



Fourth Quarter FY 2018 Quarterly Update

Infineon Technologies AG
Investor Relations

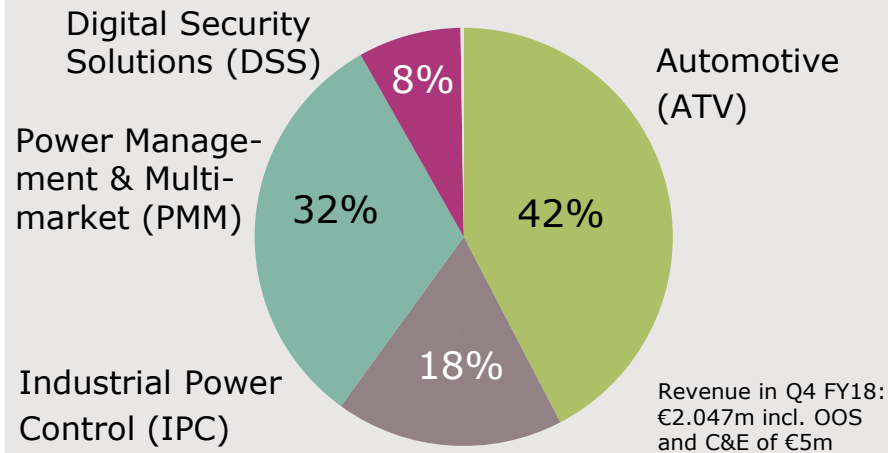


Agenda

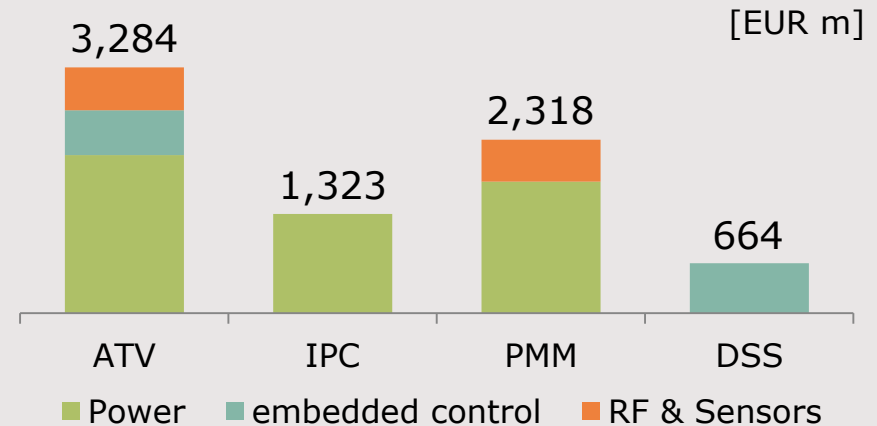
- 1 Infineon at a glance
- 2 Quarterly highlights
- 3 Automotive
- 4 Industrial Power Control
- 5 Power Management & Multimarket
- 6 Digital Security Solutions
- 7 Selected financial figures

Infineon at a glance: strong financials, leading market positions

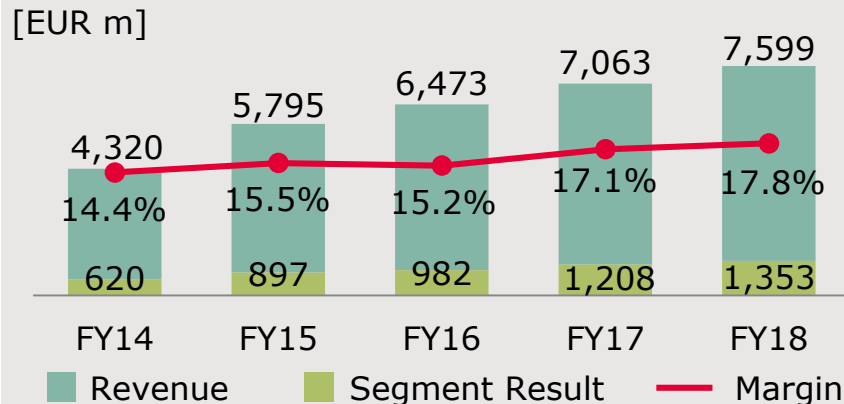
Q4 FY18 revenues by segment



FY18 revenues by product category



Financials



Market position

Automotive



2

Strategy Analytics,
April 2018

Power



1

IHS Markit,
Technology Group,
September 2018

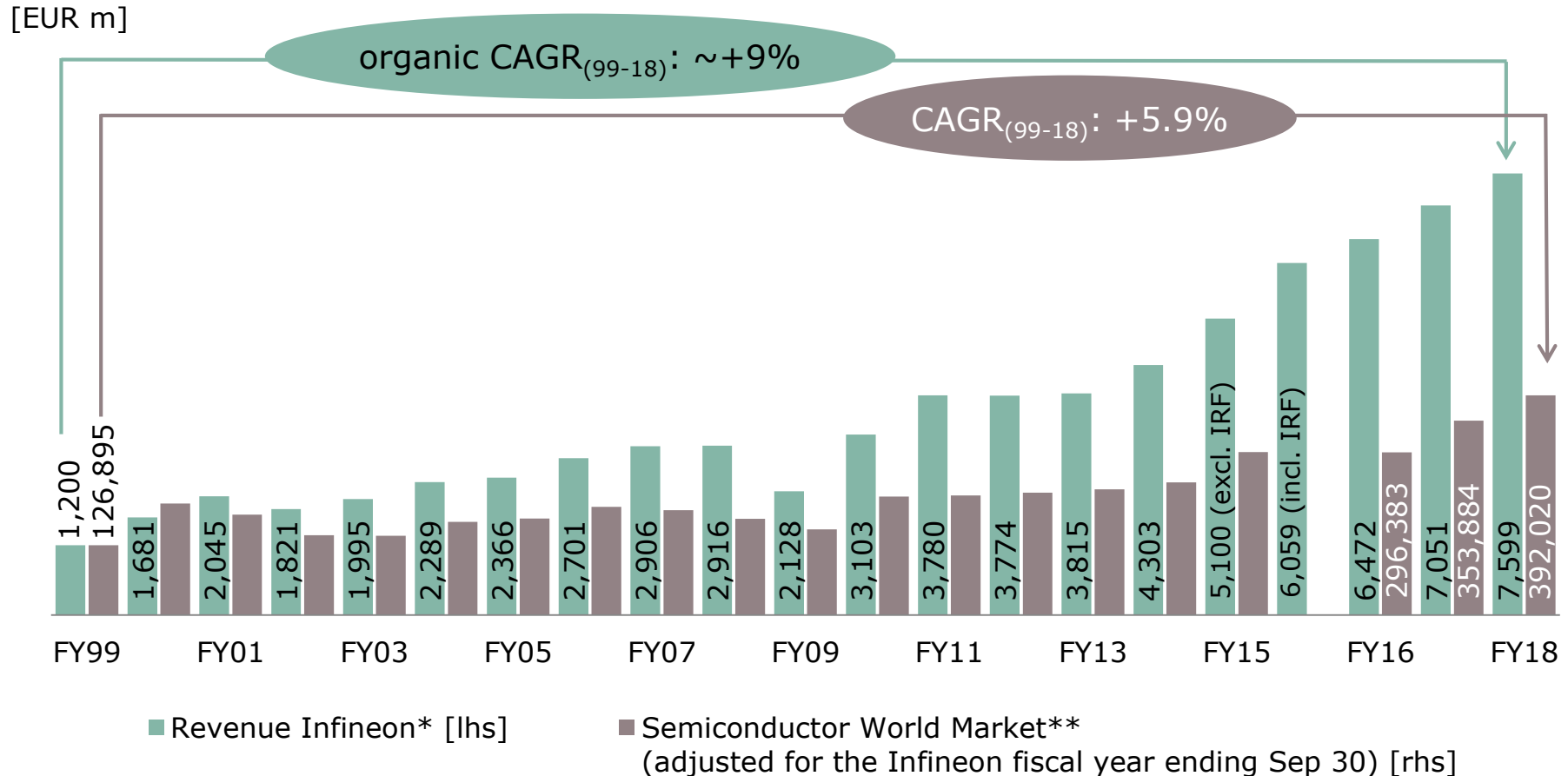
Security ICs



1

ABI Research,
October 2018

Infineon's organic revenue development clearly outperformed the total semi market



* Based on Infineon's portfolio (excl. Other Operating Segments and Corporate & Eliminations) per end of FY18.

** Source: WSTS (World Semiconductor Trade Statistics) in EUR, October 2018.

Our strategy is targeted at value creation through sustainable organic growth



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

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

Target operating model: average-cycle targets

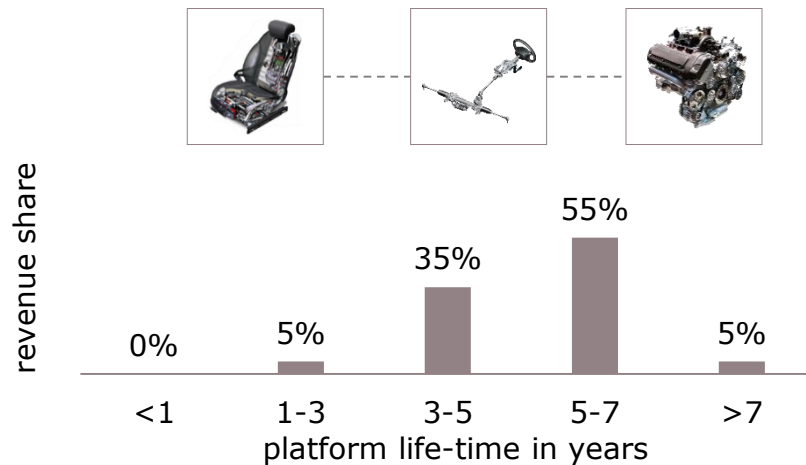
Revenue growth 9%	Segment Result margin 17%+	Investment-to-sales 15%
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Continued value creation for shareholders

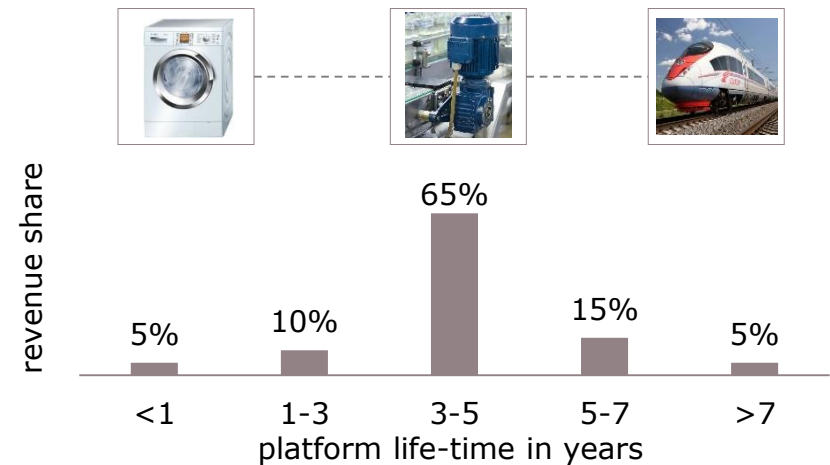
- › Organic RoCE \triangleq $\sim 2\times$ WACC
- › Paying out at least a constant dividend even in periods of slower growth
- › continuous EPS increase

Long platform life-times in majority of our businesses provide stickiness and visibility

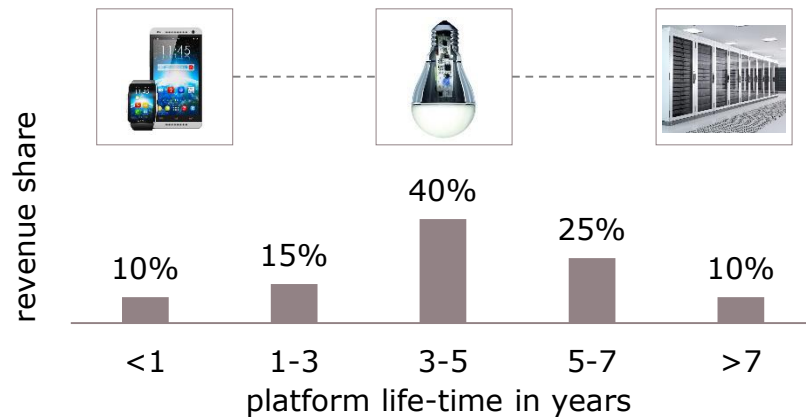
ATV – average platform life-time: ~6 years



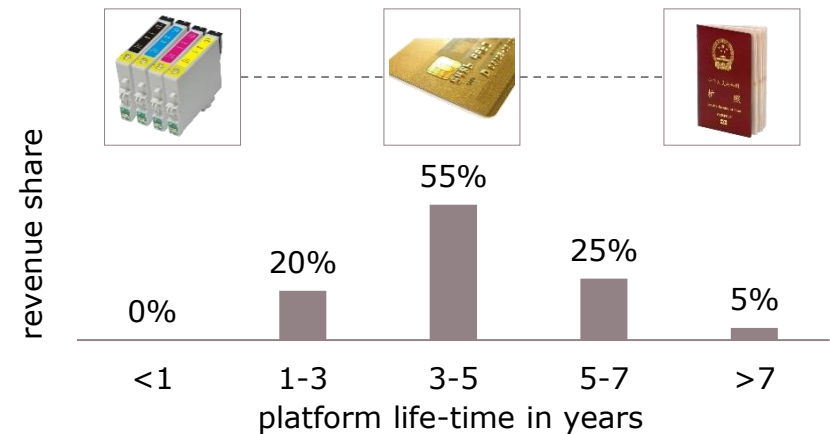
IPC – average platform life-time: ~5 years



PMM – average platform life-time: ~4 years

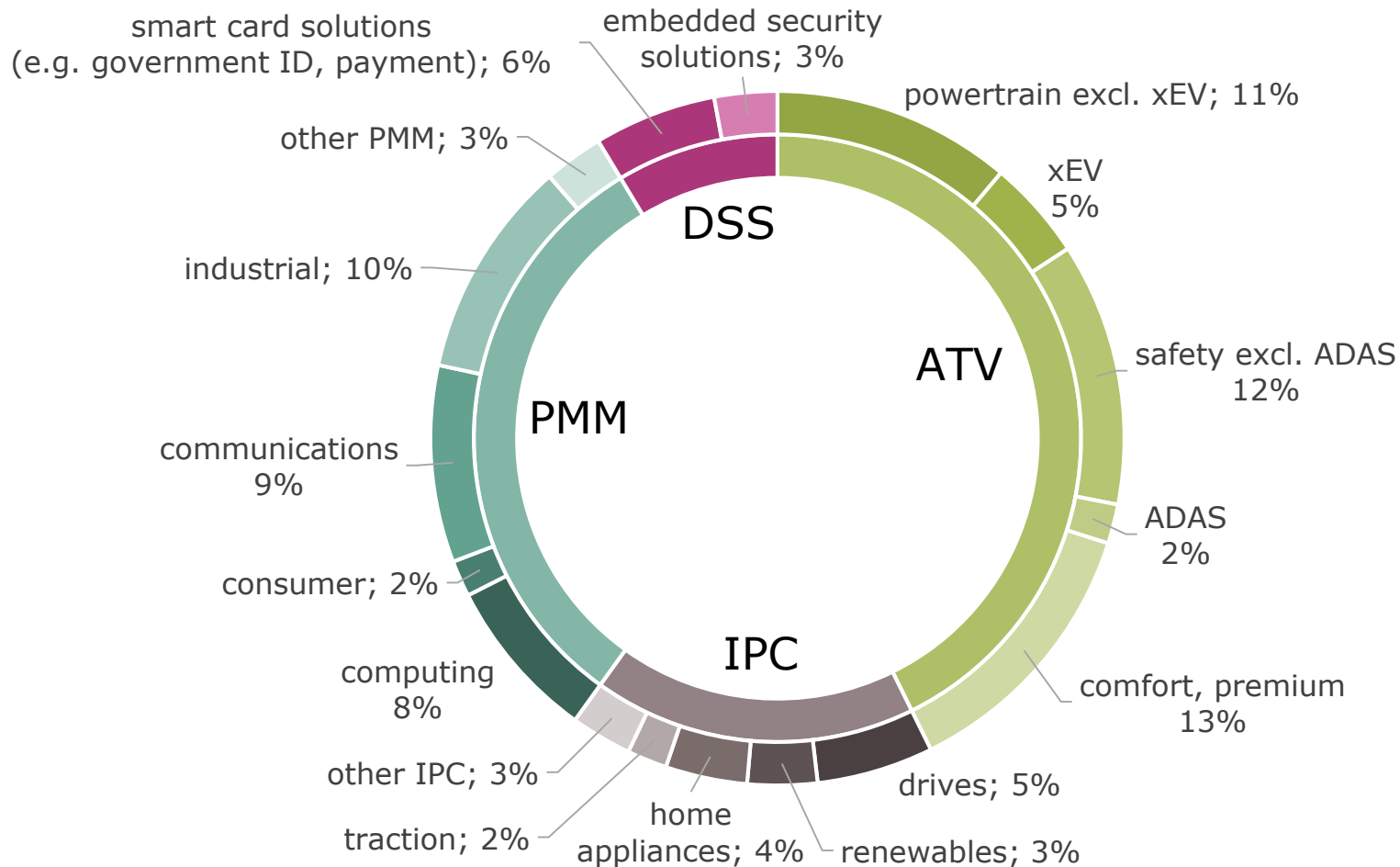


DSS – average platform life-time: ~4 years



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

FY18 revenue of €7,599m by target application



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

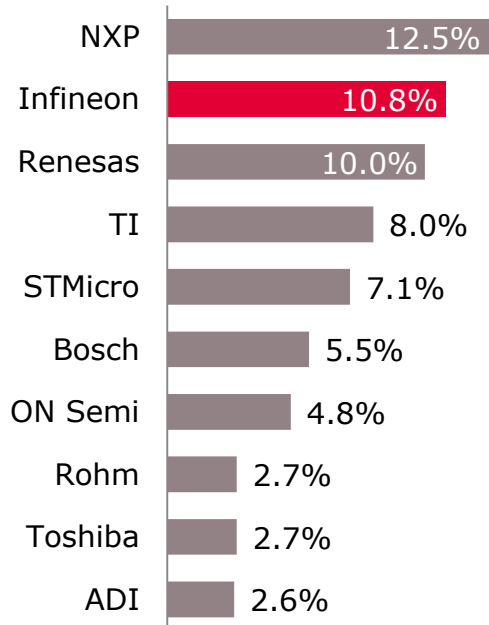
ATV	IPC	PMM	DSS
EMS partners	Distribution partners		

Infineon holds a leading position in its target markets



Automotive semiconductors

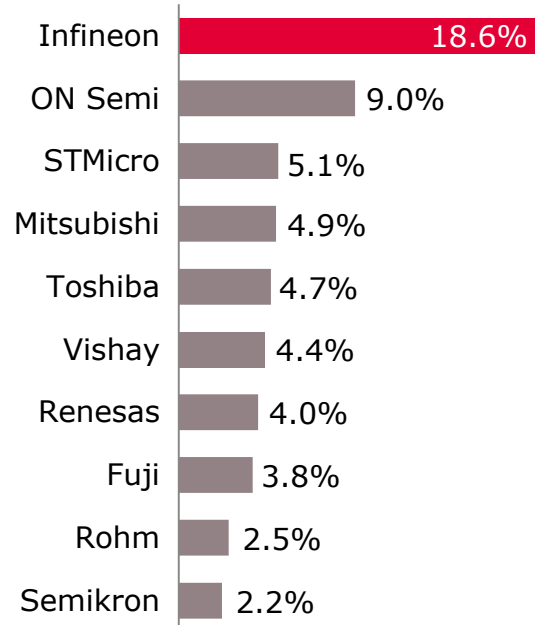
total market in 2017: \$34.5bn



Source: Strategy Analytics, "2017 Automotive Semiconductor Vendor Share", April 2018

Power discretes and modules

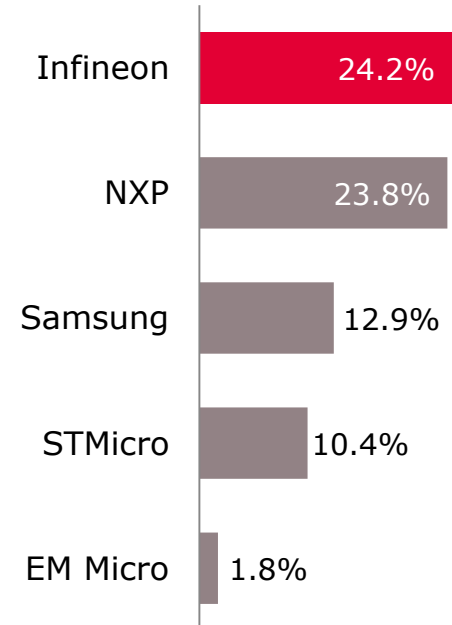
total market in 2017: \$18.5bn



Source: Based on or includes content supplied by IHS Markit, Technology Group, "Power Semiconductor Market Share Database 2017", September 2018

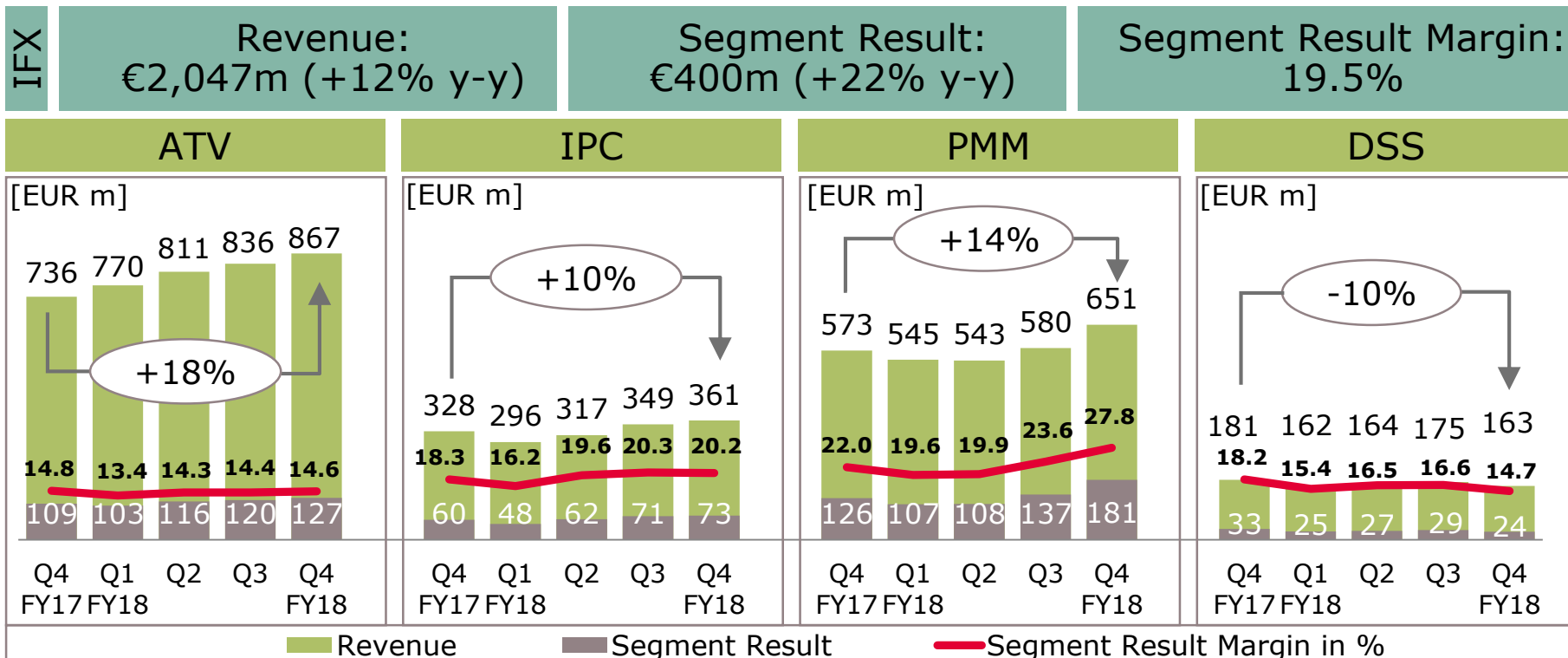
Security ICs

total market in 2017: \$3.3bn



Source: ABI Research, "Smart card & secure ICs", October 2018

Q4 FY18 Group and Division Performance



› Q4 FY18: q-q revenue increase mainly due to growing demand for electric drivetrain products

› Q4 FY18: q-q revenue increase mainly driven by industrial drives and wind

› Q4 FY18: q-q revenue increase due to capacity expansion for AC-DC and DC-DC, and seasonal increase in RF products

› Q4 FY18: q-q revenue decline due to payment and government ID, partly offset by seasonal growth in authentication

Outlook for Q1 FY19 and FY19

	Outlook Q1 FY19* (compared to Q4 FY18)	Outlook FY19* (compared to FY18)
Revenue	Decline of 4% +/- 2%-points	Increase of 11% +/- 2%-points
Segment Result Margin	At the mid-point of the revenue guidance: ~17.5%	At the mid-point of the revenue guidance: ~18%
Investments in FY19		€1.6bn to €1.7bn
D&A in FY19		~€1.0bn**

* Based on an assumed average exchange rate of \$1.15 for €1.00

** Including D&A on tangible and intangible assets from purchase price allocation of about €90m

Outlook for FY19 fully in line with long-term target operating model (TOM)



	Outlook FY19	Long-term (TOM)
Revenue growth	~11%	~9%
Segment result margin	~18%	~17%+
Investment-to-sales	Investments €1.6 – 1.7bn	~15%*

› Accelerated growth with correspondingly higher investment needs

› ~€200m for cleanroom and office building investments

› ~€100m for potential revenue upsides and structural changes

* Thereof ~2%-points capitalized R&D according to IFRS reporting standards. The balance of ~13% corresponds to capex, of which ~6%pt is fixed, ~7% related to capacity expansion.

New Villach 300 mm module will add significant capacity in power semiconductors

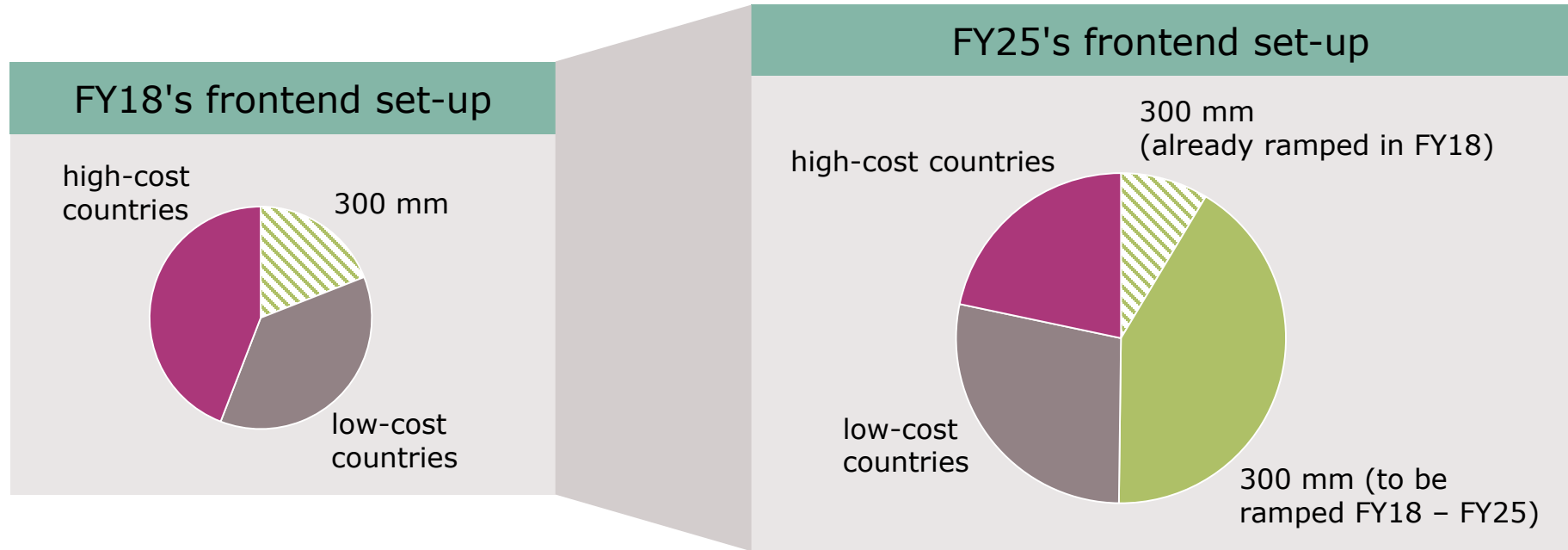
Key criteria for site selection

- › Economies of scale
- › Time to revenue
- › Geographic diversification



Building space	~60,000 m ²	Ground-breaking ceremony on 10 Nov 2018
Total frontend investment	> €1.6bn over 6 years	
Revenue potential	> €1.8bn per year	
Start of construction	early 2019	
Ready-for-equipment	mid 2020	
Ready-for-production	early 2021	
Technologies	IGBT and MOSFET for all end markets	

Gross margin potential driven by 300 mm manufacturing for power and sensors

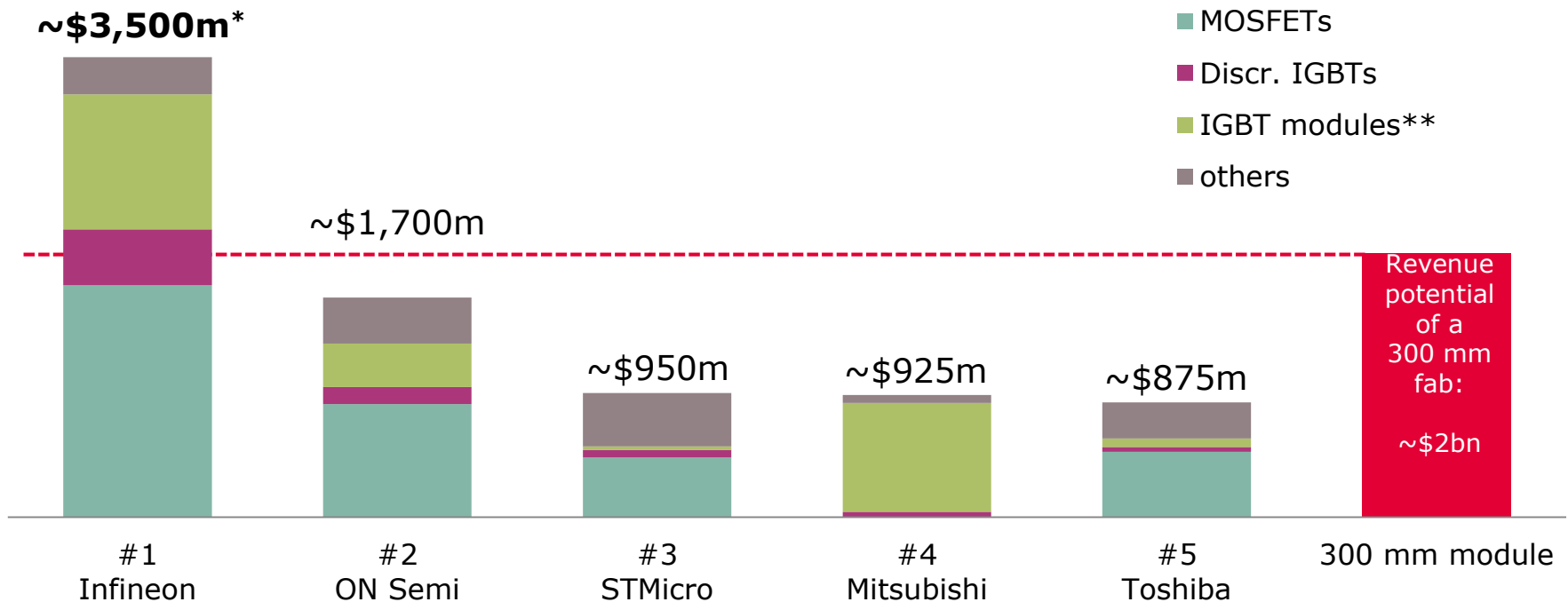


- › 300 mm vs. 200 mm: 20% - 30% cost advantage when fully loaded
- › ~6% cost advantage on frontend level
- › ~2.25%-points gross margin improvement excluding counter effects

Infineon has ~2x the size of next competitor with regard to products feasible for 300 mm



2017 revenue split of top-5 power semiconductor player by product category;
2017 total market for discrete power semiconductors and modules: \$18.5bn



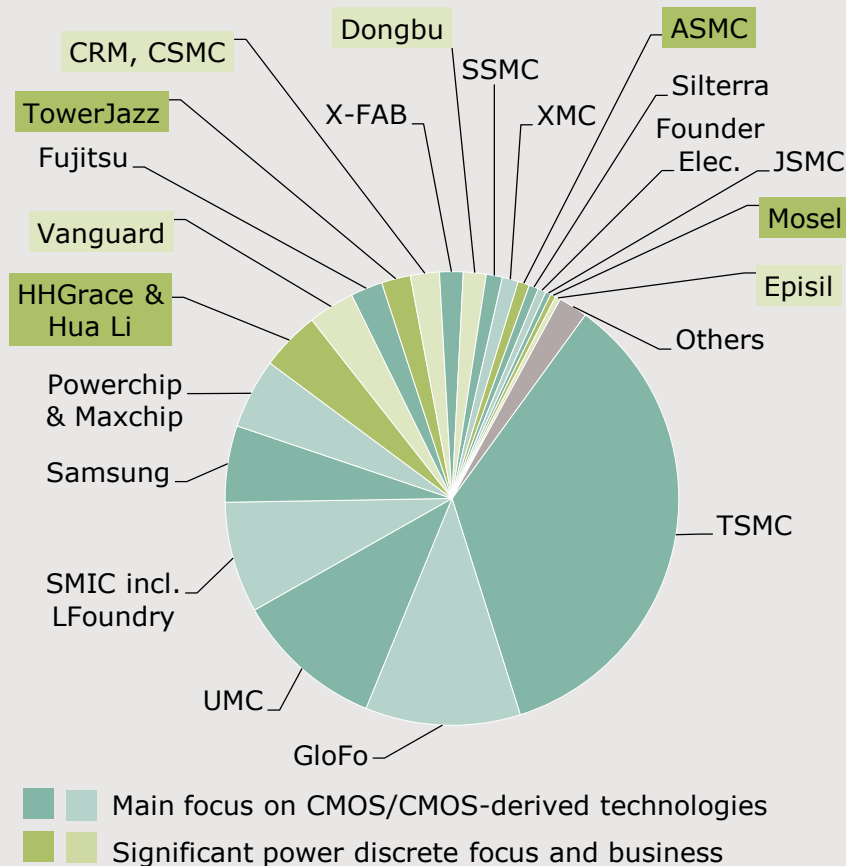
* rounded figures.

** including standard IGBT modules, IPMs (IGBT + MOSFET), PIM/CIBs.

Sources: Based on or includes content supplied by IHS Markit, Technology Group, "Power Semiconductor Market Share Database 2017", September 2018.

Only limited outsourcing options for high-volume discrete power semiconductors available

Power-focused foundries represent only ~15% of total foundry capacity



In the next five years, the Infineon **frontend outsourcing** share will increase from ~22% to ~30%; of that

- › **CMOS:** from ~50% to ~70%
- › **Power:** up to ~15%
Outsourcing share is restricted by limited capacity of most of the power-focused foundries

Backend outsourcing share will increase from 23% to 32%

Source: Infineon analysis based on Semi.Org, "Semi World Fab Forecast", August 2017 edition

Agenda

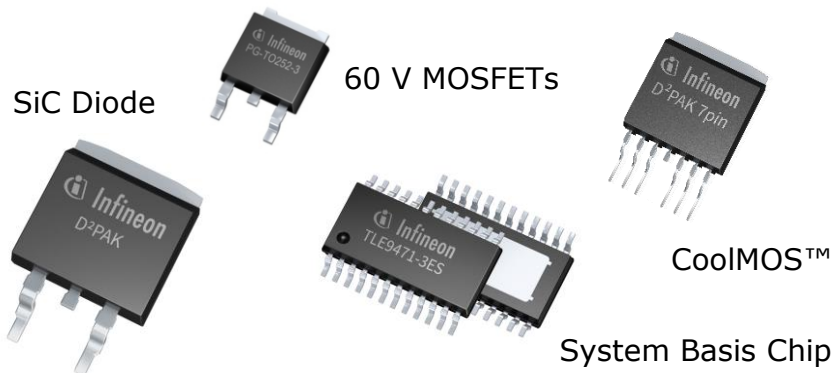
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Two major ATV design-wins based on our P2S (Product-to-System) approach

Design-win #1: on-board charger

- › Design-win of an on-board charger at an European tier-1 for a major OEM's BEV drivetrain platform
- › First significant design-win for SiC diode
- › Start of production: 2019

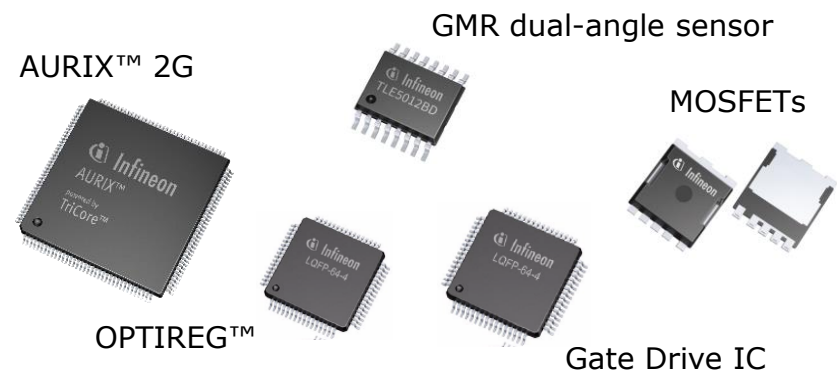
Key components



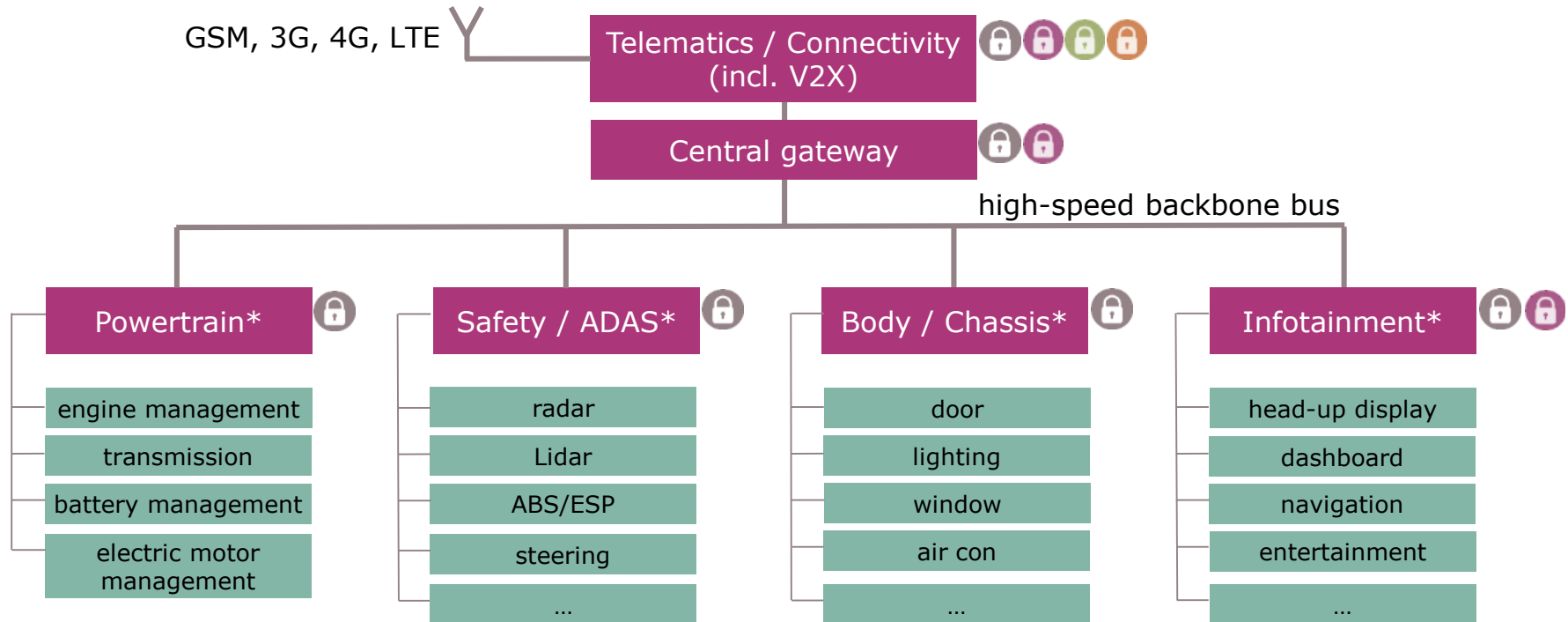
Design-win #2: electric power steering platform





- › Design-win at a North American tier-1 for electric power steering platform serving a range of international OEMs
- › Infineon won 100% of BoM incl. GMR dual-angle sensor and AURIX™ 2G
- › Start of production: 2022

Key components



AURIX™ μ Cs and auto-grade security ICs fit perfectly for domain controller concepts



-  AURIX™ integrated security
-  OPTIGA™ TPM discrete HW security
-  V2X discrete HW security
-  eSIM discrete HV security

- * AURIX™ meets domain controller requirements:
- › real-time capability
 - › high-speed interconnect
 - › HW-based security

Battery-powered applications (BPA) (1 of 2): Do-it-yourself (DIY) tools

Selected Infineon customers



Market dynamics

- › ~150m DIY tools per year
- › ~3% unit growth p.a.
- › high growth results from structural trends (see below)
- › BPAs are PMM's main revenue driver within the next 5 years

Two structural trends driving power semiconductor content per device

- › trend #1: from corded to cordless devices
 - › penetration rate: from ~40% today to ~70% in 5..7 years
- › trend #2: from brushed 1-phase DC motor to brushless (BLDC) 3-phase motor
 - › penetration rate: from ~30% today to ~60% in 10..15 years
- › both trends result in an increase of power semiconductor content per device from ~\$1 to ~\$4 on average
- › Infineon products: OptiMOS™, StrongIRFET™, EiceDRIVER™, XMC

BPAs (2 of 2): increasing number of applications secures growth for years

drones



- › BLDC motors only (no brushed motors in use)
- › Infineon provides ~50 different components for drone and charger

- › Infineon provides
 - › MOSFETs (OptiMOS™, StrongIRFET™)
 - › MOSFET drivers (EiceDRIVER™)
 - › battery authentication (OPTIGA™)
 - › controller (AURIX™, XMC, Embedded Power IC)
 - › XENSIV™ sensors (angle, pressure, 24 GHz)

fork lifts

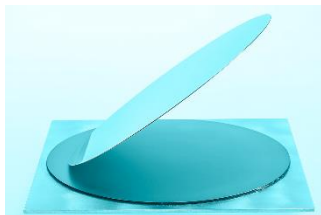
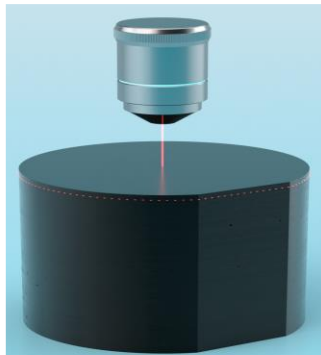


- › ~1m forklifts per year
- › 70..100 high-current MOSFETs per vehicle
- › \$80..\$150 power semi content per vehicle

others

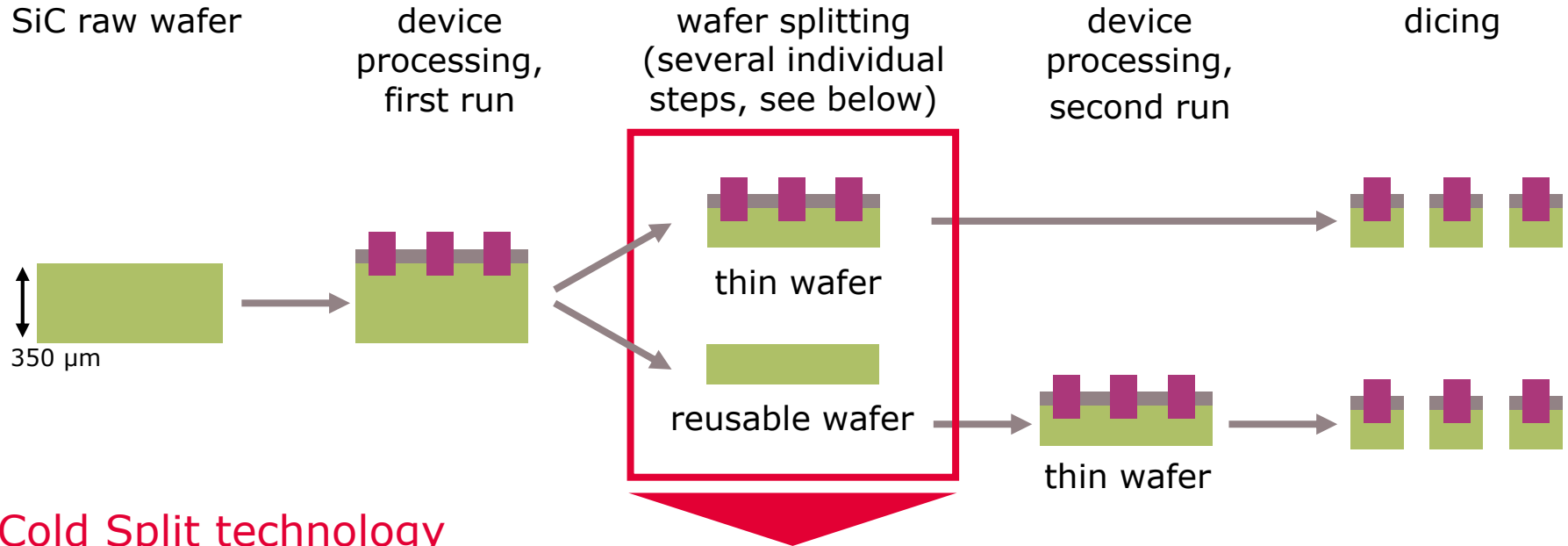
- › eBike
- › eScooter
- › eRickshaw
- › electric motorcycle
- › electric wheelchair
- › low-speed car
- › golf car
- › autom. guided vehicle
- › areal work platform
- › cleaning machine
- › vacuum robot
- › remote-controlled toy
- › robot
- › material handling

Acquisition of Siltectra: Deal facts

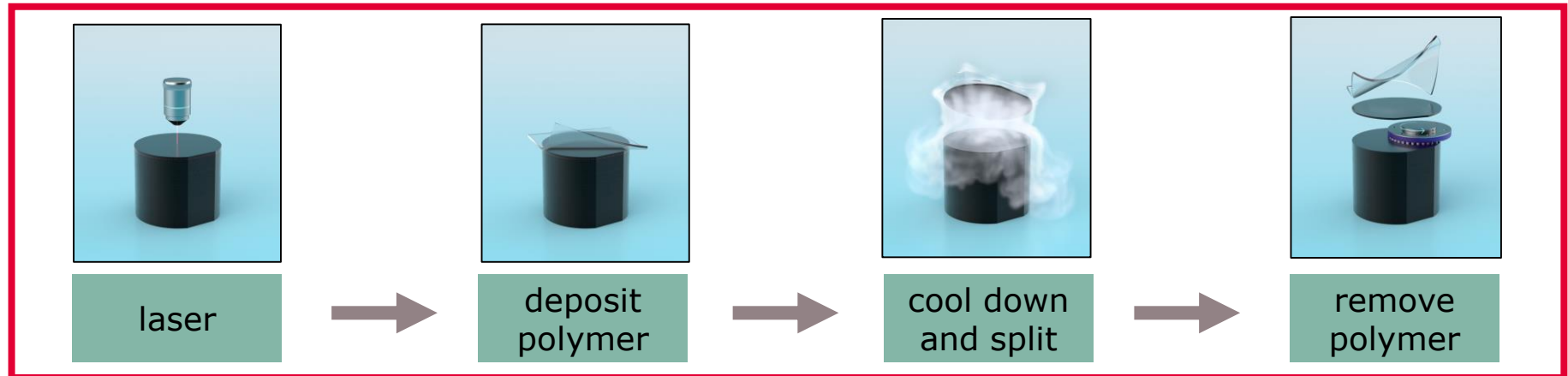


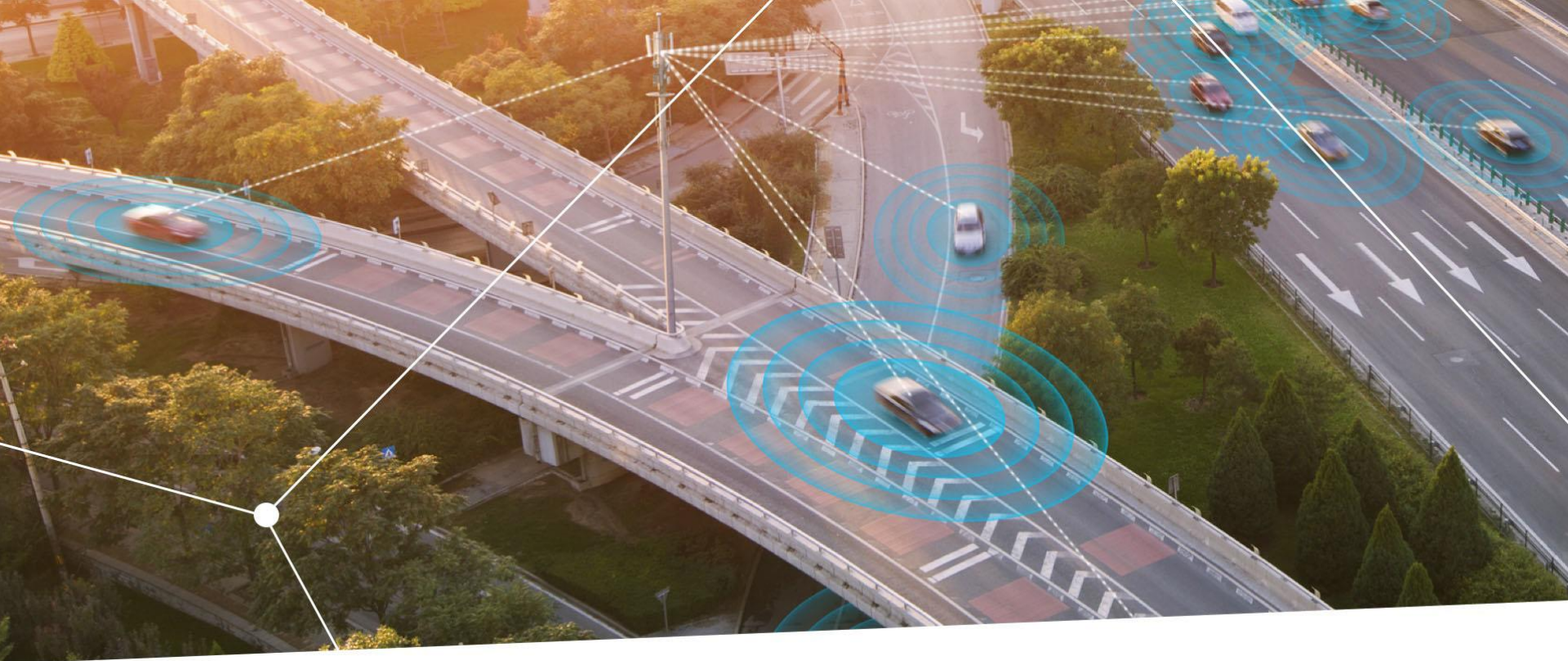
- › Infineon acquired Siltectra GmbH, a start-up company based in Dresden (Germany), for €124m
- › Siltectra has developed a wafer splitting technology, called Cold Split, which allows to precisely separate crystal material with minimal material losses especially compared to sawing
- › Infineon will use the Cold Split technology to split SiC wafers (see next page) with the advantages of
 - reducing manufacturing cost by
 - a) reuse of SiC wafer (make 2-out-of-1)
 - b) significantly shortening the grinding process
 - important lever to increase security of supply, especially when SiC will ramp in larger scale in xEV
- › Other options to use the Cold Split technology remain open:
 - SiC ingot splitting („boule splitting“)
 - splitting of non-SiC wafers, e.g. SoI, GaN, GaAs, sapphire

Cold Split technology allows splitting of processed SiC wafers



Cold Split technology





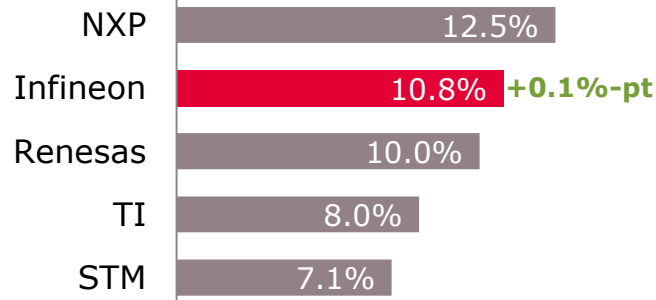
Automotive



Infineon's position in the automotive semiconductor universe

Automotive semiconductors

2017 total market size: \$34.5bn

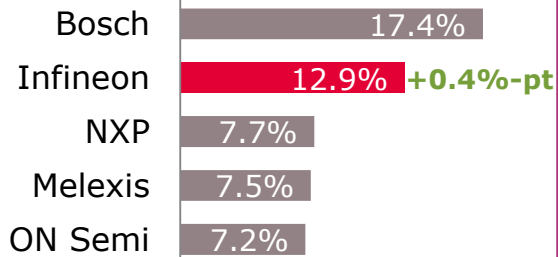


Market share trend: Infineon benefits disproportionately from the two mega trends



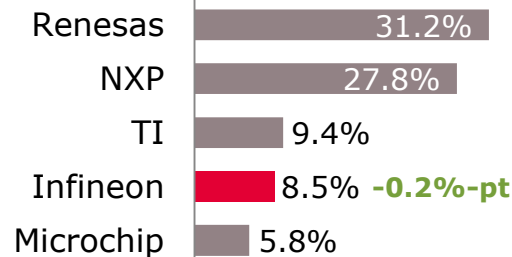
- electro-mobility: power, drivers, μ C
- automated driving: radar, lidar, μ C

Sensors



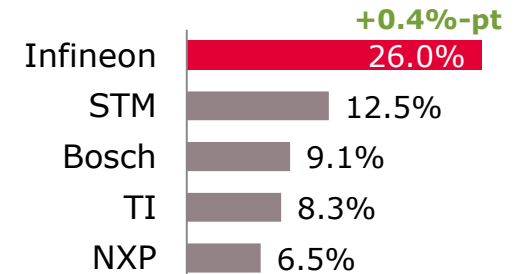
long-term drivers: - 24 / 77 GHz radar
- lidar

Microcontrollers



long-term drivers: - ADAS/AD
- Powertrain

Power



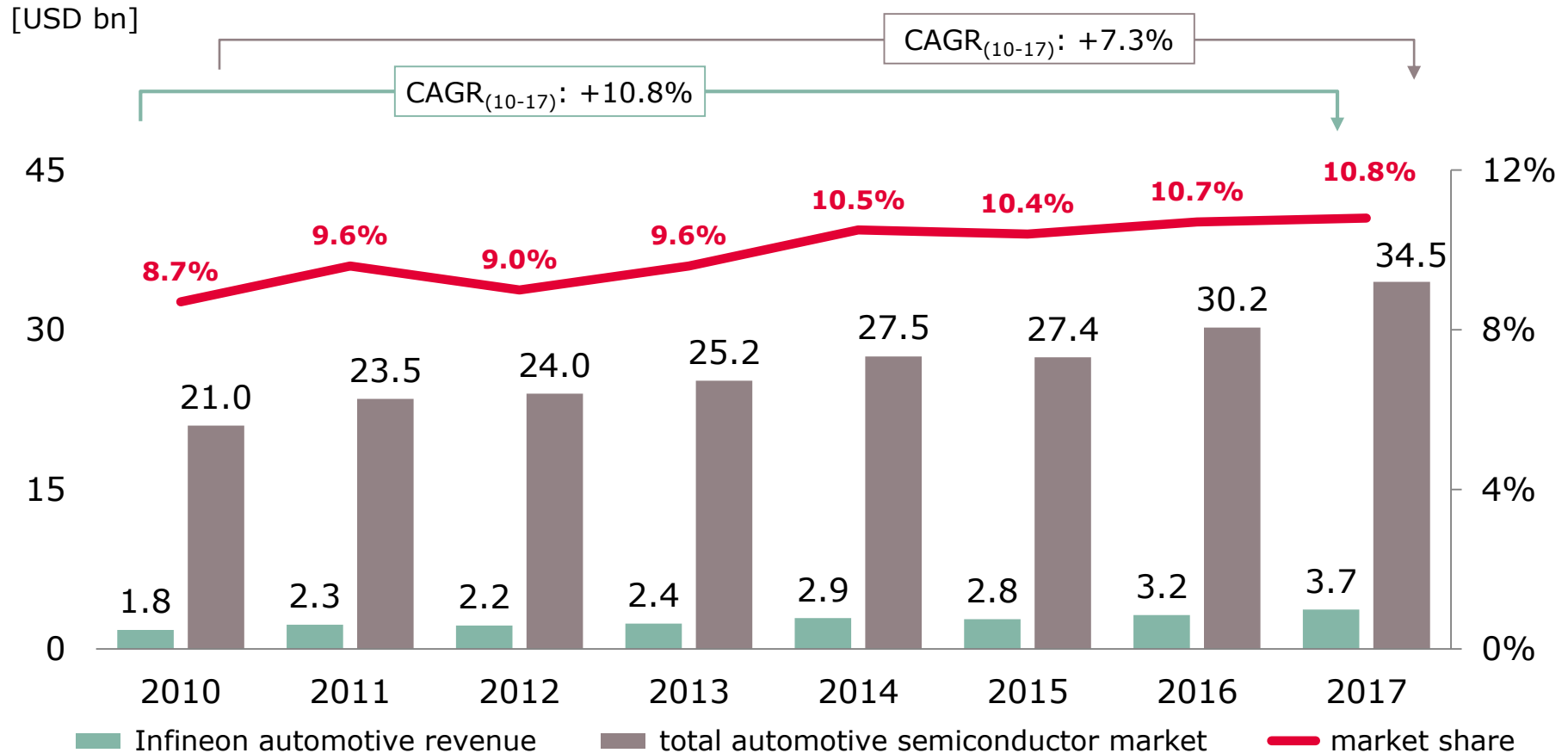
long-term drivers: - xEV penetration
- EPS
- Lighting

Source: Strategy Analytics, "Automotive Semiconductor Vendor Market Shares", April 2018

Infineon is continuously outgrowing the market since 2010



Infineon automotive market share development*



* Infineon automotive revenue as reported to Strategy Analytics incl. revenue from ATV, IPC and PMM. Adjusted to calendar year.
Source: Strategy Analytics, "Automotive Semiconductor Vendor 2017 Market Share", April 2018.

Clean cars, ADAS/AD, and adoption of premium features drive growth

Vehicle production



- › ~2% growth p.a.

Drivers for semiconductor content per car

Electro-mobility



- › Legislation
- › Improvements of ICE
- › Higher efficiency of all electric consumers
- › Adoption of xEV

Automated Driving



- Today**
 - › crash avoidance
 - › ADAS
- Tomorrow**
 - › Autonomous Driving

Comfort, premium



- › Premium cars are early adopters of high-end comfort and safety features
- › Trickle down to mid-range

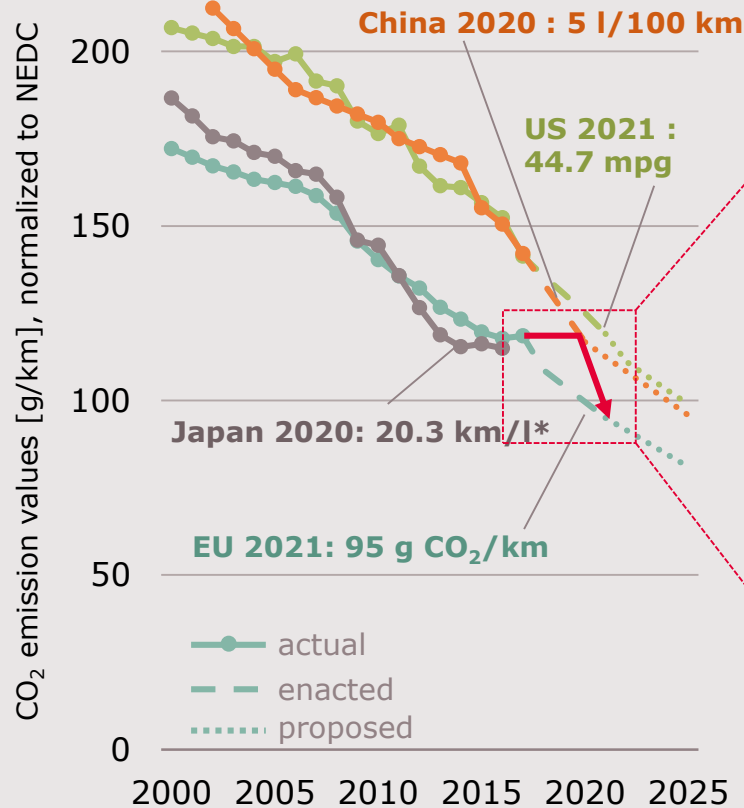
~10% p.a. through-cycle growth



Electro-mobility

xEV growth driven by emission regulation; but consumer preferences thwart CO₂ reduction

CO₂ emission development and regulations for main regions



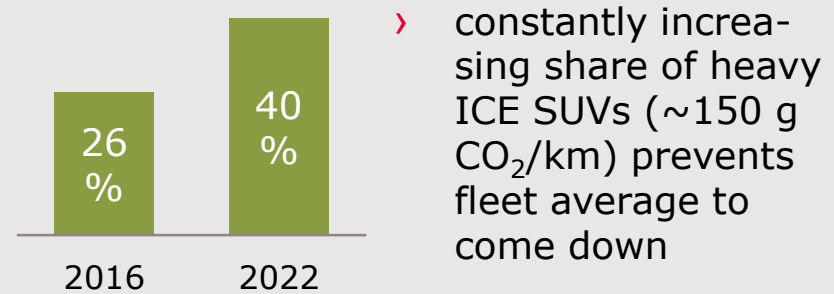
*Note: Japan has already met its 2020 statutory target as of 2013

Source: 1) based on or includes content supplied by IHS Markit, Automotive Group, Report "SUV-B segment to drive crossover growth in Europe", January 2018

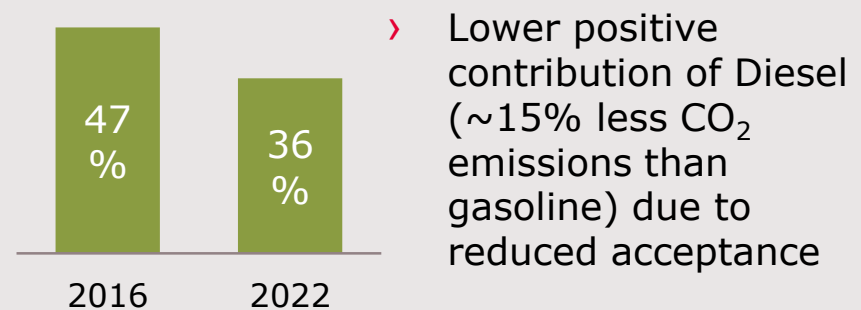
2) based on or includes content supplied by IHS Markit, Automotive Group, "Light Vehicle Alternative Propulsion Forecast", March 2018

Two consumer trends countervail CO₂ reduction

(1) SUV share of registered cars in Europe¹⁾



(2) Diesel share of registered cars in Europe²⁾



Short-term, MHEV/FHEV/PHEVs are first choice; mid-term BEVs are preferred solution

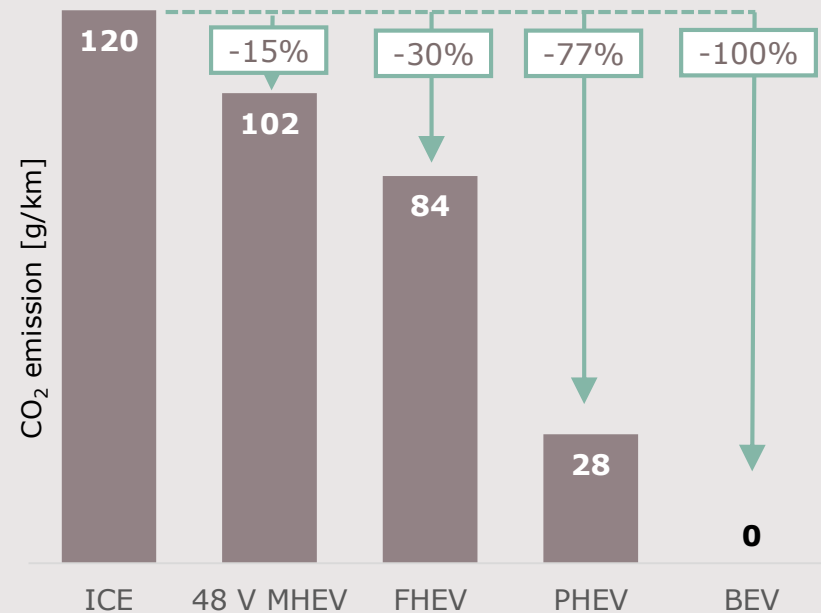
Growth drivers of electro-mobility

- + Regulation
- + Incentives; China industry politics
- + Decreasing Diesel share
- + Increasing SUV share



- Cost and range vs. ICE
- Limited charging infrastructure
- Further ICE improvements
- Attractive oil price

CO₂ emission reduction by powertrain system

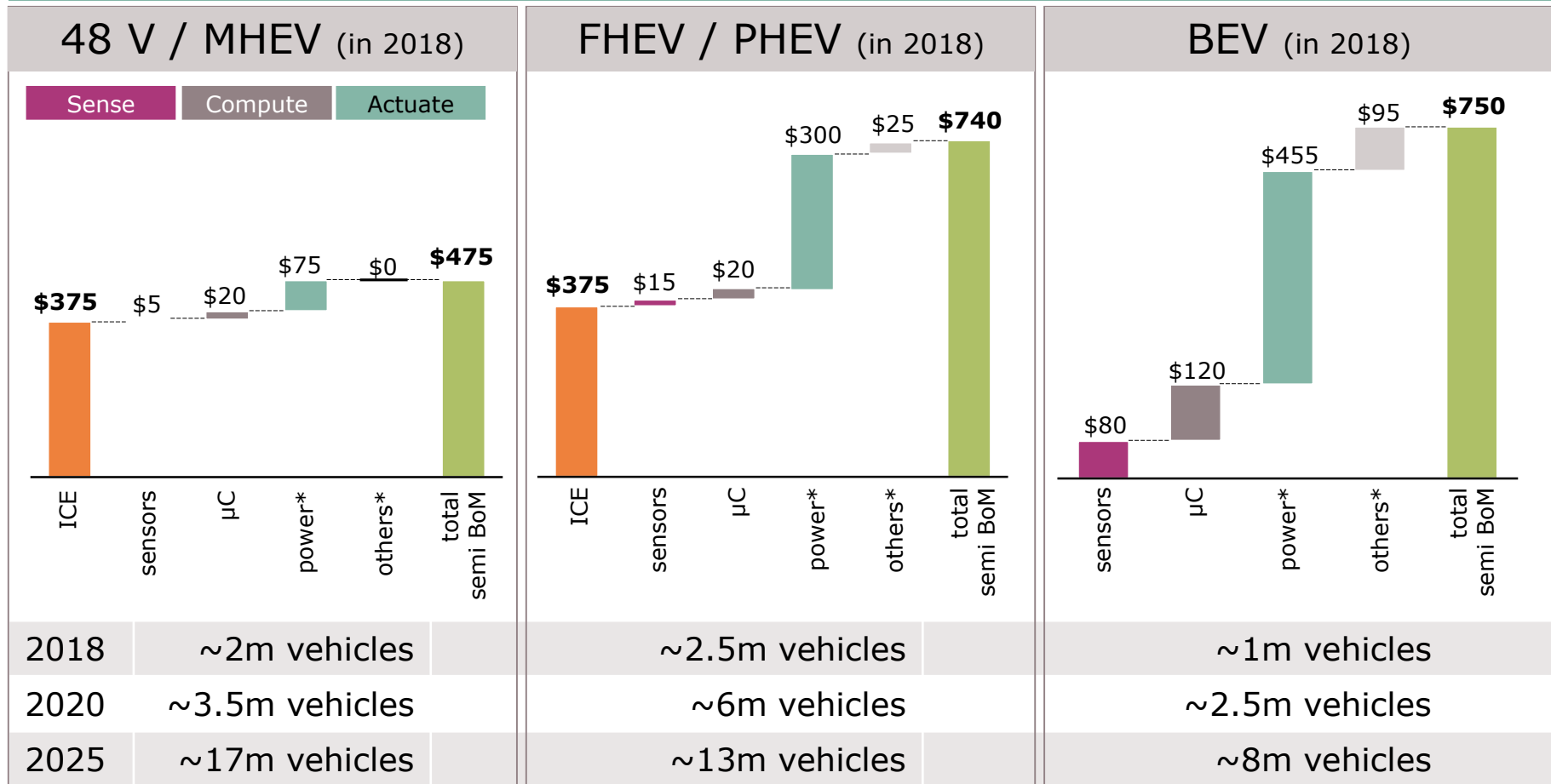


Source: Infineon estimates

- > Due to absence of improvements in CO₂ reduction in the past years, OEMs have to switch to "catch-up" mode until 2021
- > OEMs expected to push 48 V MHEV, FHEV, PHEV systems near-term to meet CO₂ targets
- > Mid- to long-term, BEVs will become the preferred solution

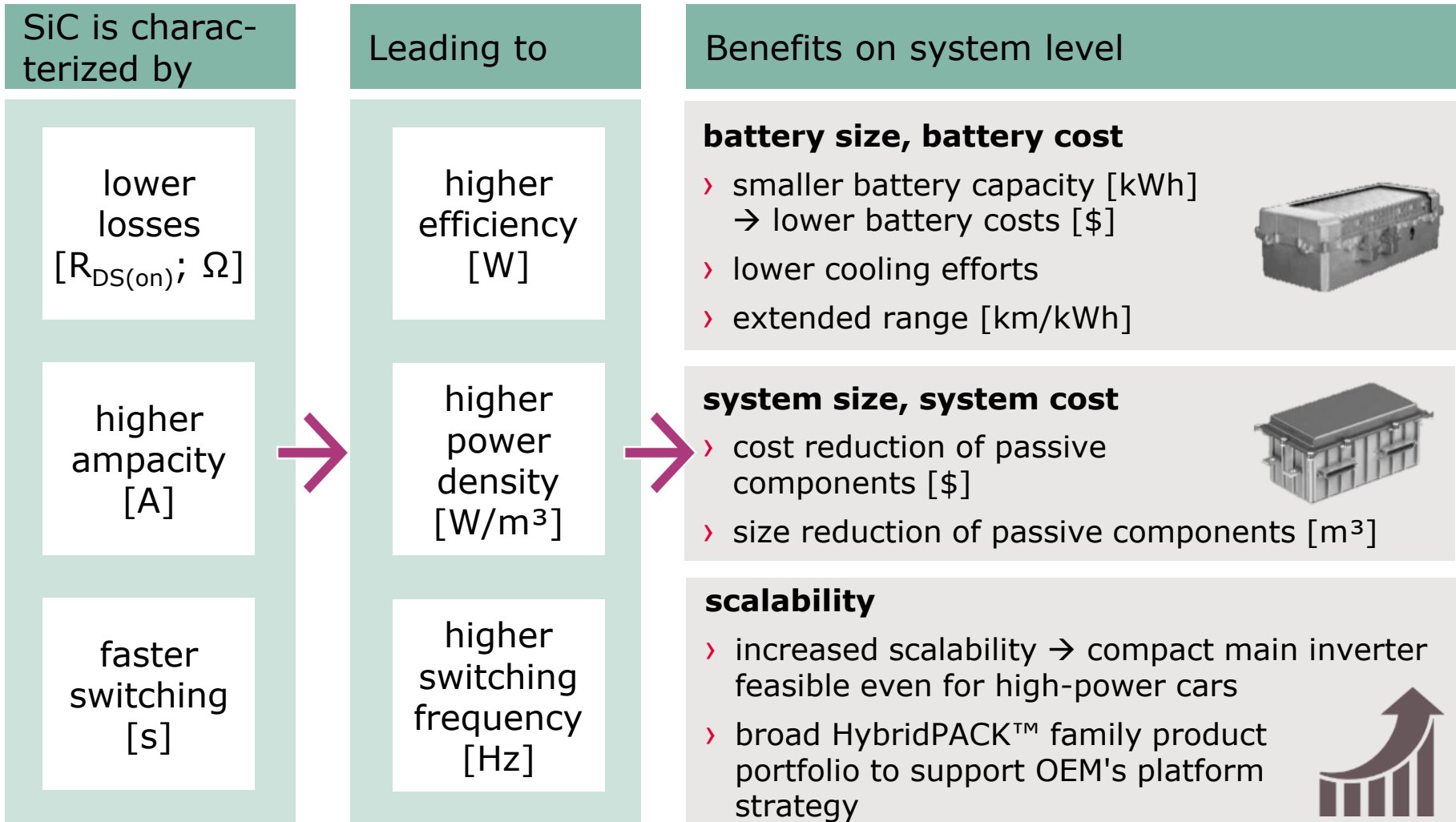
The incremental demand of power semi-conductors is a significant opportunity

2018 average xEV semiconductor content by degree of electrification



Source: Strategy Analytics, "Automotive Semiconductor Content", May 2018; Infineon
 * "power" includes linear and ASIC; "others" include opto, small signal discrete, memory

System cost reduction can justify the higher SiC component price



ampacity = current carrying capability

Infiniteon has unparalleled expertise and portfolio for high-power xEV applications



Bare dies



Discretes

Diodes

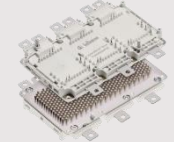
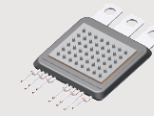
MOSFETs



Modules

molded

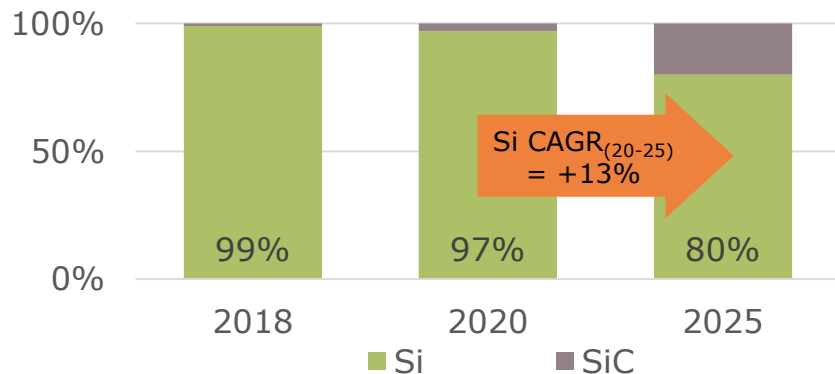
frame-based



Si will dominate the xEV market throughout next decade*



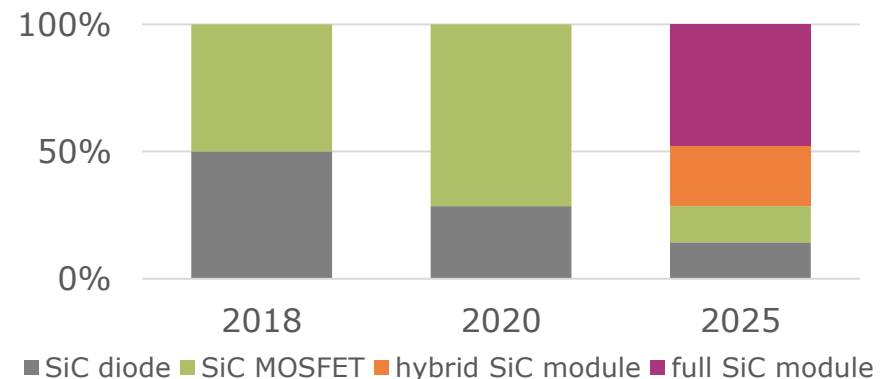
[by \$ value]



Modules will be preferred form factor in SiC mass market*



[by \$ value]



* Source: Infineon

Infineon offers the complete automotive-grade portfolio of SiC components



CoolSiC™ Automotive Schottky diode



on-board charger



ramped
in 2018!

CoolSiC™ Automotive MOSFET



on-board charger

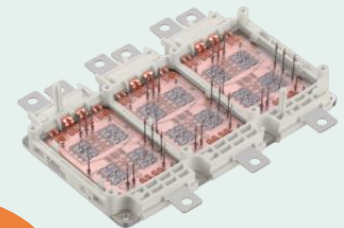


ramp in
2019!

Full SiC module HybridPACK™ Drive CoolSiC™



main inverter



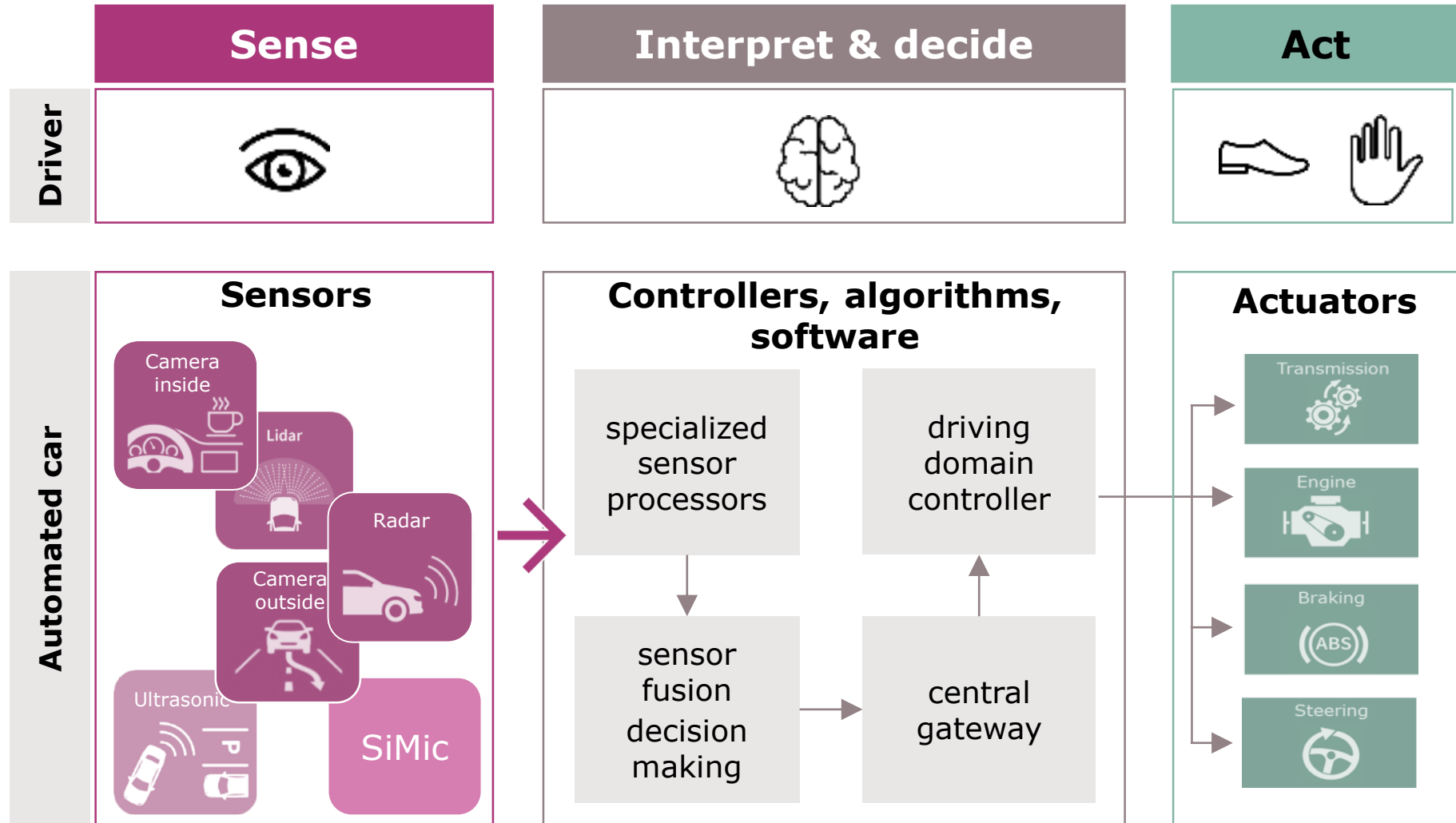
ramp in
2020!

- › More than 20 leading OEMs and tier-1s are evaluating Infineon's SiC solutions for automotive
- › Customer feedback clearly shows that Infineon has deepest understanding of technical quality threats
- › Infineon's internal quality test procedures exceed common industry norm; test results proof that Infineon's SiC products reach that quality level
- › Industry's broadest portfolio allows customer to "pick what they need" rather than to "take what we have"



Automated Driving

For Automated Driving more compute power but also a higher security and safety is needed



Increased sensor requirements drive the content in the next 5 years and beyond

More sensors required for any next level of automation			
	NCAP 5 Star, AD L2	AD L3	AD L4/L5
Application*	Automatic emergency brake/ forward collision warning		
	Parking assist		Valet parking
	Lane keep assist	Highway assist	Highway and urban chauffeur
Radar # of modules**	Corner ≥ 3	MRR/LRR ≥ 6	Imaging ≥ 10
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

Infiniteon opens the door for mass-deployable lidar systems for Automated Driving



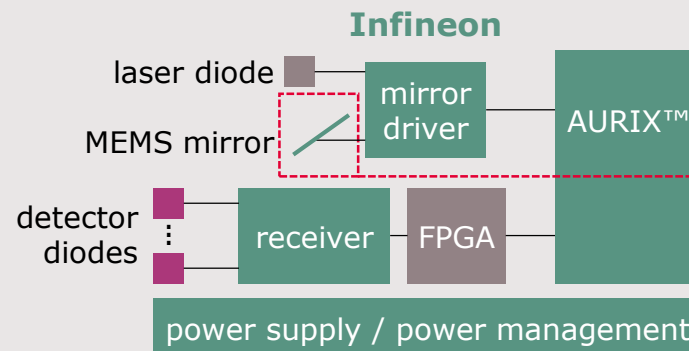
Classification of long-range lidar systems

mechanically moving mirror	solid state optical system		
	scanning optical phased array	flash lidar	scanning MEMS-based mirror
<ul style="list-style-type: none"> ⊕ proven concept ⊖ bulky ⊖ expensive 	<ul style="list-style-type: none"> ⊕ allows optical beam forming ⊖ high demand of laser power, especially for long-range 	<ul style="list-style-type: none"> ⊕ no moving parts ⊖ more complex laser system (more expensive, higher power demand) 	<ul style="list-style-type: none"> ⊕ robust signal path ⊕ more compact ⊕ more cost-effective ⊕ roadmap for higher level of integration

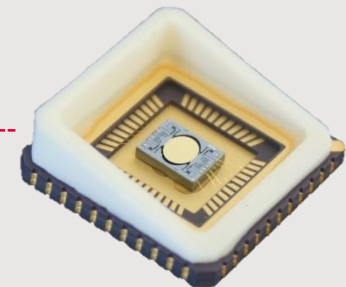


- › Lidar is Infineon's AD portfolio expansion adjacent to radar
- › Infineon intends to repeat its radar success story
- › In addition to MEMS, room to increase BoM by receiver, microcontroller, power management ICs

1st System reference design



MEMS mirror



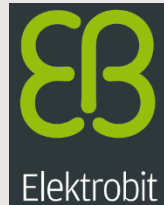
Outstanding characteristics make AURIX™ first-choice μ C in the AD platform market



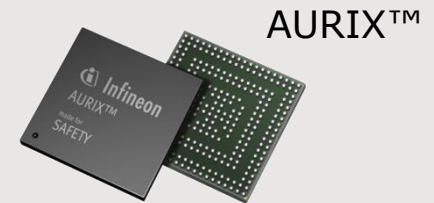
AURIX™ is the market reference as host controller in central computing platforms complementing CPU/GPU to make central computer robust and fail operational



Go™ Automated Driving Platform with AURIX™



EB robinos



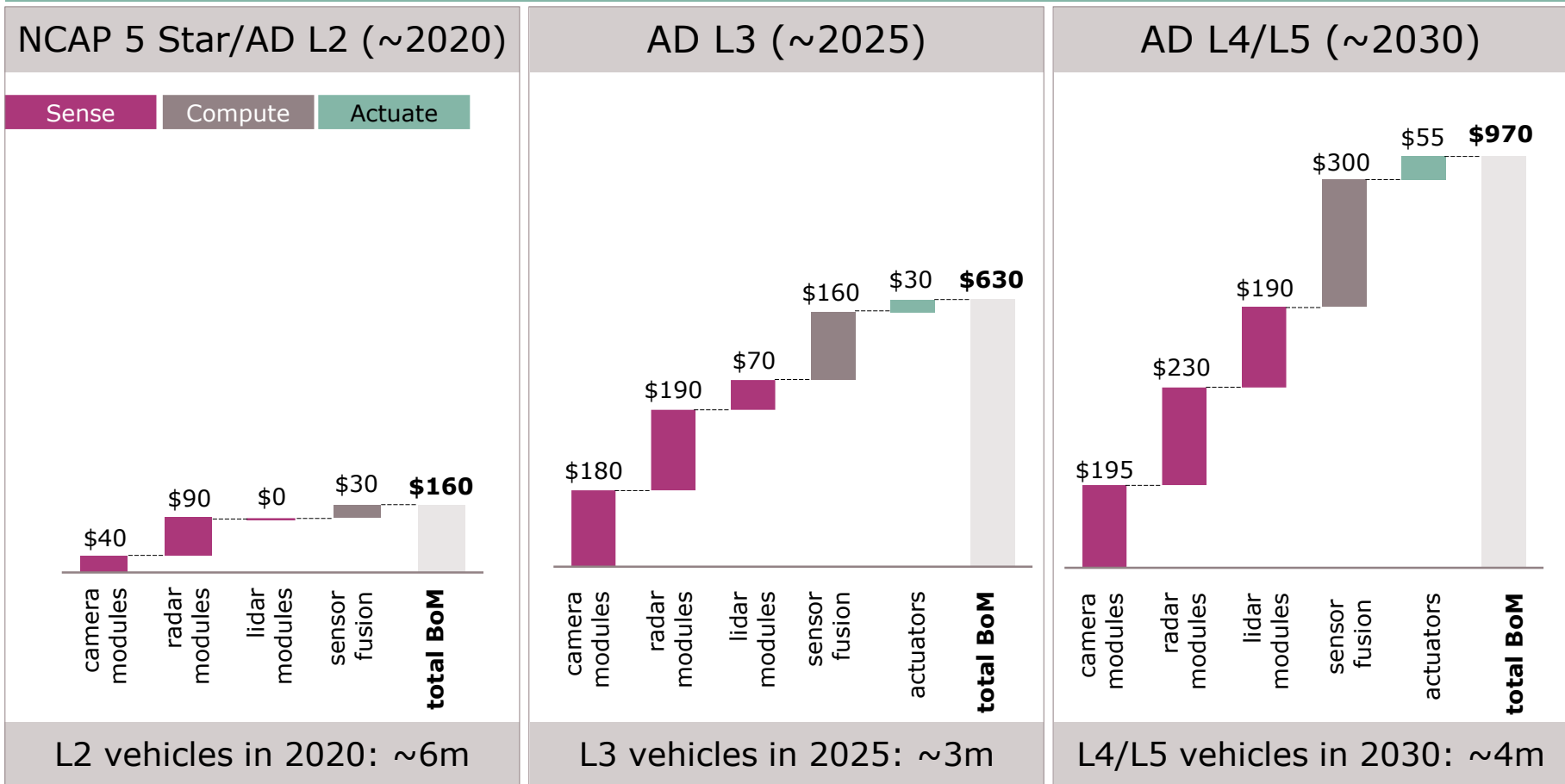
AURIX™

- › Safety host monitoring the operation of the data fusion ECU enables ISO 26262 ASIL-D
- › Safe and secure gateway to the vehicle network
- › Fallback operation in case of a GPU/CPU fail
- › Safe communication to actuator control units

- › Awareness for safety and security aspects of AD is increasing rapidly
- › Infineon is cooperating with the leading AD platform providers

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

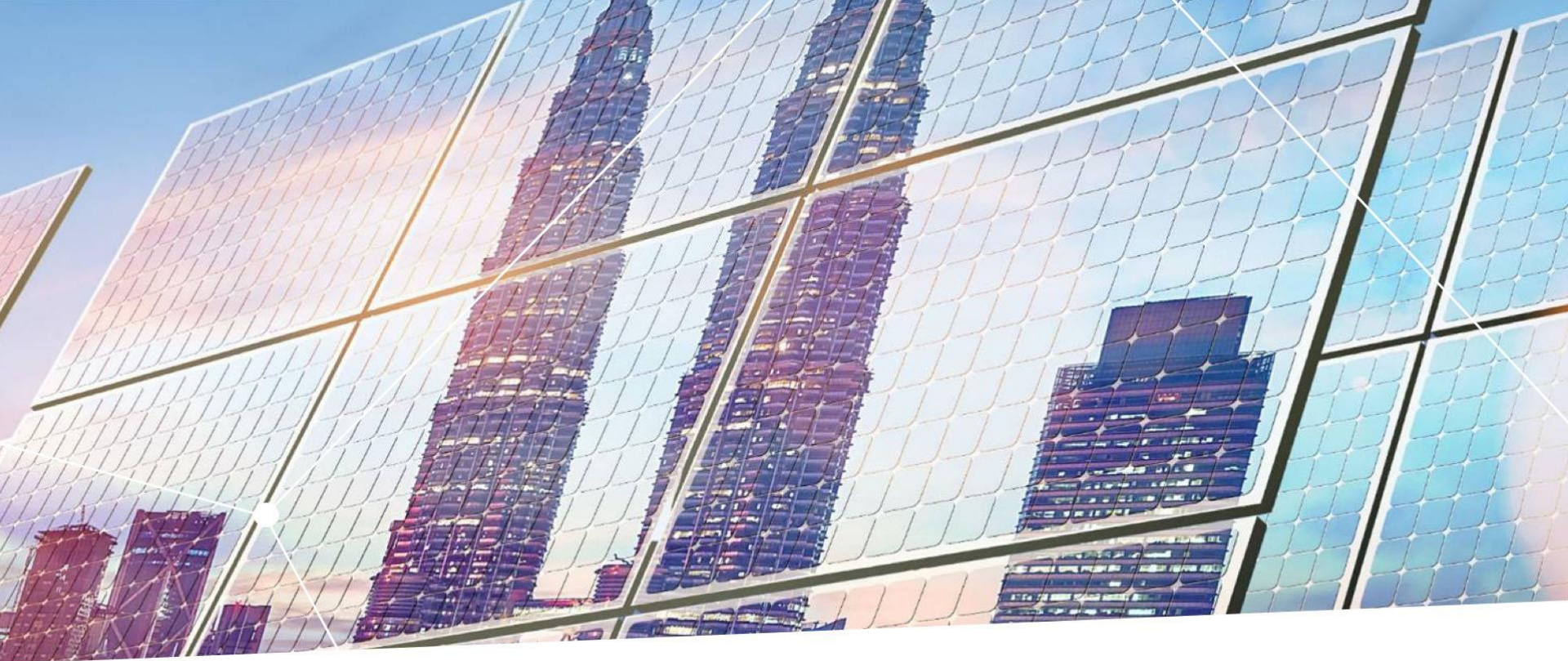
Average semi content per car by level of automation at the given years



Source: Strategy Analytics; Infineon.

BoM contains all type of semiconductors (e.g. radar modules include μ C); sensor fusion does not include memory.

BoM are projected figures for the respective time frame.

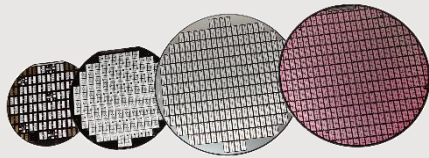


Industrial Power Control

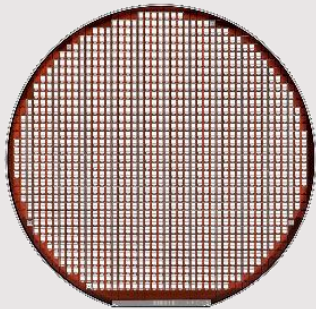


To empower this variety of applications we rely on the most comprehensive power portfolio

Bare Die

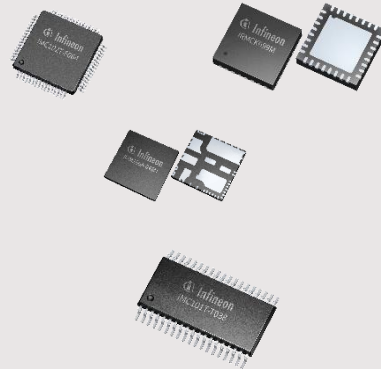


IGBTs and Si diodes

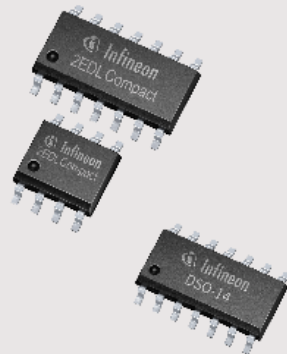


SiC MOSFET
SiC diodes

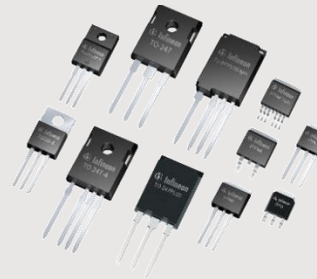
Controllers



Driver



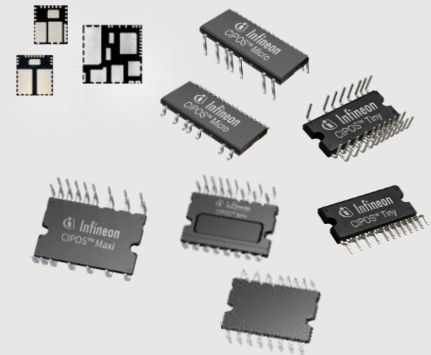
Discretes



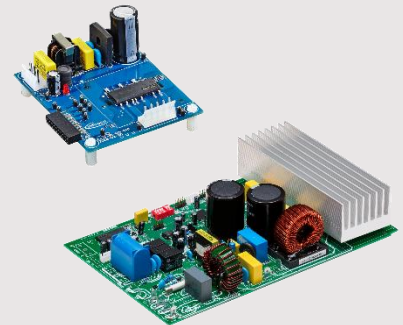
Modules



IPMs



Solutions

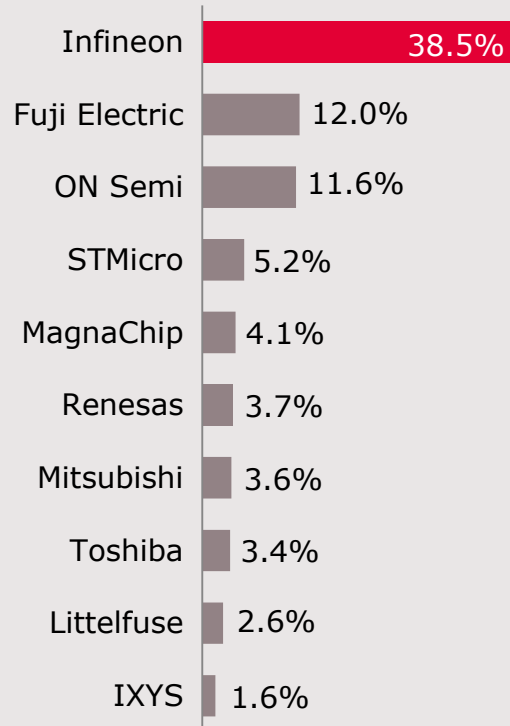


Clear leader in discrete IGBTs and IGBT modules; IPMs improved from #4 to #3



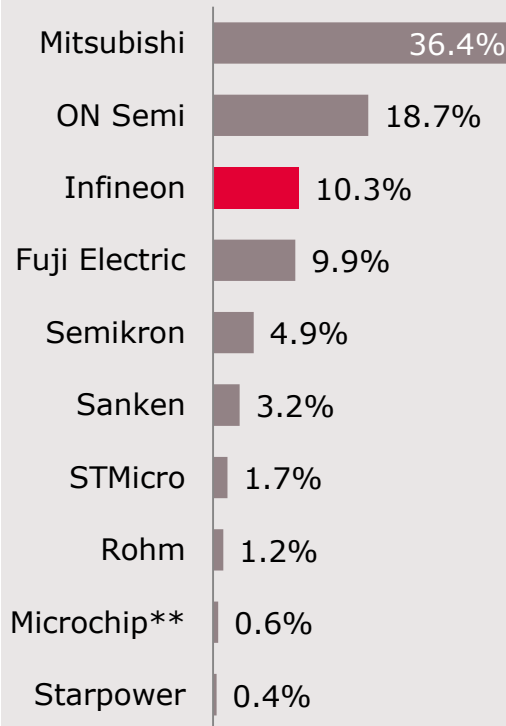
Discrete IGBTs

total market in 2017: \$1.10bn



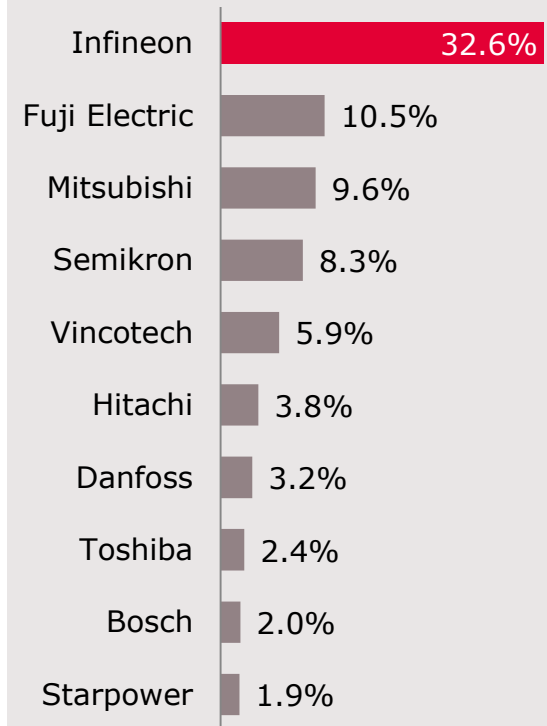
IPMs

total market in 2017: \$1.57bn



IGBT modules*

total market in 2017: \$2.63bn



* Including standard (non-integrated) IGBT modules and power integrated modules (PIMs) / converter inverter brake (CIB) modules.

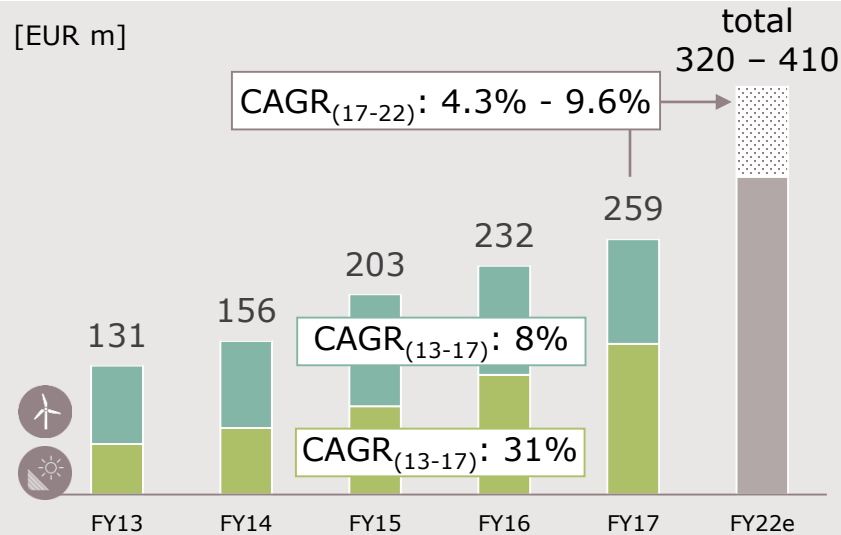
** On 29 May 2018, Microchip closed the acquisition of Microsemi. The 2017 revenue depicted here was contributed entirely by Microsemi.

Source: Based on or includes content supplied by IHS Markit, Technology Group, "Power Semiconductor Market Share Database 2017", September 2018.

Infineon serves all major players for PV inverters and wind turbines



IPC revenue in renewables



Installed wind capacity³⁾

CAGR₍₁₃₋₁₇₎

+7%

IPC wind revenue

CAGR₍₁₃₋₁₇₎

+8%

Installed PV capacity¹⁾

CAGR₍₁₃₋₁₇₎

+25%

IPC PV revenue

CAGR₍₁₃₋₁₇₎

+31%

Infineon is powering all leading renewable energy players*

PV inverter²⁾

- 1 | Huawei ✓
- 2 | Sungrow ✓
- 3 | SMA ✓
- 4 | TBEA Sunoasis ✓
- 5 | Wuxi Sineng ✓
- 6 | ABB ✓
- 7 | Kstar ✓
- 8 | Goodwe ✓
- 9 | Growatt ✓
- 10 | Power Electr. ✓

Wind⁴⁾

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

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

Source: 1) based on or includes content supplied by IHS Markit, Technology Group, "PV Installations Tracker - Q1 2018"; March 2018; including off-grid

2) by shipped capacity in MW: based on or includes content supplied by IHS Markit, Technology Group, "PV Inverter Market Tracker - Q1 2018 - v4"; June 2018

3) MAKE Consulting - Market Outlook Update Q1 2018; March 2018

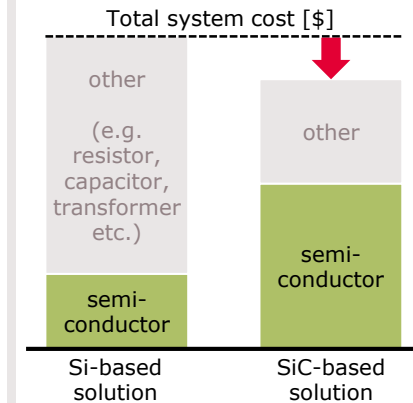
4) by shipped/installed capacity (in MW): MAKE Consulting - Historical Wind Turbine OEM Market Share; April 2018

SiC MOSFETs bring down system cost and size of PV inverters despite higher component cost



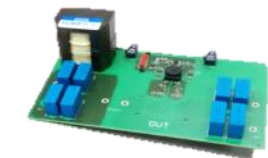
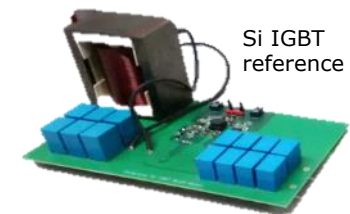
Reduction of system cost, higher semi-value

- › 15-20% lower bill of material for inverter manufacturer
- › 2-3x higher semiconductor value as compared to Si-based design



Reduction of system size

- › Simpler topologies with less control effort
- › Higher switching frequency with smaller transformers
- › Same power in smaller box size results in significant system cost reduction

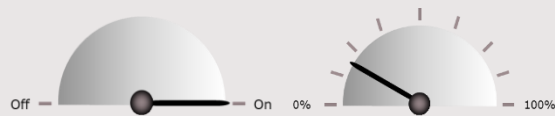


SiC MOSFET demonstrator

Inverterization of home appliances is a key driver for our business

Uncontrolled motor

Variable speed drive



Extended lifetime



Less noise



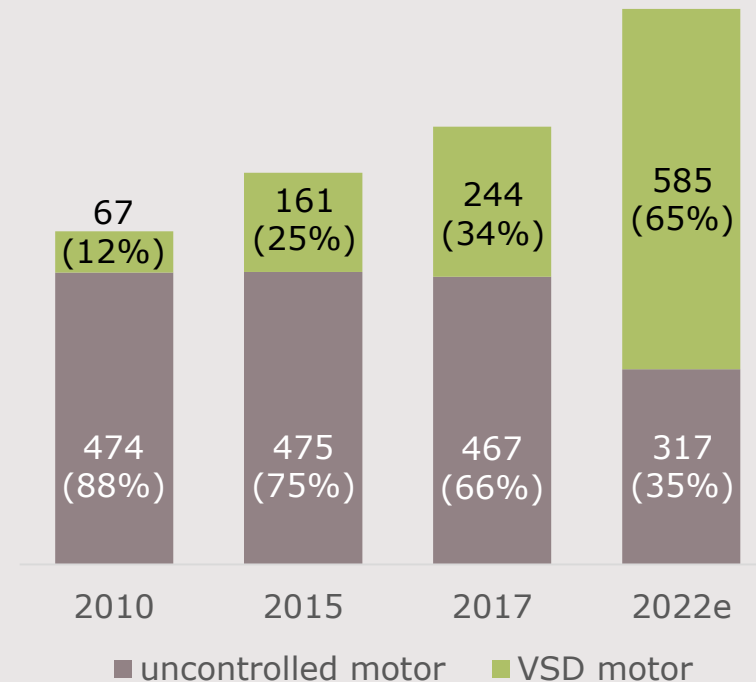
Up to 40% less energy¹⁾

Number of home appliances by motor type²⁾

[units m]

CAGR₍₁₇₋₂₂₎

Semi content³⁾



+19%

~€9.50

-7%

~€0.70

Source:

1) Compared to devices without inverter

2) Source: based on or includes content supplied by IHS Markit, Technology Group, "Home Appliance Database: All Devices and Associated Electronics", May 2018

3) Infineon estimate for a typical aircon

IPC's business success in home appliances is based on several success factors



Early identification of trend for **inverterization**

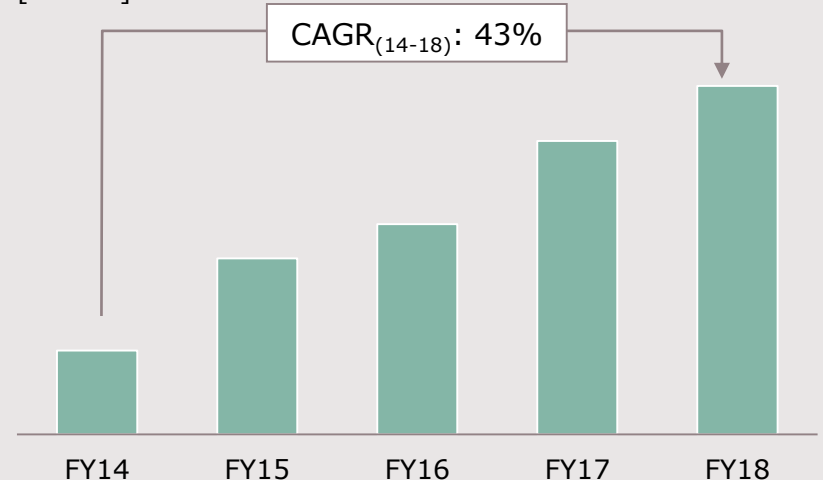
Market access through inorganic growth (acquisit. of LSPS and IRF)

Improved delivery capability through **capacity increase**

Extension of portfolio of **integrated products** to gather higher semiconductor share at customers

IPC revenue in home appliances is showing outstanding growth

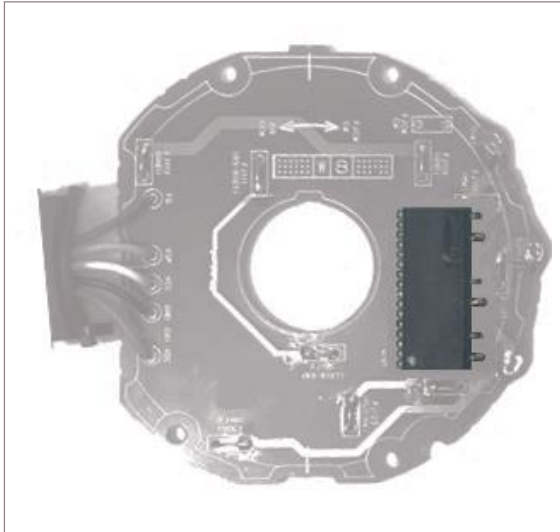
[EUR m]



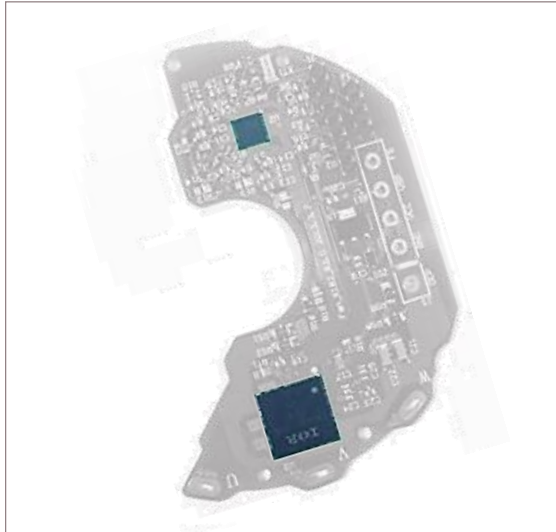
IPC's digital control strategy enables customers to shrink their system

Example: motor control solution for aircon indoor fan

Solution based on standard IPM



Solution based on CIPOS™ Nano



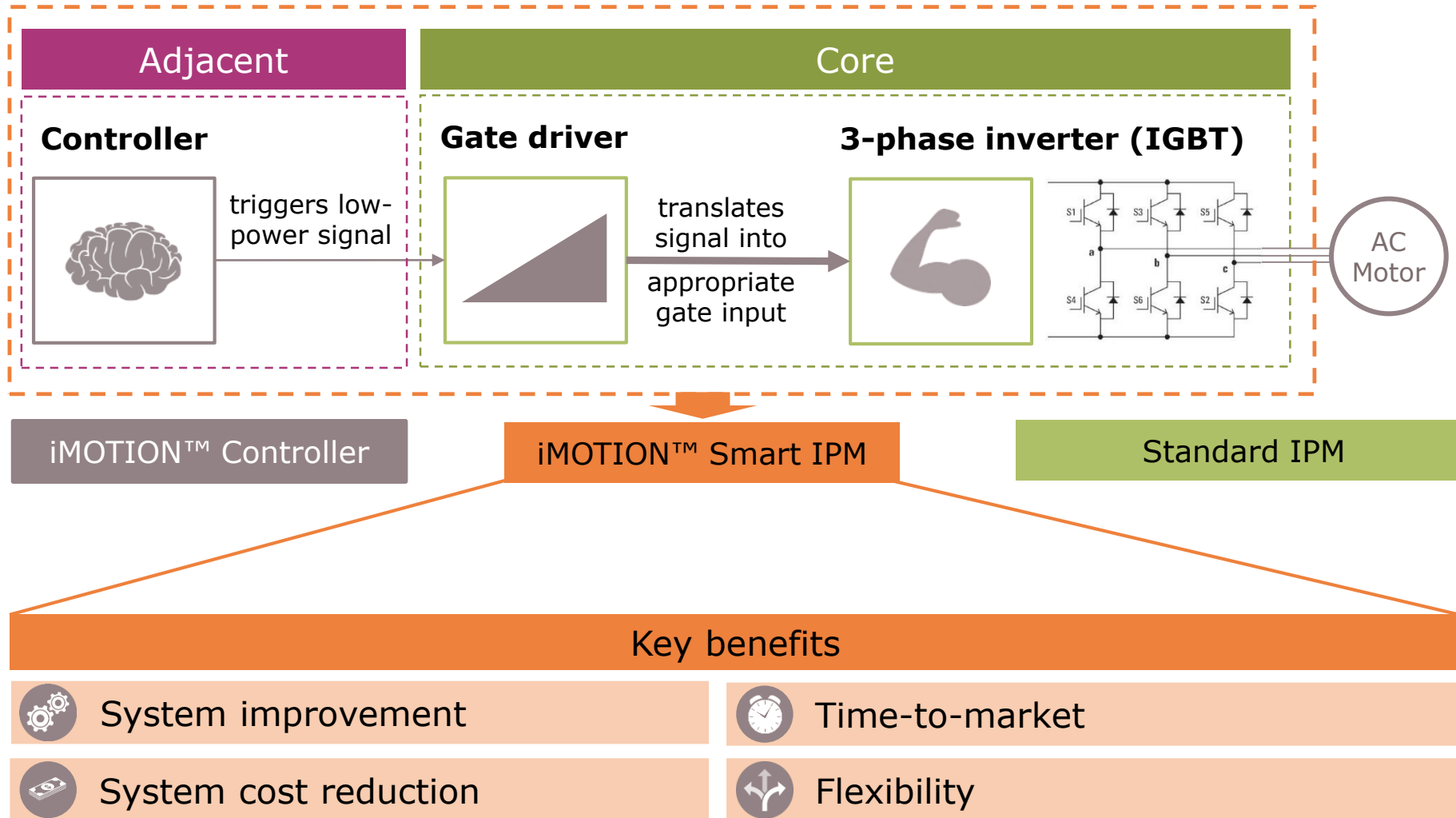
Solution based on iMOTION™ Smart IPM



Customer benefits of highly integrated power ICs

- › Significant system cost reduction with BoM savings of ~30%
- › Reduction in engineering efforts
- › Reduction in time-to-market

Digitalization: motor control platform with scalable integration of HW and SW



HMI and AI are driving the penetration of collaborative robots (cobots)

700,000 new cobots by 2025¹⁾

~€350 semiconductor content²⁾ per cobot of which

~€200 for power semiconductors²⁾

~€150 for sensors, μ C, and security controllers²⁾

System understanding and extended product portfolio allow for growth in adjacent markets



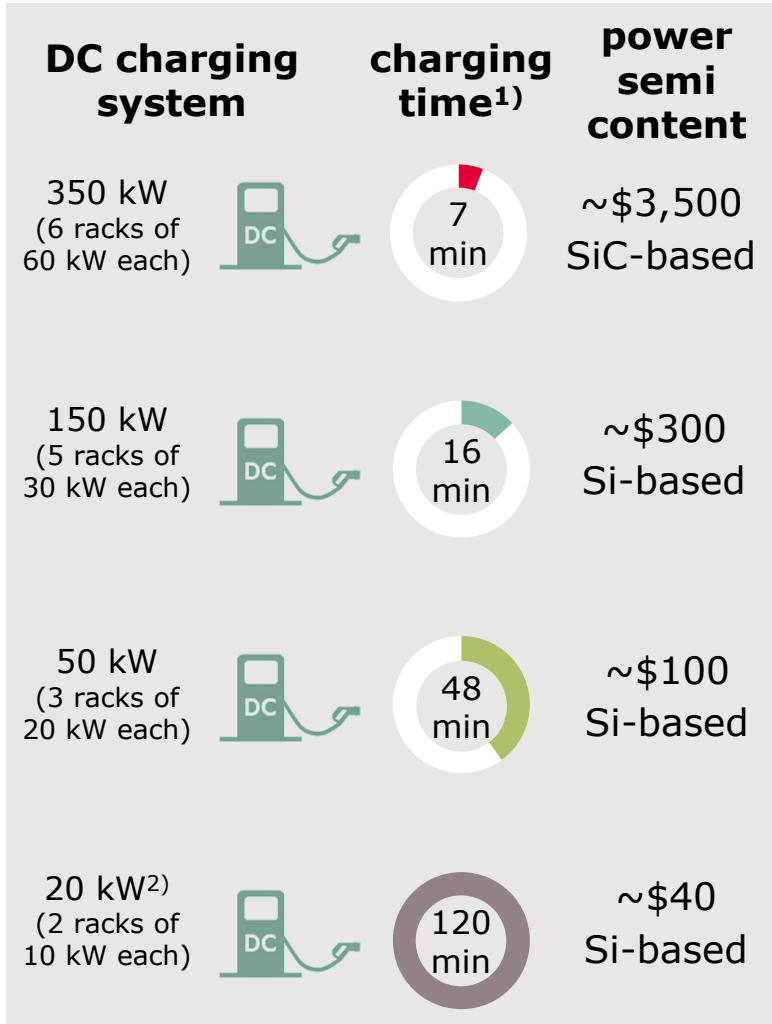
Source:

1) Barclays Equity Research, "The rise of co-bots: Sizing the market", 2016

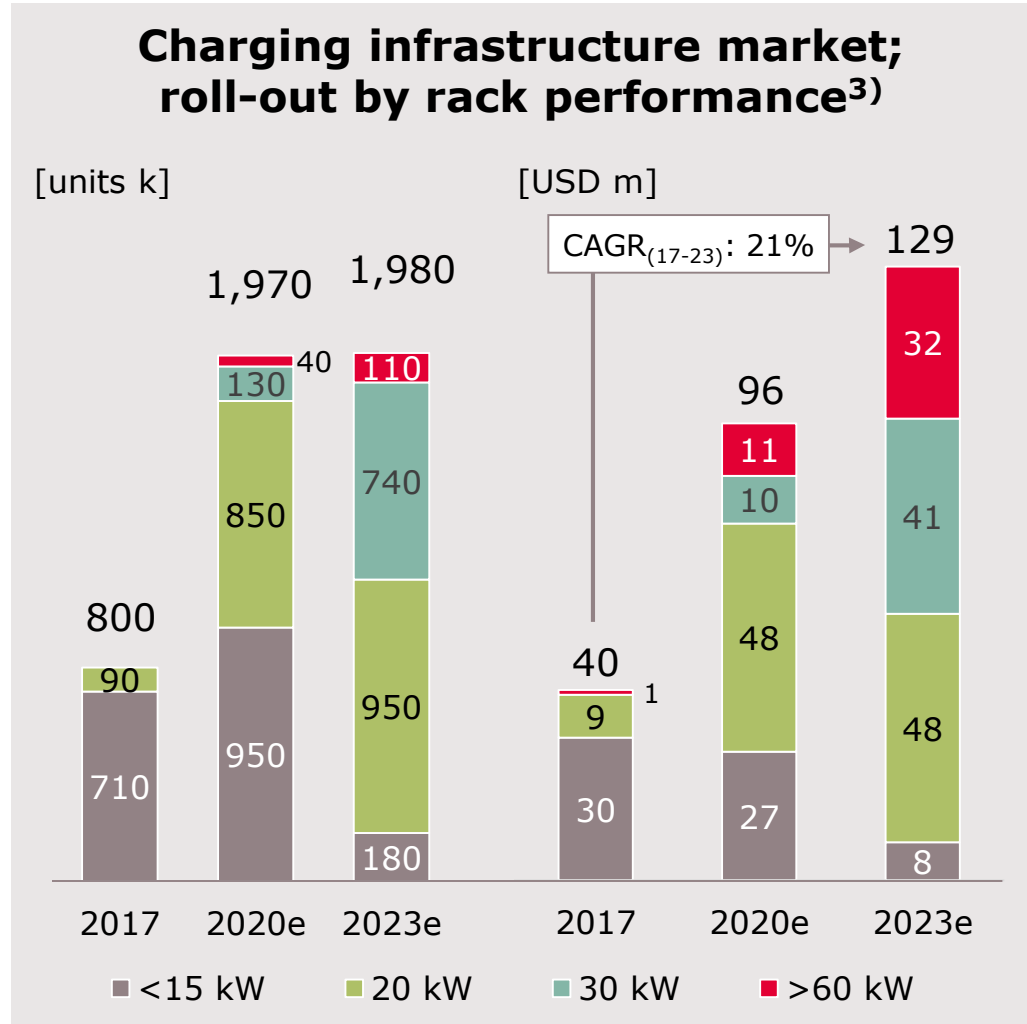
2) Infineon; excl. tools

Courtesy: Franka Emika

Growing penetration of electric vehicles will drive roll-out of charging infrastructure



1) to charge for a reach of 200 km
2) incl. DC wall boxes



3) Source: Infineon estimate

Electrification of trains is accelerating and Infineon is part of two subsystems

Locomotive



Metro



HST/ EMU



Trends in traction

Electrification of freight transport

Urbanization and new mobility concepts

Strong governmental investment programs

Market size

~500 units/a

~700 units/a

~600 units/a

Power semiconductor content per unit

~\$70,000

~\$50,000

~\$100,000

Subsystem 1: Auxiliary inverter

Air conditioning, power sockets, air brake, control stand, etc.

SiC



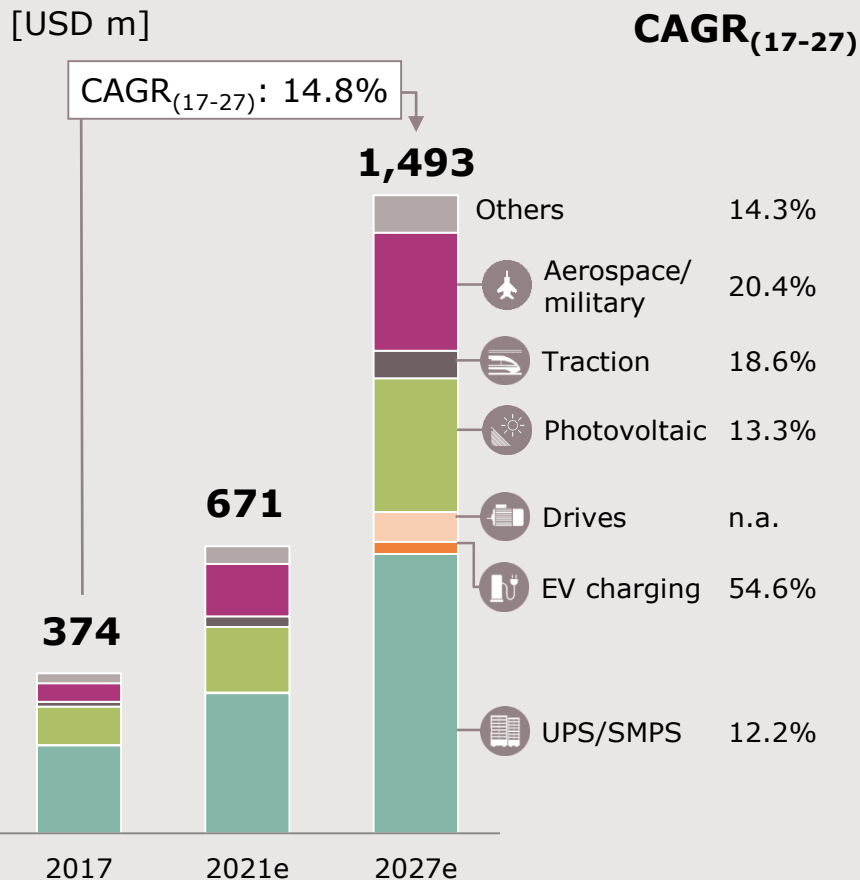
Subsystem 2: Propulsion inverter

Motor and motor traction converter

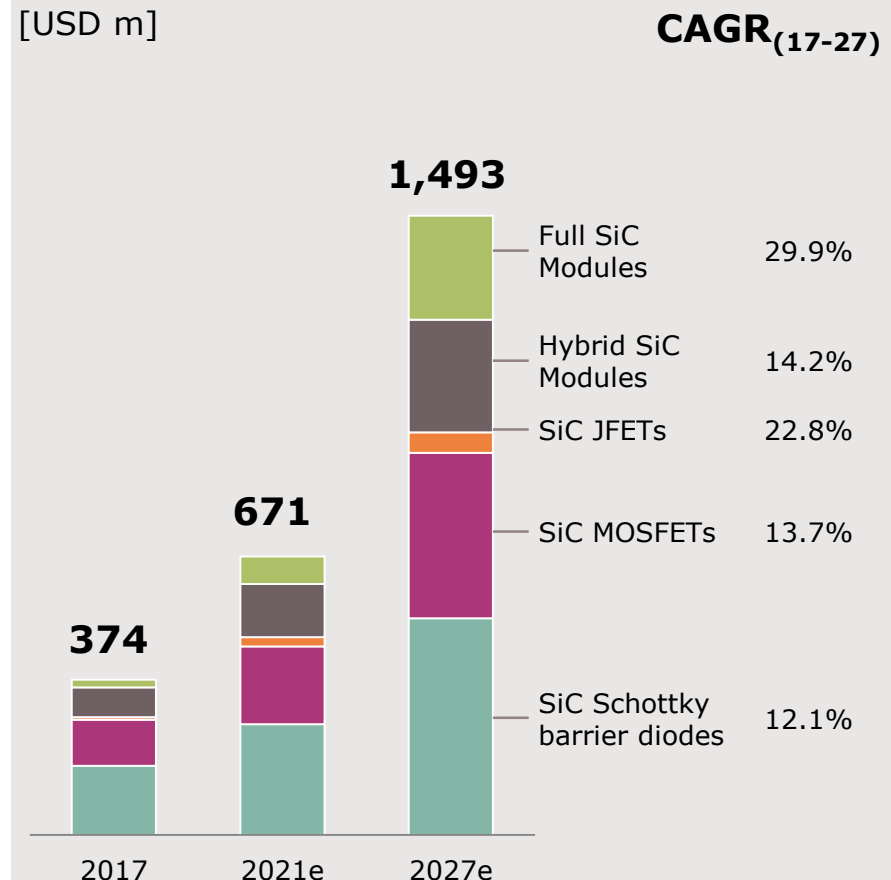


With an increasing number of applications, particularly module players will win in SiC

SiC power semiconductors by application excl. xEV



SiC power semiconductors by product type excl. xEV



Sources: based on or includes content supplied by IHS Markit, Technology Group, "SiC and GaN Power Semiconductors Report - 2018", April 2018, mid case



Power Management & Multimarket



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

PMM

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
- › Multicopter
- › Aviation
- › LSEV
- › Space
- › Gaming
- › Smart home



Communications



- › Handsets
- › Wearables
- › 5G massive MIMO



● AC-DC ● DC-DC ● RF and sensors (non-power)



PMM – Power

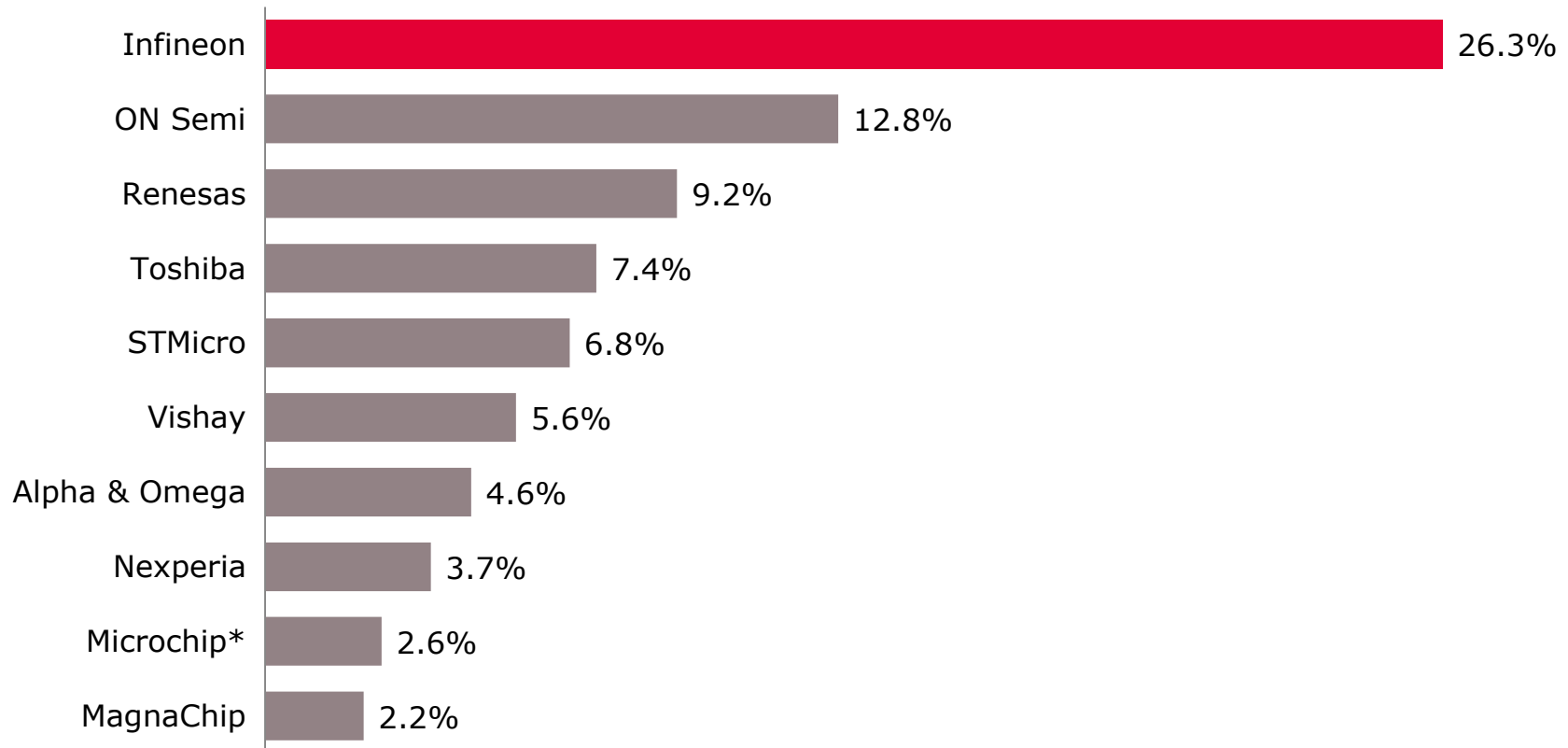


In 2017, Infineon grew by 15.1% vs market of 13.7%; now more than 2x as big as #2



Discrete power MOSFETs market shares

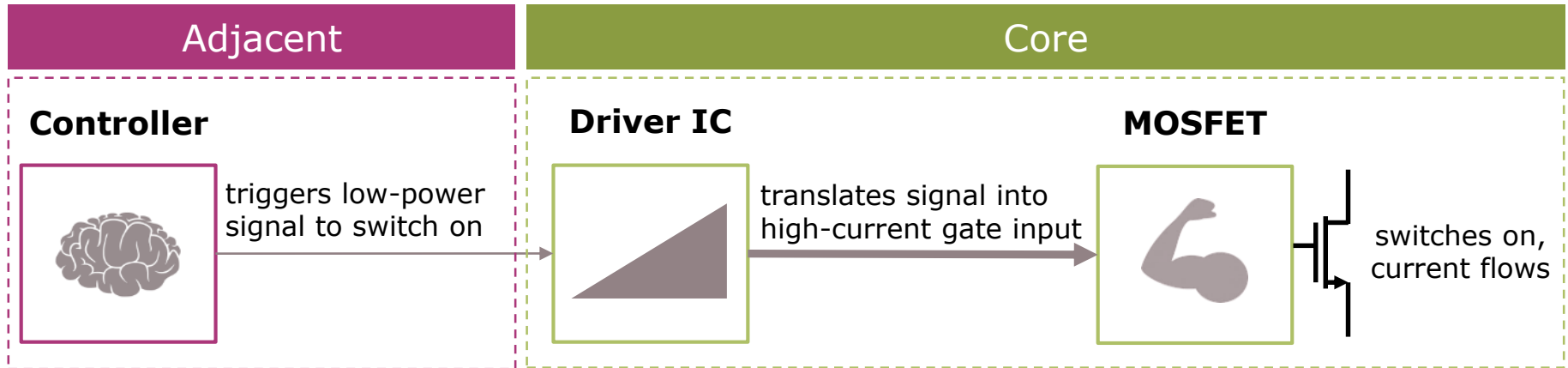
total market in 2017: \$6.65bn



* On 29 May 2018, Microchip closed the acquisition of Microsemi. The 2017 revenue depicted here was contributed entirely by Microsemi.

Source: Based on or includes content supplied by IHS Markit, Technology Group, "Power Semiconductor Market Share Database 2017", September 2018; incl. automotive MOSFETs.

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

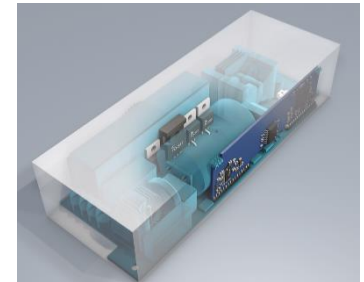


Power management solutions reduce TCO



More efficient semiconductors

- › lower power consumption
- › lower opex

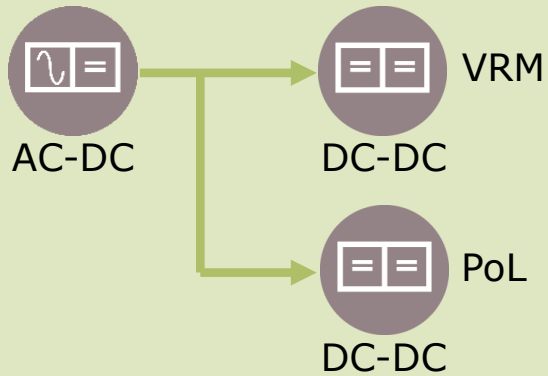


Higher power-density

- › more compact system designs
- › lower capex

Highly differentiating solution for data center enables significant opex and capex reduction

Powerflow (schematic)

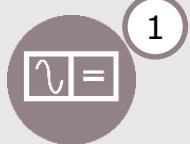


Customer benefit

- > reducing opex and capex by >10%
- > saving >3bn kWh annually for US data centers
- > doubling compute power per server rack



Infineon-enabled optimization of data center powerflow – examples:



AC-DC



DC-DC

CoolGaN™ allows for 2x output power in a given slot size and thus frees up space for the backup battery in more efficient architecture.

Benchmark **digital power solutions** including fully integrated PoL devices: highest efficiency, highest power density; supporting latest processor technologies.

AC-DC power supply by Eltek using CoolGaN™



Eltek "Flatpack2 SHE"

- > 3 kW / 48 V
- > Fixed and wireless telecom applications
- > Size: 4.25 x 1.61 x 13 inch³
- > Weight: 4.5 lbs
- > High power density: 33 W/inch³

98%

efficiency

-50%

reduction in
power loss

> -6%

proven operational
cost reduction

Infineon content per device

- > 2x **CoolGaN™** 600 V
- > 2x **CoolMOS™** C7
- > 2x **CoolMOS™** CFD7
- > 4x **OptiMOS™** 150 V
- > Gate driver

~ US\$30

Server eco-system is supported by PMM's various DC-DC solutions



Data center market trends

Increasing memory and processing power

Adoption of AI drives high-end analytics and data management

Expanding CPU supplier base: AMD, IBM, NVIDIA, ARM, Intel etc.

Hyper-scale users invest in proprietary processor designs (e.g. Google)

Saving space is a key requirement and a focus of product development



Digital controllers
with flexible communications interface



Integrated power stages and iPoL
for high power density



* devices per server



PMM – RF and Sensing

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



Courtesy: BMW

Augmented Reality



Voice-controlled devices

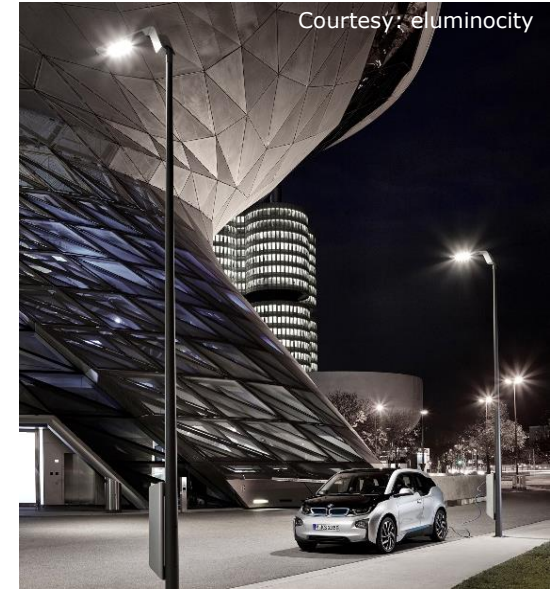
Various use cases are enabled by a small set of versatile core technologies



Commercial and consumer multicopters



Gesture control



Courtesy: eluminocity


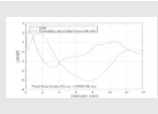


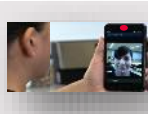
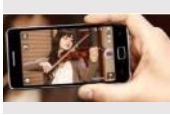

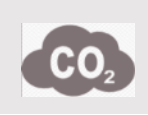
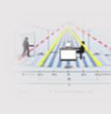



Smart streetlights



Industrial robotics

We focus on MEMS sensors and target to become the leader in 3D Imaging and Radar



Microphone	Pressure	Environmental	3D Radar	3D ToF
 No distortions	 Best-in-class resolution	 6x6mm ² World smallest form factor	 Highest Energy Efficiency	 Best-in class resolution
 Receive clear audio signals	 Measure Height	 CO ₂ Measure CO ₂	 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

XENSIV™ Si microphones have plenty of growth opportunities beyond smartphones

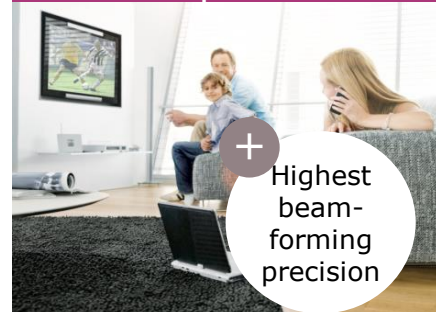
Smart speaker



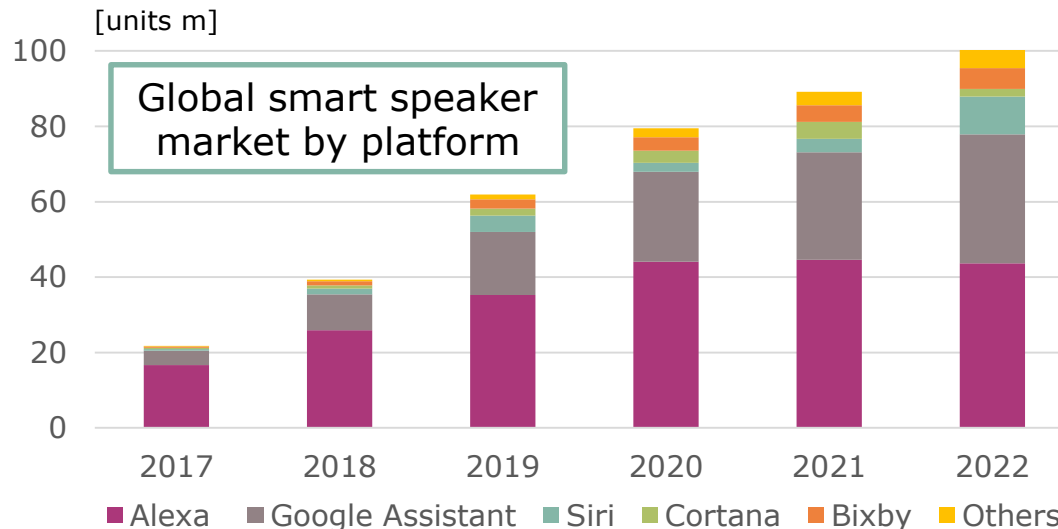
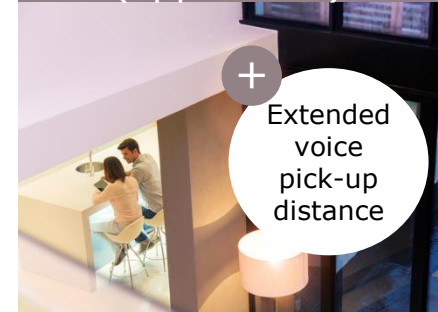
Robotics



TV, laptop and set-top box



Smart home (appliances)



Market snapshot:

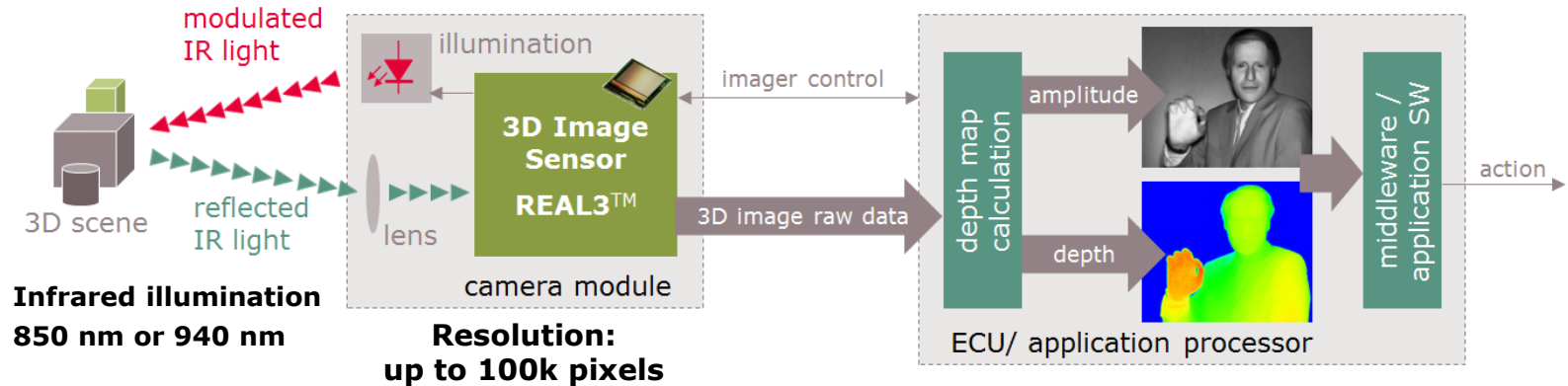
- › Global market for smart speakers expected to reach 100m units in 2022
- › Platform developers drive unit growth via licensing models to other hardware manufacturers
- › Average number of silicon microphones per devices by 2022: ~5

Source: SAR Insight & Consulting, Smart Speaker Market Growth, March 2018

Leading base technologies for sensor solutions: Time-of-Flight

Time-of-Flight

Time-of-Flight: Modulated infrared-light is emitted and reflected by objects. Phase-shift of returned light is measured in each pixel of the image sensor.



Examples of uses cases enabled by Time-of-Flight technology

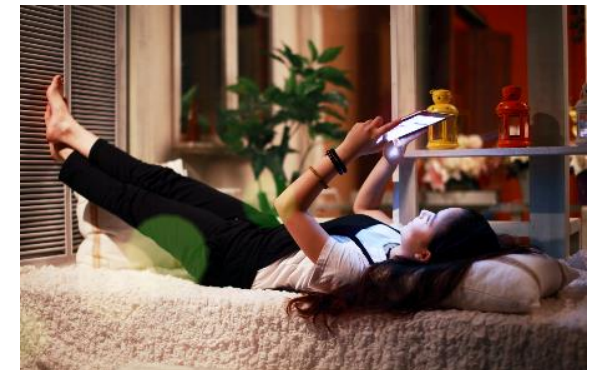
3D scanning



AR / VR / gaming



Secure face recognition





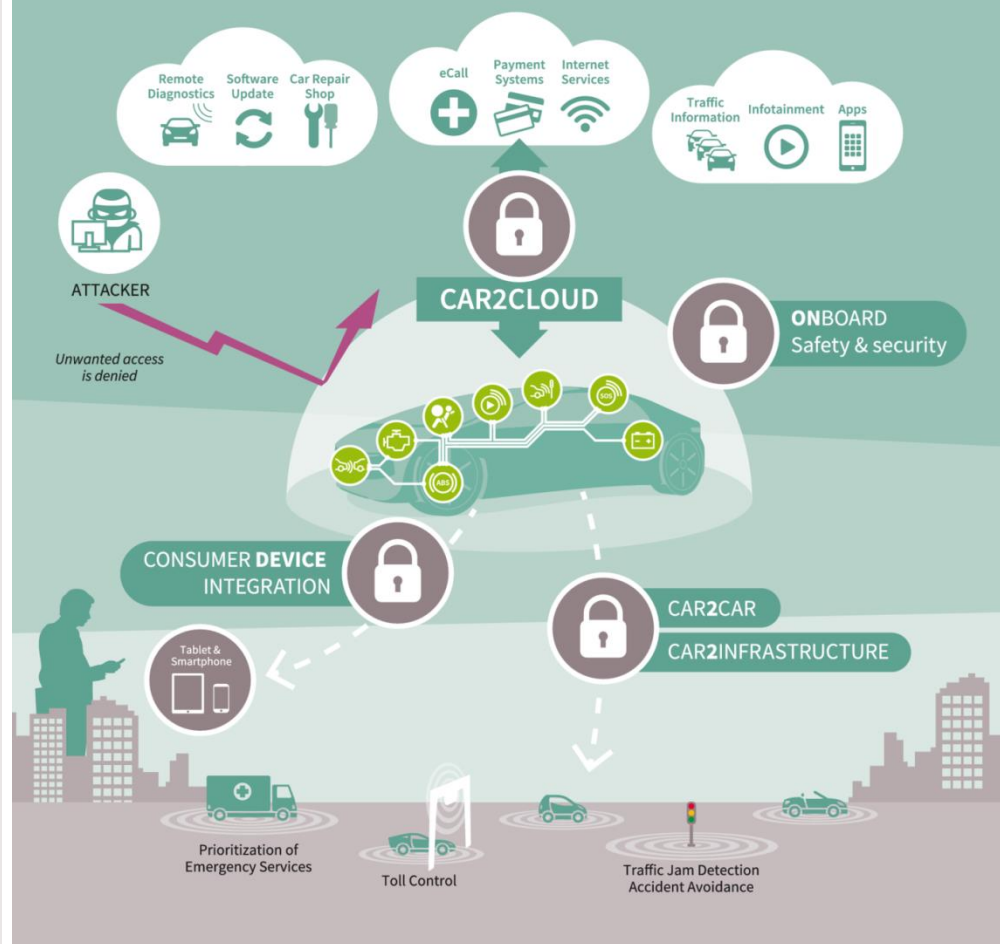
Digital Security Solutions



Security is a system approach

- › As humans, machines, 'things' are getting connected, the risks of security attacks increase strongly as attack paths increase
- › Accordingly, there is a greater need for security in fields like smart home, connected cars, information and communication technologies, Industry 4.0
- › Many manufacturers of devices and systems do not have the necessary security know-how

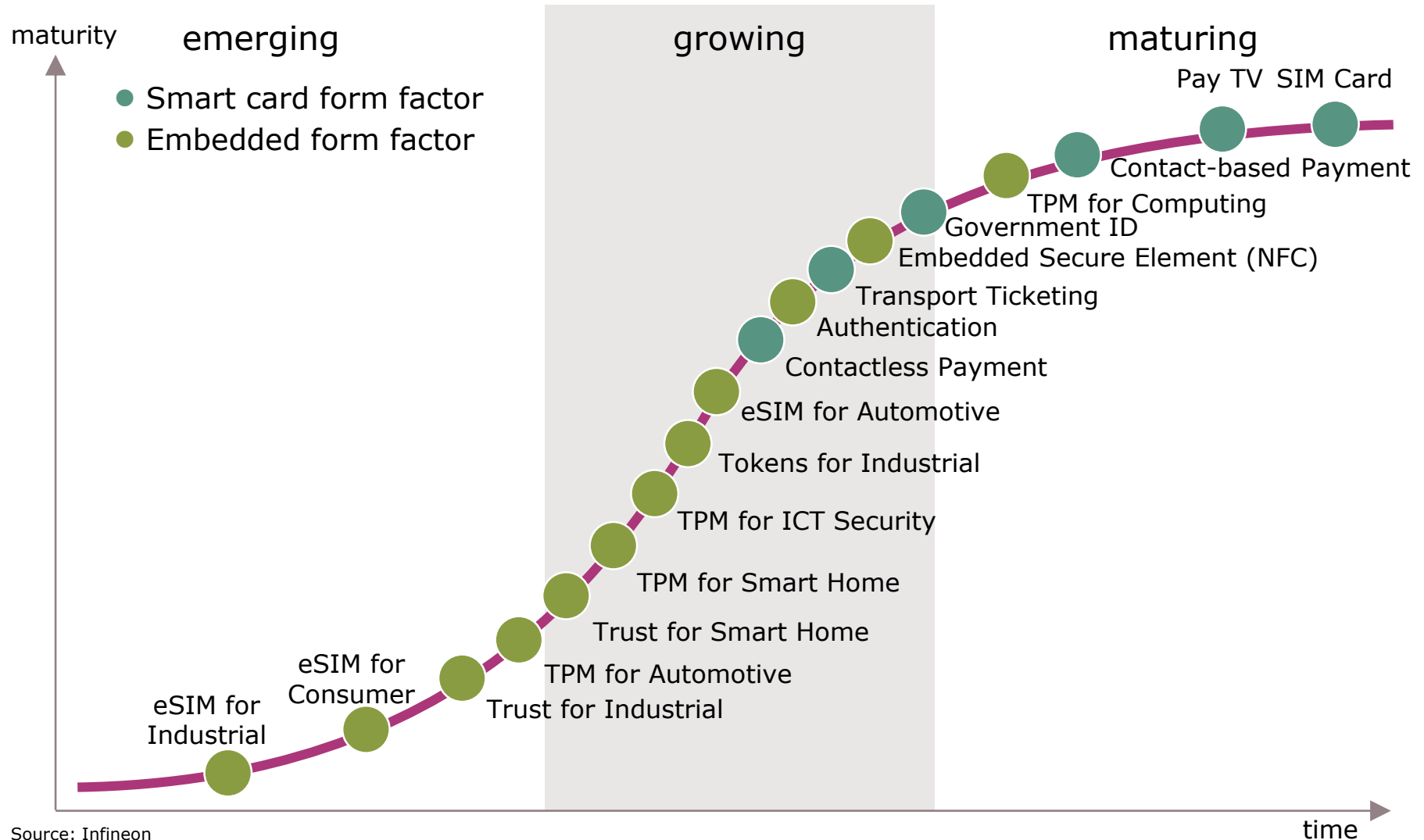
Example: Automotive Security



Infineon offers security for the connected world



Continuous stream of new topics aging and exiting



Source: Infineon

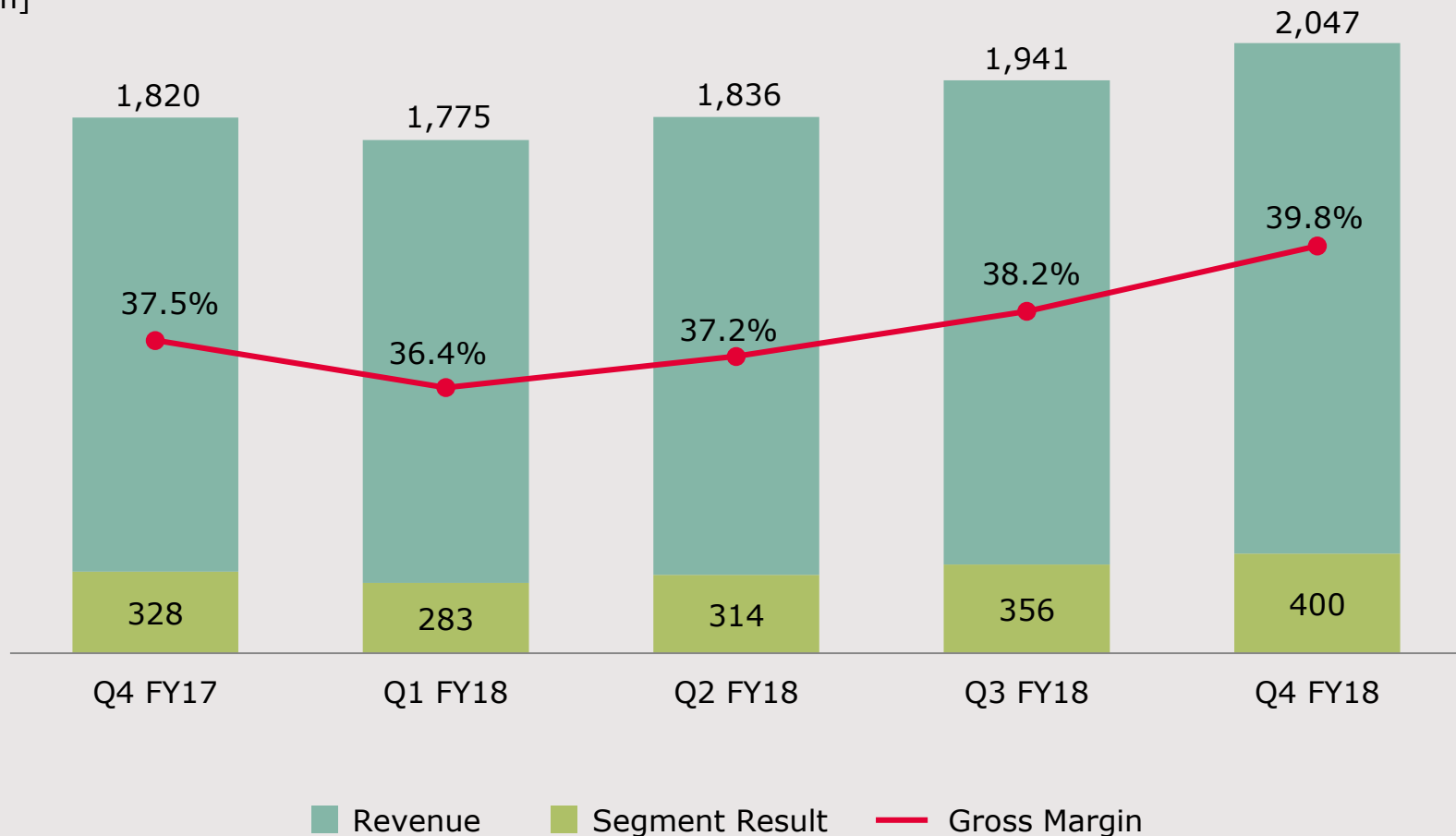
Agenda

- 1 Infineon at a glance
- 2 Target operating model (TOM)
- 3 Quarterly highlights
- 4 Automotive
- 5 Industrial Power Control
- 6 Power Management & Multimarket
- 7 Digital Security Solutions
- 8 Selected financial figures

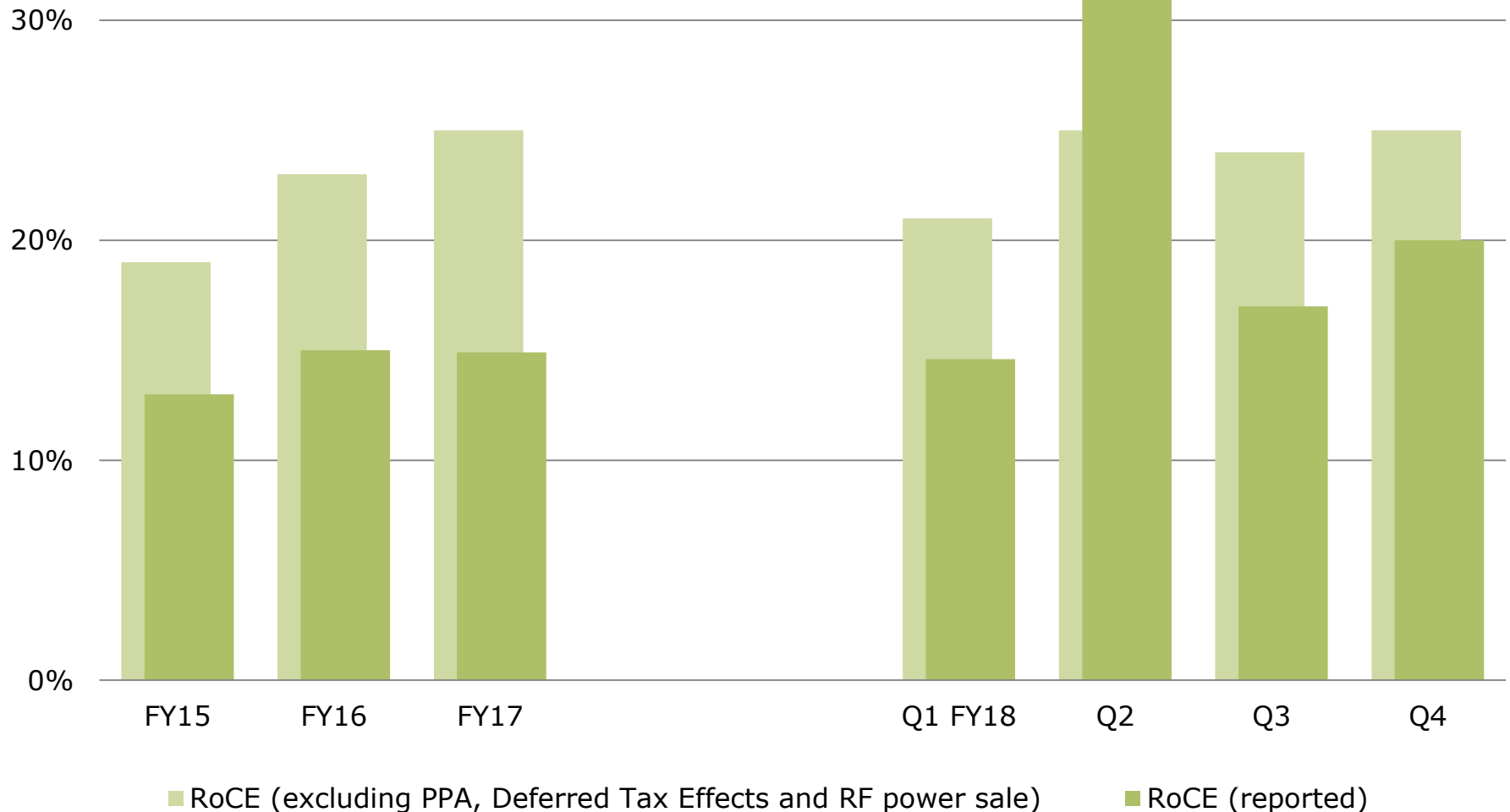
Continuously increasing profitability throughout FY18

Group financials

[EUR m]

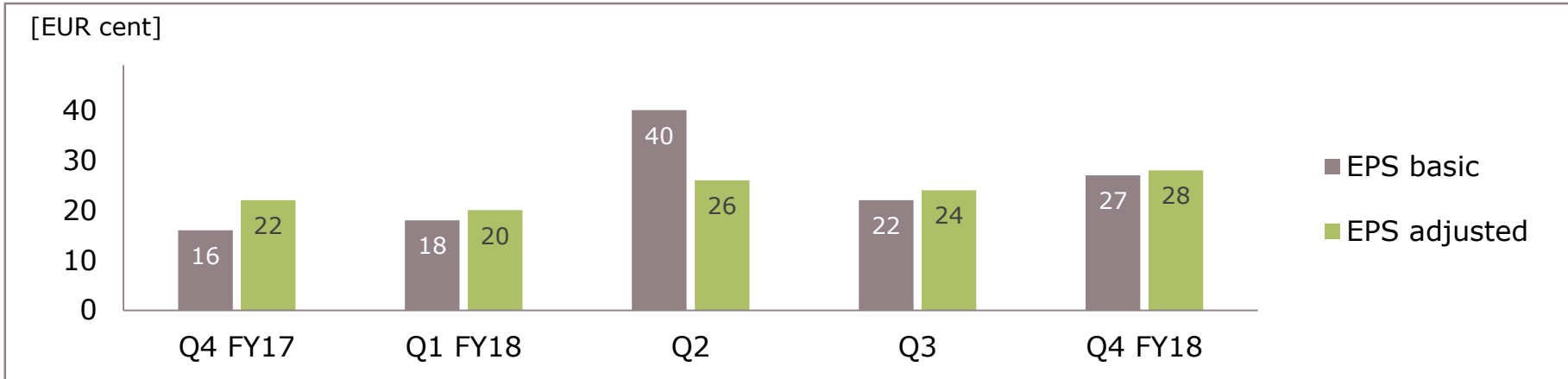


Organic RoCE as the key value metric typically amounts to $\sim 2\times$ WACC

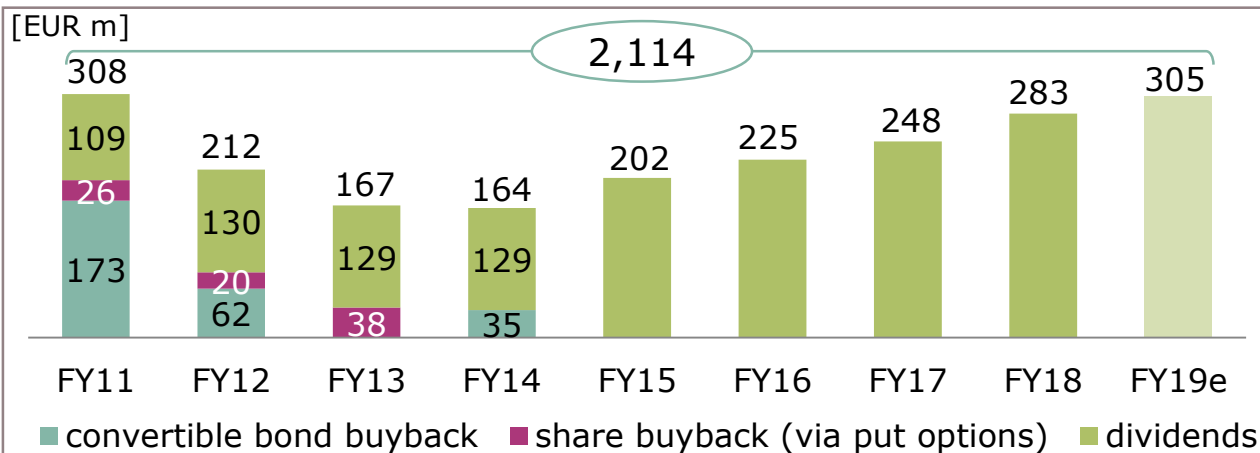


Our commitment to investors: Continued value creation through growth

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



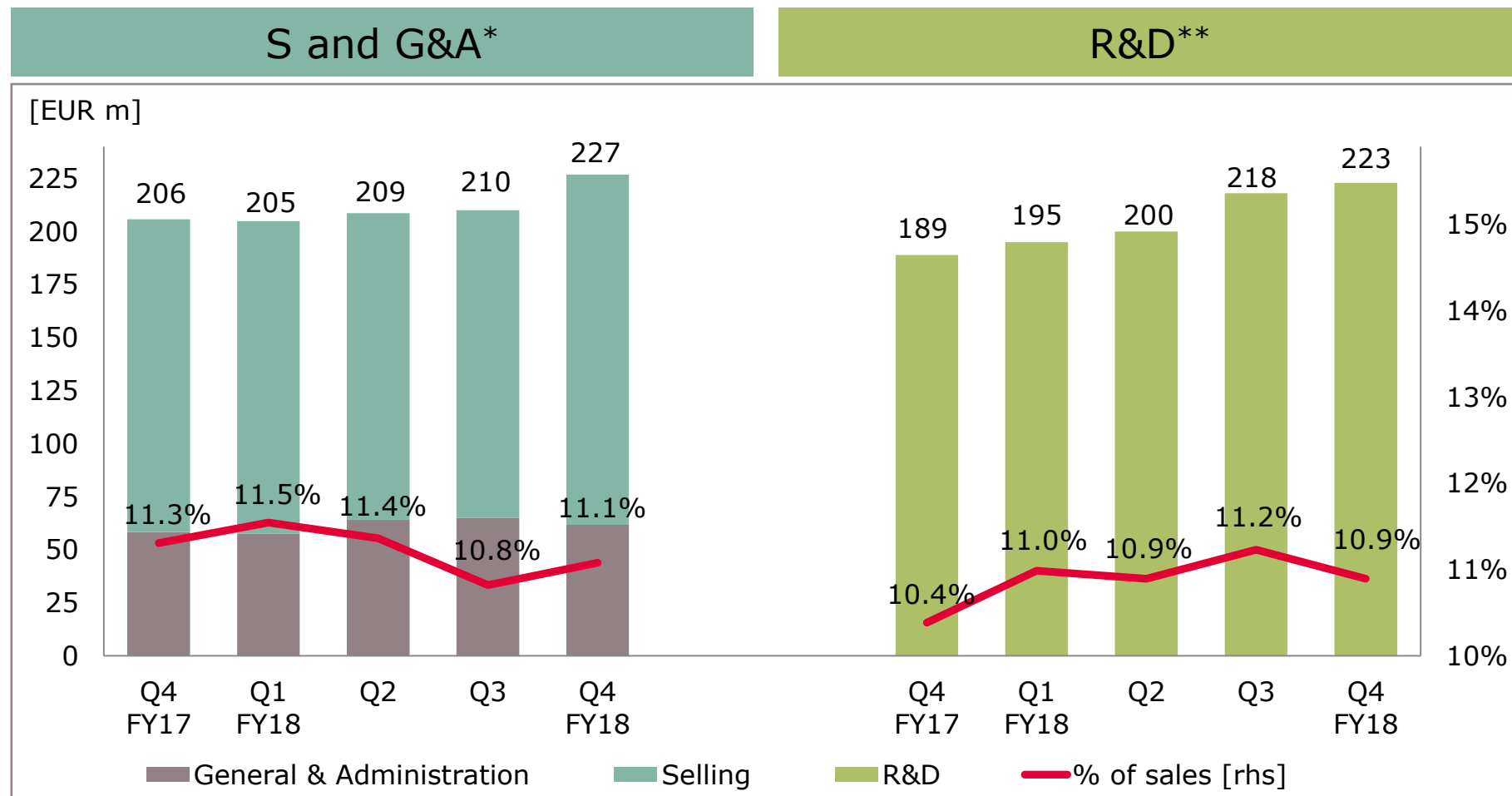
Total cash return to shareholders



- › Policy of sustainable dividend payout
- › Increase of dividend from €0.25 to €0.27*
- › Payment of €305m*

* Proposal to the AGM to be held on 21 February 2019

Opex within target range

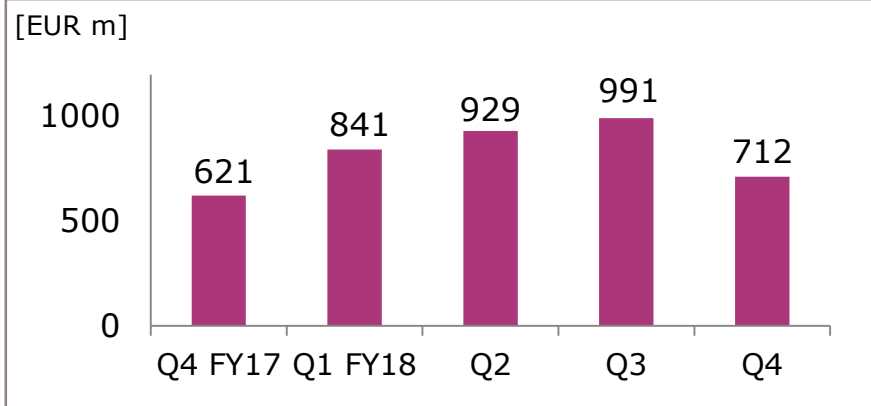


* Target range for SG&A: „Low teens percentage of sales“.

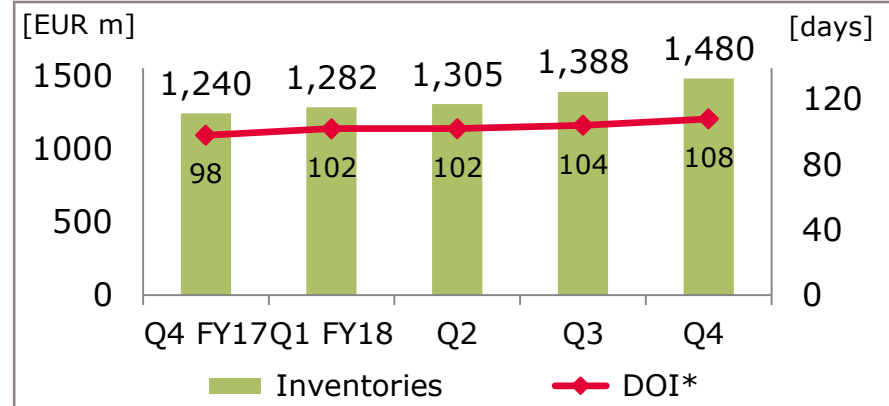
** Target range for R&D: „Low to mid teens percentage of sales“. In FY18, reported R&D expenses amounted to €836m, net of €86m of grants received and net of €143m of capitalized development costs.

Working capital positively impacted by increase in payables

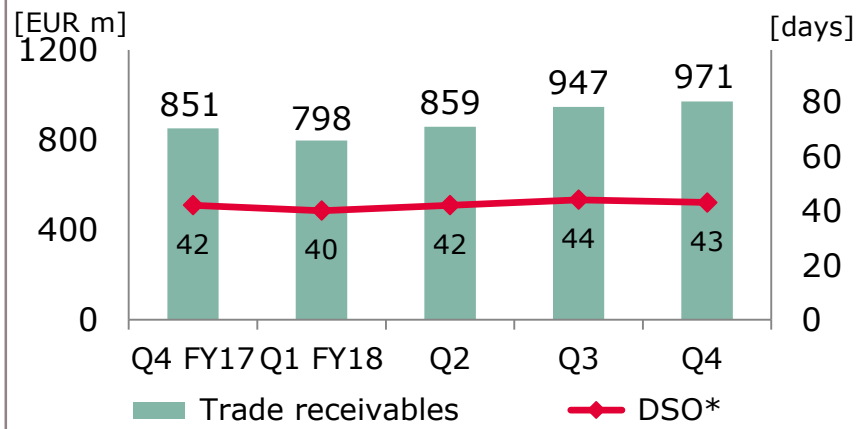
Working capital*



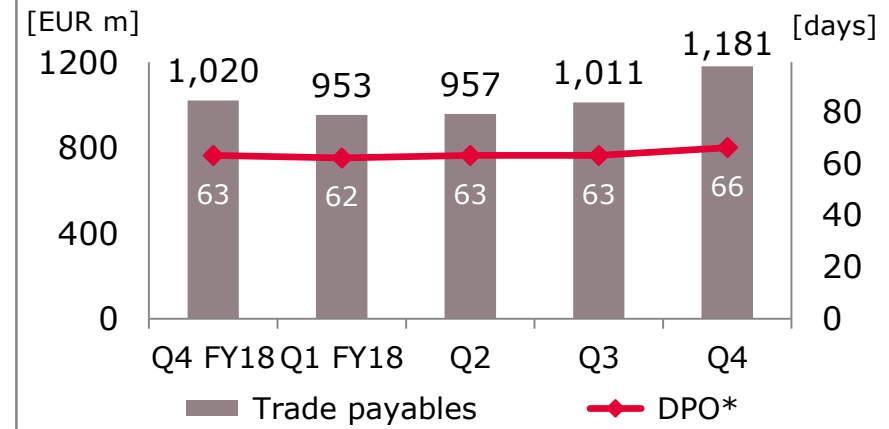
Inventories



Trade receivables

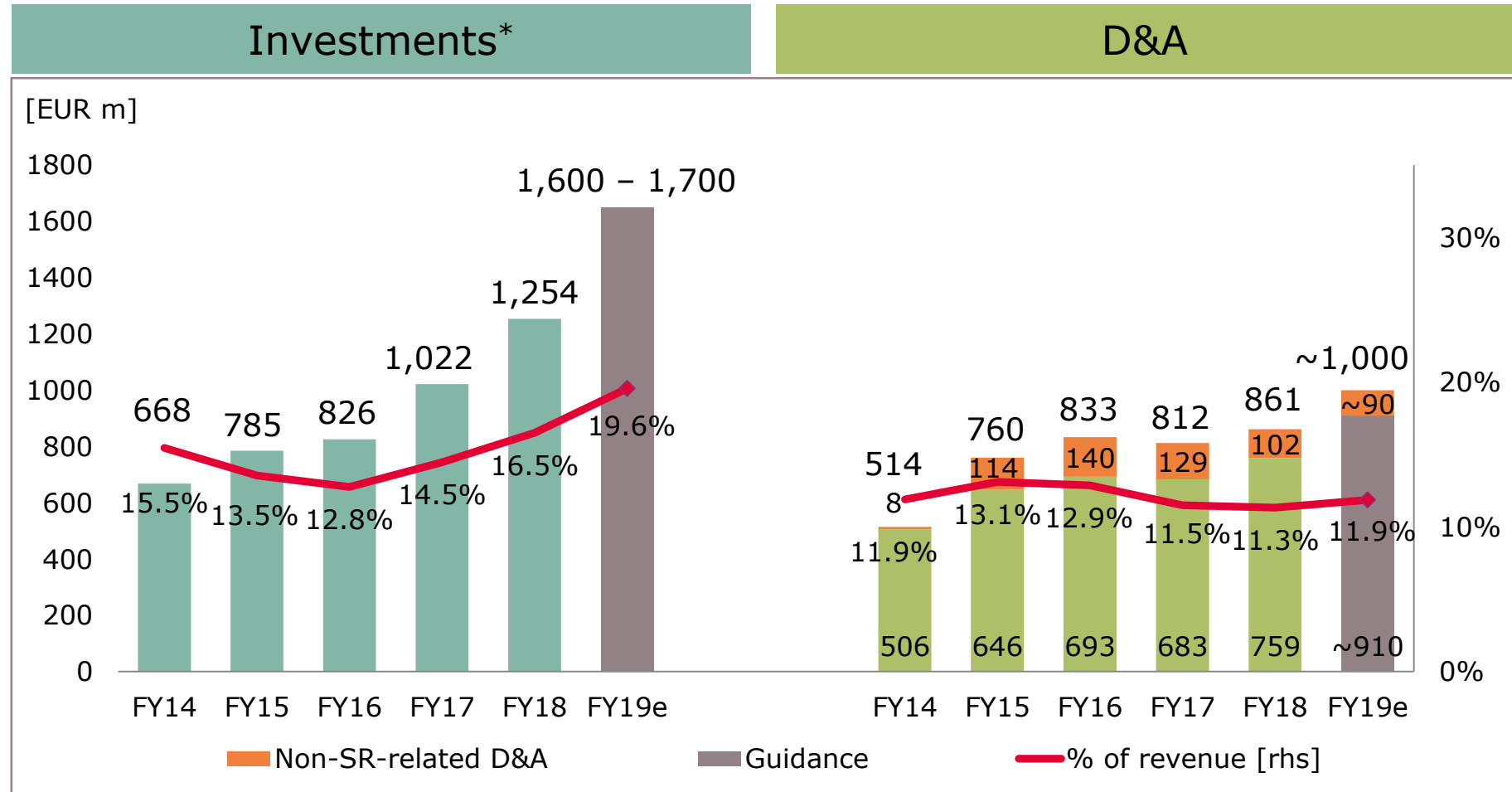


Trade payables



* For definition please see page "Notes".

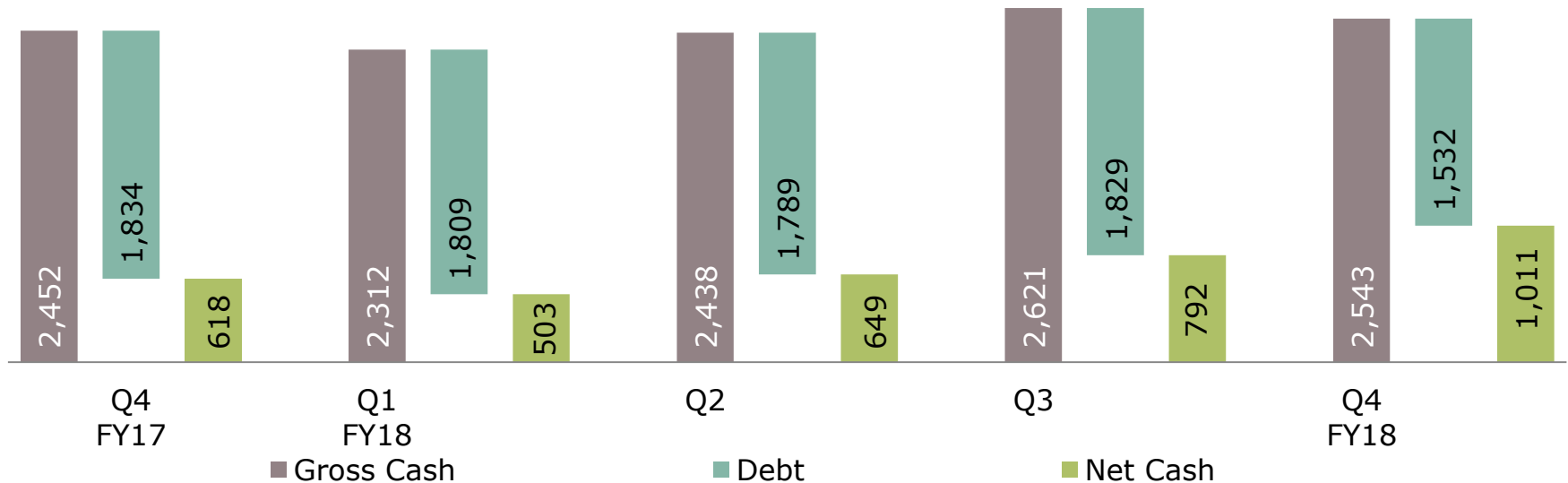
Investments and D&A trending up due to strong growth



* For definition please see page „Notes“.

Liquidity development

[EUR m]



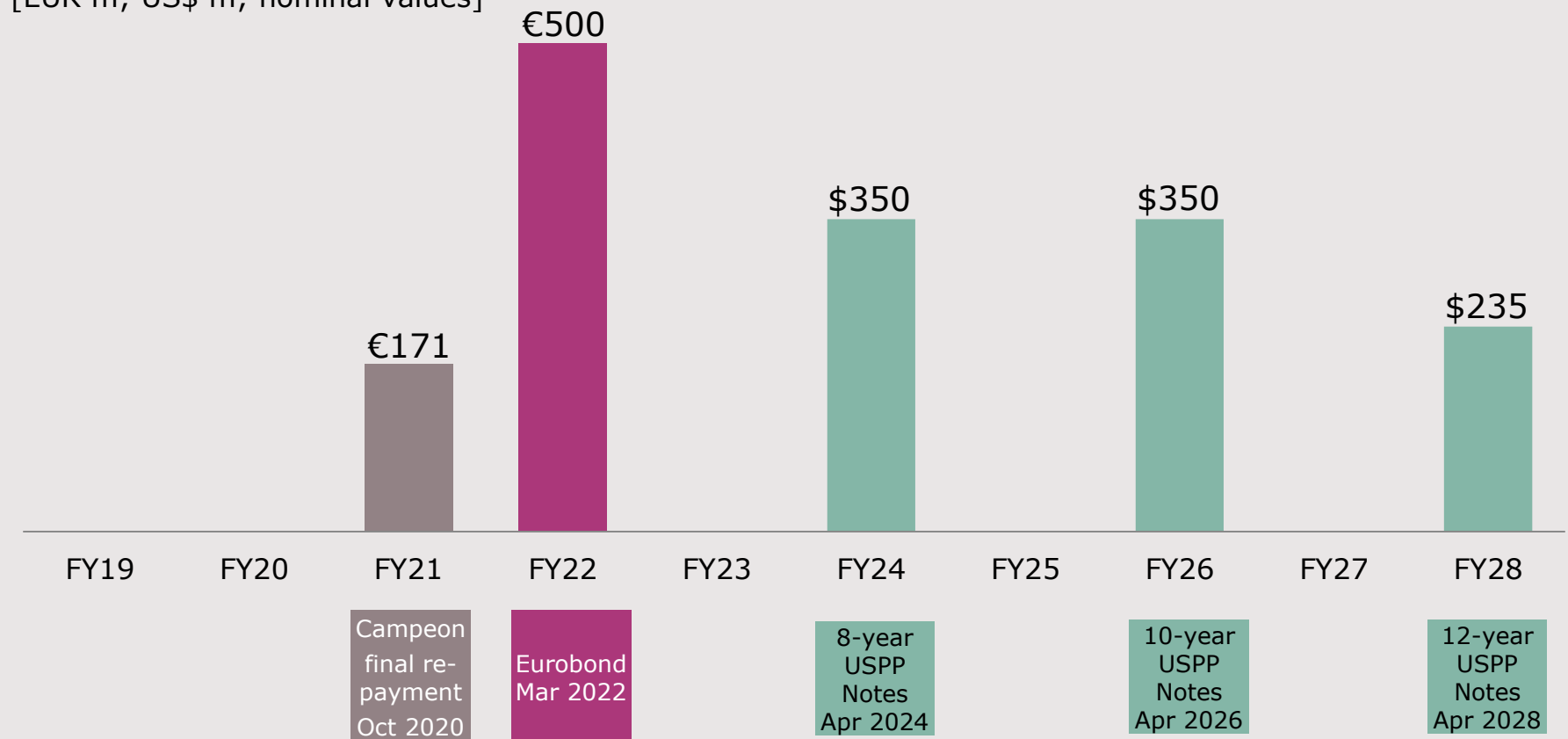
- › Operating cash flow from continuing operations was €641m in Q4 FY 2018
- › Free Cash Flow from continuing operations was €227m
- › Significant decline in debt due to repayment of €300m bond on 10 September 2018

Infineon has a balanced maturity profile and a solid investment grade rating (BBB) from S&P



Maturity profile

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



Note: Additional debt with maturities between 2018 and 2023 totaling €54m of which €27m repayments related to Campeon.

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
AI	artificial intelligence
AR	augmented reality
BEV	battery electric vehicle
BGA	ball grid array
BoM	bill of material
CPU	central processing unit
DC	direct current
DC-DC	direct current - direct current
DPM	digital power management
eCall	emergency call

ECU	electronic control unit
ECU	electronic control unit
EMU	electric multiple unit
EPS	electric power steering
eSIM	embedded subscriber identity module
eSIM	embedded SIM
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

Glossary (2 of 2)

IPM	intelligent power module
iPol	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
Pol	point-of-load

PV	photovoltaic
RF	radio frequency
rhs	right-hand scale
Si	silicon
SiC	silicon carbide
SiGe	silicon germanium
SMPS	switch-mode power supply
SOTA	software over-the-air
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.

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



Infineon's most recent achievements

MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM

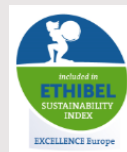
- › Jan 2018: Infineon is listed in the Sustainability Yearbook for the 8th consecutive year and has received the Bronze Class distinction for its excellent sustainability performance.
- › Sep 2018: Infineon is listed in the Dow Jones Sustainability Europe Index (as the only semiconductor company) for the 9th consecutive year and in the World Index for the 4th time



FTSE4Good

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

- › Since 2014, Infineon has been publishing information on opportunities and risks due to climate change through the "Carbon Disclosure Project" (CDP).
- › For 2017, Infineon has earned a spot among the three best companies in the "Information Technology" sector in the Germany, Austria and Switzerland region.



- › Sep 2018: Infineon has been reconfirmed as a constituent of the Ethibel Sustainability Index (ESI) Excellence Europe

Financial calendar

Date	Location	Event
14 – 15 Nov 2018	Barcelona	Morgan Stanley TMT Conference
27 – 28 Nov 2018	Scottsdale, AZ	Credit Suisse TMT Conference
28 Nov 2018	Milan	Equita European Conference
28 Nov 2018	Munich	UBS German Senior Investor Day
10 – 11 Dec 2018	London	Power Presentation (IPC + PMM) by Division Presidents Peter Wawer and Andreas Urschitz
05 Feb 2019*		Q1 FY19
21 Feb 2019	Munich	Annual General Meeting
7 May 2019*		Q2 FY19 Results
1 Aug 2019*		Q3 FY19 Results
12 Nov 2019*		Q4 FY19 and FY 2019 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')

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.

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')

DOI (days of inventory; quarter-to-date) =

('Net Inventories' / 'Cost of goods sold') * 90

DSO (days sales outstanding; quarter-to-date) =

('Trade receivables' / 'revenue') * 90

DPO (days payables outstanding; quarter-to-date) =

('Trade payables' / ['Cost of goods sold' + 'Purchase of property, plant and equipment']) * 90

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



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