Industrial Power Control Business Update

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7 May 2020

Agenda

1. IPC Division business update
2. Acquisition of Cypress creates new opportunities
3. Update on Infineon’s silicon carbide activities

Impact of the Coronavirus on IPC's businesses

Manufacturing and supply chain

- All IPC related frontend and backend fabs are back to full operation and can fulfill the demand
- Raw materials available, selected subcons face problems

Distribution and logistics

- Distributors well stocked and stock reach actively managed
- Logistics challenging but working with additional efforts

Investments

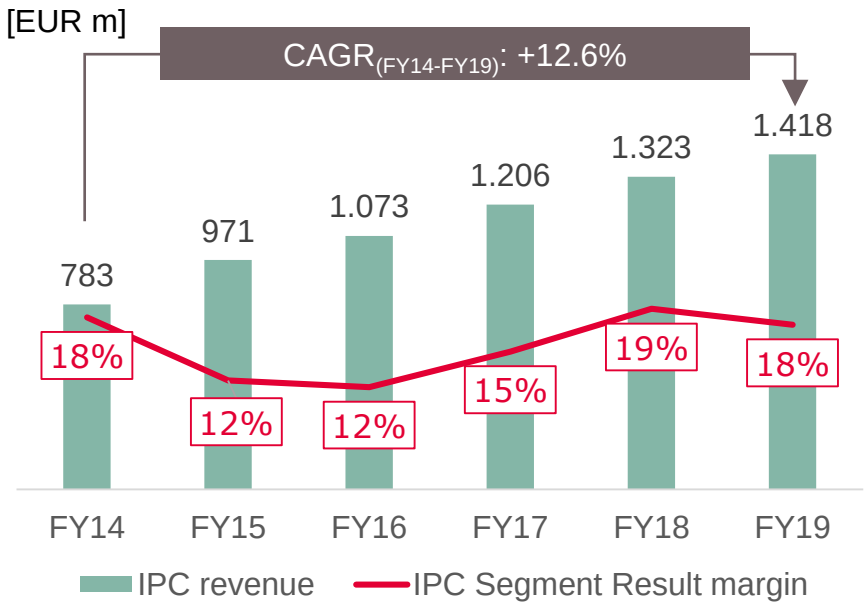
- Capex: Investments slightly reduced
- R&D: No significant delays in IPC's main projects for IGBT and SiC

Customer demand

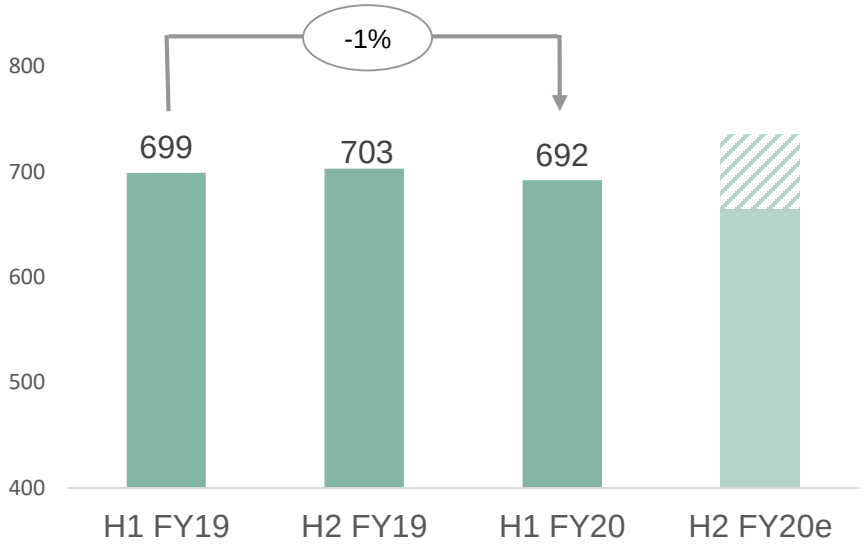
- Downswing in home appliances and photovoltaic; quick rebound expected
- Delayed impact in drives, traction and wind followed by slow recovery according to market research reports

Corona pandemic will impact H2 FY20 significantly

IPC revenue and Segment Result margin



IPC half-year revenue development



- Q2 book to bill is hovering around 1
- Inventories in the distribution chain improved by almost 2 weeks to 14 weeks
- Q3 and Q4 revenues are expected to remain flat
- Due to idle cost the FY20 SR-Margin is expected to be below FY19 level

Market outlook for main applications

Appli-cation	Market outlook for H2 FY20	Market outlook for FY21
	Industrial Drives expected to contract due to push-outs in manufacturing equipment investments	Industrial Drives highly correlated to GDP; recovery earliest in late FY21
	Disruptions in supply and lockdowns will delay PV installations	Steep recovery and catch-up of lost installations expected, possibly supported by incentives
	Growth may be not as strong as expected due to installation delays but higher than in FY19	Self sustainable growth due to long-term drivers and increasing competitiveness
	Household budget uncertainties and construction delays lead to softening market	Catch-up of delayed purchases and energy efficiency incentive programs will drive growth
	Stable growth expected despite minor manufacturing delays during lockdowns	Long-term drivers ensure steady growth

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

We contribute a CO_2 reduction of more than 54 million tons

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

Ratio around 1:40

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

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

Our net ecologic CO_2 benefit is equal to…

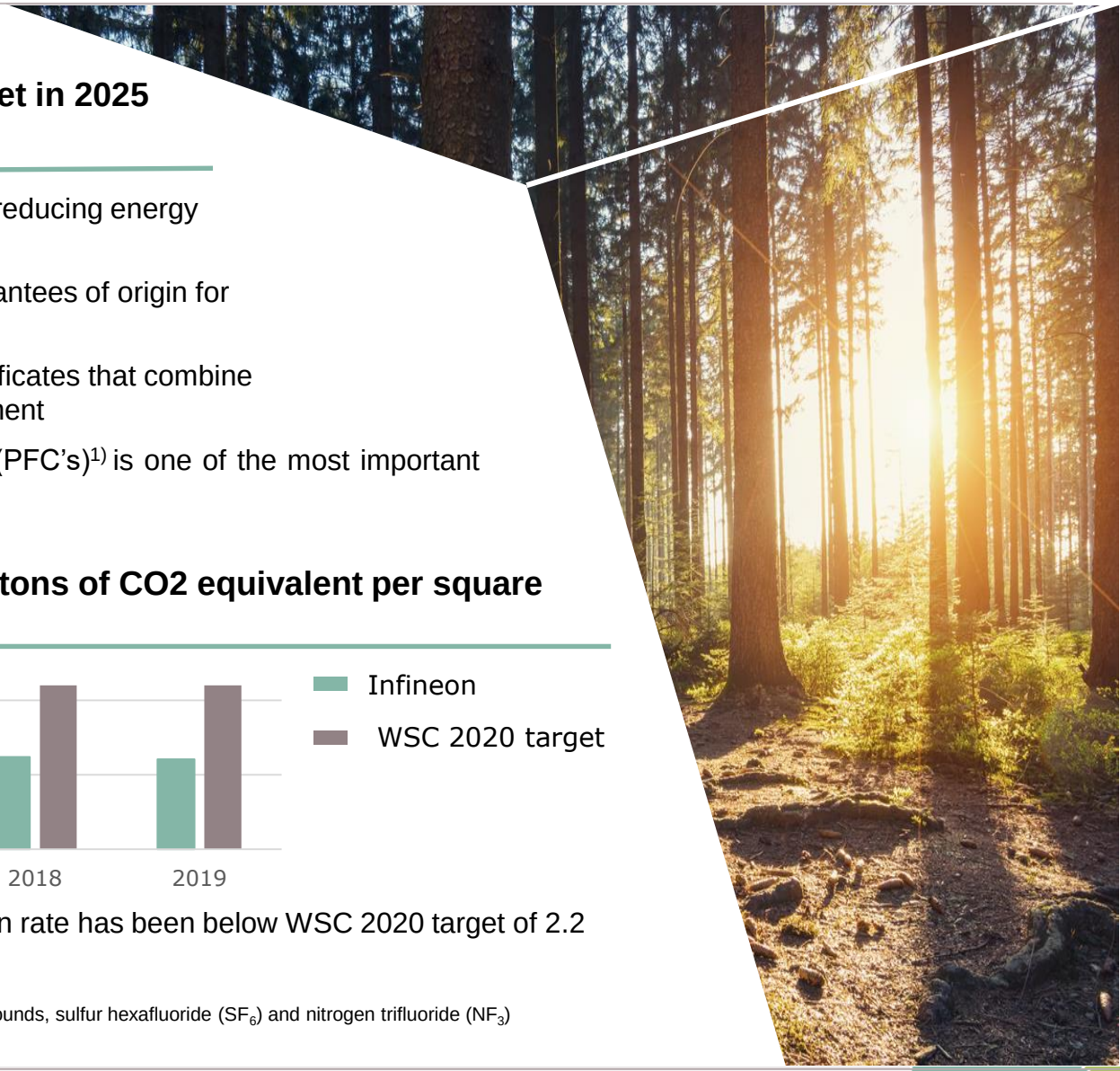
The savings of a 1,795 km^2 photovoltaic powerplant.[3)]

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

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

For footnotes please see appendix page 25

Infineon will become carbon-neutral by 2030



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

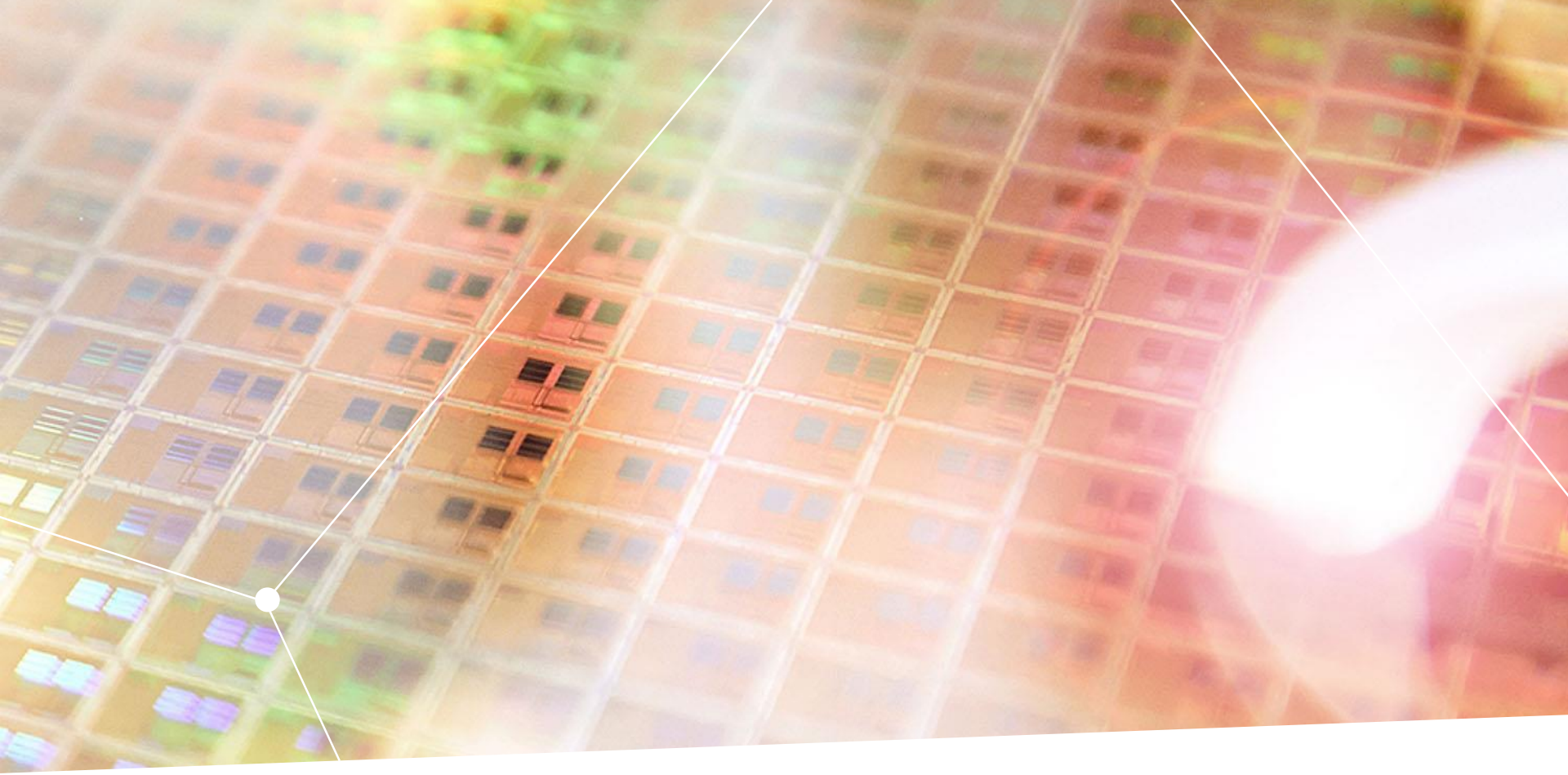
1. Avoiding direct emissions and further reducing energy consumption
2. Purchasing green electricity with guarantees of origin for unavoidable emissions
3. Compensate the smallest part by certificates that combine development support and CO_2 abatement

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

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

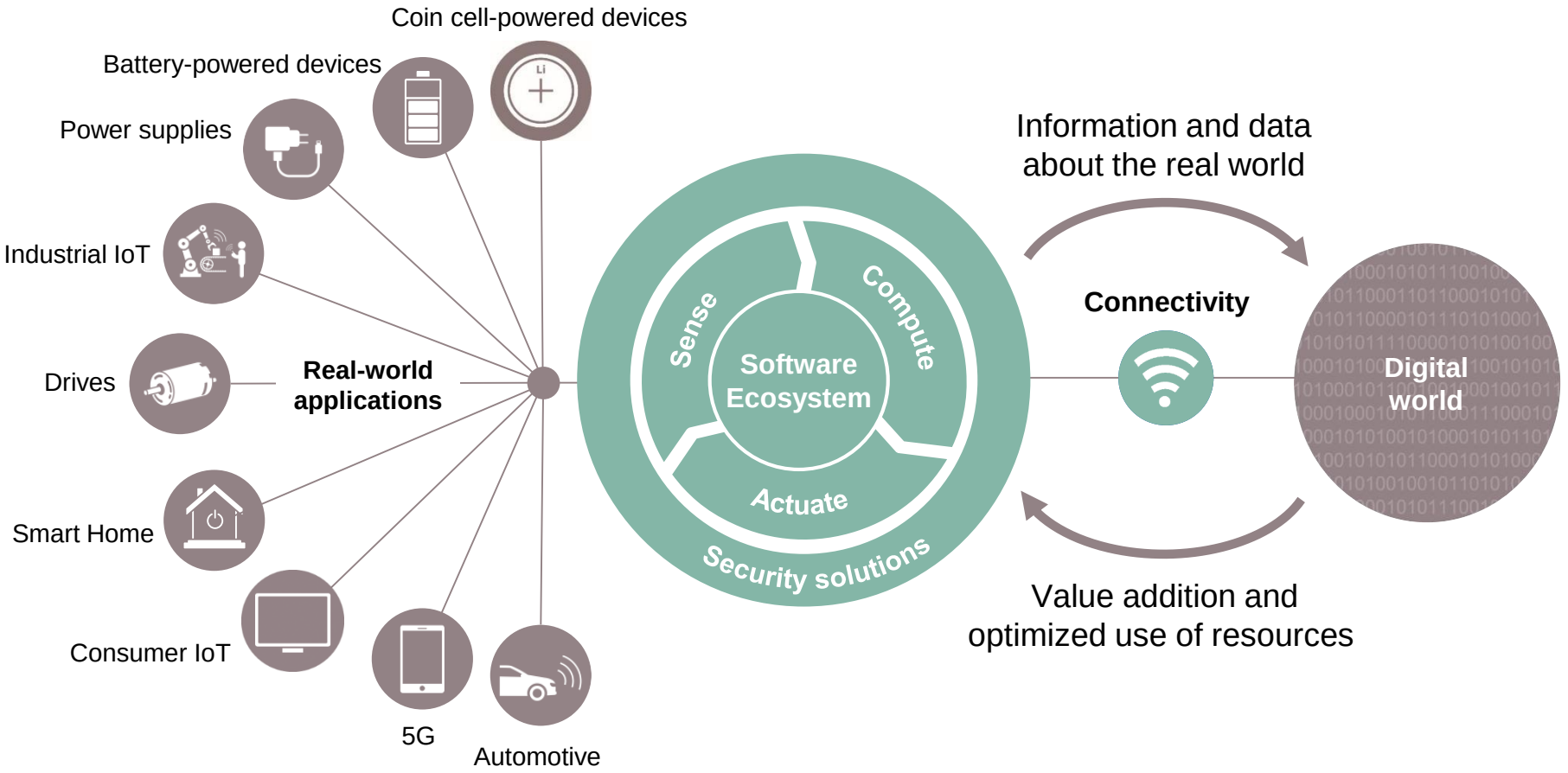
Historically, Infineon's normalized emission rate has been below WSC 2020 target of 2.2 in tons of CO2 per square wafer

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



Acquisition of Cypress creates new opportunities

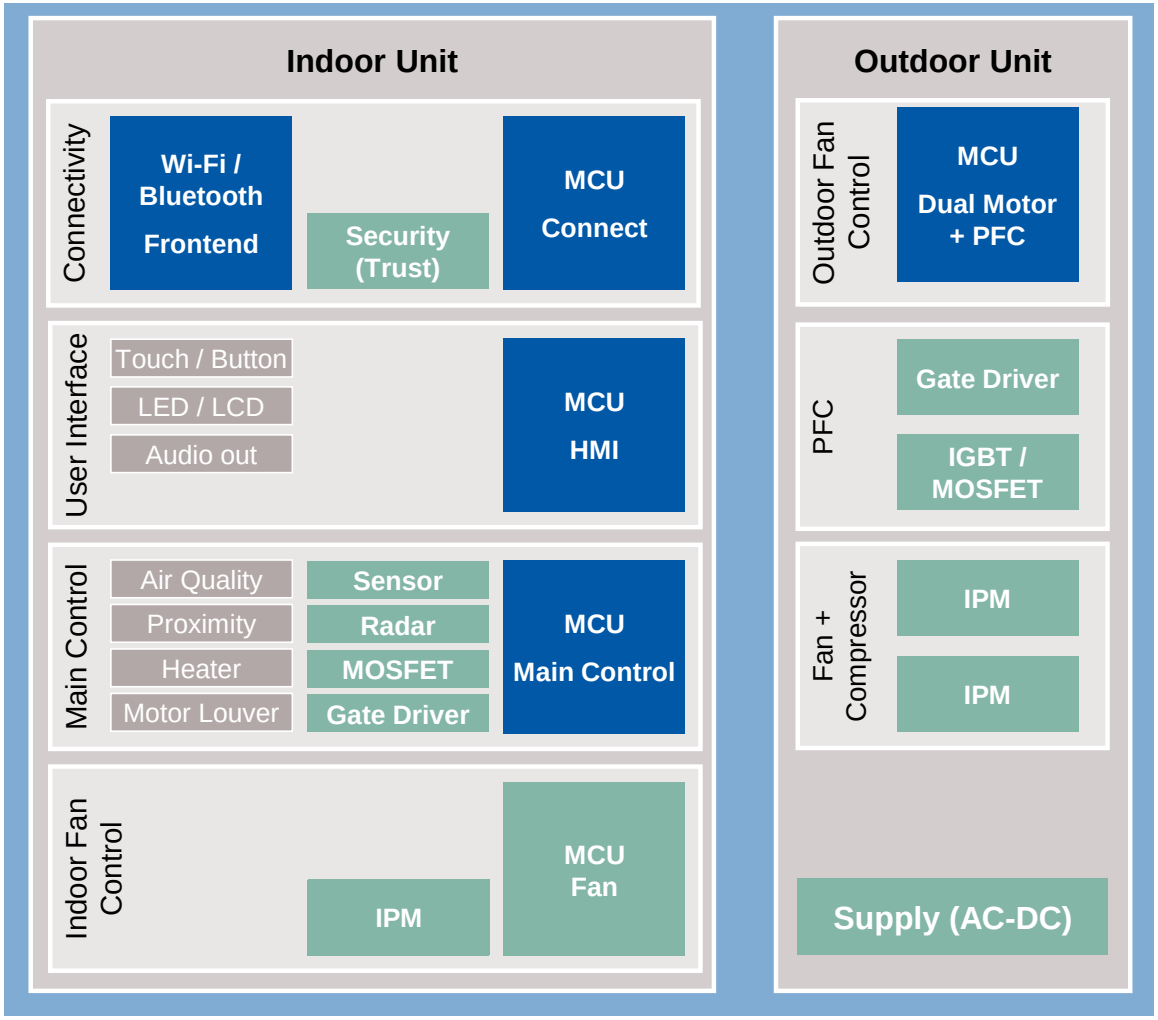
The new Infineon offers an unrivaled portfolio that perfectly links the real and the digital world



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

With the combined portfolio the new Infineon can now offer full system solutions

Example: air-conditioning

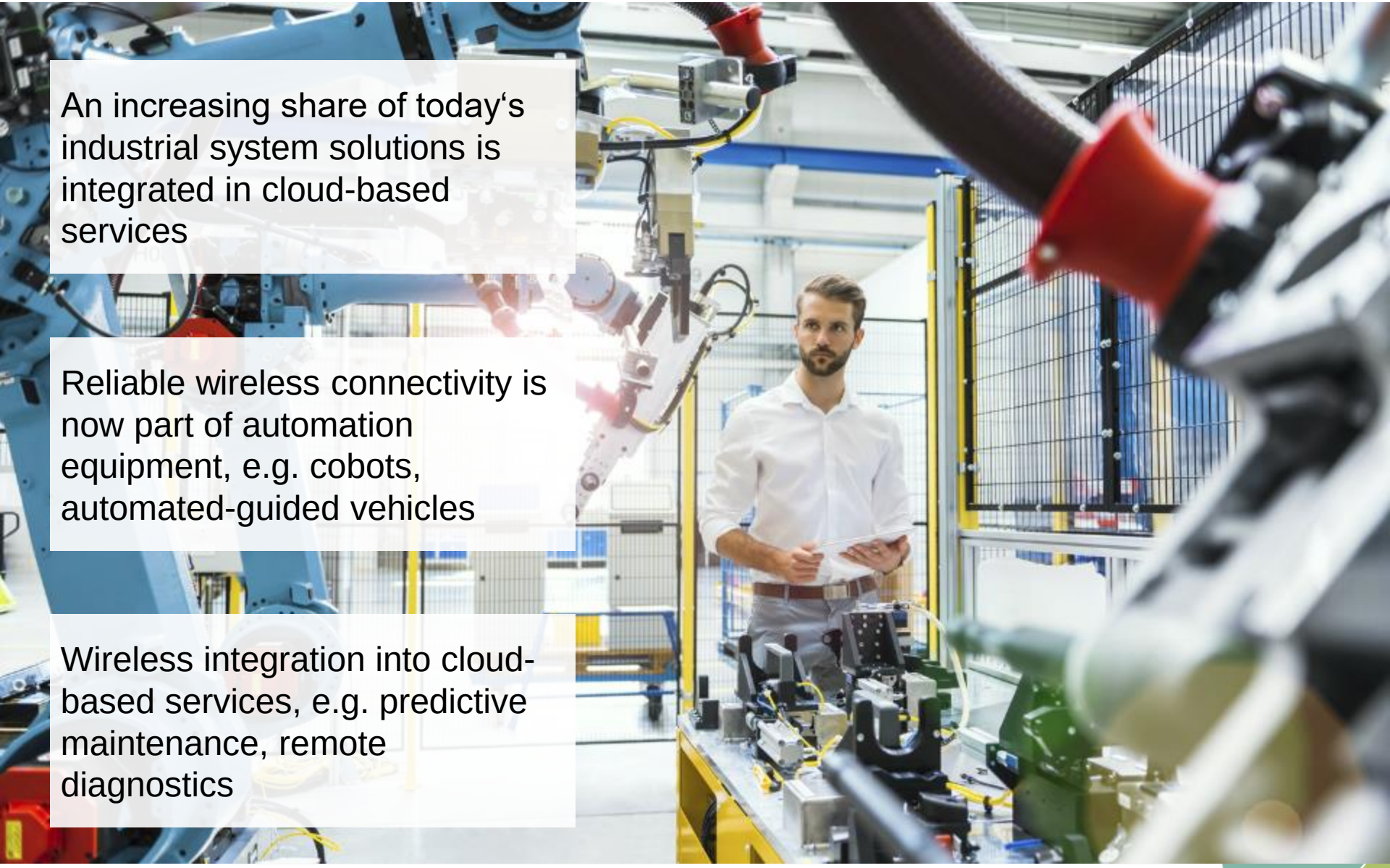


What makes system solution attractive to customers?

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

Infineon heritage | Cypress heritage

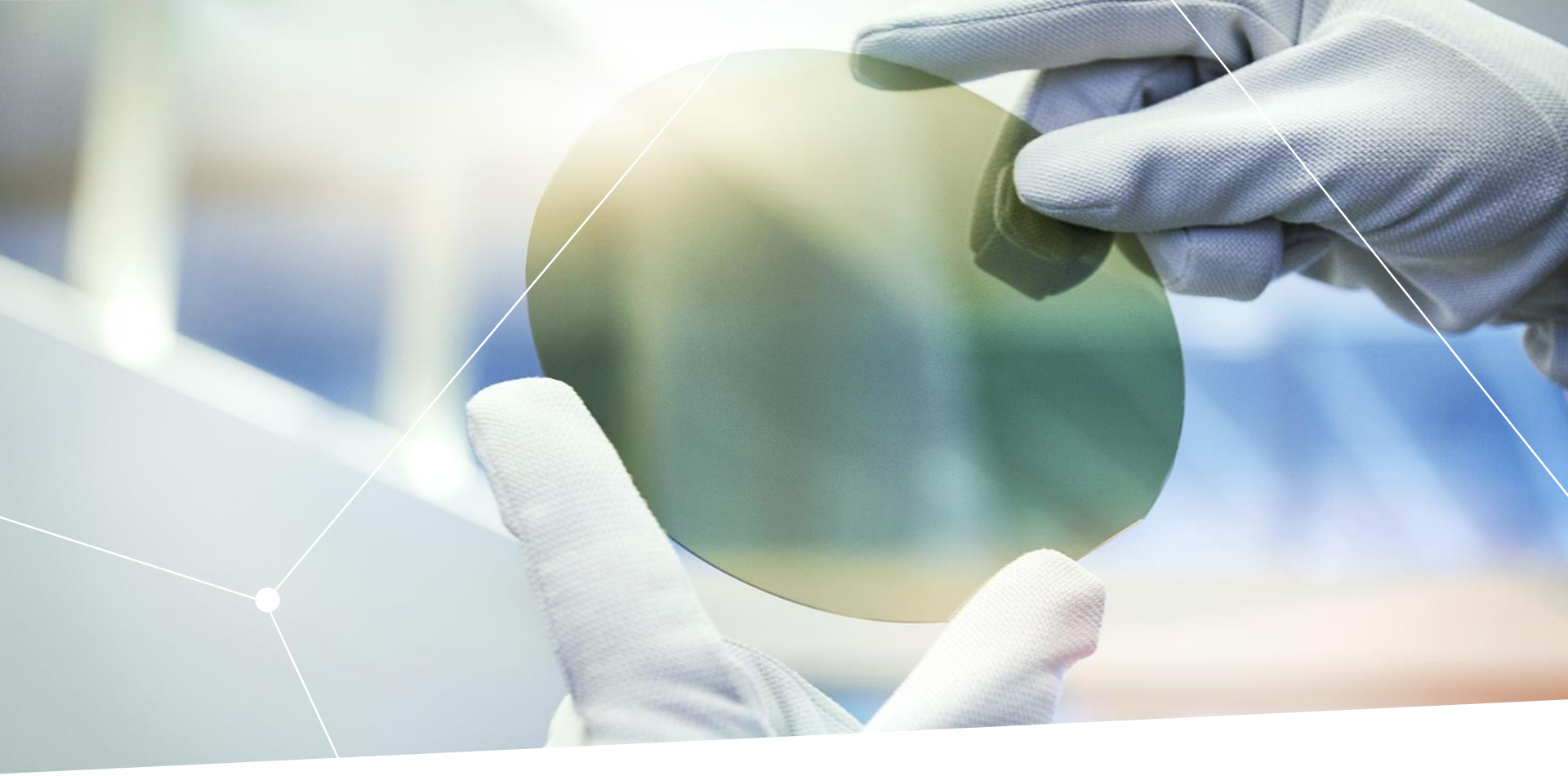
Industrial Internet of Things integrates control and connect and is offering new opportunities



An increasing share of today‘s industrial system solutions is integrated in cloud-based services

Reliable wireless connectivity is now part of automation equipment, e.g. cobots, automated-guided vehicles

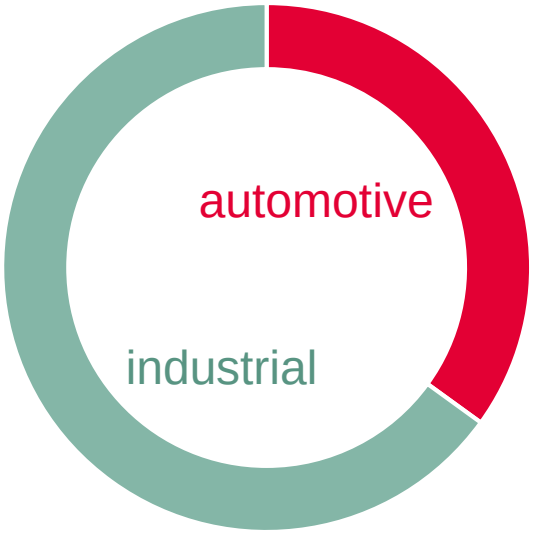
Wireless integration into cloud-based services, e.g. predictive maintenance, remote diagnostics



Update on Infineon’s silicon carbide activities

Infineon's SiC business so far dominated by industrial, additional potential for automotive

Cumulated SiC design-ins of ~€1.8bn*

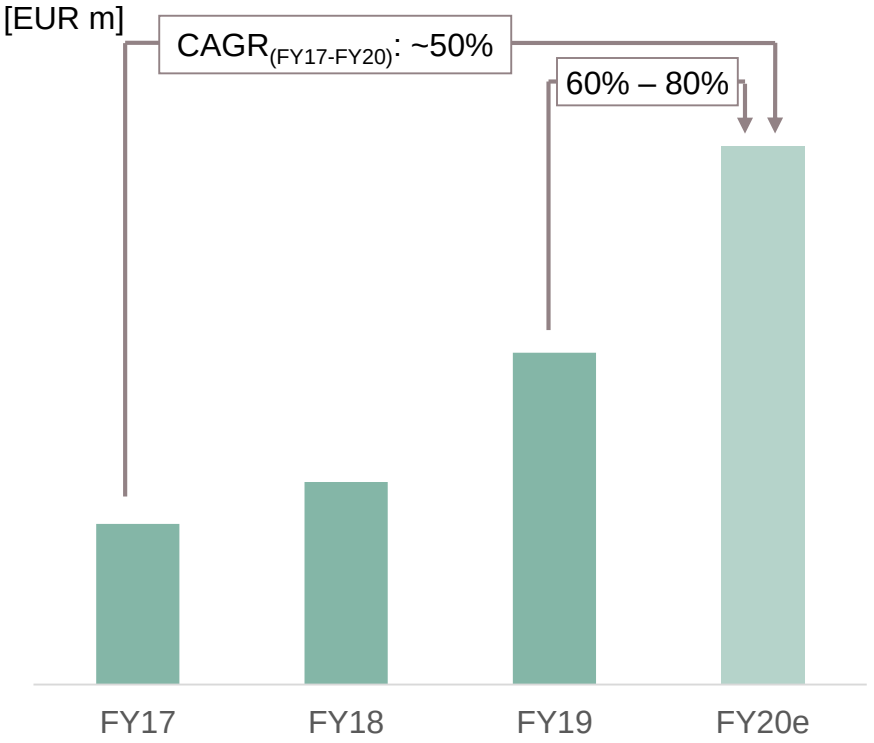


- automotive: diodes, MOSFETs, MOSFET modules
- industrial (IPC): diodes, MOSFETs, hybrid modules, MOSFET modules
- industrial (PSS): diodes, MOSFETs

* as per end of FY19; as a cautious assumption, lifetime of all projects is capped after five years.

** only customers with > €10k revenue considered

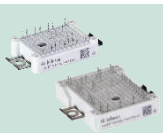
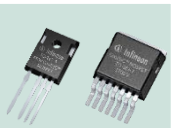
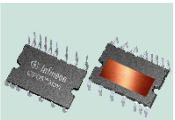
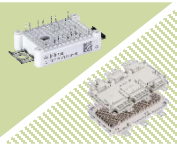
Strong growth in SiC business; very balanced product and customer portfolio



- >150 different CoolSiC™ products as of today
- >100 different customers** expected in FY20

Strong CoolSiC™ portfolio expansion: by packages and by voltages

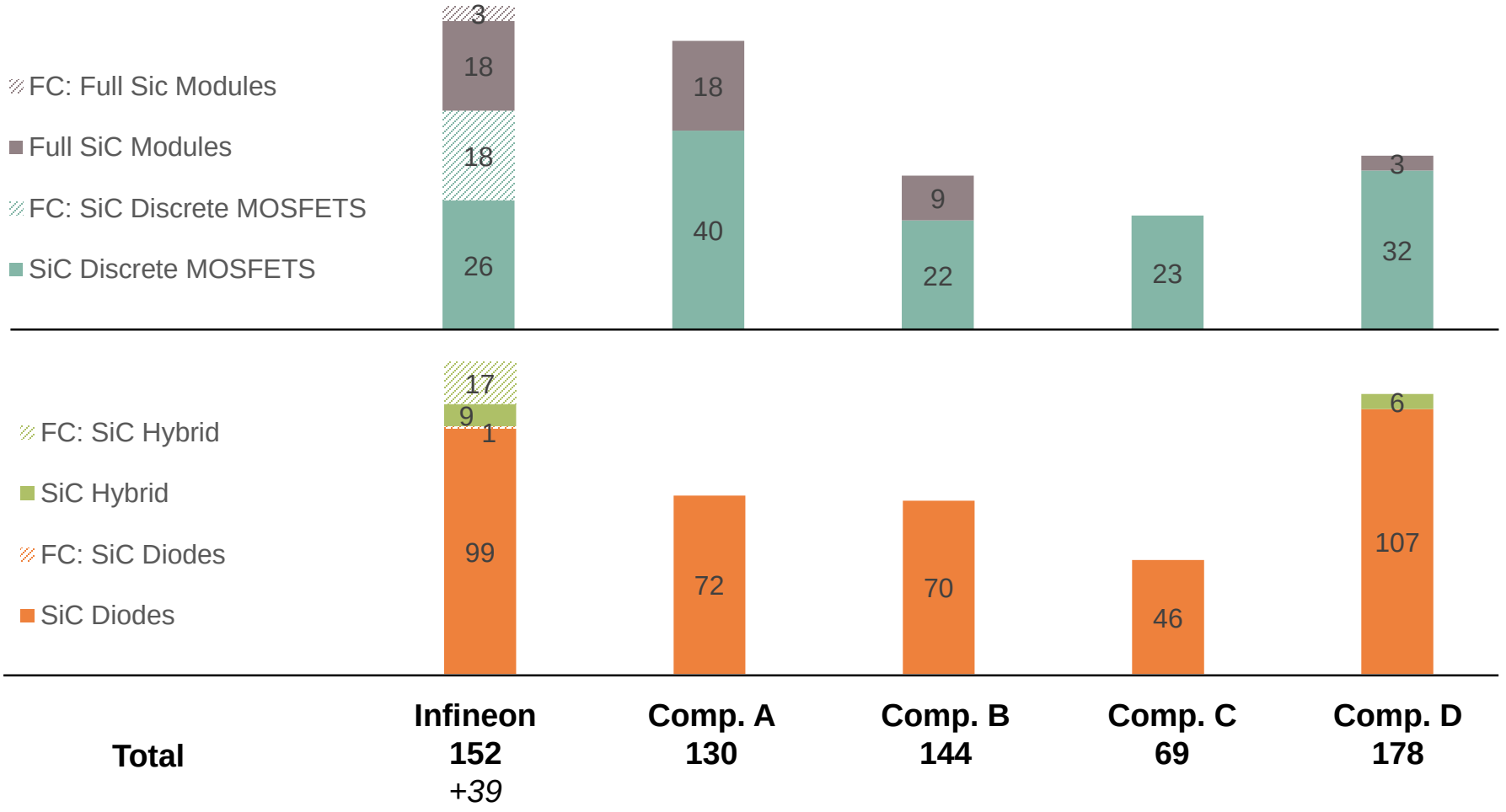
Broadest and best-in-class SiC portfolio

	Industrial						Automotive grade		
package options / voltages	CoolSiC™ Diode	CoolSiC™ Hybrid		CoolSiC™ MOSFET			CoolSiC™ Diode	CoolSiC™ MOSFET	
	Discrete	Discrete	Module	Discrete	IPM	Module	Discrete	Discrete	Module
									
600 V									
650 V		Expected in 2020							
1200 V					Expected in 2020				Exp. in 2020
1700 V									

Continuous expansion of portfolio

Comparison of SiC product portfolio for Infineon and its competitors

SiC product portfolio*



*Source: Product data collected from each company's website & IFX SiC Forecast for product releases FY20; w/o Bare Die – as per May 04, 2020

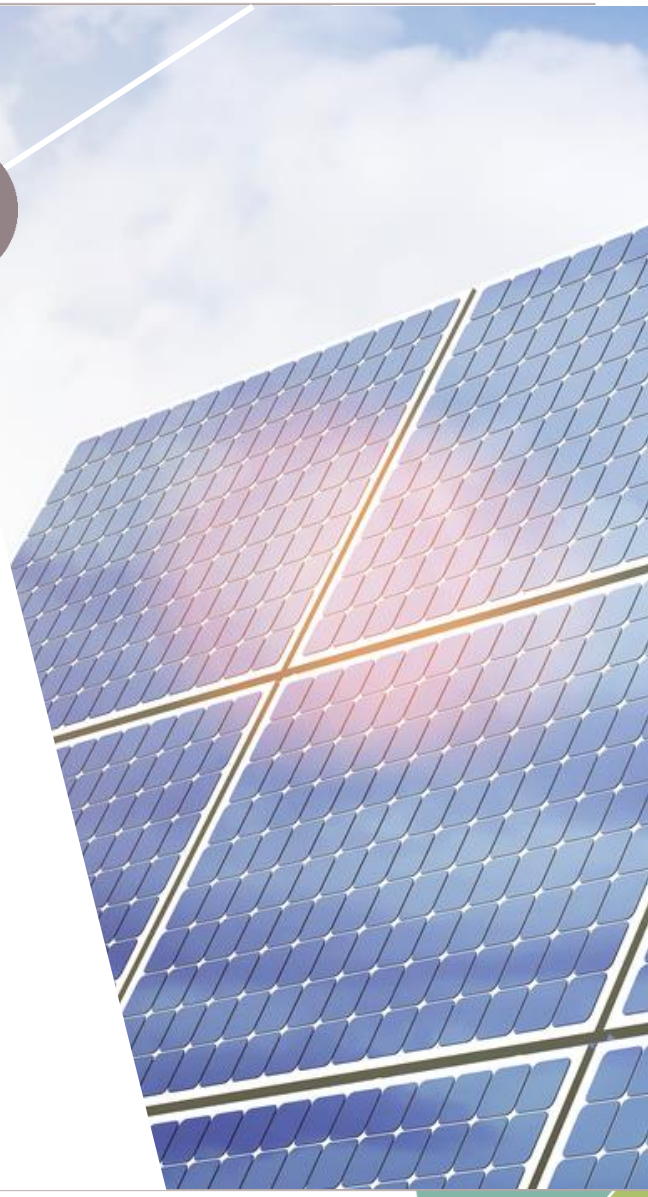
Our technologies enable world's most powerful 1,500 V string inverter; 250 kW PV solution by Sungrow

Sungrow SG250HX string inverter

- Enables flexible block design of up to 6.75 MW
- Power density of approximately 1 kW/liter
- Only 99 kg in weight
- Ideal solution for utility scale photovoltaic applications

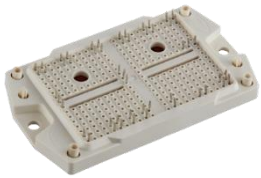
SUNGROW
Clean power for all

SiC



Latest Infineon chip and module technology

- Enabling significant reduction of heat sink size and weight
  → EasyPACK™ 3B power modules
- Achieving very high conversion efficiency
  → latest TRENCHSTOP™ and CoolSiC™ technology

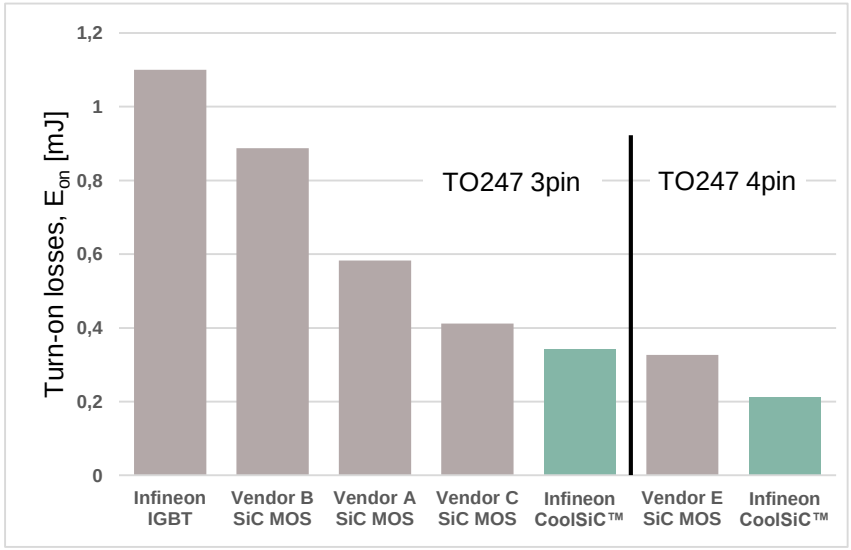


Second generation (2nd Gen.) CoolSiC™ Trench MOSFET will increase the addressable market

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

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

1st Gen. with lowest losses



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

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

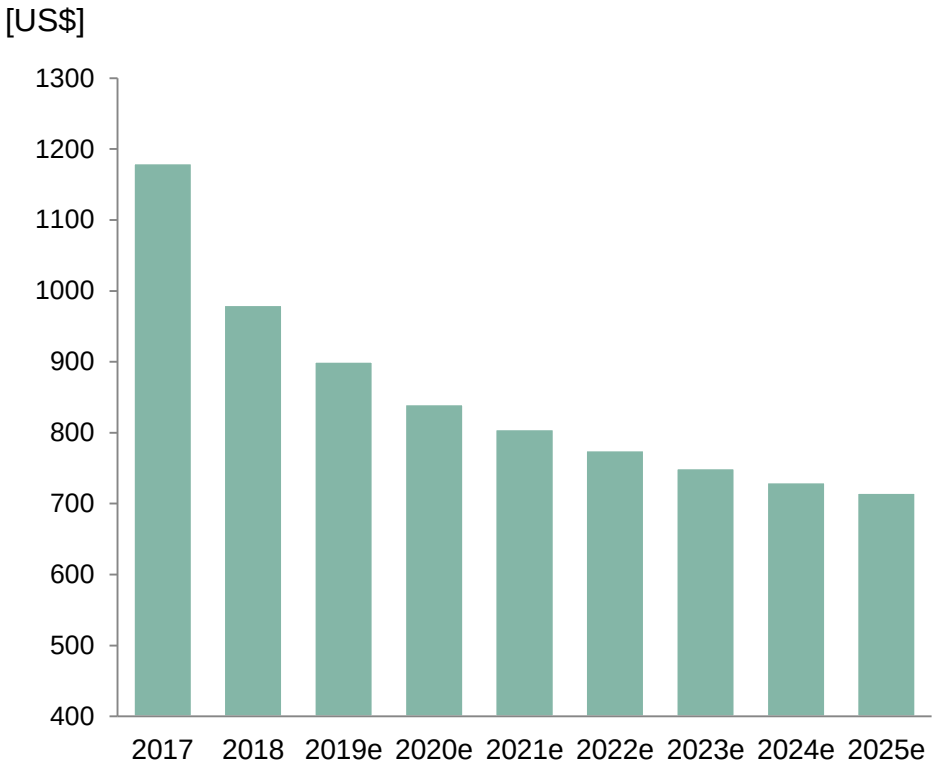
2nd Gen. will expand the lead

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

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

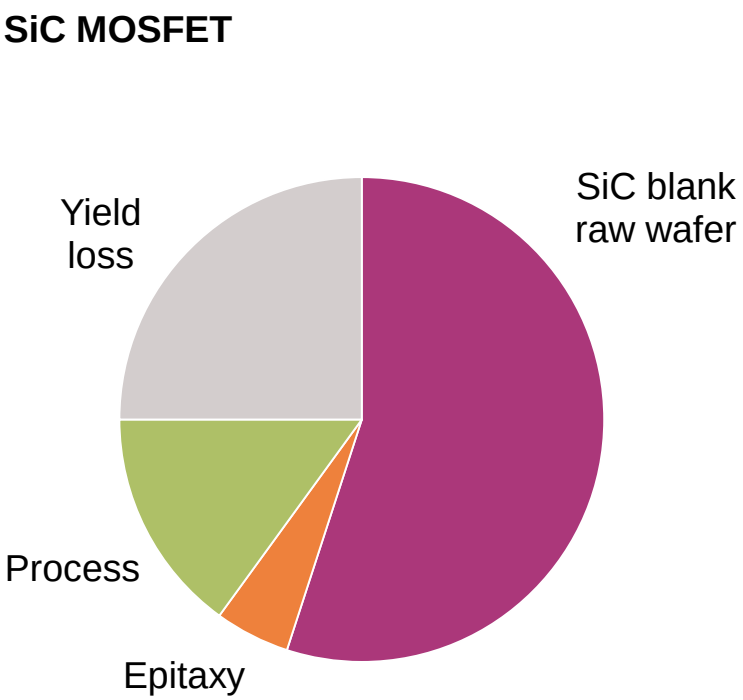
SiC raw wafer remains major cost driver

SiC 150 mm raw wafer price development



Source: Based on or includes research from Omdia, "SiC and GaN Power Semiconductors Report - 2019", May 2019.

Average frontend cost breakdown



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

Siltectra:
Status of implementation of Cold Split technology

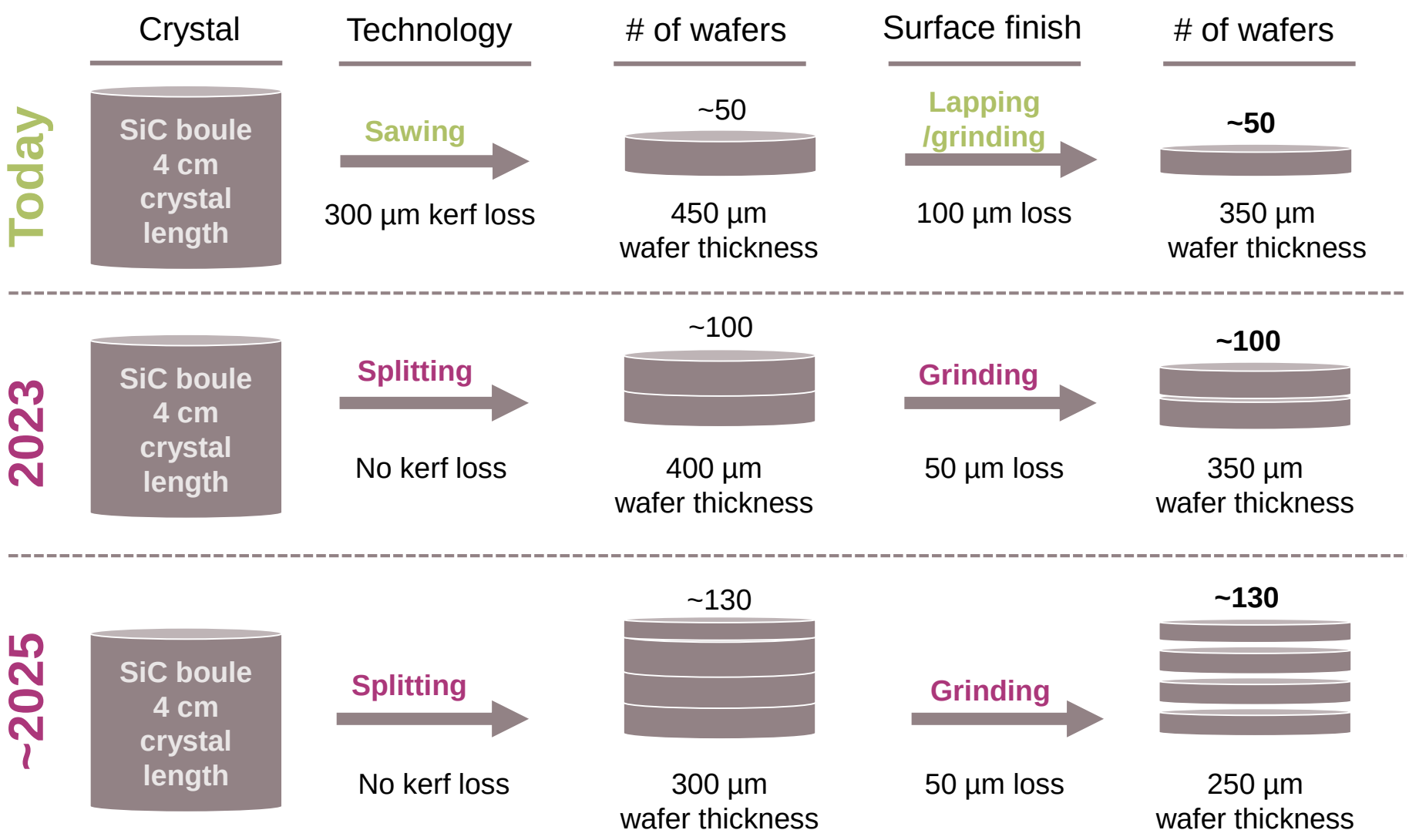
Process tools	Clean room	Process flow
› Design and production of semi-automated process tool park completed in Dresden	› Clean room ready for manufacturing by end of calendar year 2020	› Integration of individual process steps into complete work flow

1/3 of the industrialization journey accomplished

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

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

Cold Split technology extended from wafer splitting to boule splitting



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

Today

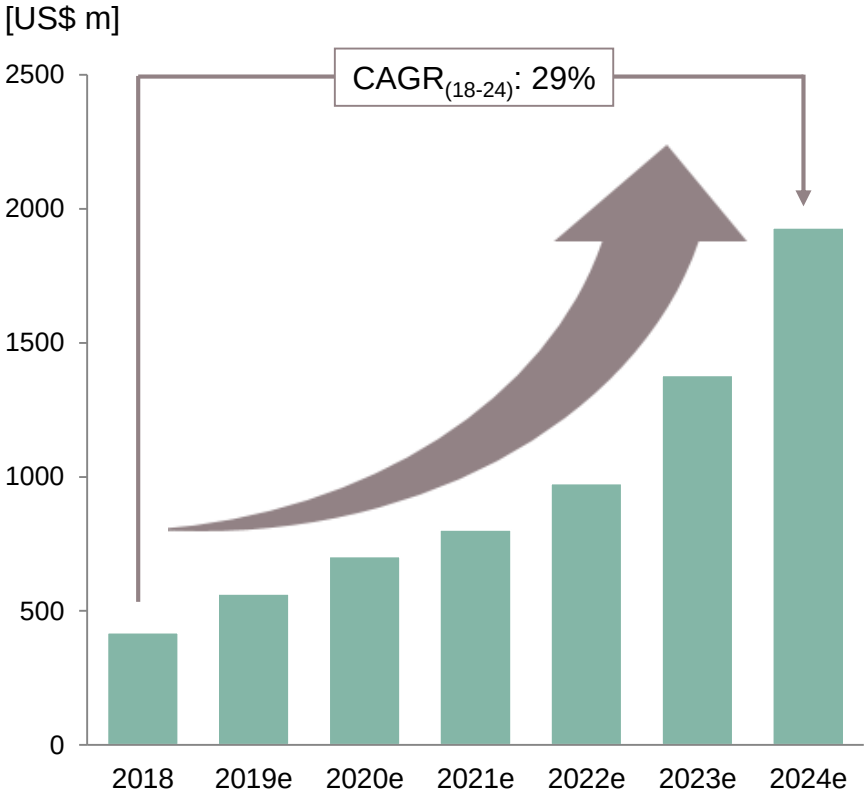
- Leading Infineon technology with 1st Gen. CoolSiC™ Trench MOSFET
- Already broad, fast growing portfolio
- System expertise and customer access

Strategic projects to support growth

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

SiC device market size

- Acceleration of revenue growth from 2023 onwards



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

Part of your life. Part of tomorrow.

Dr. Peter Wawer
Division President Industrial Power Control

- since 2016: Division President Industrial Power Control
- 2012: Member of the Management Board of the Power Management & Multimarket Division (since 1 April 2020 renamed to Power & Sensor Systems)
- 2011: Senior VP Technology and Production at Q-Cells SE in Bitterfeld, Germany
- 2008 – 2011: Senior VP Technology at Q-Cells SE
- 1997 – 2008: various position at Infineon
- Dr. Peter Wawer was born in Berlin, Germany, in 1967. He holds a Diploma in Electrical Engineering from the Technical University in Berlin where he also received his PhD.
- He joined Infineon (Siemens AG until 1999) in 1997.

Dr. Peter Friedrichs
Senior Director SiC Technology

- since 2011: Senior Director SiC Technology
- 2004 – 2011: Managing director of SiCED (Joint venture of Infineon and Siemens)
- 1996 – 2004: various positions at Siemens and SiCED

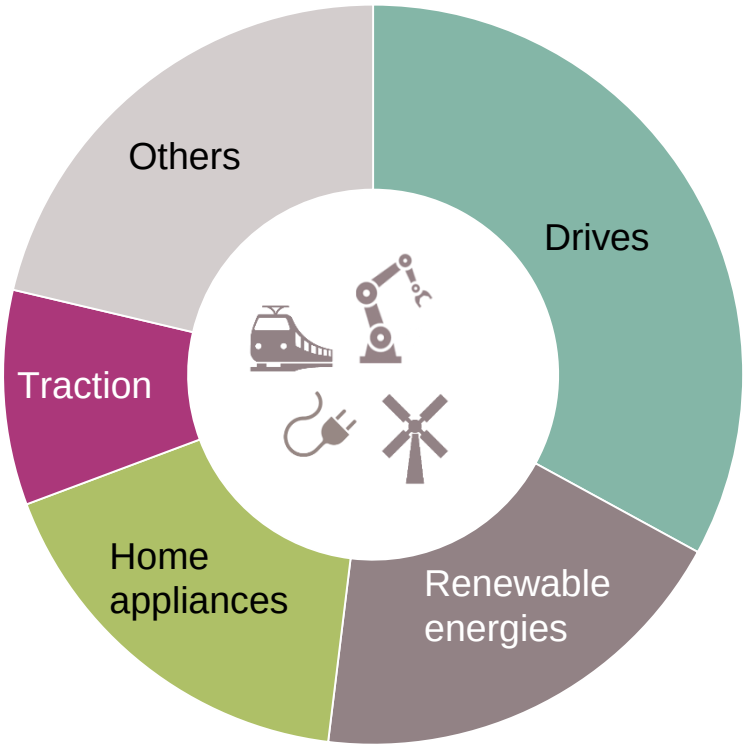
- Dr. Peter Friedrichs was born in Aschersleben, Germany, in 1968. He holds a Diploma in Microelectronics from the Technical University in Bratislava, Slovakia, and received his PhD from the Friedrich Alexander University in Erlangen, Germany. In addition, he holds a Diploma in Industrial Engineering from the University in Hagen, Germany.
- He joined Infineon (Siemens AG until 1999) in 1996.

Footnotes to page 6

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

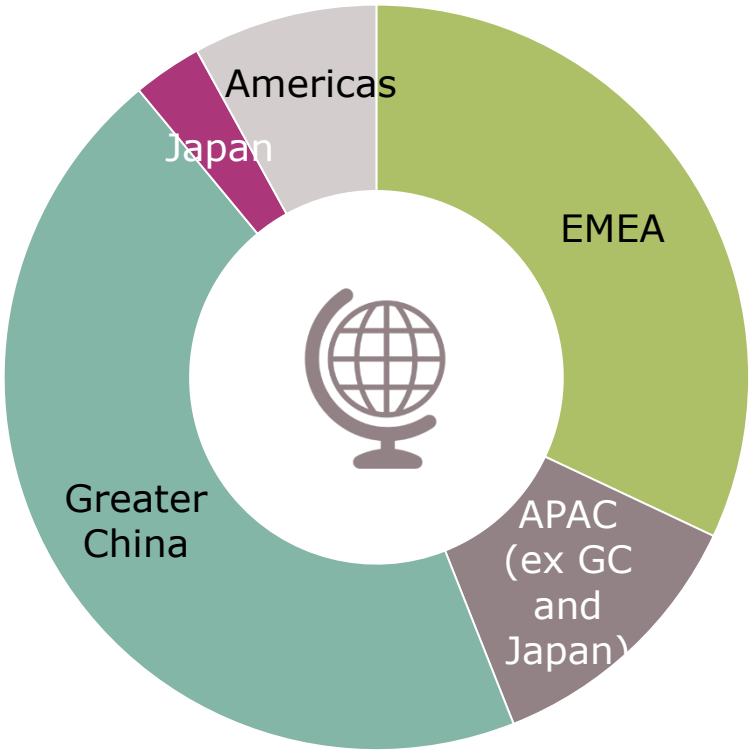
IPC at a glance: well-balanced portfolio of applications

IPC FY19 revenue by application



- Distribution share: ~40%

IPC FY19 revenue by region

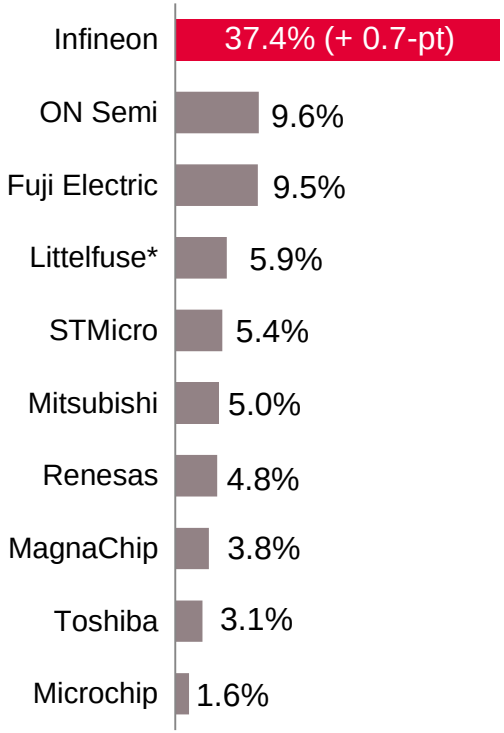


- US$ exposure: ~30%

Clear leader in discrete IGBTs and IGBT modules; market share gains in all categories

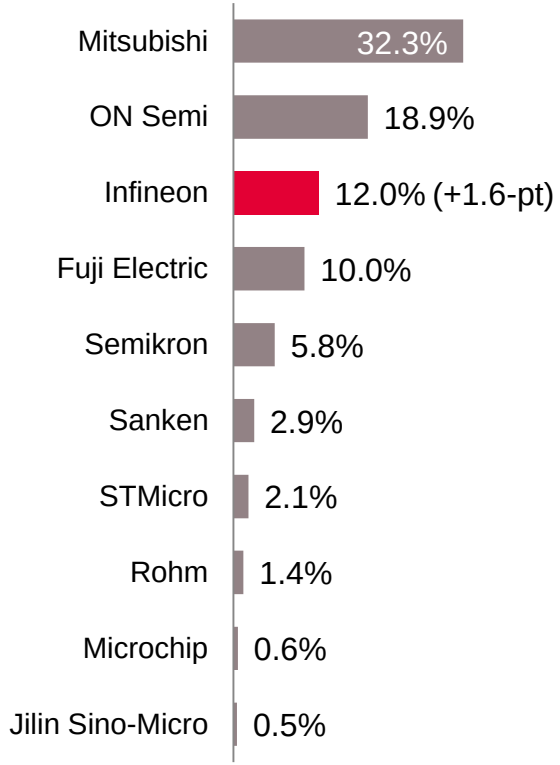
Discrete IGBTs

total market in 2018: $1.31bn



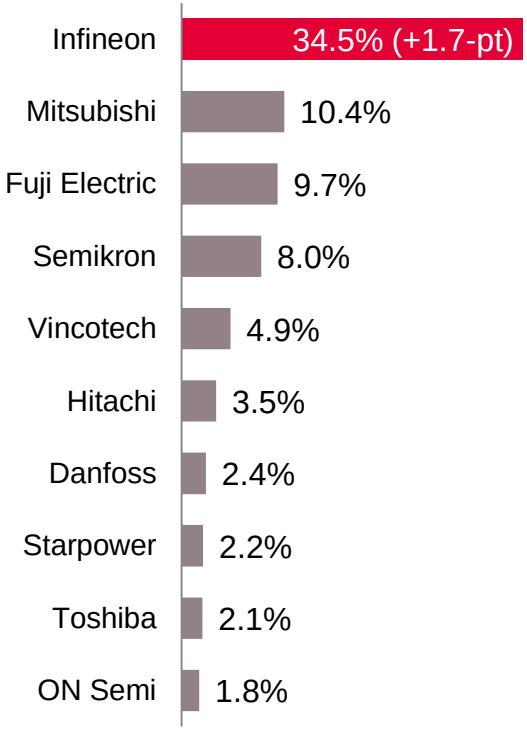
IPMs

total market in 2018: $1.68bn



IGBT modules**

total market in 2018: $3.25bn

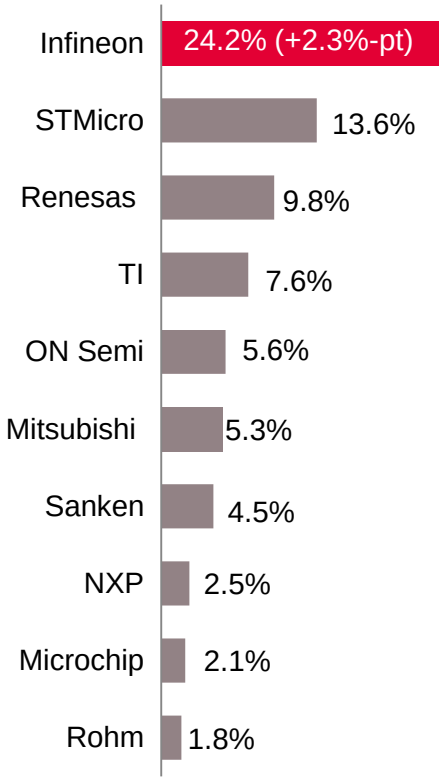


* Littelfuse acquired IXYS Corporation in January 2018.
** Including standard (non-integrated) IGBT modules and power integrated modules (PIMs) / converter inverter brake (CIB) modules.
Source: Based on or includes research from Omdia, "Power Semiconductor Market Share Database 2018", September 2019.

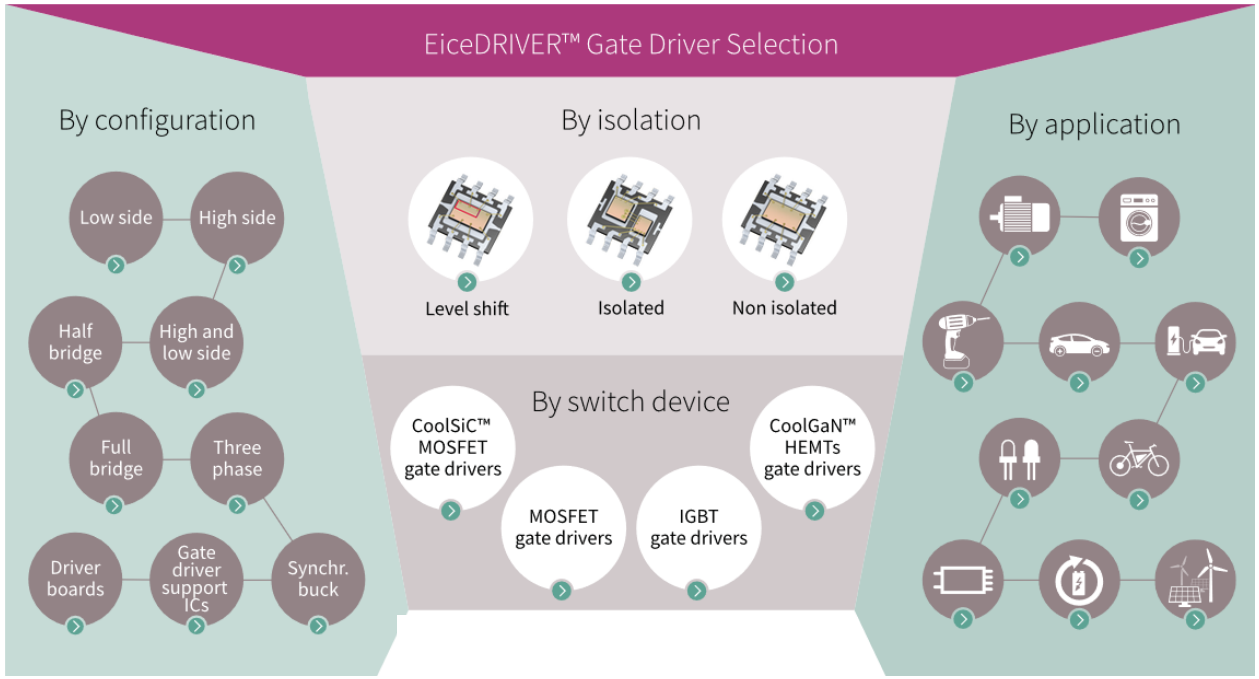
“Every switch needs a driver”

Gate Driver ICs

total market in 2018: $1,47bn



Strong market share gains based on the broadest portfolio in the industry



Source: Based on or includes research from Omdia, "Power Semiconductor Market Share Database 2018", September 2019.

Glossary

btb	Book-to-bill ratio
epi	epitaxy
FiT	feed-in tariff
IPS	industrial power supply
IPM	intelligent power module
ITC	solar investment tax credit
IGBT	insulated-gate bipolar transistor
MCU	microcontroller unit
MOSFET	metal-oxide silicon field-effect transistor
PFC	power factor correction
PV	photovoltaic
PTC	production tax credit
RAC	residential air conditioning
SiC	silicon carbide
ToF	time of flight
xEV	all degrees of vehicle electrification (EV, HEV, PHEV)

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Disclaimer

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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.
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