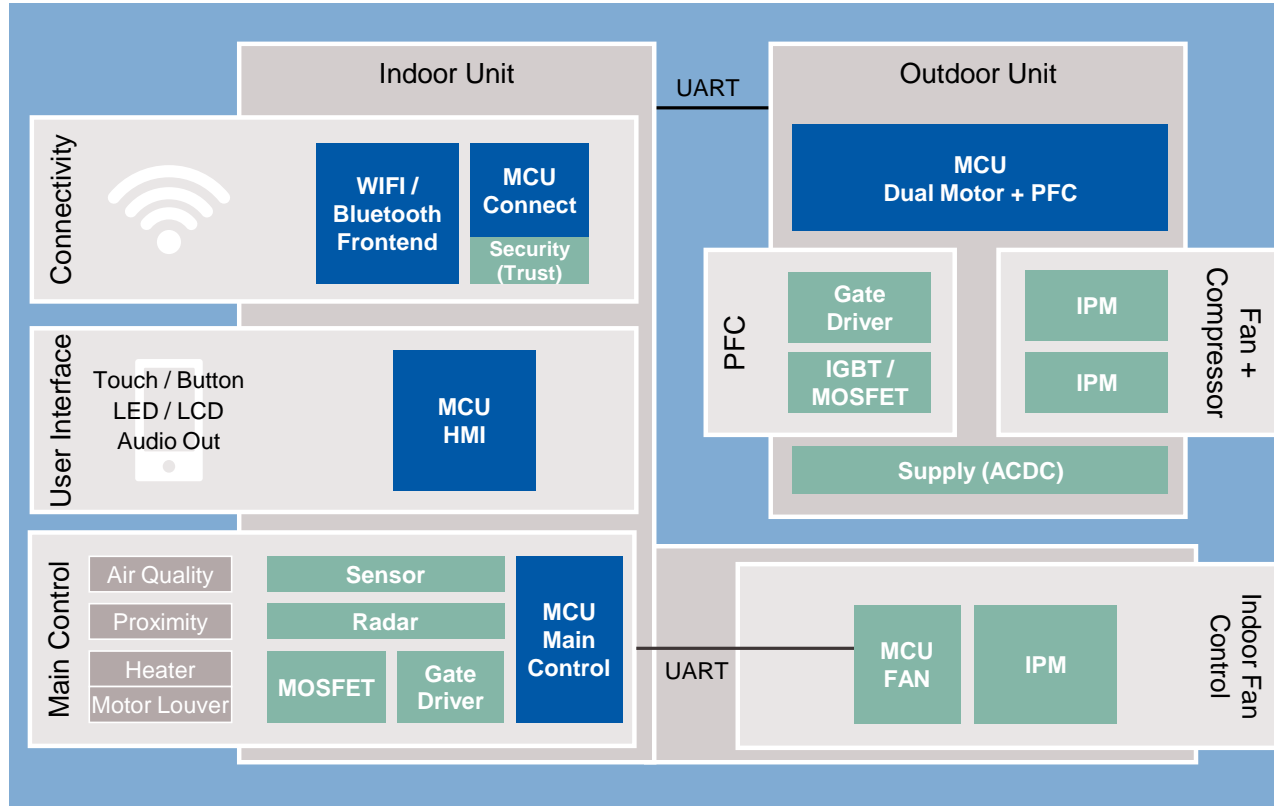
Actuate → power semiconductors

Connectivity → Wi-Fi, Bluetooth, BLE, USB/USB-C/USB-PD

# Infineon and Cypress can together offer full system solutions



## Example: air-conditioning



### What makes system solution attractive to customers?

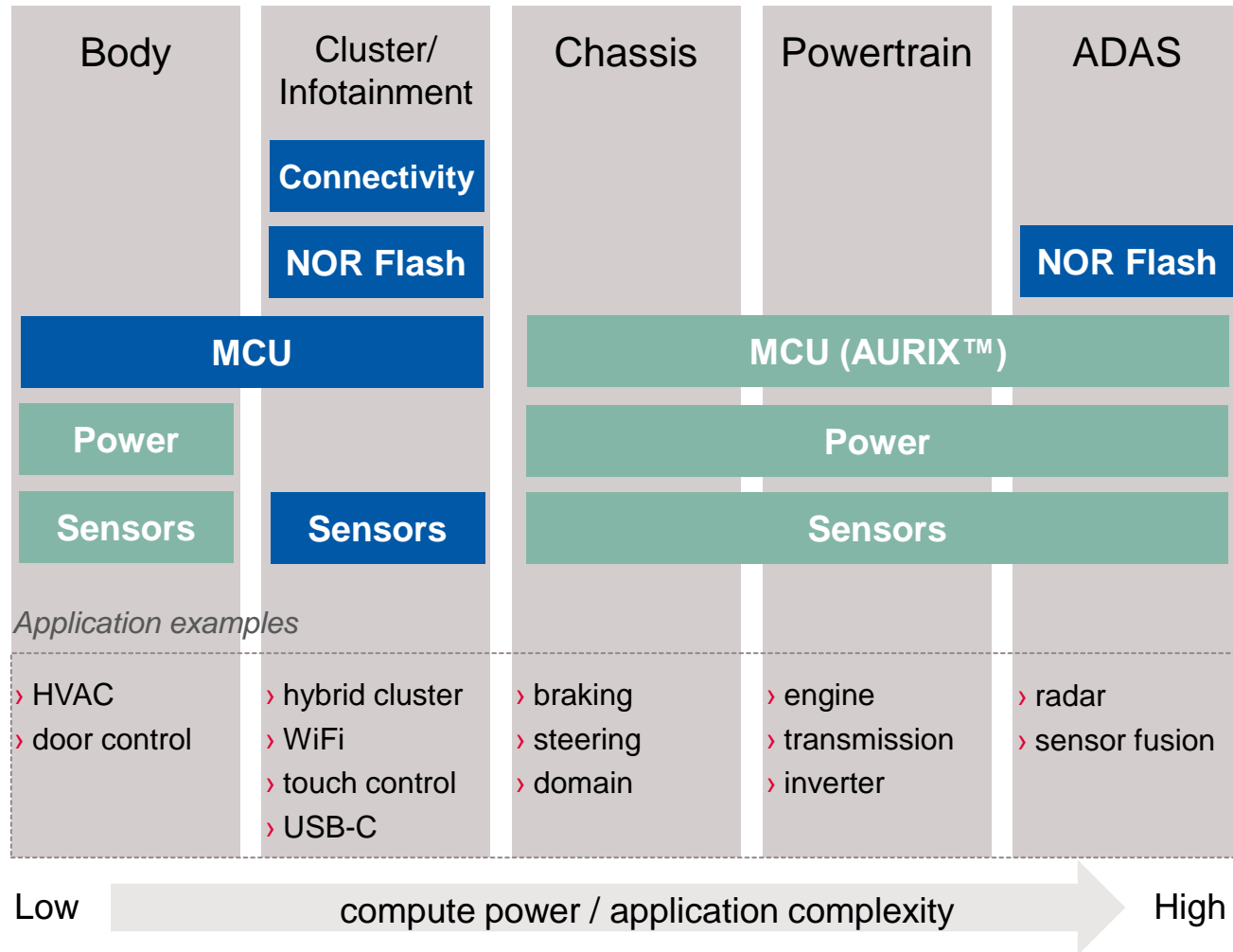
- > **Ease of design**  
⇒ combined portfolio covers all relevant system components
- > **Superior quality**  
⇒ integrated solution ensures MCU, power stage and peripherals work perfectly together
- > **Faster time-to-market**  
⇒ no addl. integration or software dev. costs



# Infineon and Cypress portfolios complement each other covering entire range of auto applications



## Full coverage of all application fields within automotive



## Benefits of combination

**Creating the #1 auto semi vendor**

**Complementary MCU portfolio results in:**

- > broader customer access
- > cross-selling opportunities

**Portfolio expansion through:**

- > connectivity (Wi-Fi, Bluetooth, USB-PD)
- > external NOR flash for processors in cars

Legend

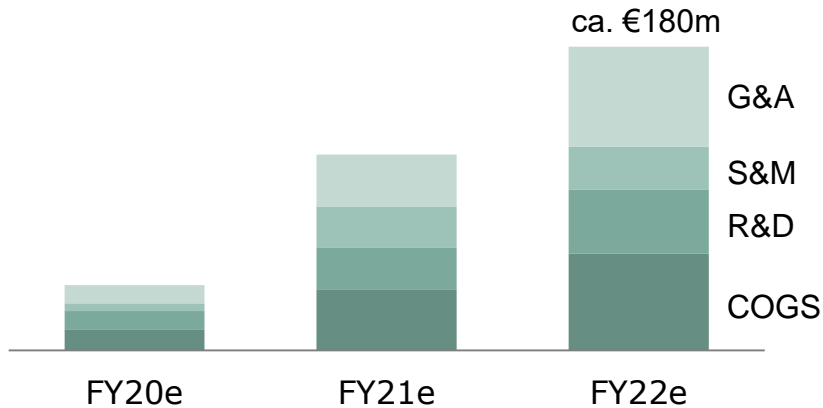


# Expected cost synergies of ca. €180m p.a. by FY22

## Revenue synergy potential > €1.5bn p.a. long-term



### Planned ramp up of cost synergies



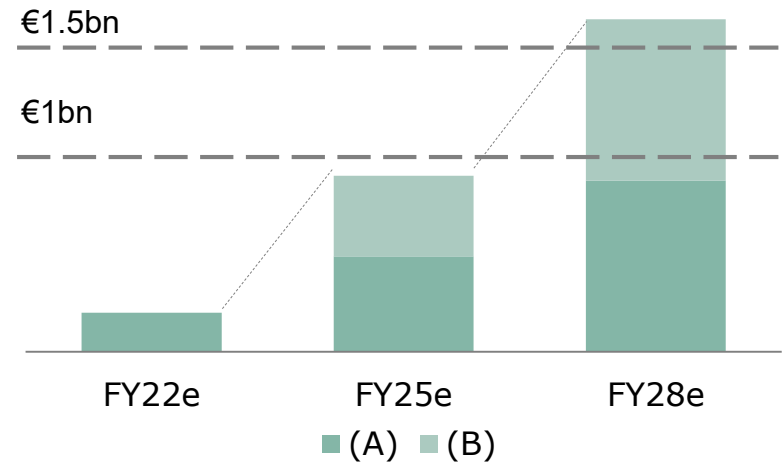
#### COGS

- > 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

### 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 solutions
- > Security-hardened controllers and connectivity
- > Motor control solutions

# Further improvement of through-cycle Target Operating Model

|                       |  | Current<br>(as announced<br>at CMD 2018) | > | Integrated<br>company* |
|-----------------------|--|--|---|------------------------|
| Revenue growth        |   | 9%                                       | > | 9%+                    |
| Segment result margin |   | 17%+                                     | > | 19%                    |
| Investment-to-sales   |  | 15%                                      | > | 13%                    |

\* Infineon financial performance to approach new targets as integration progresses

# Financing: Major steps already accomplished

|        |   |   |
|--------|---|---|
| STEP 1 | Underwriting of full acquisition amount by 3 banks  | ✓ |
| STEP 2 | Confirmation of investment grade rating by Standard & Poor's  | ✓ |
| STEP 3 | Equity de-risking: Raise of €1.5bn via ABB  | ✓ |
| STEP 4 | Successful syndication of acquisition facility to 20 national and international banks   | ✓ |
| STEP 5 | Successful launch of €1.2bn dual-tranche hybrid bond  | ✓ |
| NEXT   | <ul style="list-style-type: none"><li>› Refinancing of remaining bridge and term loan through capital markets</li><li>› Deleveraging: return to target level <math>\leq 2x</math> gross debt / EBITDA in 2023</li></ul> |   |



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# Major European tier-1 awards Infineon with triple-digit million Euro design-win for 48 V mild-hybrid platform

## Electro-mobility: Infineon enforces footprint

- > Through deep understanding of our customer system requirements, we developed a new product combining the latest 80 V MOSFET technology and the new TOLT package featuring top-side cooling
- > The top-side cooling concept significantly improves thermal management by enabling the heatsink to be connected directly to the top of the component instead of having the thermal dissipation through the printed circuit board
- > Application: starter generator for 48 V mild-hybrid vehicles

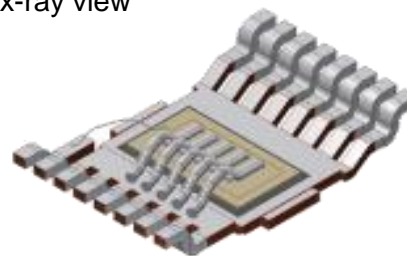
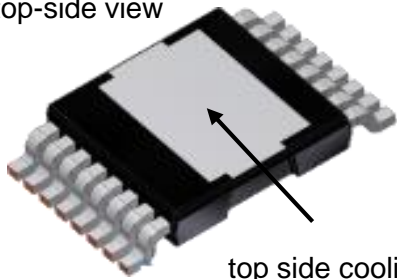


## TOLT package

top-side view

bottom-side view

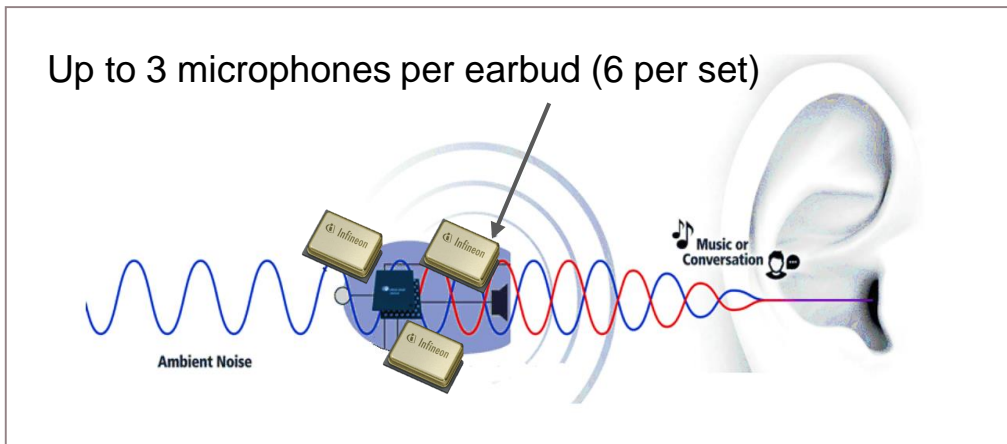
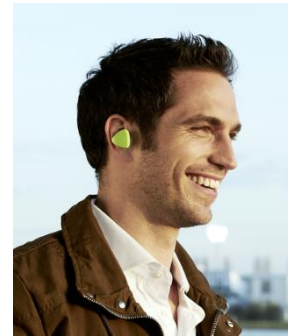
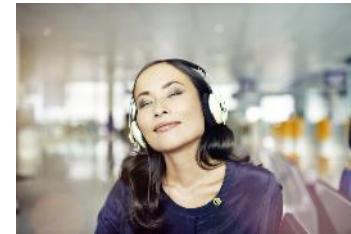
x-ray view



top side cooling pad

# Defining the benchmark for MEMS microphones; Infineon's new sealed dual-membrane technology

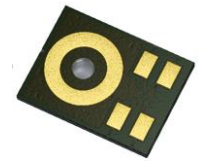
- > Unique sealed dual-membrane (SDM) XENSIV™ MEMS microphone design boosts audio pick-up quality
- > Sealing of the capacitive area enables practically noise-free audio signal capturing
- > Inhouse developed packages enable our customers to create outstanding audio experiences:
  - > noise cancellation: in the smallest possible form factor
  - > transparent hearing: clear understanding
  - > binaural recording: create a truly immersive experience



## XENSIV™ SDM MEMS microphone



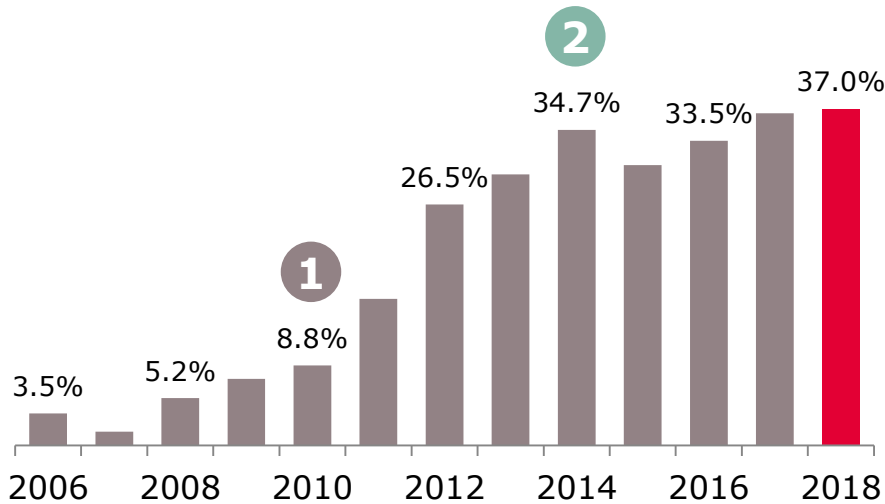
top view



bottom view

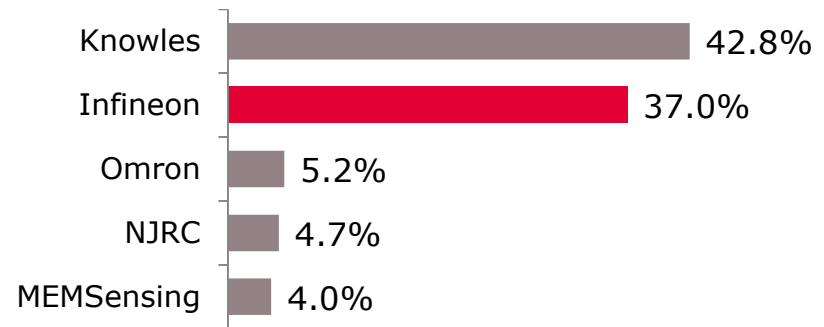
# Sweeping success of our XENSIV™ MEMS microphones driven by unparalleled audio characteristics

## Infineon's market share development in MEMS microphones



### 2018 MEMS die market share

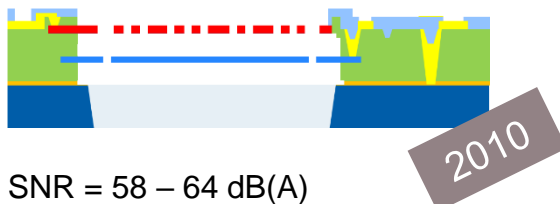
total market: 4.6bn units



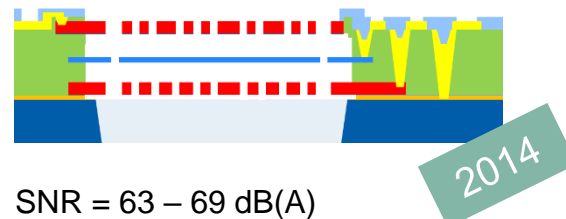
Source: Informa Tech, "MEMS Microphone Database 2019", January 2020

## Technological progression of Infineon XENSIV™ MEMS microphones

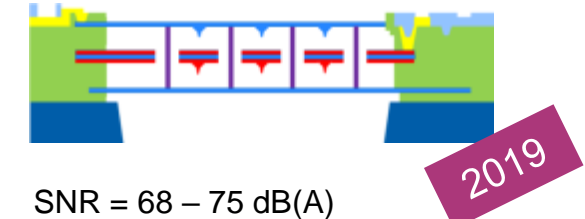
### 1 Single-back plate



### 2 Dual-back plate



### 3 Sealed dual-membrane

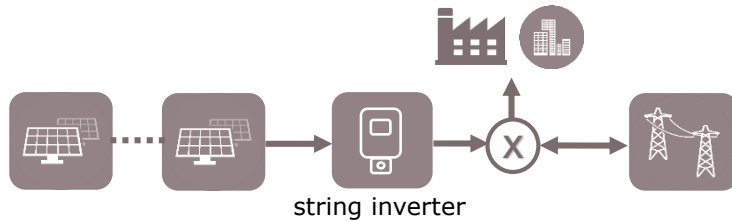


While photovoltaic is partially in grid parity, there is a clear trend towards string inverter-based set-ups

## Market developments

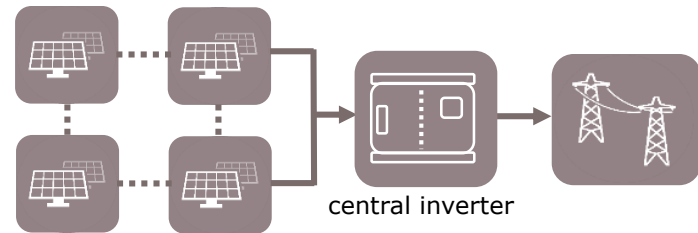
- > Approaching grid parity through reduced capex and opex spending
- > Different inverter concepts allow for efficient and customized plant designs

### New set-up: string inverter

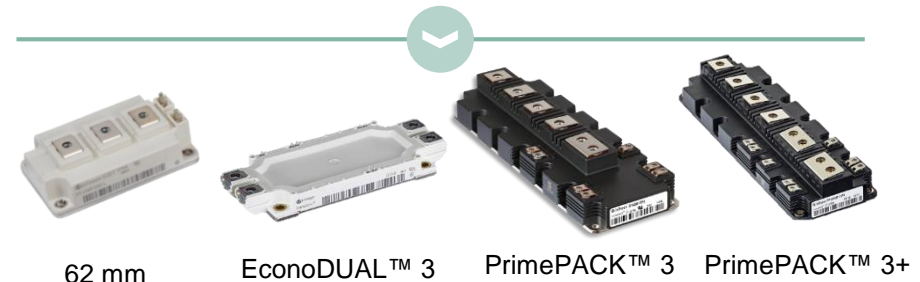
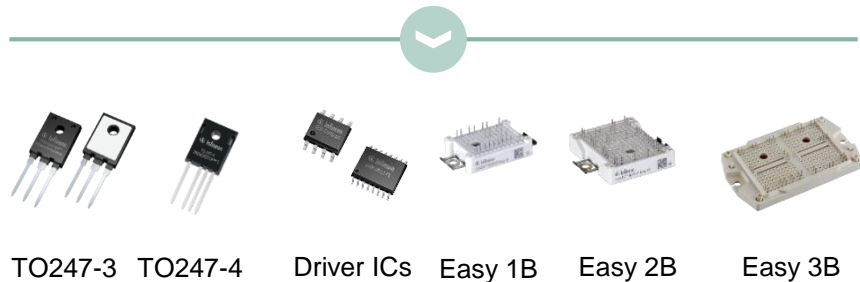


- > solar panels are connected together into strings
- > application: commercial and utility-scale PV plants
- > output: 1 kW – 200 kW
- > power semi content: €2,500 – €5,000 per MW

### Traditional set-up: central inverter



- > multiple strings of solar panels are connected together
- > application: utility-scale PV plants
- > output: 600 kW – 1,250 kW
- > power semi content: €2,000 – €3,000 per MW



Infineon provides innovative SiC products to SMA, the European market leader of PV inverters

## Customer-specific SiC-based solution

- › Almost doubles the power density to 1.76 kW/kg
- › Efficiency of > 99%
- › Leads to reduced system complexity of the PV inverter resulting in easier maintenance and extended product lifetime

SiC

## SMA Sunny Highpower PEAK3

- › 150 kW output power per unit
- › Designed for decentralized photovoltaic power plants
- › Compact inverter design: Easy transportation and installation

6x



CoolSiC™ EasyPACK™ 2B



36x



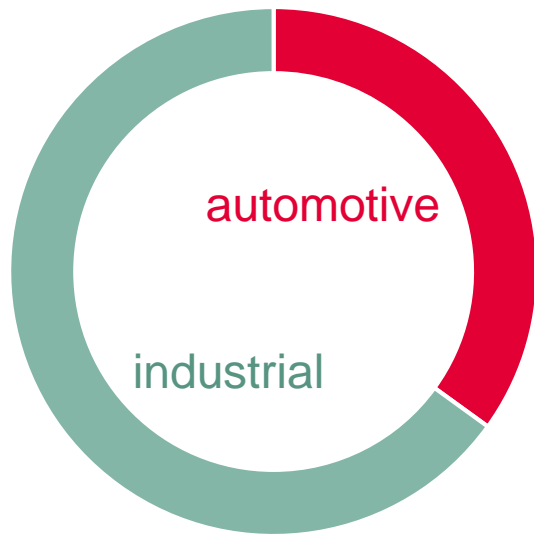
Gate drivers of the EiceDRIVER™ family



Sunny Highpower PEAK3

# Infineon's SiC business so far dominated by industrial; design-in momentum clearly on automotive

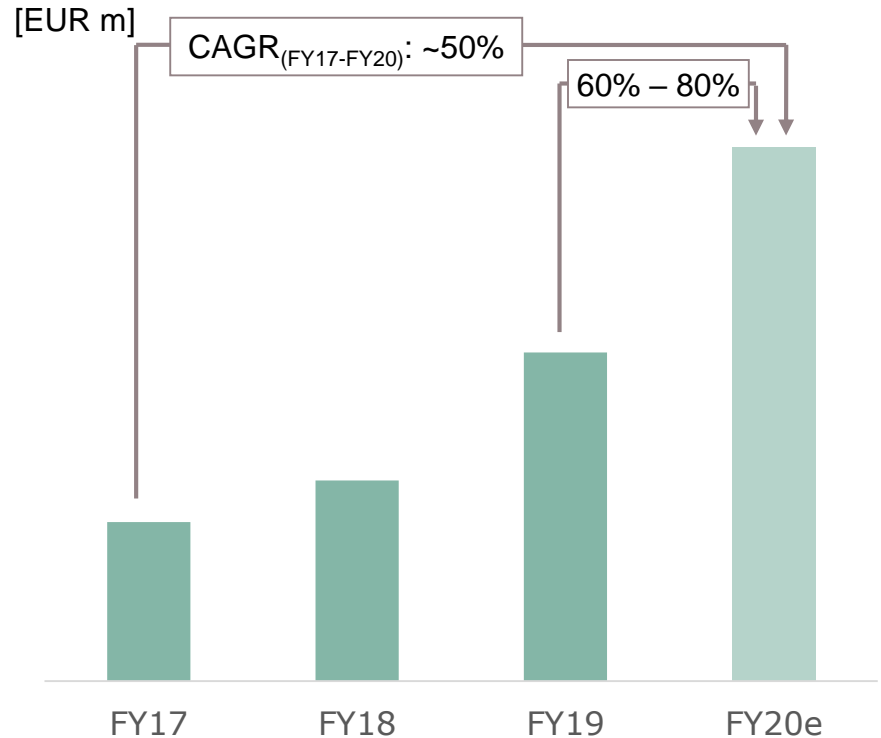
## Cumulated SiC design-ins of ~€1.8bn\*



- > automotive: diodes, MOSFETs, MOSFET modules
- > industrial (IPC): diodes, MOSFETs, hybrid modules, MOSFET modules
- > industrial (PMM): diodes, MOSFETs

\* as per end of FY19; \*\* only customers with > €10k revenue considered

## Strong growth in SiC business; very balanced product and customer portfolio



- > > 125 different CoolSiC™ products in FY19
- > ~ 90 different customers\*\* in FY19
- > ~ triple-digit €m revenue expected for FY20



# Automotive

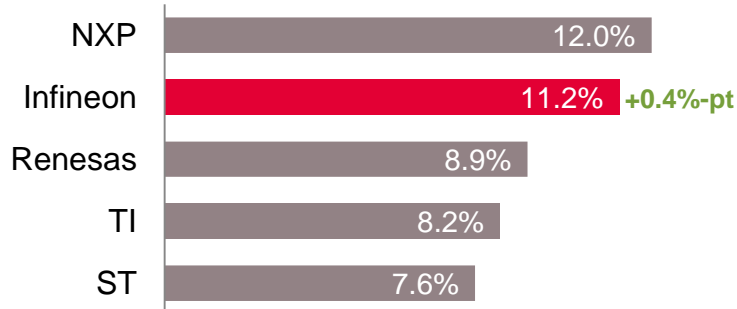




# Infineon's position in the automotive semiconductor universe

## Automotive semiconductors

total market in 2018: \$37.7bn

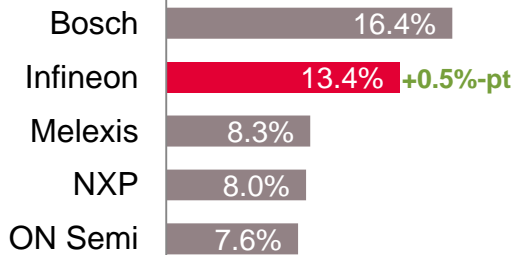


Market share trend: Infineon benefits disproportionately from the two mega trends



- > electro-mobility: power, drivers,  $\mu$ C
- > automated driving: radar,  $\mu$ C

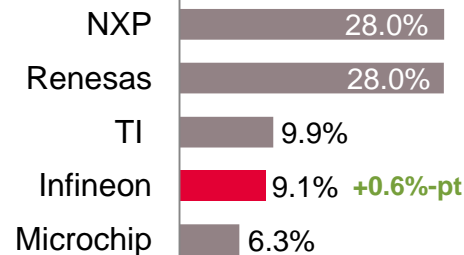
## Sensors



long-term drivers:

- > 24 / 77 GHz radar
- > comfort
- > safety

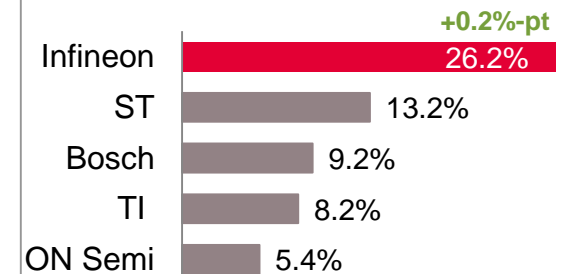
## Microcontrollers



long-term drivers:

- > ADAS/AD
- > Powertrain

## Power



long-term drivers:

- > xEV penetration
- > EPS
- > Lighting, comfort

Source: Strategy Analytics, "Automotive Semiconductor Vendor Market Shares", April 2019

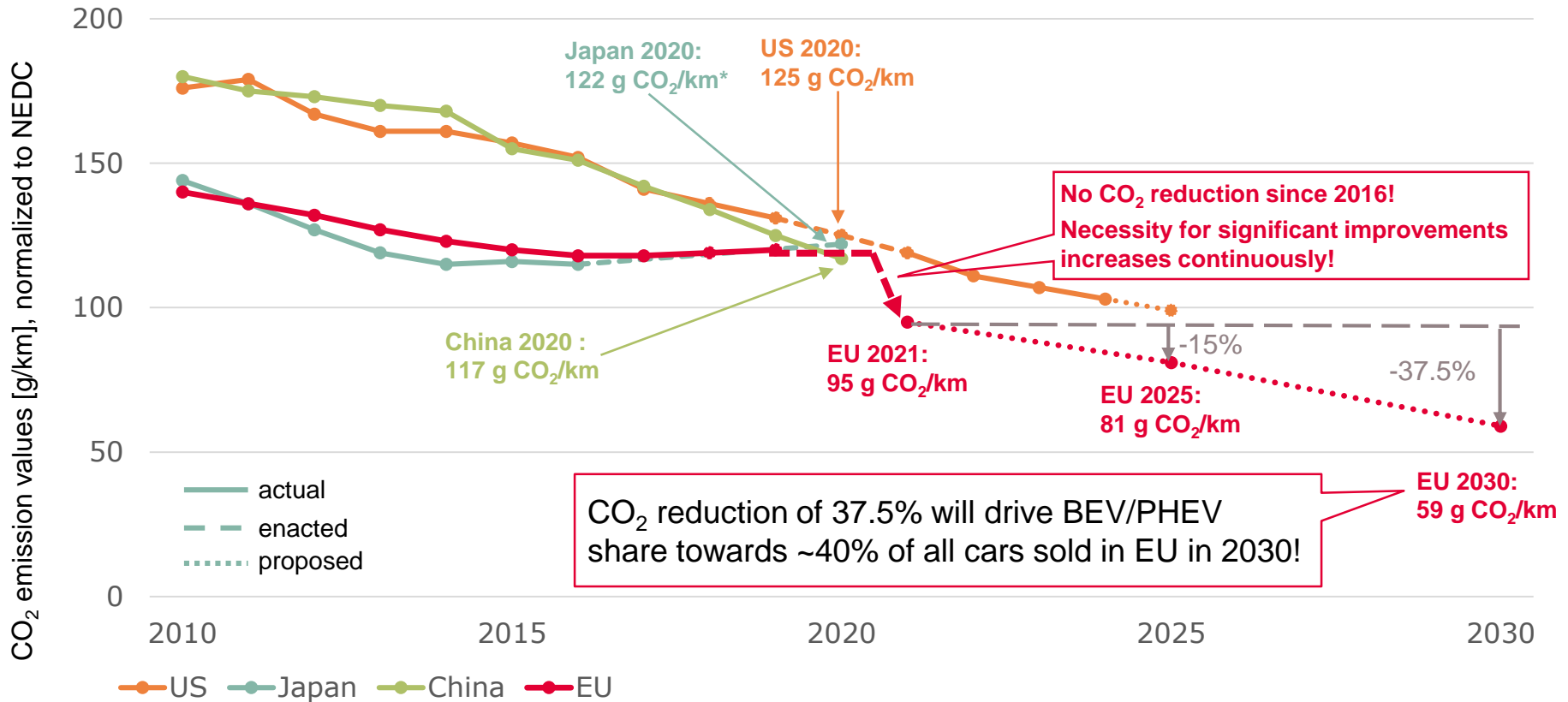


# Electro-mobility



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

## CO<sub>2</sub> emission development and regulations for main regions

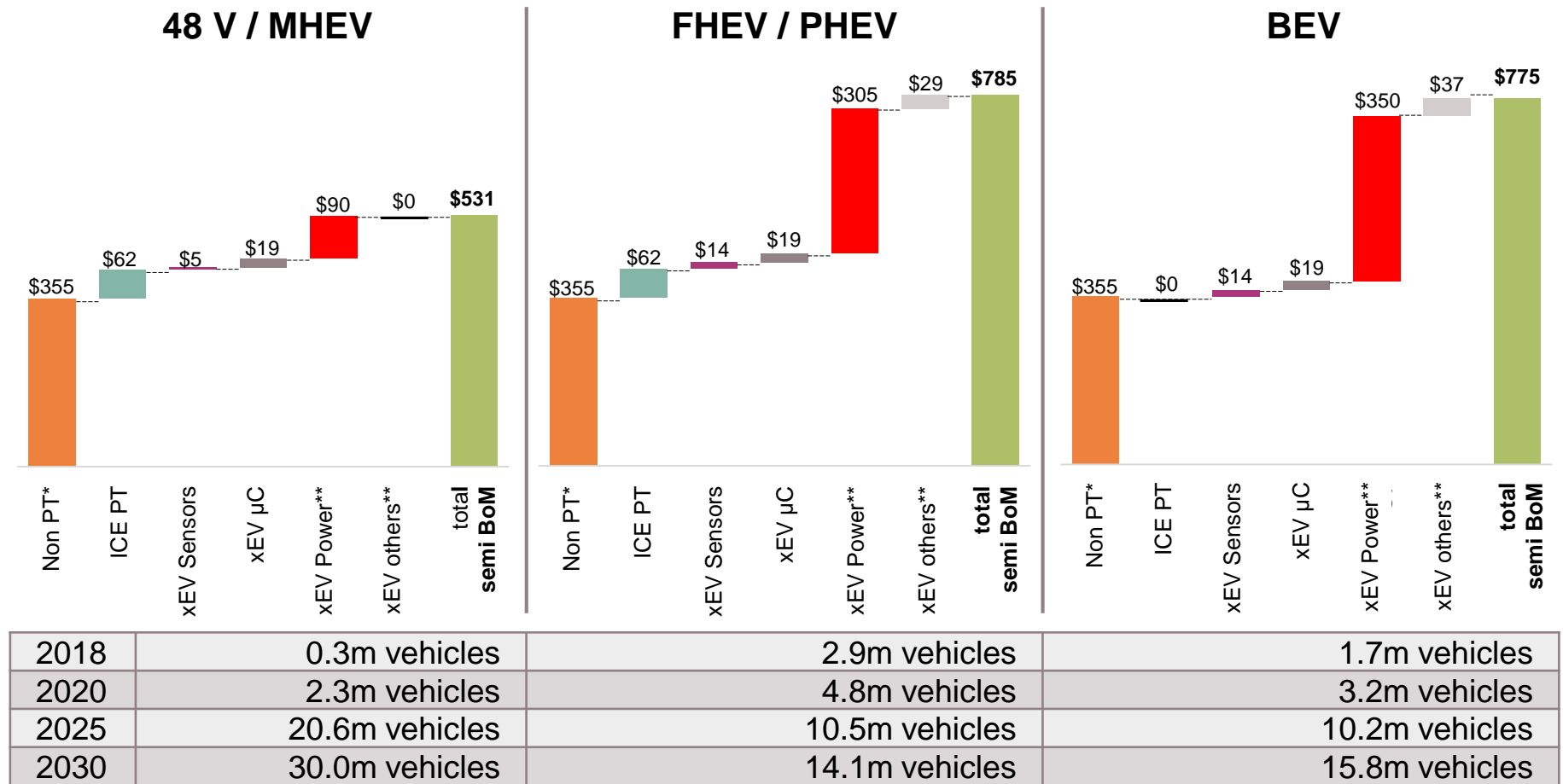


\* Japan has already met its 2020 statutory target as of 2013  
 Source: ICCT ([www.theicct.org](http://www.theicct.org)), August 2019

# The incremental demand of power semiconductors is a significant opportunity



## 2019 average xEV semiconductor content by degree of electrification



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

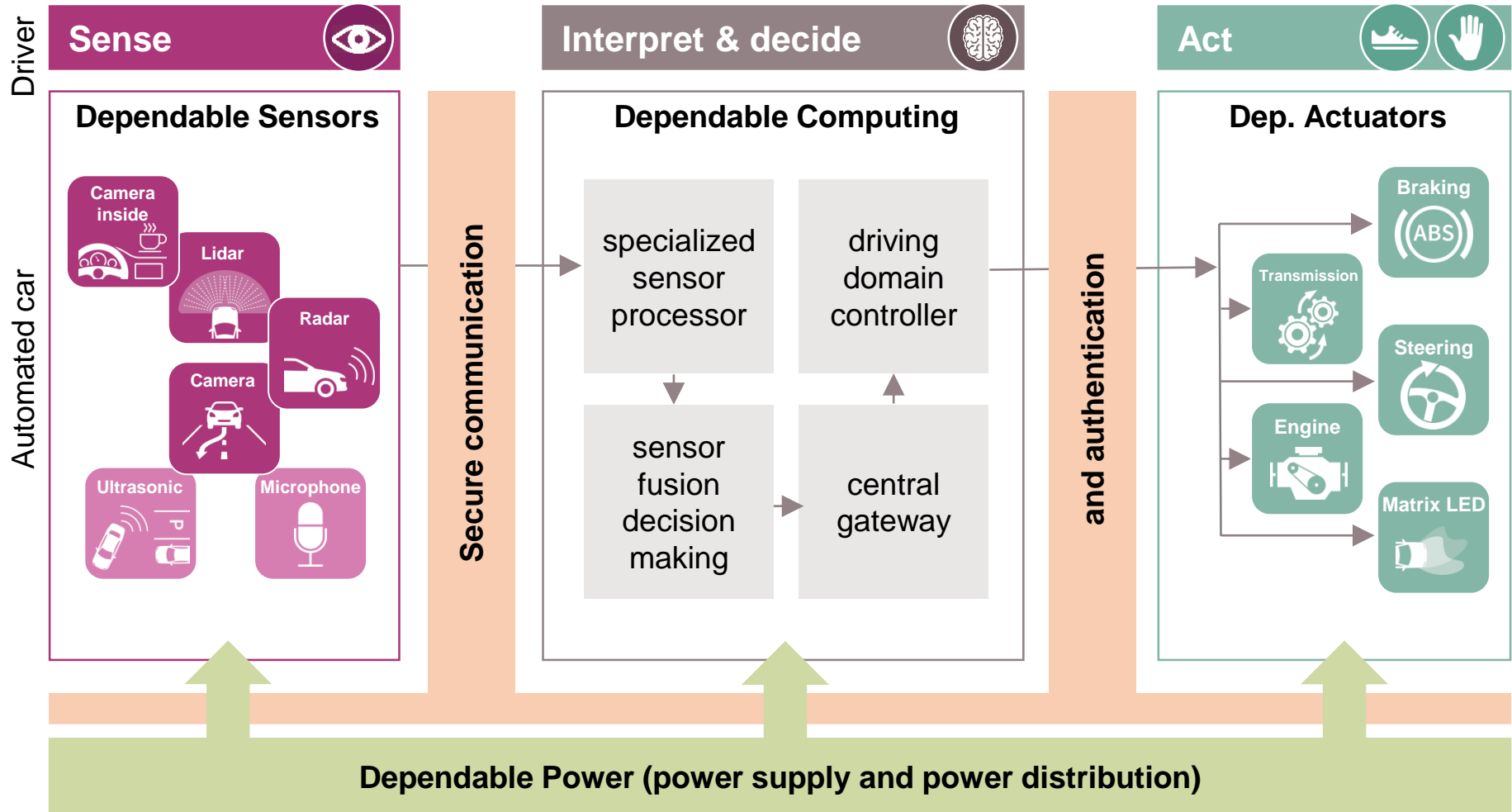


# Automated Driving



# 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  |
|---------------------------------|--|---|---|
| <b>Application*</b>             | Automatic emergency brake/ forward collision warning<br>Parking assist<br>Lane keep assist | Highway assist  | Valet parking<br>Highway and urban chauffeur  |
| <b>Radar</b><br># of modules**  | <p>≥ 3</p>   | <p>≥ 6</p>  | <p>≥ 10</p>   |
| <b>Camera</b><br># of modules** | <p>≥ 1</p>   | <p>≥ 4</p>  | <p>≥ 8</p>  |
| <b>Lidar</b><br># of modules**  | 0  | <p>≤ 1</p>  | <p>≥ 1</p>  |
| <b>Others</b>                   | <ul style="list-style-type: none"> <li>&gt; Ultrasonic</li> </ul>                          | <ul style="list-style-type: none"> <li>&gt; Ultrasonic</li> <li>&gt; Interior camera</li> </ul> | <ul style="list-style-type: none"> <li>&gt; Ultrasonic</li> <li>&gt; Interior camera</li> <li>&gt; V2X</li> </ul> |

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

\*\* market assumption

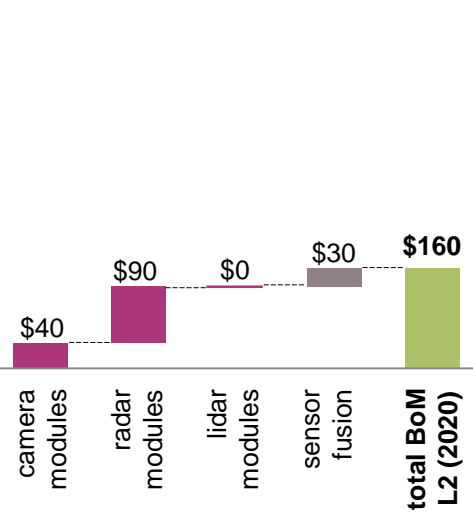
# ADAS/AD semi growth driven by radar and camera sensor modules over the next 5 years



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

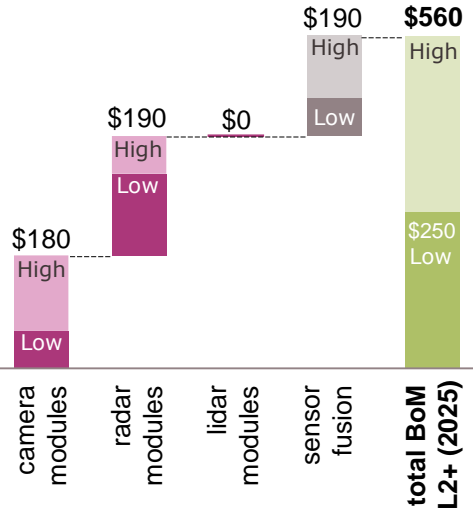
### NCAP 5 Star/AD L2

L2 vehicles in 2020: ~6m



### AD L2+

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



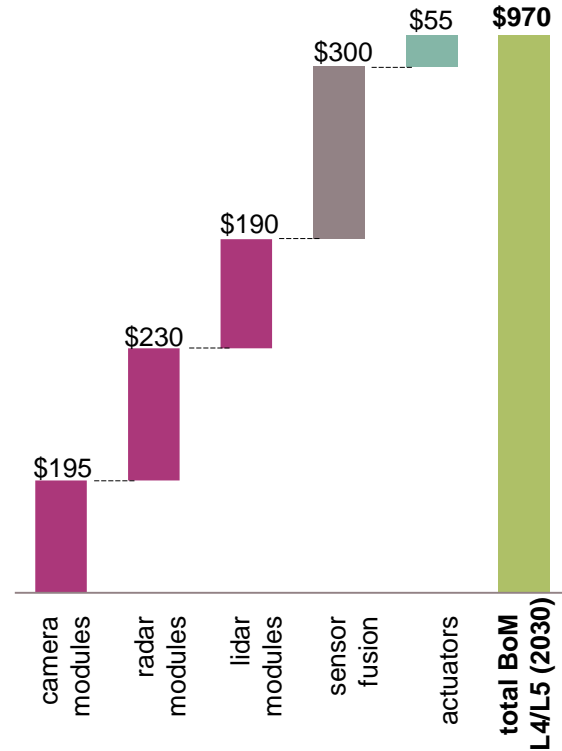
### AD L3

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  $\mu$ C); sensor fusion does not include memory. BoM are projected figures for the respective time frame.



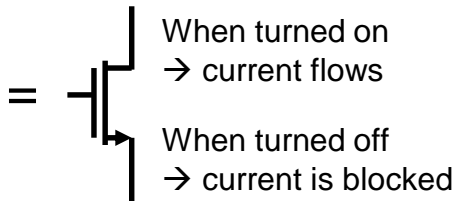




# Infineon's Power Strategy

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

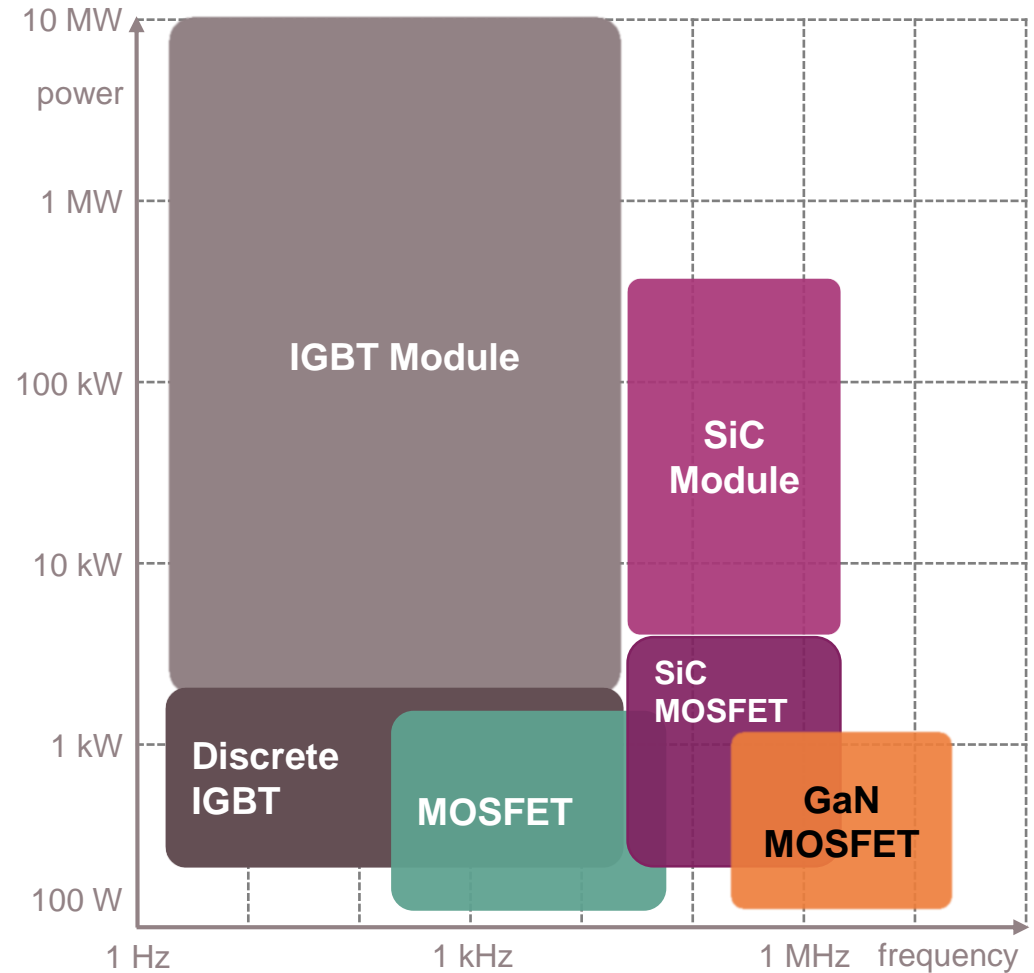
## What is a power switch?



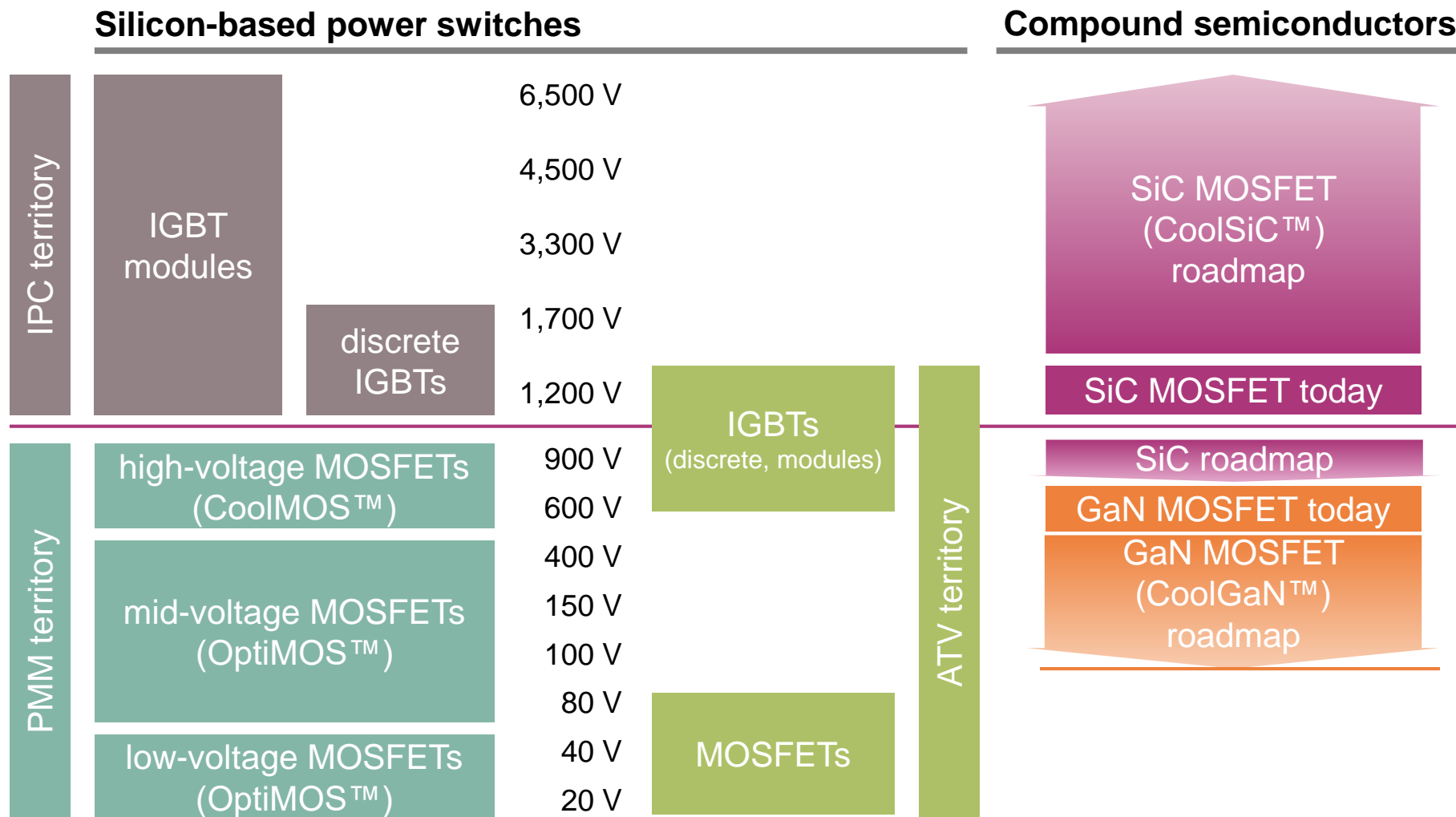
### What counts?

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

## How are power switches categorized?

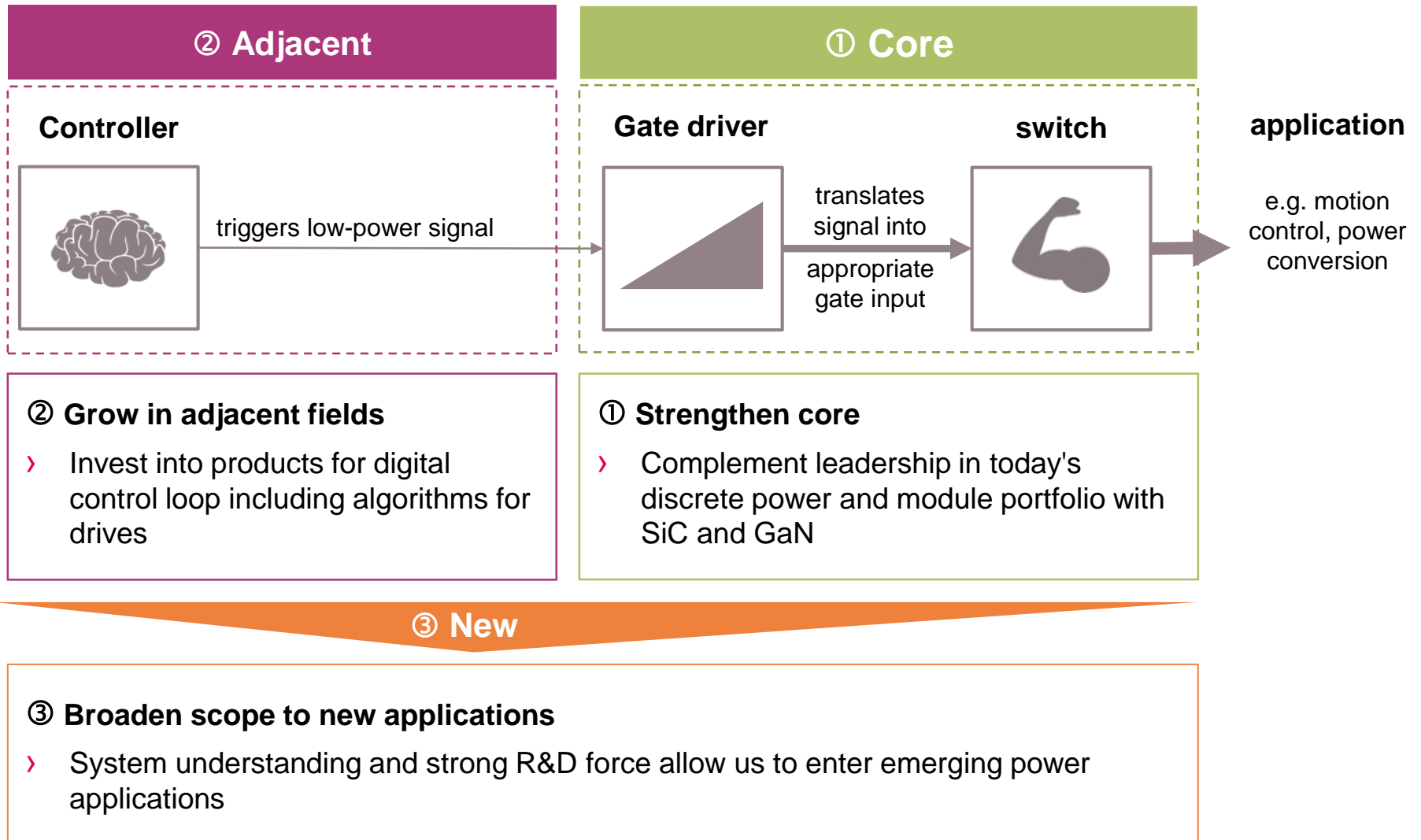


# Infineon's discrete power portfolio\* is basically separated by voltage classes



\* excluding drivers and control ICs

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

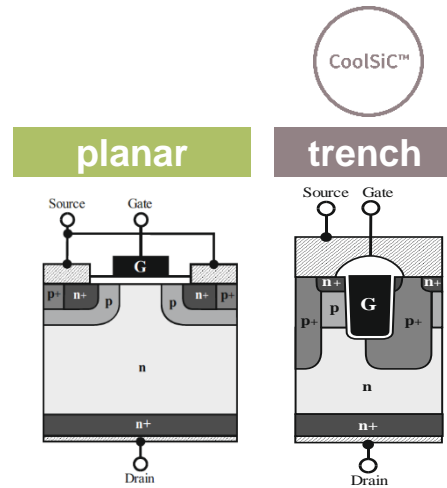


# Four key success factors: Infineon well positioned to defend its leadership in power semis also in SiC

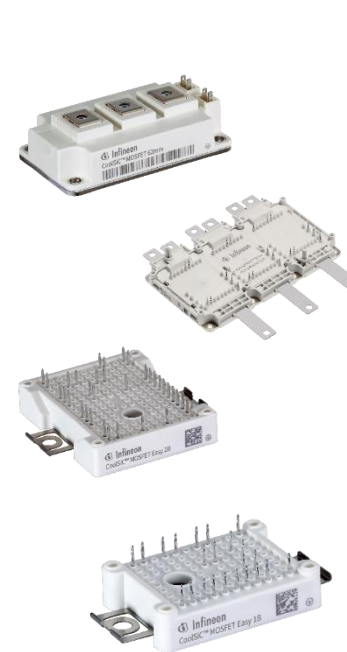
## 1.) Substrate



## 2.) Device



## 3.) Module



## 4.) System



Courtesy: Kaco and pv magazine

| 2008    | 2011   | 2016  | 2019   |
|---------|--------|-------|--------|
| 100 kW  | 50 kW  | 50 kW | 150 kW |
| 1129 kg | 151 kg | 70 kg | 85 kg  |



- > multi-year SiC wafer supply agreement
- > acquisition of SILTECTRA™

- > trench-based architecture
- > 150 mm conversion completed

- > expertise from industrial heritage
- > high-volume manufacturing

- > deep application and system know-how
- > Product-to-System



# Industrial Power Control

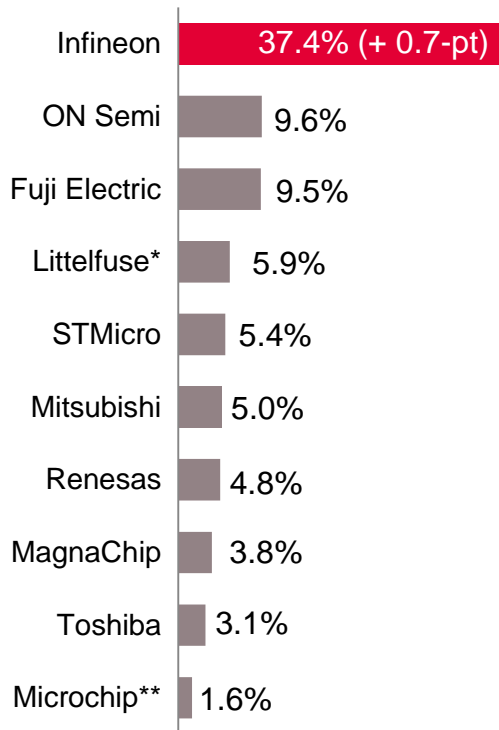


# Clear leader in discrete IGBTs and IGBT modules; IPMs strengthened maintaining #3



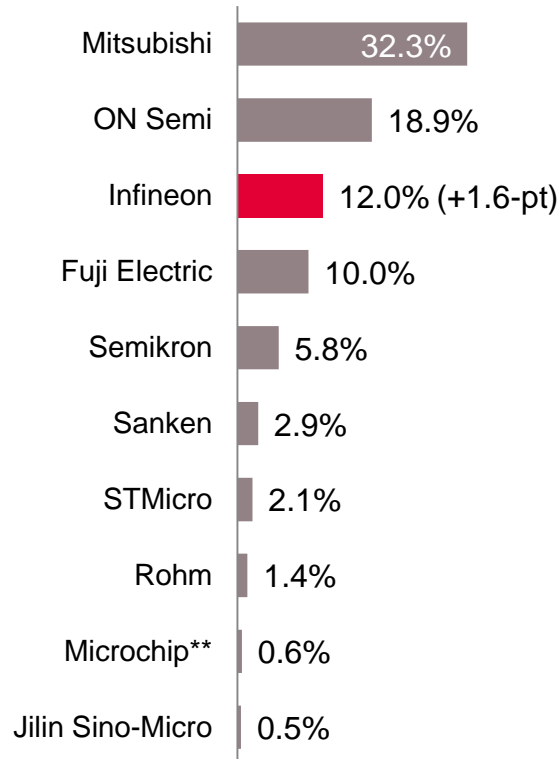
## Discrete IGBTs

total market in 2018: \$1.31bn



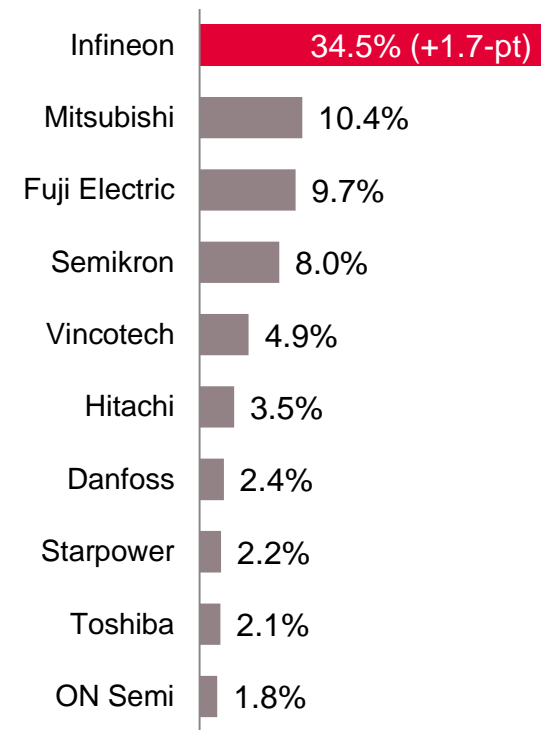
## IPMs

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.

\*\* Microchip Technology acquired Microsemi Corporation in May 2018. Both companies are reported separately in 2017 and combined as Microchip 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



370 W 75 kW

- Requirements
- > high positioning accuracy
  - > fast response with no overshoot
  - > high reliability

- Key applications
- > robotics
  - > material handling
  - > machine tools



- Infineon products
- > CIPOS™ IPM
  - > Easy 1B
  - > Easy 2B



## Low-power drives\*



370 W 500 kW

- > performance and reliability
- > safety features
- > good price/performance ratio

- > pumps and fans
- > process automation
- > cranes
- > marine drives



- > iMOTION™
- > CIPOS™ IPM
- > EasyPACK™
- > EconoPACK™



## Mid- and high-power drives



500 kW 10 MW

- > safety
- > durability
- > high reliability and low downtime

- > oil & gas industry
- > chemical industry (e.g. air compressors)
- > cement mills



- > PrimePACK™
- > IHM
- > IHV



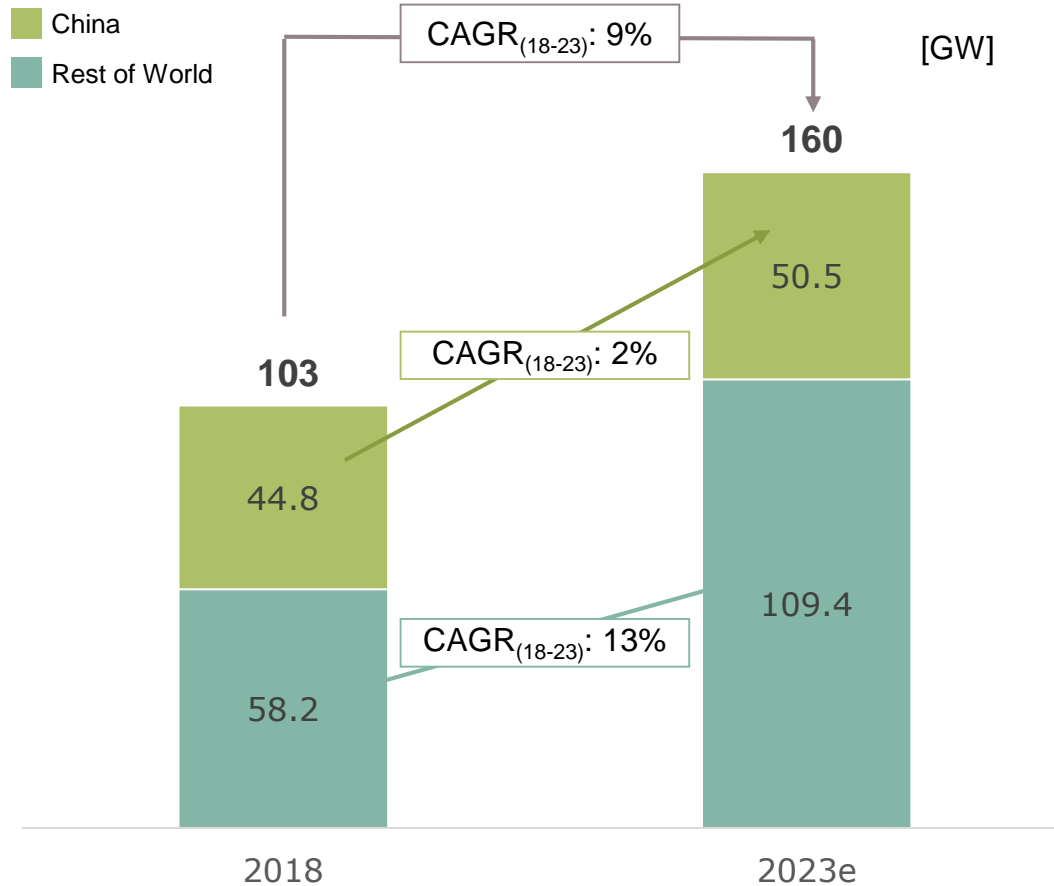
\*Low-power drives include compact drives, standard drives, premium drives and brushed DC drives.



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



## Global installed PV capacity<sup>1</sup>



## Infineon is present at top-10\* inverter manufacturers (2018)<sup>2</sup>

- 1 | Huawei ✓
- 2 | Sungrow ✓
- 3 | SMA ✓
- 4 | Power Electronics ✓
- 5 | ABB ✓
- 6 | Sineng Electric ✓
- 7 | SolarEdge ✓
- 8 | Ingeteam ✓
- 9 | KSTAR ✓
- 10 | TMEIC ✓

\* Infineon is serving the top-10 but not necessarily as a sole supplier.

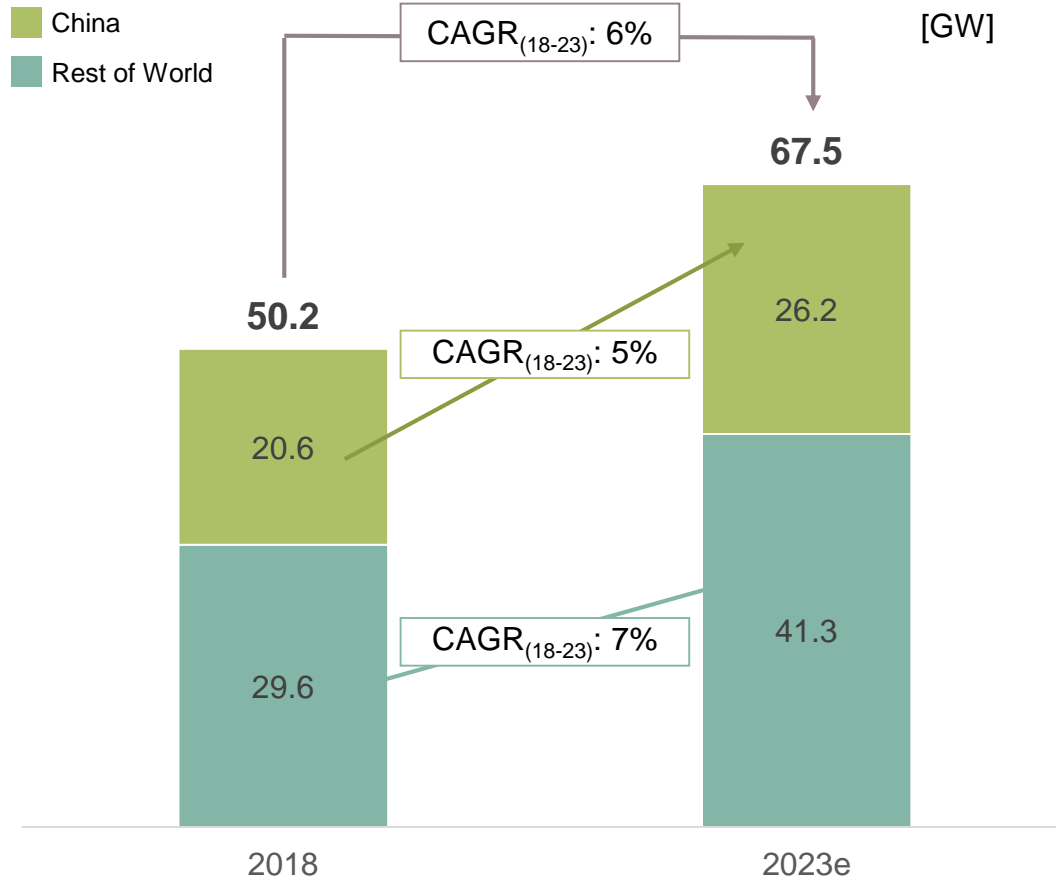
1) based on or includes content supplied by Informa Tech (former IHS Markit Technology), "PV Installations Tracker – Q1 2019"; March 2019; including off-grid

2) by shipped capacity in MW: based on or includes content supplied by Informa Tech (former IHS Markit Technology), "PV Inverter Market Tracker – Q3 2019", October 2019

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



## Global installed wind capacity<sup>1</sup>



## Infineon is present at top-10\* wind turbine manufacturers (2018)<sup>2</sup>

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

\* Infineon is serving the top-10 but not necessarily as a sole supplier.

1) Wood Mackenzie Power & Renewables, "Market Outlook Update", March 2019

2) by shipped capacity in MW: Wood Mackenzie, Power & Renewables, "Historic wind turbine OEM market share", March 2019

# What comes next?

## Mid- to long-term structural growth opportunities

### Core



new material

### Adjacent



solar pumps

### New area



fuel cell



EV charging



energy storage



eMarine



collaborative robots



eDelivery vehicles



eAviation



# Power Management & Multimarket



# PMM'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)



# PMM – Power

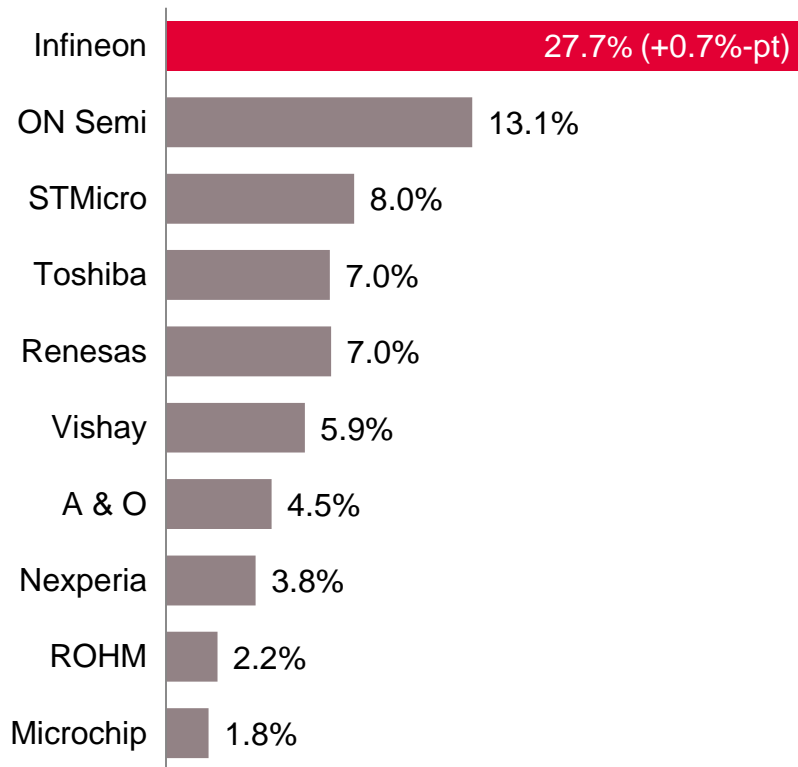


# Infineon is the clear leader in MOSFETs; growth potential in power ICs



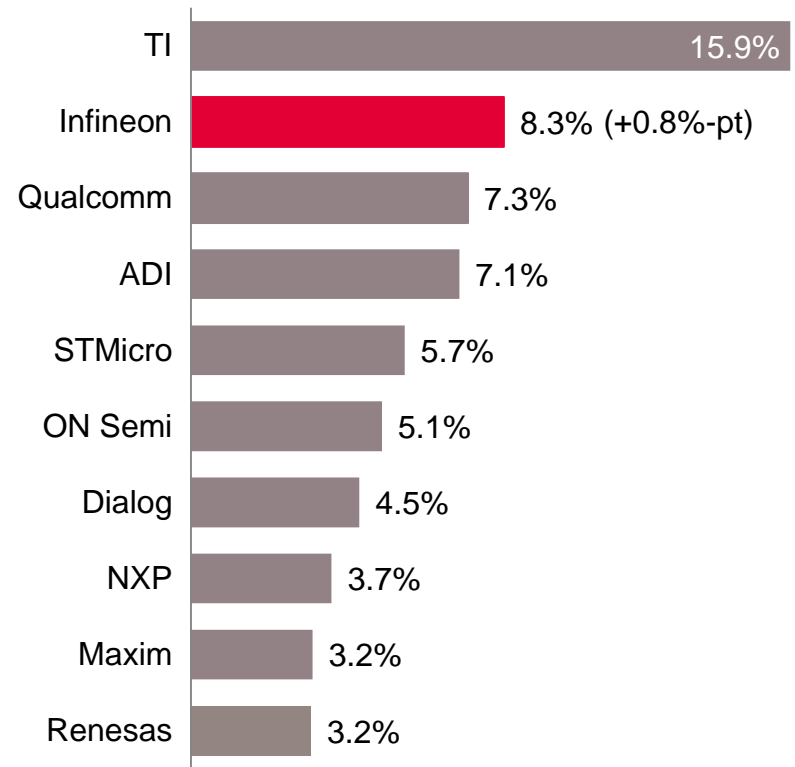
## Discrete Power MOSFET market

total market in 2018: \$7.58bn



## Power IC market

total market in 2018: \$25.62bn

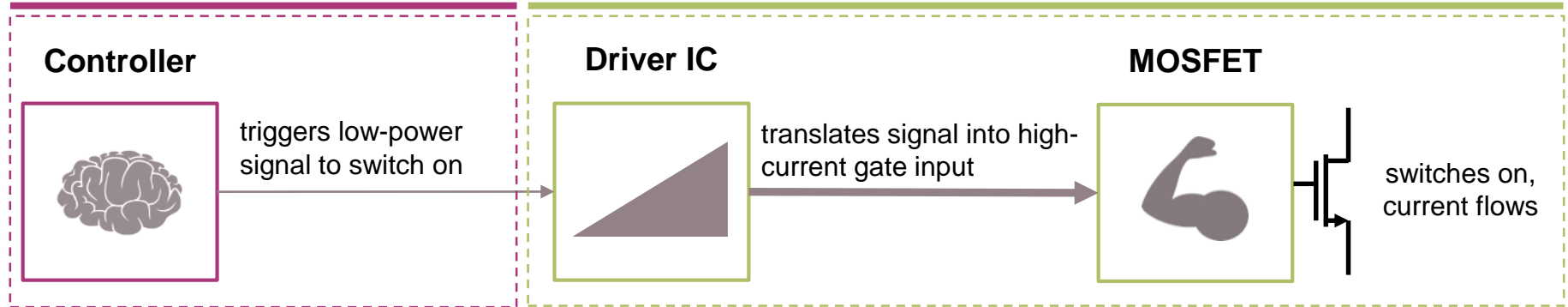


Source: Based on or includes content supplied by Informa Tech (former IHS Markit Technology), "Power Semiconductor Market Share Database 2018", September 2019. Discrete Power MOSFET market incl. automotive MOSFETs. Power IC market incl. automotive power ICs.

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

## Adjacent

## Core

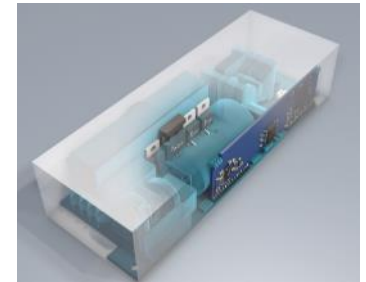


## Power management solutions reduce TCO



### More efficient semiconductors

- > lower power consumption
- > lower opex



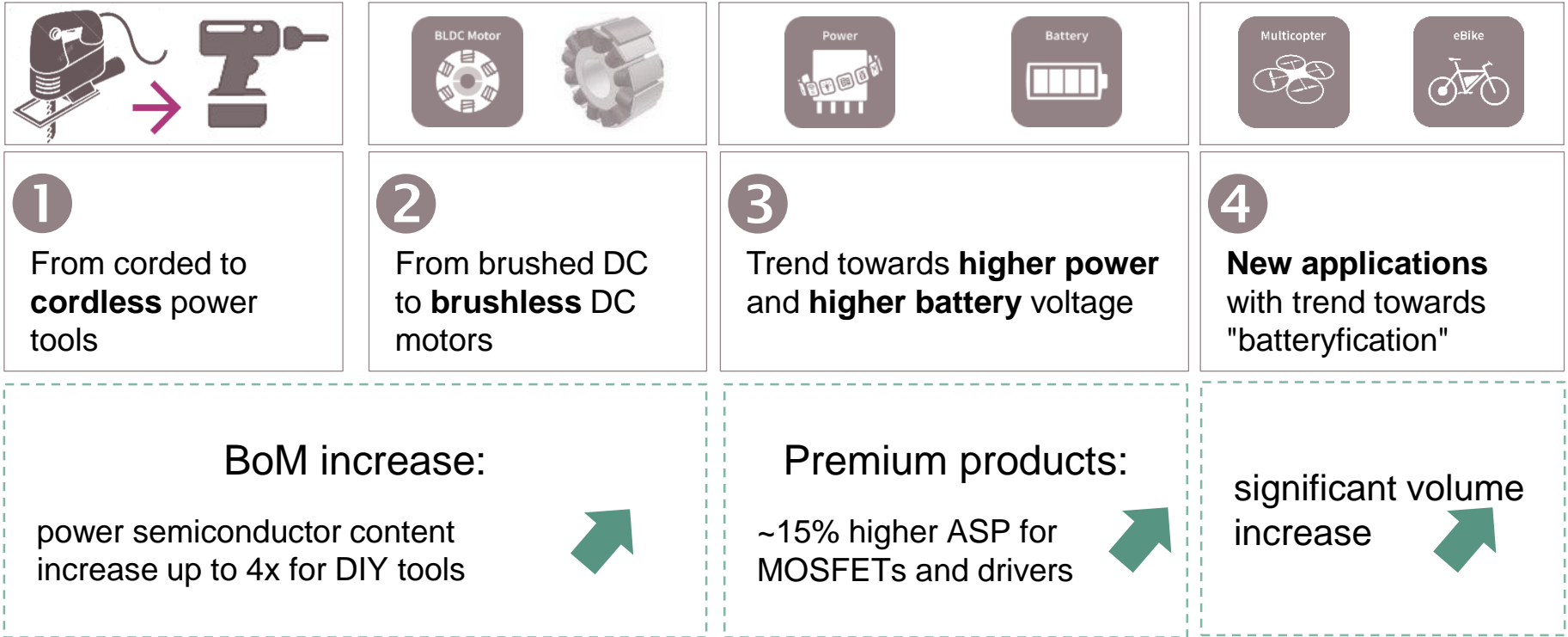
### Higher power-density

- > more compact system designs
- > lower capex



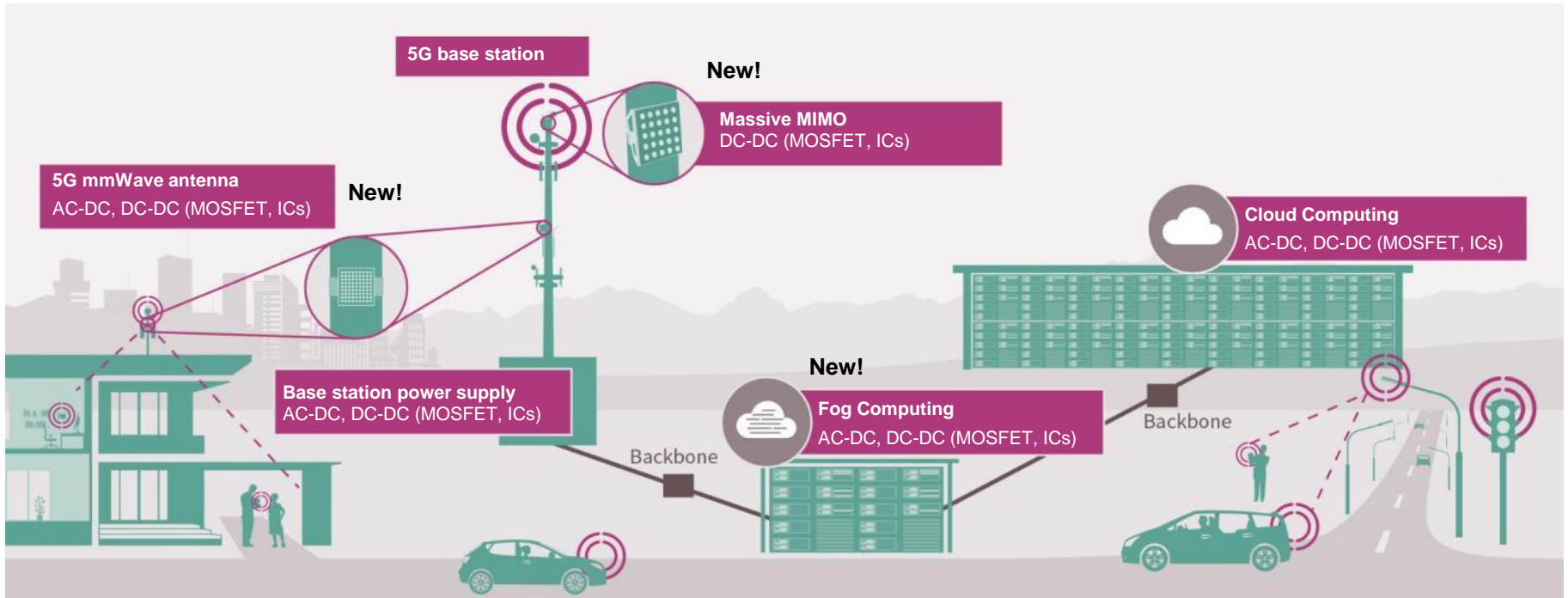
# Four interrelated trends drive power semiconductor BoM in battery-powered applications

## Interrelated trends for battery-powered applications



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

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

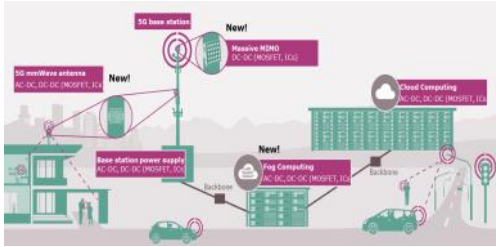


- > driver #1: massive growth of data and computing power
- > driver #2: higher number of base stations due to denser network
- > driver #3: ~4x higher power semiconductor content per radio board:  
from ~\$25 for MIMO antenna to ~\$100 for massive MIMO antenna array
- > driver #4: fog computing data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



on-board charger



power tools



home appliances

### New area



collaborative robots



smart speaker



class D audio



# PMM – 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



Courtesy: BMW

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                          |
|------------------------------------|---------------------------------|--|----------------------------------|---------------------------------|
| <p>No distortions</p>              | <p>Best-in-class resolution</p> | <p>6x6mm<sup>2</sup></p> <p>World smallest form factor</p> | <p>Highest energy efficiency</p> | <p>Best-in-class resolution</p> |
| <p>Receive clear audio signals</p> | <p>Measure height</p>           | <p>Measure CO<sub>2</sub></p>                              | <p>Biometrics</p>                | <p>3D mapping</p>               |

**Smart Ears, Smart Feeling, Smart Nose**

**Smart Eyes & Sixth Sense**

## Key Use Cases – Examples

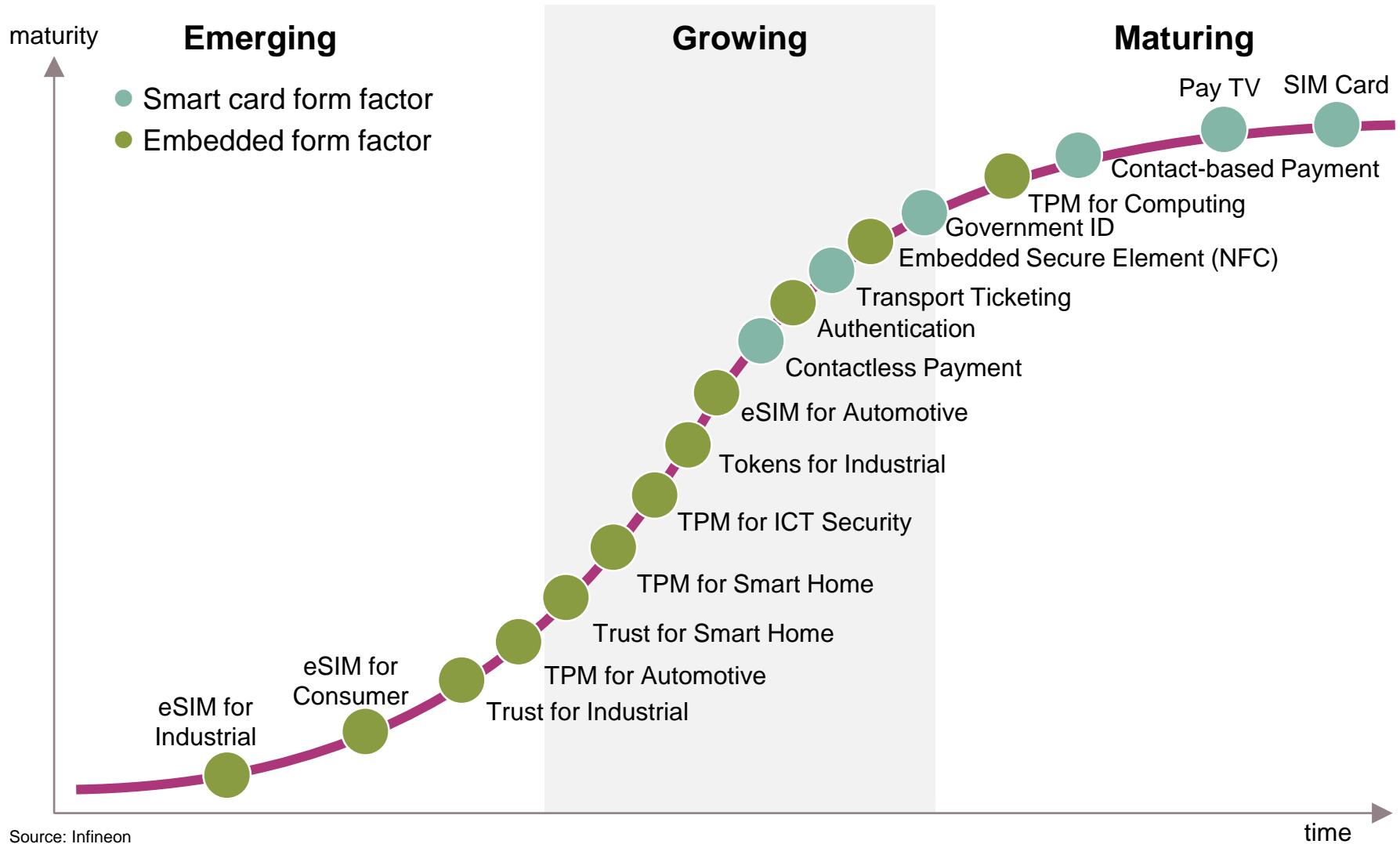
|                         |                           |            |   |              |
|-------------------------|---------------------------|------------|---|--------------|
| Voice authentication    | Advanced fitness tracking | Smog alarm | Gesture sensing                             | 3D AR gaming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



# Digital Security Solutions



# Continuous stream of new topics aging and exiting



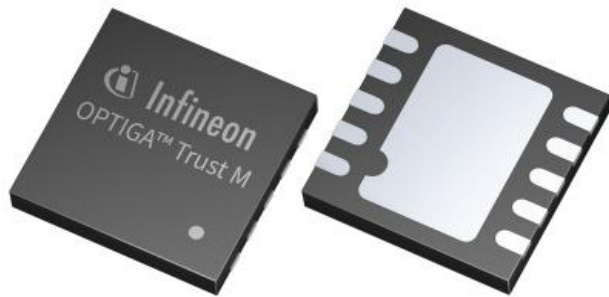
Source: Infineon



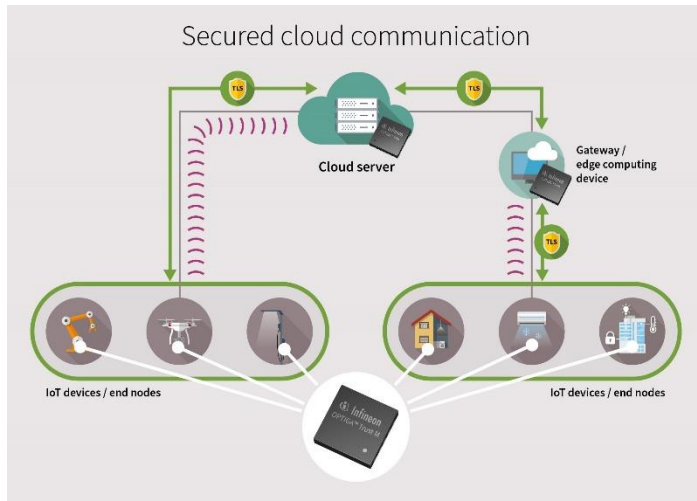
# Infineon OPTIGA™ Trust M to improve the security and performance of connected devices



## New OPTIGA™ Trust M solution helps customers to enhance security of their devices



- > The single-chip solution securely stores unique device credentials and enables devices to connect to the cloud up to 10x faster than software-only alternatives. It is ideal for industry and building automation, smart homes and consumer electronics.
- > When deploying OPTIGA™ Trust M, critical assets such as certificates and key pairs used to identify a device can be injected into the chip at Infineon's secured factory premises.
- > The turnkey set-up minimizes design, integration and deployment effort of embedded systems by providing a cryptographic toolbox, protected I<sup>2</sup>C interface and open source code.



# Agenda

---

1

Infineon at a glance

2

Planned acquisition of Cypress

3

Quarterly highlights

4

Automotive

5

Industrial Power Control

6

Power Management & Multimarket

7

Digital Security Solutions

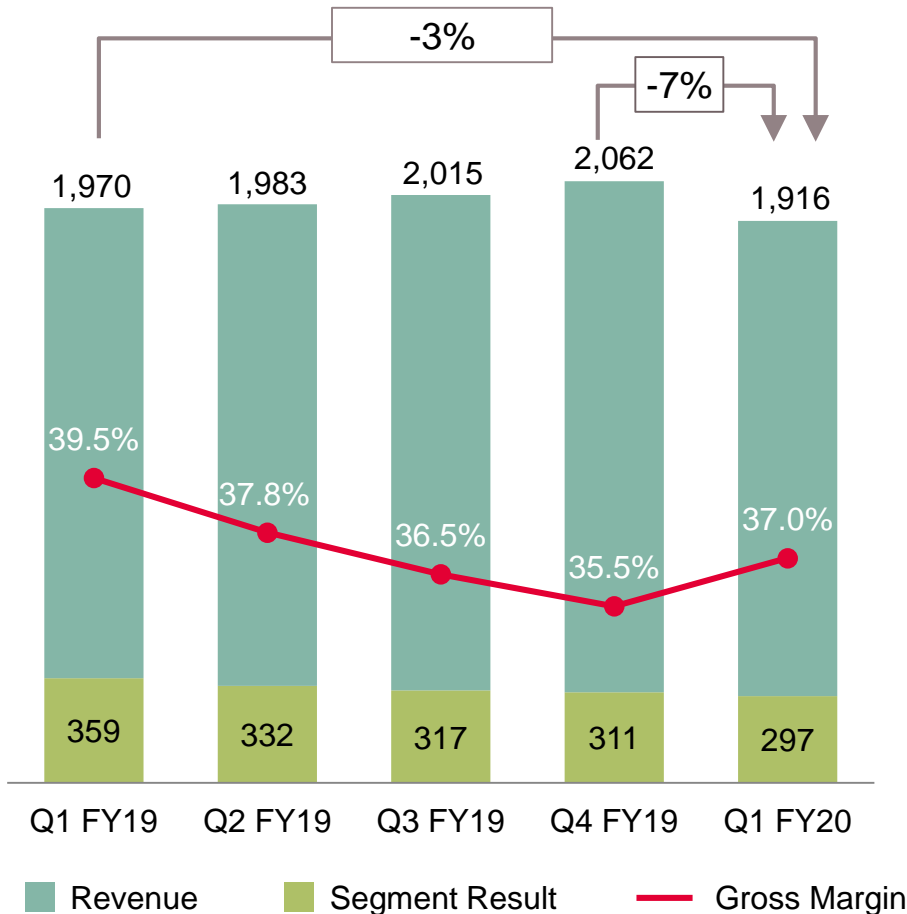
8

Selected financial figures

# Seasonal revenue decline in Q1 FY20

## Revenue development

[EUR m]

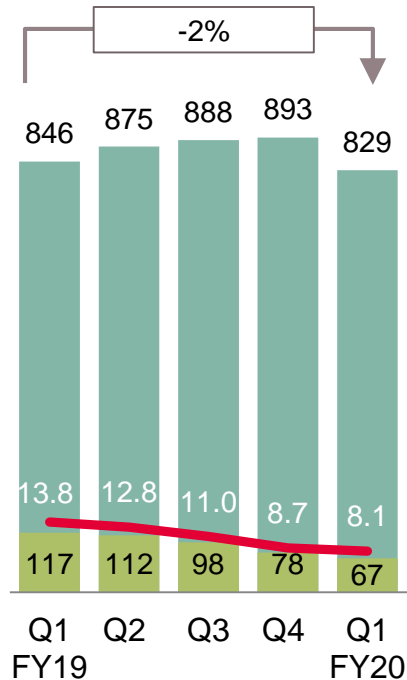


- > Challenging market environment
- > Seasonality: revenue down -7% q-q
- > Segment Result slightly better driven by one-offs as well as cost savings
- > Normalizing demand
- > Channel inventories are largely back to normal levels

# Q1 FY20 Division Performance

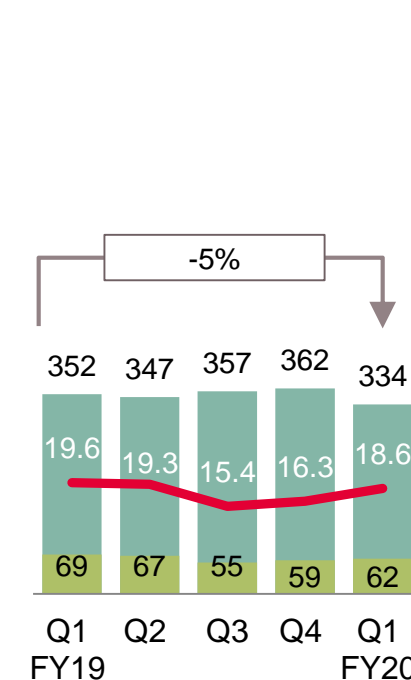
## ATV

[EUR m]



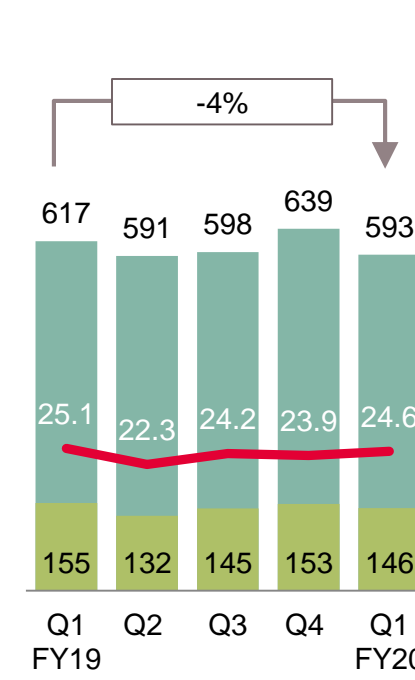
## IPC

[EUR m]



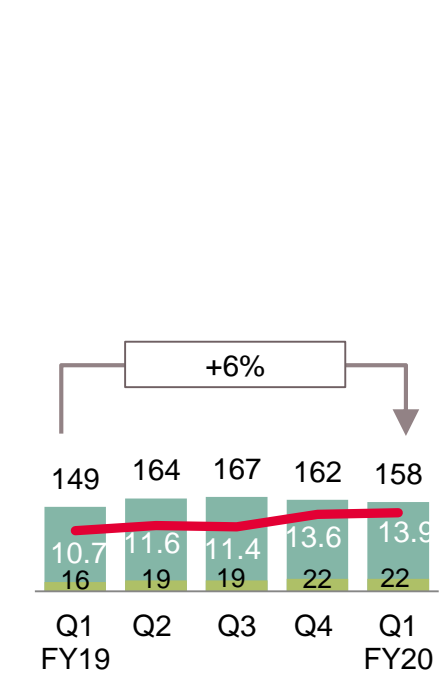
## PMM

[EUR m]



## DSS

[EUR m]



Revenue Segment Result Segment Result Margin in %

> Q1 FY20: Impact of lower revenue compensated by one-offs related to inventory valuation and cost containment

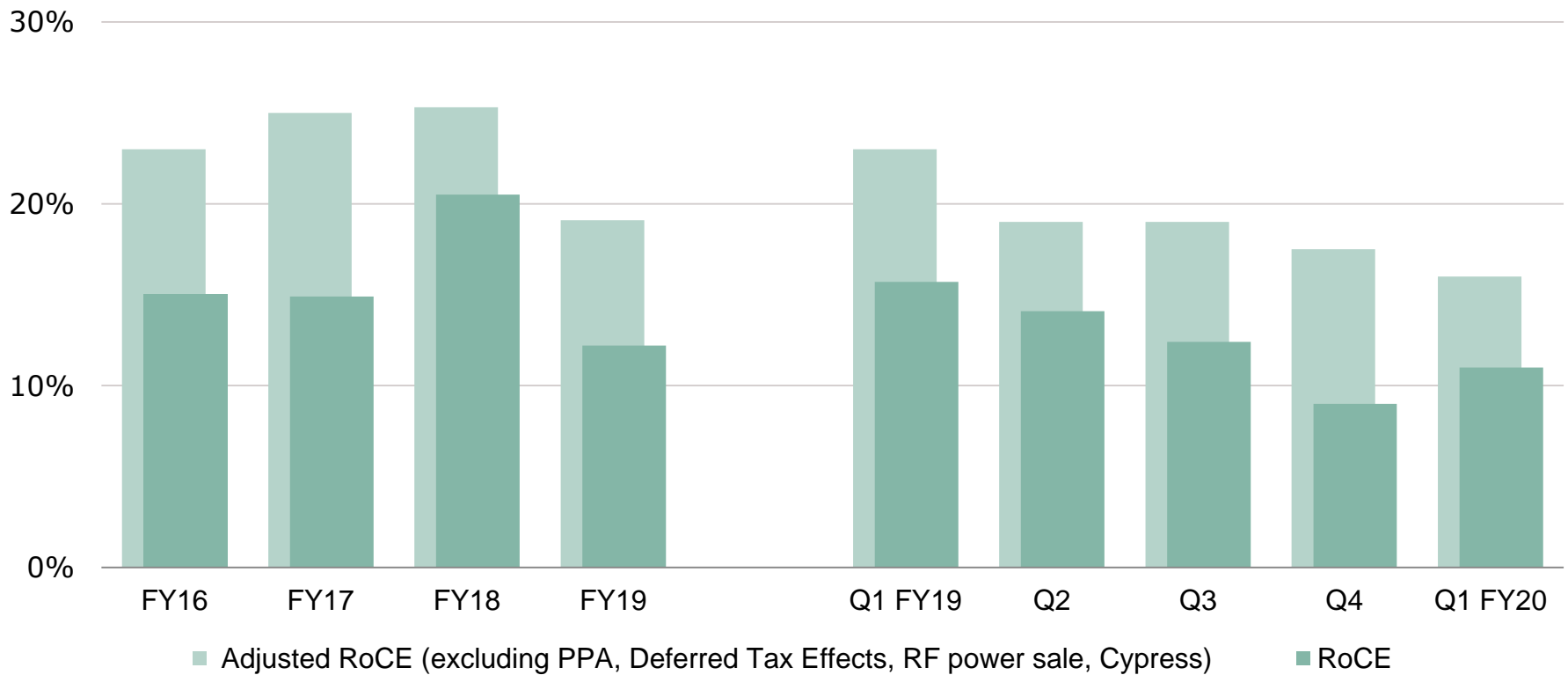
> Q1 FY20: Seasonal weakness for wind and home appliances, resilient solar, sluggish drives, and a positive development for traction and power transmission

> Q1 FY20: Revenue down q-q due to stock depletion by distributors across many product areas

> Q1 FY20: Identity solutions and embedded SIM saw increasing sales, whereas the payment bare die and module business declined

# Adjusted RoCE clearly above WACC

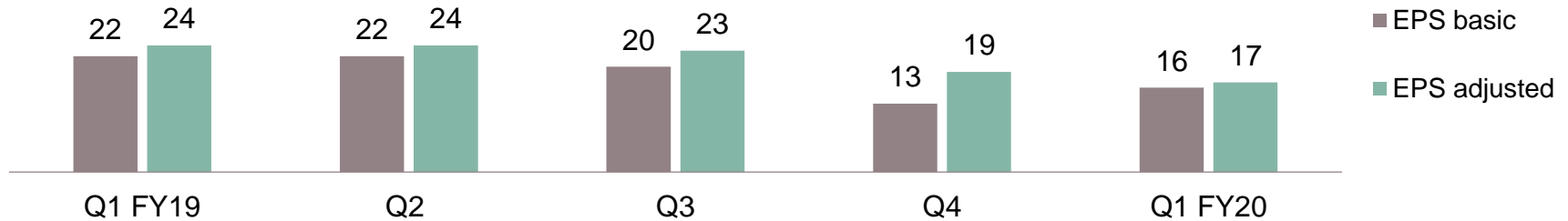
## RoCE and adjusted RoCE



# Earnings-per-share and total cash return

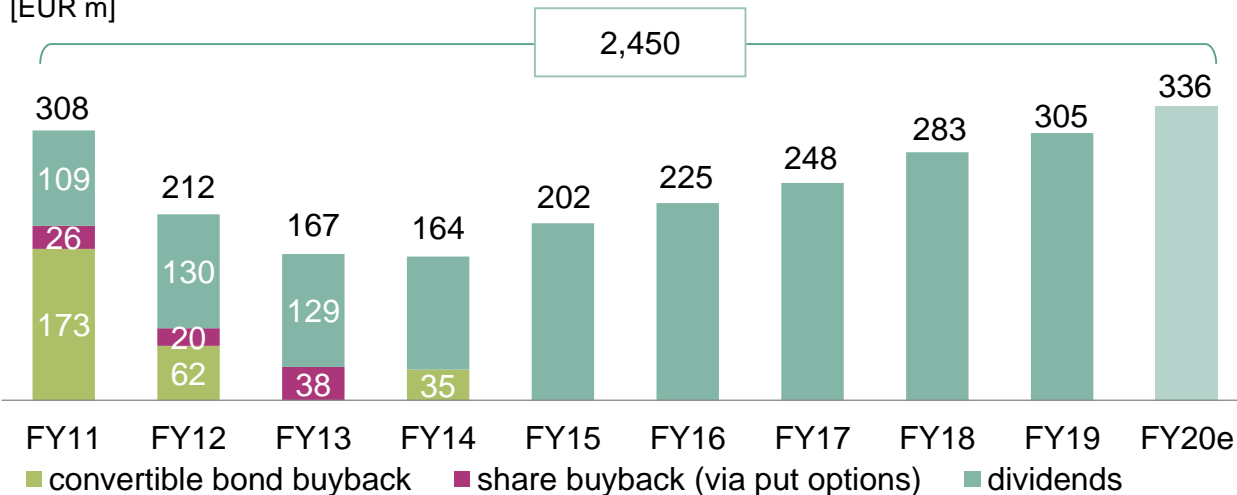
## Development of earnings-per-share (EPS) from continuing operations

[EUR cent]



## Total cash return to shareholders

[EUR m]

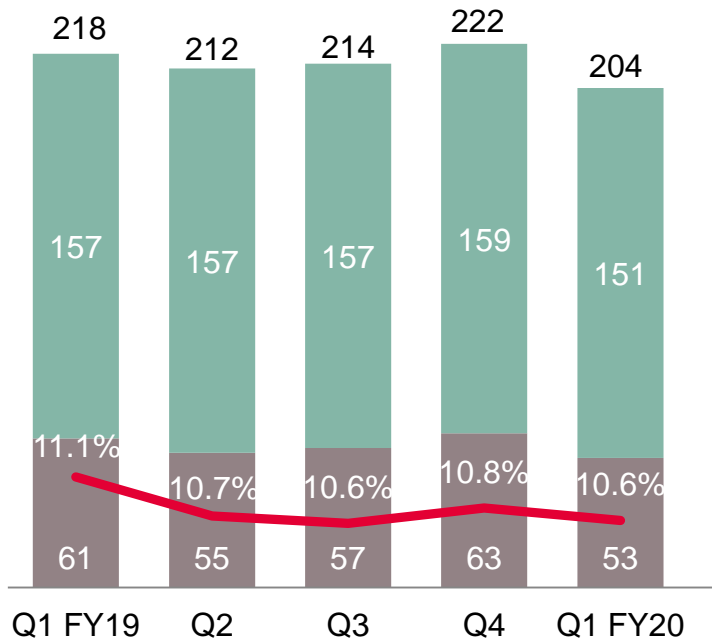


- > Policy of sustainable dividend payout
- > Stable dividend: €0.27
- > Dividend payment of €336m on 25 Feb 2020

# Opex still within target range

## Selling, General & Administration

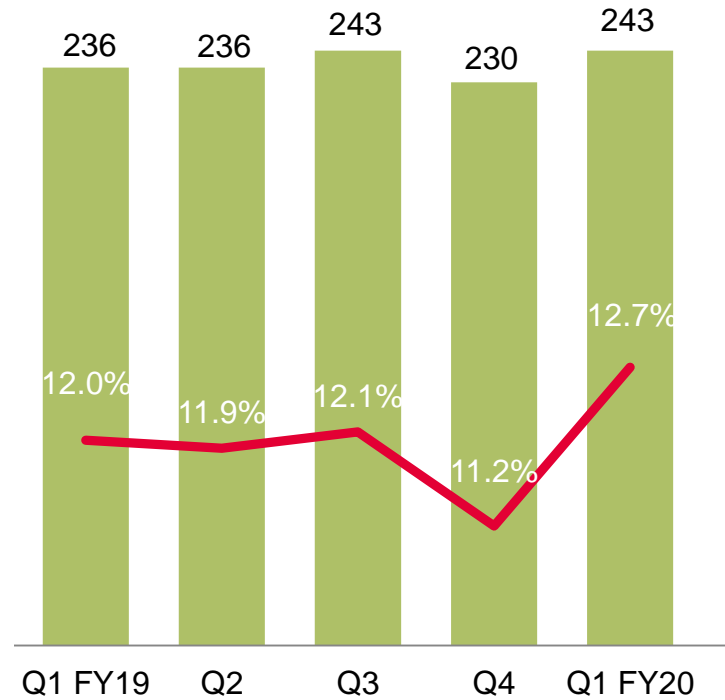
[EUR m]



General & Administration

Selling

## Research & Development\*



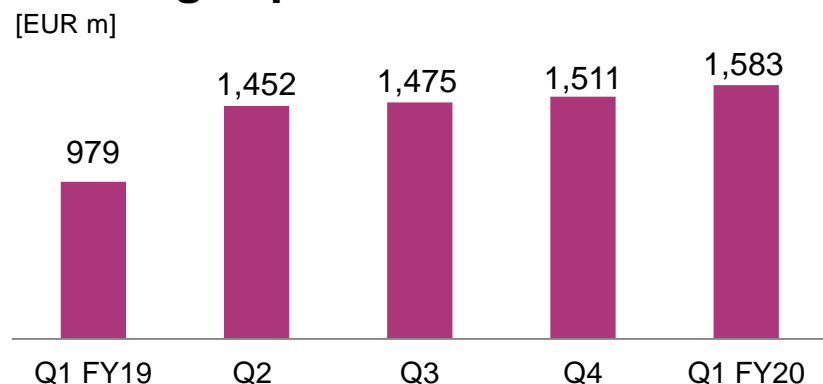
R&D

% of sales

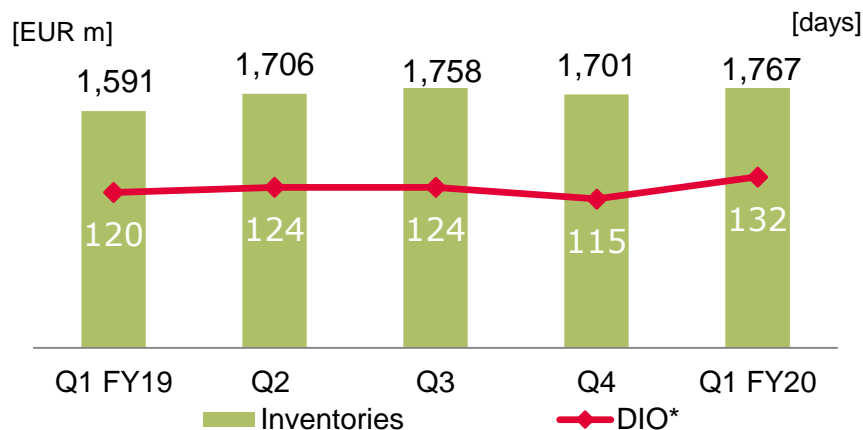
\* In FY19, reported R&D expenses amounted to €945m, net of €111m of grants received and net of €125m of capitalized development costs.

# Inventory increase due to revaluation

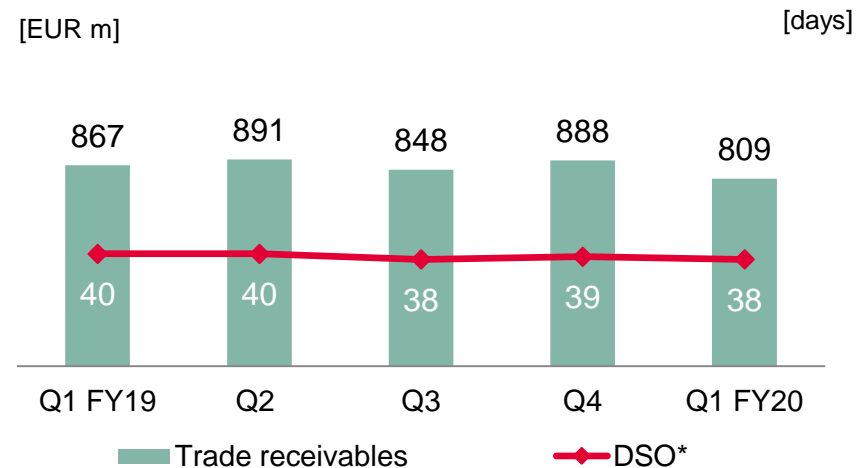
## Working capital\*



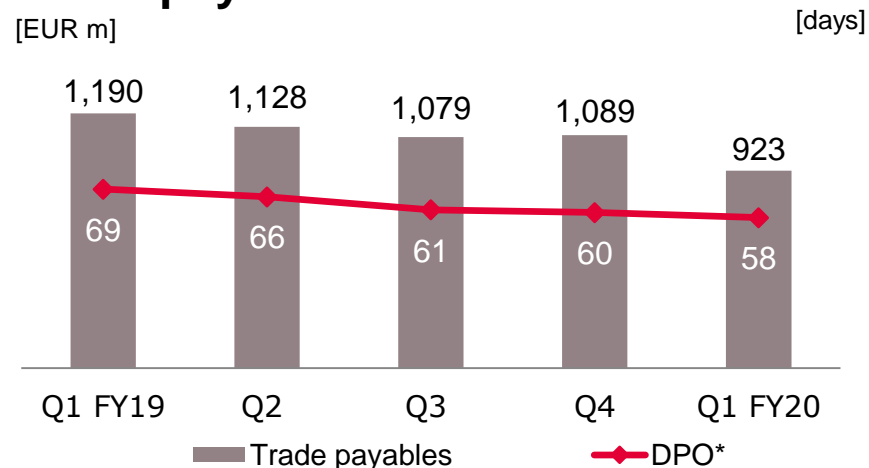
## Inventories



## Trade receivables



## Trade payables



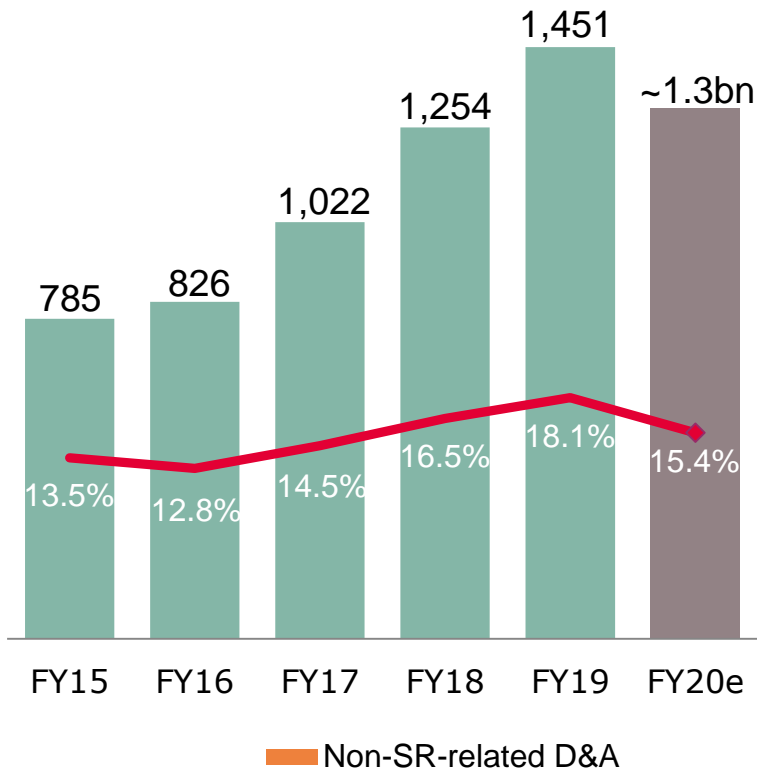
\* For definition please see page "Notes".



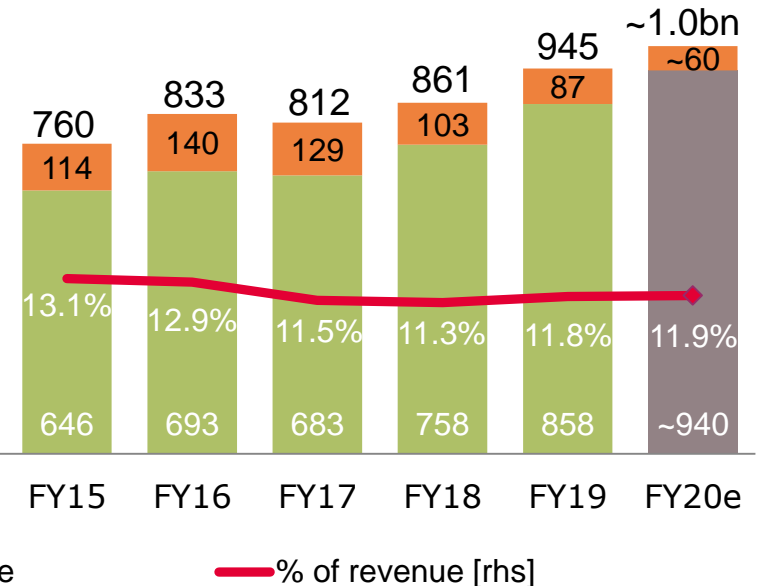
# Cycle management slows down investments

## Investments\*

[EUR m]



## Depreciation & Amortization



\* For definition please see page "Notes".

# Increase in gross cash and net cash position driven by Cypress acquisition financing activities

## Liquidity development



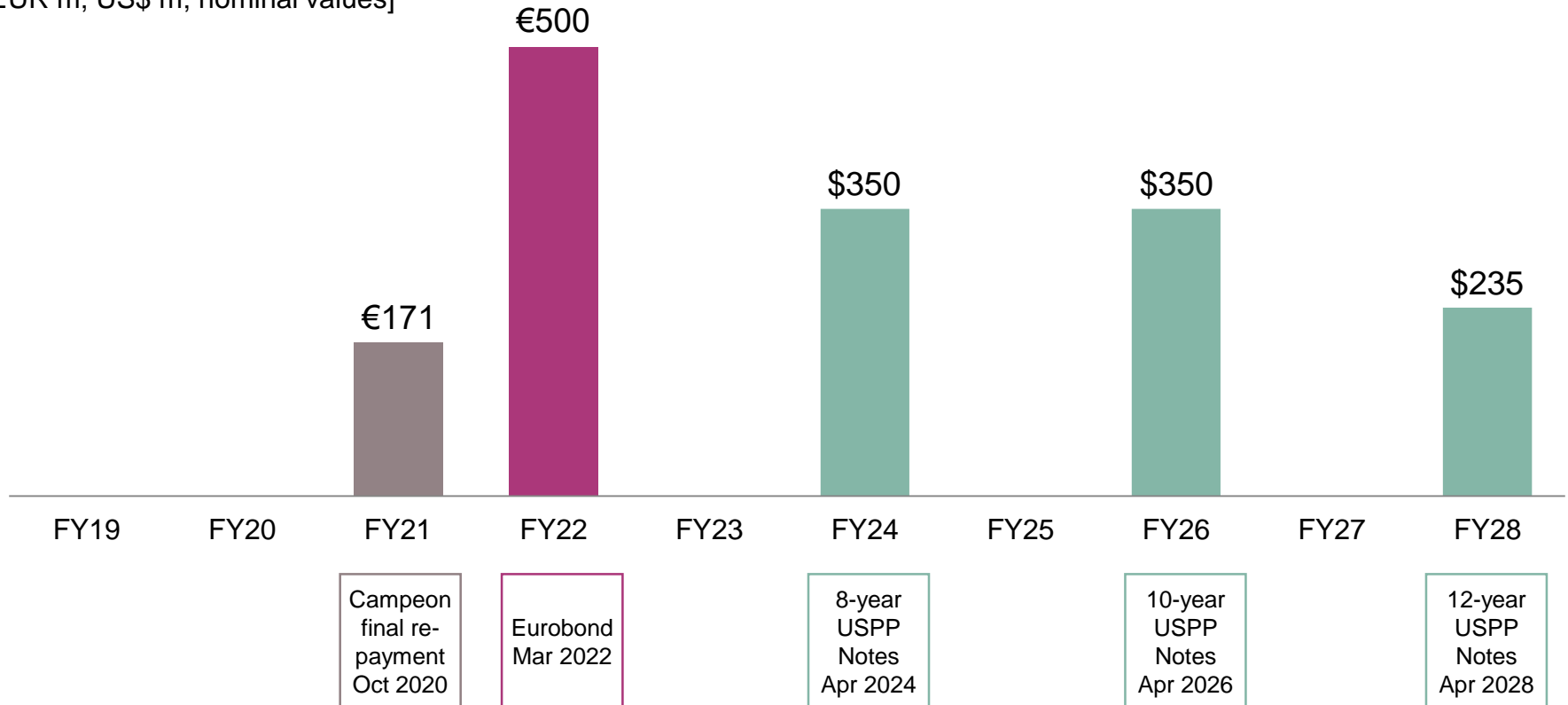
- › Q3 FY19: Includes the proceeds of €1.5bn resulting from the capital increase executed on 18 Jun 2019 in connection with the planned acquisition of Cypress
- › Q1 FY20: Proceeds from €1.2bn dual-tranche hybrid bond booked on 1 Oct 2019

# Infineon has a balanced maturity profile and an investment grade rating (BBB)\* from S&P



## Maturity profile

[EUR m; US\$ m; nominal values]



Note: Additional debt with maturities between 2019 and 2023 totaling €28m of which €10m repayments relate to Campeon.

On 1 Oct 2019, Infineon issued a perpetual hybrid bond with two tranches: €600m with first call date in 2025 and €600m with first call date in 2028; both are accounted as equity under IFRS.

\* On 3 Jun 2019, S&P placed Infineon on CreditWatch with negative outlook in relation to the Cypress acquisition.



Part of your life. Part of tomorrow.

# Glossary (1 of 2)

|       |                                      |       |                                       |
|-------|--------------------------------------|-------|---------------------------------------|
| AC    | alternating current                  | eCall | emergency call                        |
| AC-DC | alternating current - direct current | ECU   | electronic control unit               |
| AD    | automated driving                    | EPS   | electric power steering               |
| ADAS  | advanced driver assistance system    | eSIM  | embedded subscriber identity module   |
| AEB   | automatic emergency braking          | eSIM  | embedded SIM                          |
| AFS   | advanced frontlight system           | EV    | electric vehicle                      |
| AI    | artificial intelligence              | FPGA  | field programmable gate array         |
| AR    | augmented reality                    | GPU   | graphics processing unit              |
| BEV   | battery electric vehicle             | HEV   | mild and full hybrid electric vehicle |
| BGA   | ball grid array                      | HMI   | human machine interaction             |
| BLE   | Bluetooth Low Energy                 | HSM   | hardware security module              |
| BoM   | bill of material                     | HST   | high-speed train                      |
| CPU   | central processing unit              | HW    | hardware                              |
| DC    | direct current                       | ICE   | internal combustion engine            |
| DC-DC | direct current - direct current      | IVN   | in-vehicle networking                 |
| DPM   | digital power management             |       |                                       |

# Glossary (2 of 2)

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

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## Cover photography:

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

# Financial calendar

| Date             | Location                            | Event   |
|------------------|-------------------------------------|---|
| 13 Feb 2020      | San Francisco                       | Goldman Sachs Technology & Internet Conference      |
| 20 Feb 2020      | Munich                              | Annual General Meeting                              |
| 24 – 26 Feb 2020 | Barcelona                           | Investor Meetings at Mobile World Congress          |
| 10 – 11 Mar 2020 | London                              | UBS Technology One-on-One Conference                |
| 12 Mar 2020      | Paris                               | ODDO BHF 4 <sup>th</sup> TMT Forum                  |
| 18 Mar 2020      | London                              | Bernstein EV Conference                             |
| 24 Mar 2020      | Paris                               | JPMorgan Global ESG Conference                      |
| 25 Mar 2020      | Paris                               | Société Générale European ESG/SRI Conference        |
| 26 Mar 2020      | Baden-Baden                         | Lampe Bank Deutschland-Konferenz                    |
| 5 May 2020*      |                                     | Q2 FY20 Results                                     |
| 7 May 2020       | Nuremberg                           | IPC Business Update at PCIM                         |
| 27 May 2020      | Milan                               | Equita Conference 2020                              |
| 3 - 4 Jun 2020   | Berlin                              | Deutsche Bank German, Swiss & Austrian Conference   |
| 9 – 10 Jun 2020  | Paris                               | Exane 22 <sup>nd</sup> European CEO Conference      |
| 4 Aug 2020*      |                                     | Q3 FY20 Results                                     |
| 21 Sep 2020      | Unterschleißheim<br>(nearby Munich) | Berenberg Goldman Sachs German Corporate Conference |
| 22 Sep 2020      | Munich                              | Baader Investment Conference                        |
| 6 Oct 2020       |                                     | ATV Call  |
| 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](https://www.infineon.com/atv_call)

IPC Business Update  
Dr. Peter Wawer, Dr. Peter Friedrichs  
PCIM, Nuremberg, 7 May 2019



[https://www.infineon.com/pcim\\_presentaion](https://www.infineon.com/pcim_presentaion)

IFX Day 2018  
Capital Markets Day  
London, 12 June 2018



[https://www.infineon.com/ifxday\\_2018](https://www.infineon.com/ifxday_2018)

Sustainability Report 2019  
23 November 2019



[https://www.infineon.com/sustainability\\_2019](https://www.infineon.com/sustainability_2019)

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