## Second Quarter FY 2017 Quarterly Update

update per 6 June 2017

Infineon Technologies AG Investor Relations





### Table of Contents

- 1 Infineon at a Glance
- Quarterly Highlights
- 3 Growth Drivers
- 4 Selected financial figures

Please regard the "Notes" and "Glossary" at the end of the presentation.

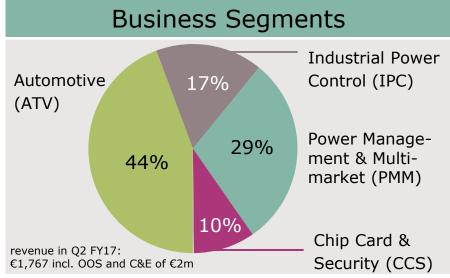
**Disclaimer:** This presentation contains forward-looking statements about the business, financial condition and earnings performance of the Infineon Group.

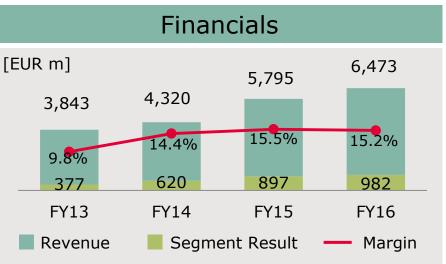
These statements are based on assumptions and projections resting upon currently available information and present estimates. They are subject to a multitude of uncertainties and risks. Actual business development may therefore differ materially from what has been expected.

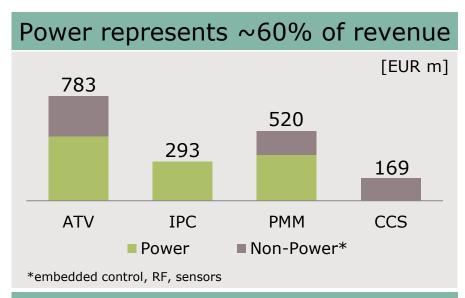
Beyond disclosure requirements stipulated by law, Infineon does not undertake any obligation to update forward-looking statements.



### Infineon at a glance









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



Focus	Technology	leadership Syste	System understanding	
Auto	Power	RF and sensors	Security	
System leader in automotive	#1; system and technology leader	Broad RF and sensor technology portfolio	Leader in security solutions	

#### Average-cycle financial targets

~8% p.a. revenue growth

~17%
Segment Result Margin

 $\sim 13\%$  investment-to-sales (thereof capex\*:  $\sim 11\%$ )

#### Continued value creation for shareholders

Organic RoCE ~ 2x WACC

- paying out at least a constant dividend even in periods of slower growth
- > continuous EPS increase

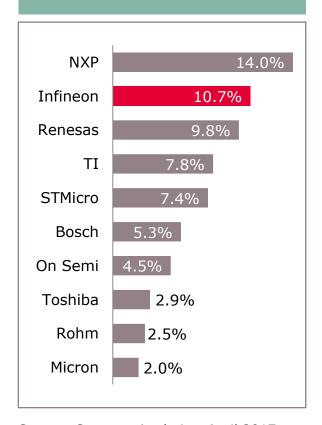
<sup>\*</sup> Infineon reports under IFRS and has therefore to capitalize development assets which represents currently ~2% of sales.

## Infineon increased relative market share in power and outperformed chip card market



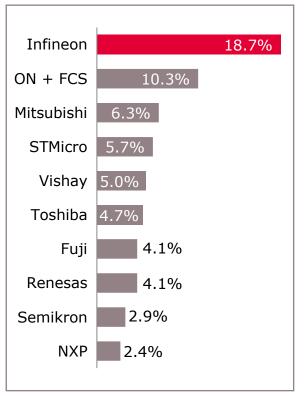
### Automotive semiconductors

total market in 2016: \$30.2bn



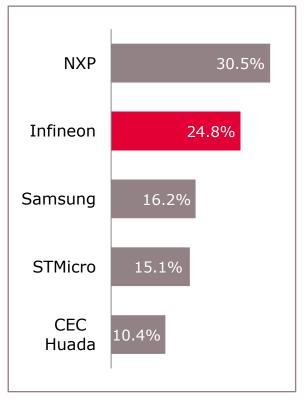
### Power discretes and modules

total market in 2015: \$14.8bn



### Smart Card ICs

total market in 2015: \$2.72bn



Source: IHS Markit, October 2016 Source: IHS Markit, July 2016

### Tight customer relationships are based on system know-how and app understanding



### **ATV** BOSCH **Autoliv** Ontinental 🕏 DELPHI HELLE DENSO **HITACHI** Inspire the Next LEAR. Mando







### EMS partners











Distribution partners





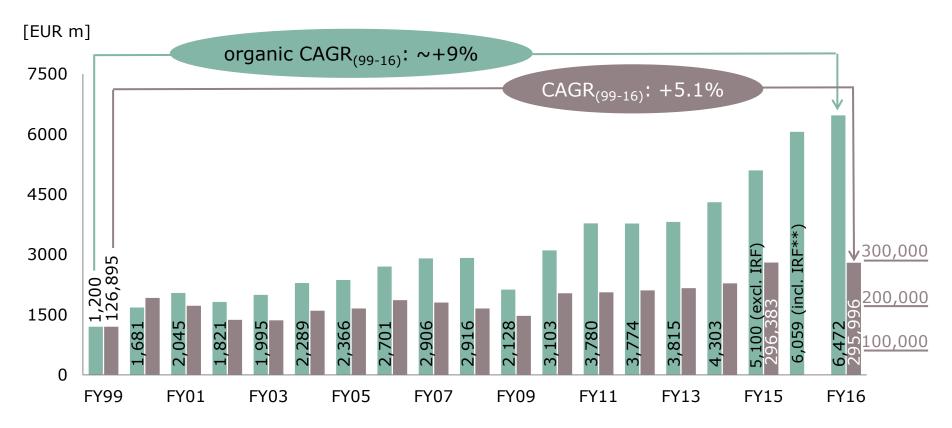




OMRON.

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





- Revenue Infineon\* [lhs]
- Semiconductor World Market (adjusted for the Infineon fiscal year ending Sep 30) [rhs]
- \* Based on Infineon's portfolio (excl. Other Operating Segments and Corporate & Eliminations) per end of FY16.
- \*\* If International Rectifier had been consolidated since 1 Oct 2014, Infineon would have recorded revenues of €6,059m in FY15. Source: Infineon; WSTS (World Semiconductor Trade Statistics), November 2016

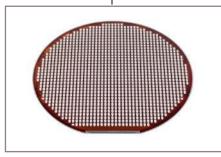
# Accelerated investments in FY17 to maximize margin contribution and customer satisfaction



Incremental investments in PPE of €100m help accommodate strong order entry in major growth areas, such as xEV, ADAS and power









Dresden

ramp of 300 mm thin-wafer power line

Kulim

 accelerated ramp of 200 mm line for ATV products

#### Silicon carbide

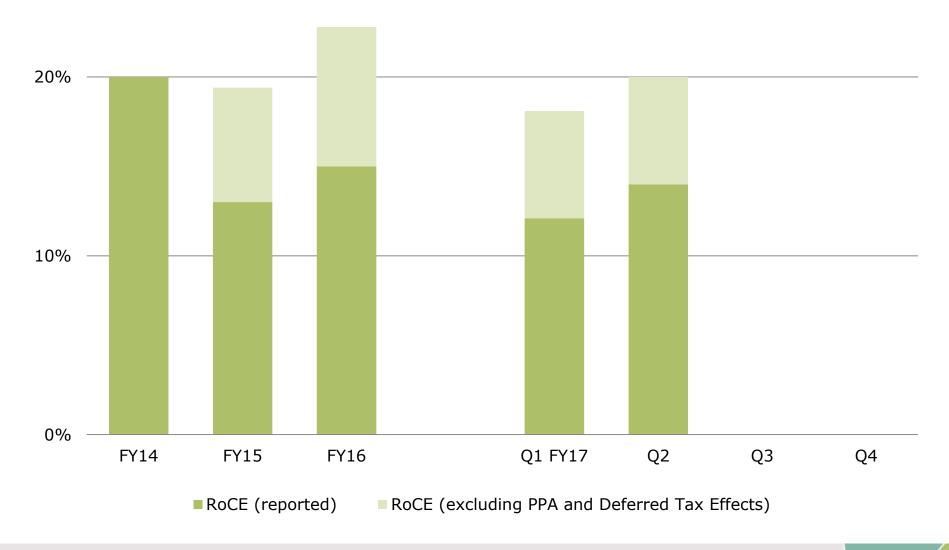
accelerated ramp of SiC line

#### **Backend**

- HybridPACK™ family for xEV
- discretes for ATV

## Organic RoCE as the key value metric typically amounts to ~2x WACC

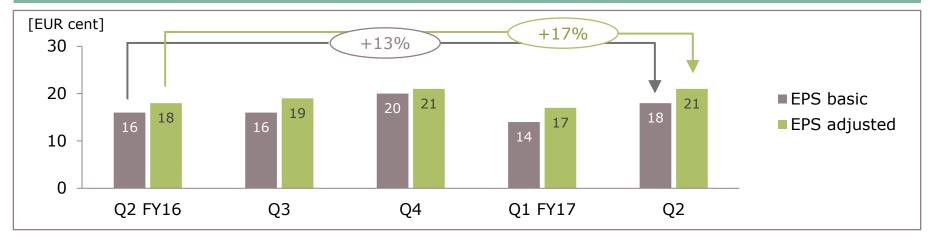




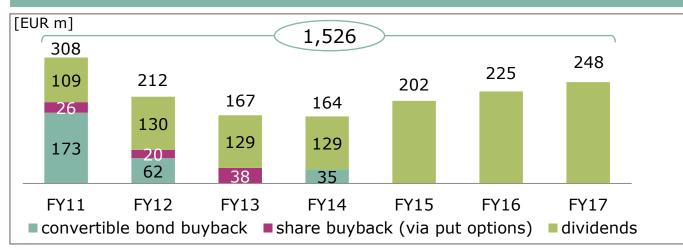
### Our promise to investors: Continued value creation through growth



### Earnings-per-share (EPS) development



### Total cash return to shareholders



- Policy of sustainable dividend payout.
- Increase of dividend from €0.20 to €0.22.
- Payment of €248m on21 Feb 2017.



### Guidance for Q3 FY17 and FY17

	Outlook Q3 FY17* (compared to Q2 FY17)	Updated Outlook FY17* (compared to FY16)
Revenue	Increase of 3% +/- 2%-points	Increase of 8% to 11% (prev.: "Increase of 6% +/- 2%-points")
Segment Result Margin	At the mid-point of the revenue guidance: ~17.5%	At the mid-point of the revenue guidance: $\sim 17\%$ (prev.: "16%")
Investments in FY17		About €1,050m** (prev.: "About €950m**")
D&A in FY17		About €830m***

<sup>\*</sup> Based on an assumed average exchange rate of \$1.10 for €1.00.

<sup>\*\*</sup> Including approximately €35m for a new building at Infineon's headquarters in Neubiberg near Munich.

<sup>\*\*\*</sup> Including D&A on tangible and intangible assets from purchase price allocation of International Rectifier.



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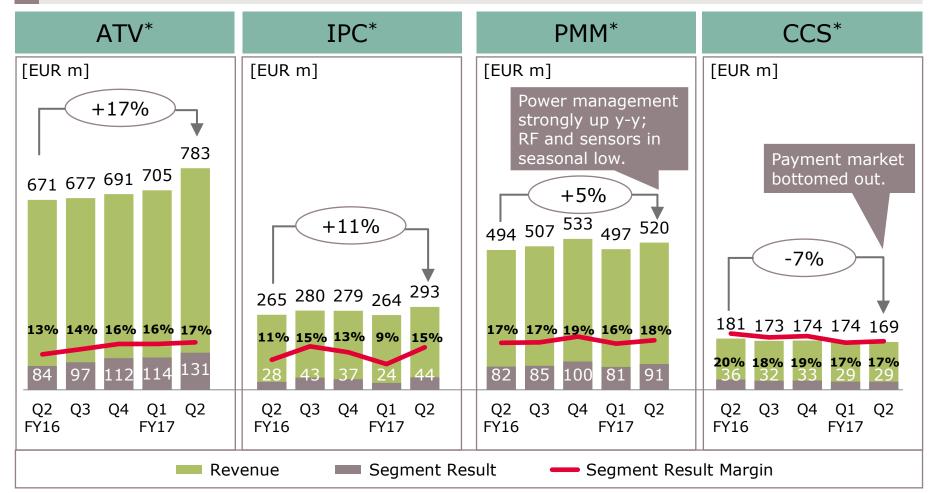
### Q2 FY17 Group and Division Performance

Group

Revenues: €1,767m (10% y-y)

Segment Result: €296m (30% y-y)

Segment Result Margin: 16.8%

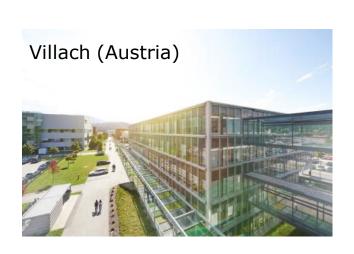


<sup>\*</sup> Individual small product groups were transferred to other segments with effect from 1 October 2016. The previous year's figures have been adjusted accordingly.

## 2017 marks the market entry of Infineon with SiC MOSFETs and full SiC modules



- Infineon owns industry's broadest power semiconductor portfolio with regard to products, packages and technology
- © Infine on CoolSic™ MOSFET Easy 2B
- Infineon offers "best-fit solutions" based on Si-based and SiC-based components
- Infineon's SiC MOSFET is based on its innovative trench concept with highest reliability



SiC manufacturing runs on standard 150 mm manufacturing lines, i.e. no capacity constraints

# Infineon SiC MOSFET with revenue potential of triple-digit €m in industrial applications



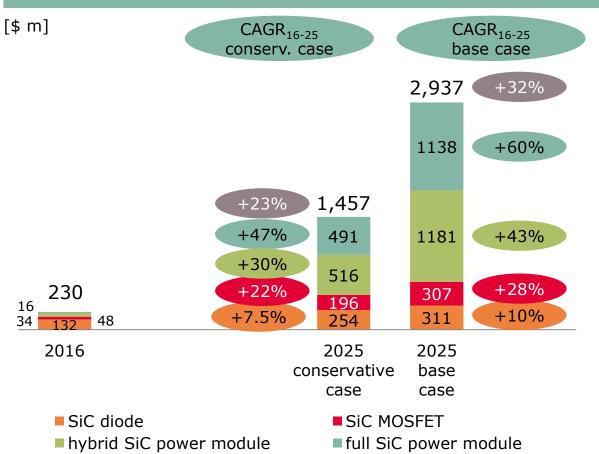


More and more applications will gradually reach their tipping point

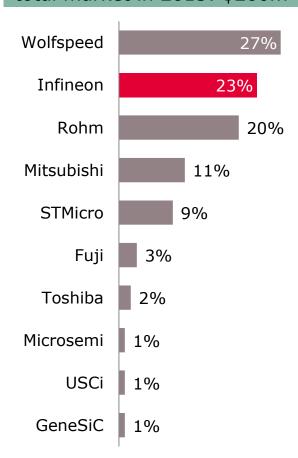
## Hybrid SiC and full SiC power modules will show highest growth







### 2015 SiC market share total market in 2015: \$200m



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Source: Yole, "Power SiC 2016", Jul 2016

Source: IHS Markit, "World Market for SiC and GaN Power Semi", Feb 2016; Infineon

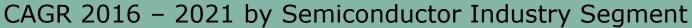


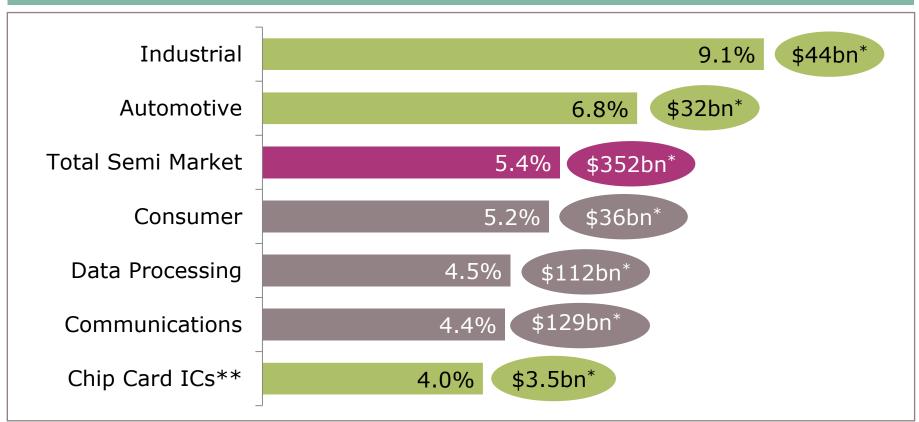
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# Infineon benefits from industrial and auto, the by far fastest growing segments







Source: IHS Markit, "Worldwide Semiconductor Shipment Forecast", April 2017

Market size in calendar year 2016

<sup>\*\*</sup> Source: ABI Research, "Smart Cards and Secure ICs", February 2017; smart card and embedded secure microcontroller ICs

## Infineon is system leader in automotive; making cars clean, safe and smart



#2 with market share gains in power and sensors:

- > #1 in power semiconductors\*
- #2 in sensors\*
- #4 in microcontrollers\* (#1 in powertrain\*\*)

Most balanced portfolio with sensors, microcontrollers and power for system approach

Leader in electric drivetrain and CO<sub>2</sub> reduction - making cars clean

#### Leader in ADAS

- making autonomous driving safe and reliable

Leading product portfolio of sensors and security ICs for individual convenience and connectivity - making cars smart

Focus on sustainable high-bill-of-material areas: powertrain, safety/ADAS/autonomous cars, body

Infineon is ideally positioned to benefit from ADAS/AD, xEV, connected cars and to gain further market share in Automotive

<sup>\*</sup> Source: Strategy Analytics, April 2017; \*\* own estimate.



### Reference to web presentations

### For full automotive story please refer to:

16 Mar 2017: Bernstein xEV and Energy Storage Conference by Hans Adlkofer, VP Automotive System Group www.infineon.com/bernstein

11 Oct 2016: ATV Division Call

by Peter Schiefer, Division President Automotive

www.infineon.com/atv-call

2 Aug 2016: ATV Presentation

www.infineon.com/auto-slides

### Infineon first partner in Volkswagen's "TRANSFORM 2025+" strategy program





Peter Schiefer, Division President Automotive at Infineon (left); Dr. Volkmar Tanneberger, Head of Electrical and Electronic Development at Volkswagen (Courtesy: Volkswagen AG)

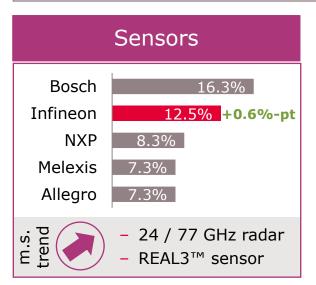
#### "TRANSFORM 2025+"

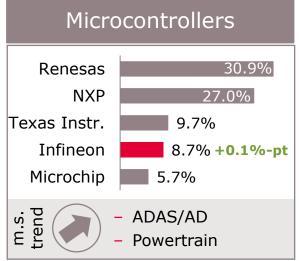
- Volkswagen secures its position in the field of future vehicle innovations such as automated and fully electric driving cars
- The company is cooperating directly with semiconductor manufacturers to further shorten development and innovation cycles
- Infineon is Volkswagen's first partner here
- Cooperation between automotive OEMs and semiconductor manufacturers is becoming increasingly important for further innovation
- Infineon is strengthening the bond to customers, getting involved even more deeply in the development processes
- Infineon benefits from longer planning horizon and higher stickiness of the business

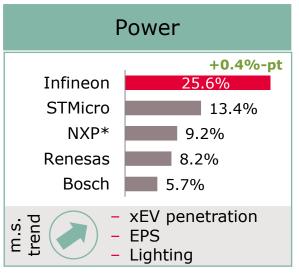
## Infineon's position in the automotive semiconductor universe











<sup>\*</sup> Divestiture of NXP's Standard Product business ("Nexperia") closed on 16 Feb 2017; hence included in the 2016 ranking. Source: Strategy Analytics, "Automotive Semiconductor Vendor Market Shares", April 2017

## Key market trends significantly drive increasing semiconductor content per car



#### ADAS/AD

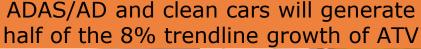
ADAS and AD are critical enabler to reduce the number of fatalities and serious injuries ("Vision Zero")

#### Clean cars

- To reach CO<sub>2</sub> emission goals, the automotive industry has to focus on
  - a higher efficiency of the classic ICE, and
  - the electrification of the drivetrain (xEV)

### Connectivity/security

- Advanced connectivity is driven by making the car part of the internet
- Connectivity must be secure



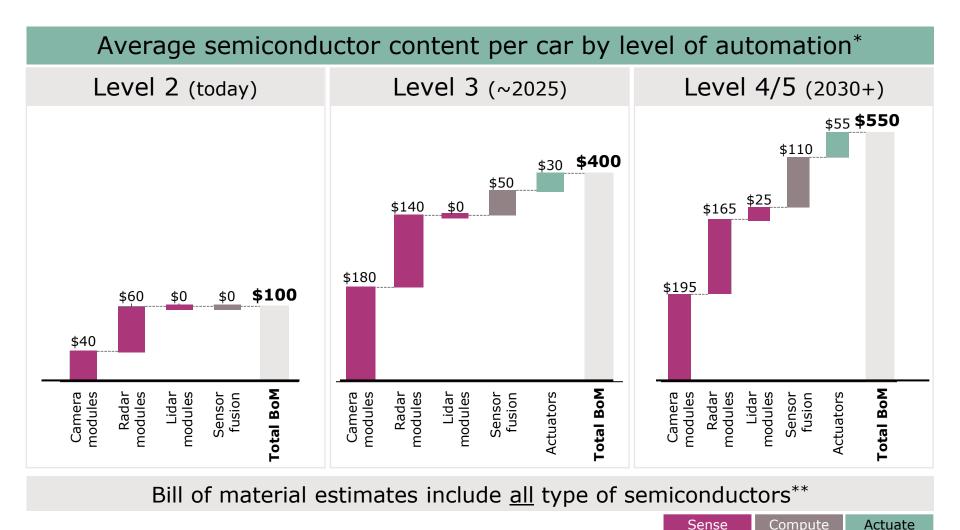






# ADAS/AD semi growth driven by radar and camera sensor modules over the next 5 years





\* Source: Strategy Analytics, IHS Markit, Infineon; \*\* e.g. radar includes μC

## Infineon's product portfolio fosters revenue growth in ADAS/AD for the next decade



		Today	2020	2025
Camera	Driver Monitoring		\$ \$	\$ \$ \$
	Front	\$	\$ \$	\$ \$
	Rear/surround			\$
Radar	SiGe 77 GHz	\$ \$	\$ \$ \$	\$ \$ \$
	SiGe 24 GHz	\$ \$	\$ \$ \$	\$ \$ \$
	RF CMOS			\$ \$ \$
Others	Sensor fusion		\$ \$	\$ \$
	Lidar		\$ \$	\$ \$ \$
	Actuators		\$	\$
				Sense Compute Actuate

## All types of xEV will significantly increase power semiconductor content per car

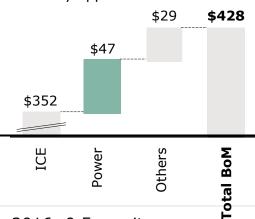


### Average xEV semiconductor content by degree of electrification

### Mild hybrid / 48 V

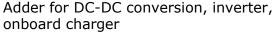
In contrast to micro hybrid systems, these systems support aside from start-stop functionality

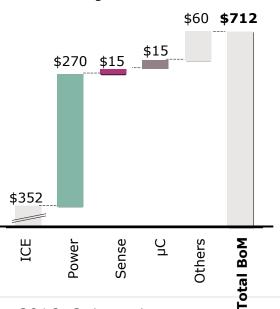
- DC-DC conversion (12/48 V)
- recuperation (coasting/sailing)
- e-motor use
- auxiliary applications



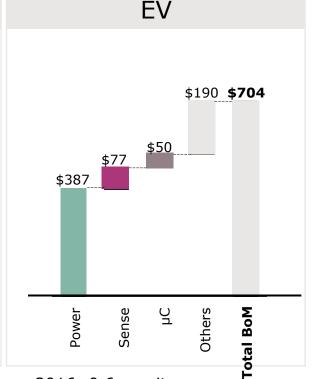
- > 2016: 0.5m units
- > 2020: 5.6m units
- > 2025: 10 .. 12m units

### PHEV / HEV





- > 2016: 2.4m units
- > 2020: 5.5m units
- > 2025: 9 .. 12m units



- 2016: 0.6m units
- > 2020: 2.1m units
- > 2025: 4 .. 8m units

Source: IHS Automotive, "Alternative Propulsion Forecast", January 2017; Infineon

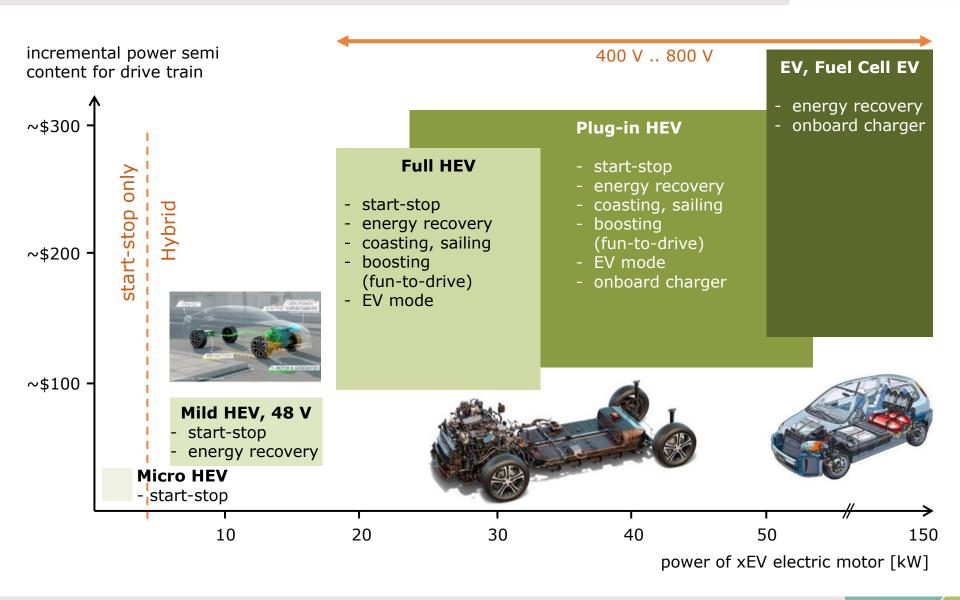
Sense

Compute

Actuate

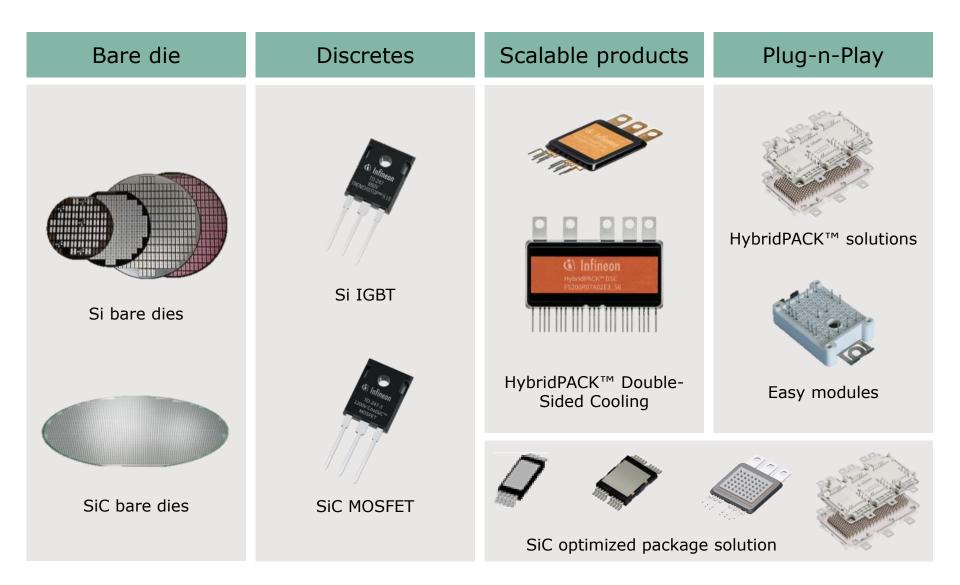
## Power semiconductor demand for different levels of electrification





## Infineon has all elements and unparalleled package expertise for all xEV applications





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



#### Vehicle production

> 2% - 3% growth p.a.

#### Drivers for semiconductor content per car

Clean cars



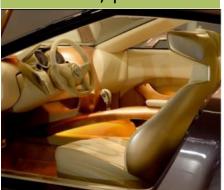
- Driven by legislation
- Improvements of ICE (e.g. EPS)
- Adoption of xEV
- Higher efficiency of all electric consumers

#### ADAS/AD



- Today:
  - > crash avoidance
  - ADAS
- Tomorrow:
  - Autonomous Driving (AD)

#### Comfort, premium



- Premium cars are early adopters of high-end comfort and safety features
- Trickling down to midrange

### ~8% p.a. through-cycle growth

### Infineon is #1 and technology leader in power semiconductors



#1 in the market\* for MOSFETs, discrete IGBTs, and total market

Broad product and technology portfolio

Addressing broadest range of applications

of innovation

areas

Key

300 mm thin-wafer manufacturing for power semiconductors

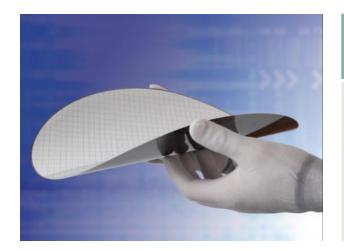
System leader with digitalization of the control loop and functional integration

Leader in next-generation power semiconductor materials SiC and GaN Infineon is ideally positioned to gain further market share and earn superior margins in power semiconductors

<sup>\*</sup> Source: IHS Markit, "Power Semiconductor Discretes & Modules Report - 2016", October 2016

## Ramp of 300 mm thin-wafer manufacturing technology on schedule





### Advantages of 300 mm manufacturing of power semiconductors

- When fully loaded, frontend manufacturing cost per unit will be 20 – 30% lower than on 200 mm
- Capital intensity is 30% lower than for 200 mm

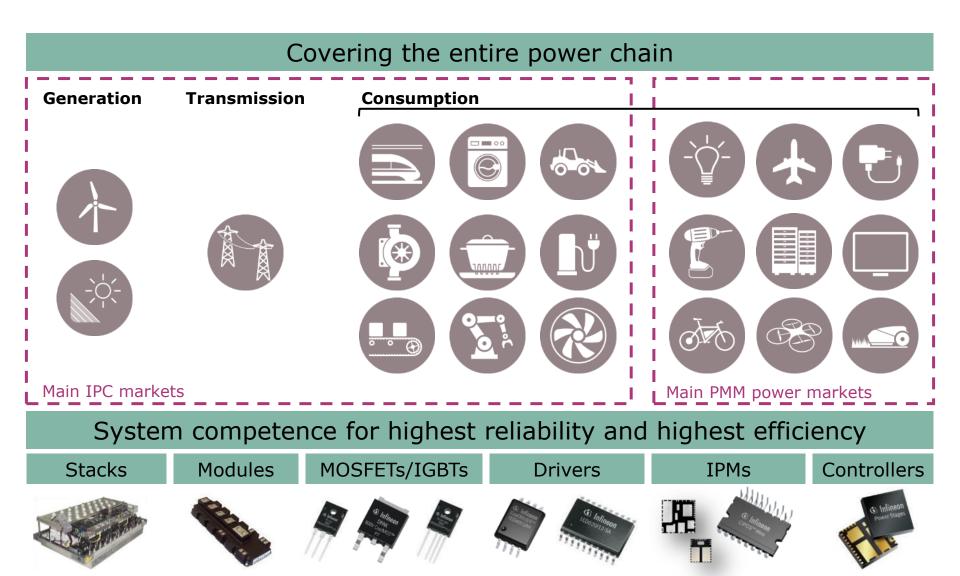


#### Current status of Dresden 300 mm fab

- Headwind from 300 mm-related expenses (process development, product qualification and manufacturing infrastructure) decreasing in FY17
- Cost cross over versus 200 mm expected by end of CY17 when reaching 25 – 30% area utilization

# As system leader in power, Infineon has broadest application and technology reach





## Efficiency and digitalization are main market drivers for power applications



## IPC (industrial power)

## PMM (power management)

#### **Drives**

#### Renewables

**Traction** 

MHA

AC-DC

#### DC-DC













- Energy efficiency
- Automation
- Productivity increase
- Legislation
- Growing share of renewable energies as part of the energy generation mix
- Growing population in metropolitan areas
- Fast and efficient mass transport system
- Energy efficiency
- Growing VSD penetration
- Energy efficiency
- Charging time
- Compactness (power density)
- ) DPM

- Energy efficiency
- Compactness (power density)
- DPM
- Brushless DC motors

# IPC is perfectly positioned to outperform traditional markets and leverage emerging ones



#### **Traditional markets with <5% p.a.**

- Portfolio for automation application to compensate low demand in drives
- > Strong position in stable wind market
- Broad traction portfolio enables compensation of low demand in highspeed trains through urban transportation
- Weakest level of growth in oil & gas (process automation) passed as capex slowly recovers







### **Emerging markets with >5% p.a.**

- Comprehensive offering and expertise enable growth in SiC above average
- Ongoing inverterization of home appliances enables strong growth
- Optimal position to strongly benefit from high growth rates in PV, transmission & distribution and commercial, construction and agricultural vehicles
- Emerging applications like energy storage, EV charging and robotics offer additional growth potential







### Industrial Power Control to grow ~8% p.a.

# Tailored growth strategies maintain leadership position in both major segments of PMM



#### **PMM**

#### Power

### Current position



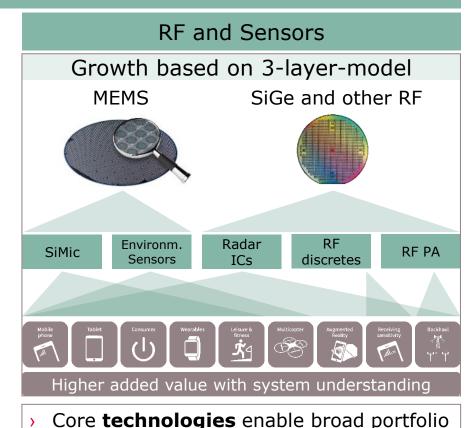
- Scale and technology leader in power discretes
- Broadest portfolio: 25V 900V
- All applications
- \* #1 holding  $\sim$ 1/3 of the market

#### Growth levers



- Capitalize on scale and technology leadership in discretes
- Double SAM by pushing into power management ICs

Growth of  $\sim$ 8% p.a.



Growth of  $\sim$ 8% p.a.

of products for even more applications

### Infineon is the leader in security solutions for the connected world



#2 in microcontroller-based smart card ICs\*

#1 in embedded digital security\*\*

Complete portfolio of hardware, software, services and turn-key solutions

Leading in growth segments payment, government ID, connected car security, IoT, and Information and Communications
Technology security

Infineon is ideally positioned to benefit from the growth trends in the security controller market

Source: IHS Markit, July 2016

<sup>\*\*</sup> Source: IHS Markit, December 2015

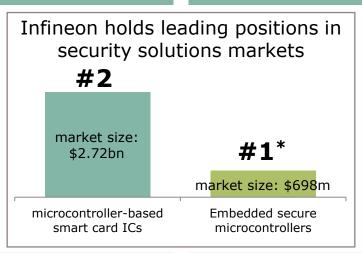
## CCS is enabling security for the connected world



### Smart card applications

### Embedded security applications







- Smart card payment
- Electronic passports and ID documents
- Mobile communication
- Transport ticketing

- Mobile device security and payment
- Information and Communications
  Technology security
- Industrial and automotive security
- IoT connected device security

















Source: IHS Markit, Dec 2015, July 2016; \* based on units; USD-ranking not provided

# Infineon's long-term growth is based on sustainable growth drivers



### **ATV**

# Courtesy: Hyundai

- CO<sub>2</sub> reduction
- Advanced Driver Assistance Systems

### **IPC**



- Energy efficiency
- Automation
- Productivity increase

### **PMM**



- Energy efficiency
- Power density
- BLDC motors
- Mobile device and LTE roll-out

### CCS



- Security as a function
- Mobile payments
- Authentication
- Internet of Things

### ~8% p.a. through-cycle growth

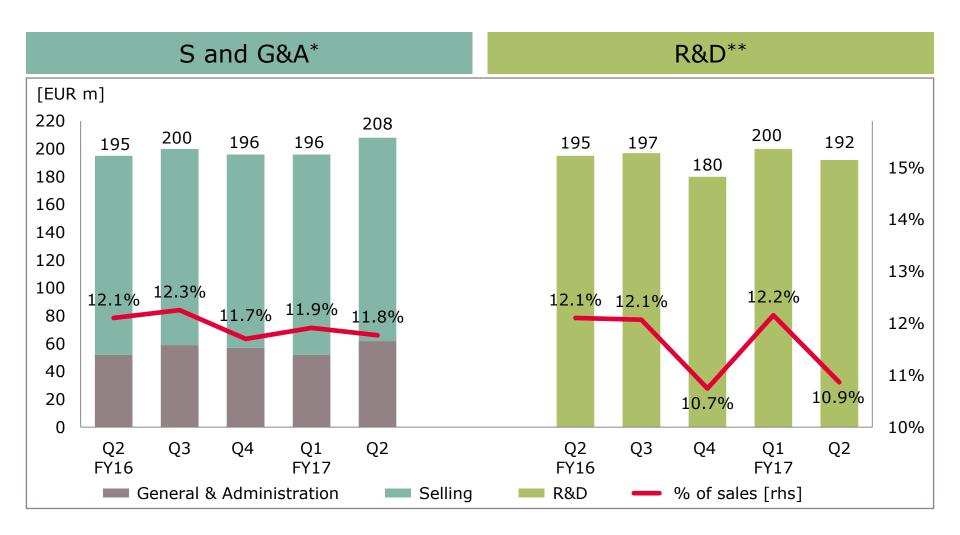


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# SG&A includes noticeable Wolfspeed acquisition-related costs



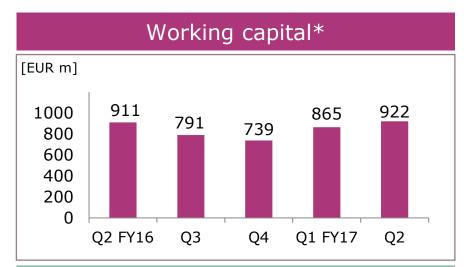


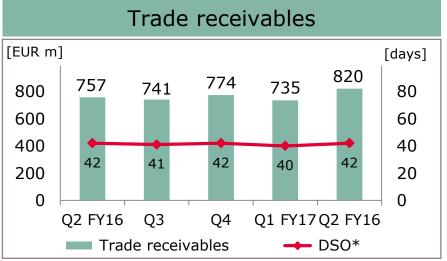
<sup>\*</sup> Target range for SG&A: "Low teens percentage of sales".

<sup>\*\*</sup> Target range for R&D: "Low to mid teens percentage of sales".

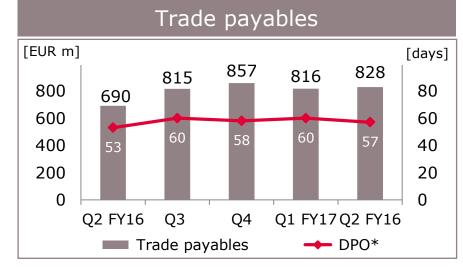


### All figures on a healthy level





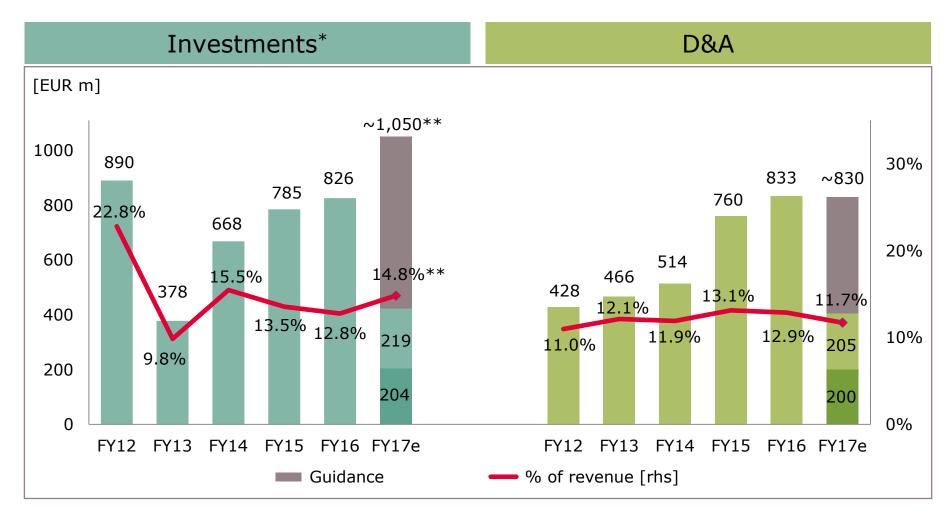




<sup>\*</sup> For definition please see page "Notes".

# Investments increase to €1,050m from €950m due to higher full-year growth above trendline



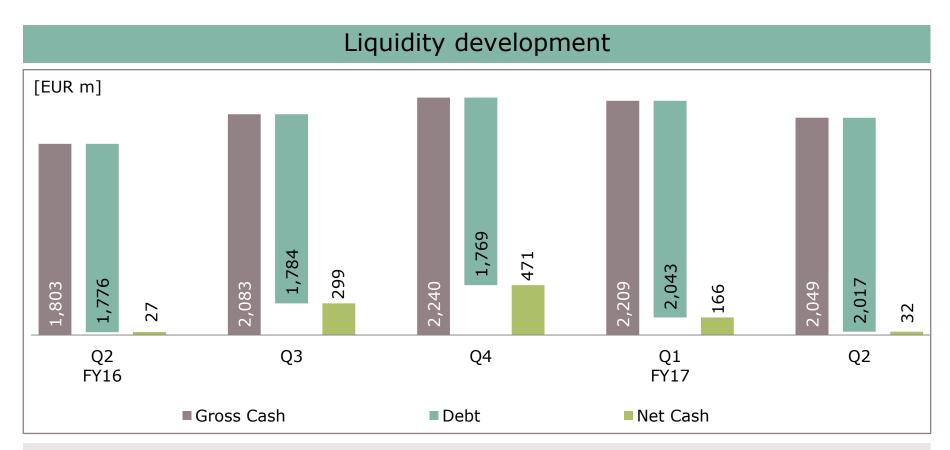


<sup>\*</sup> For definition please see page "Notes".

<sup>\*\*</sup> The figure includes approximately €35m for a new building at Infineon's headquarters. Excluding this amount the percentage rate is approximately 14.3%.



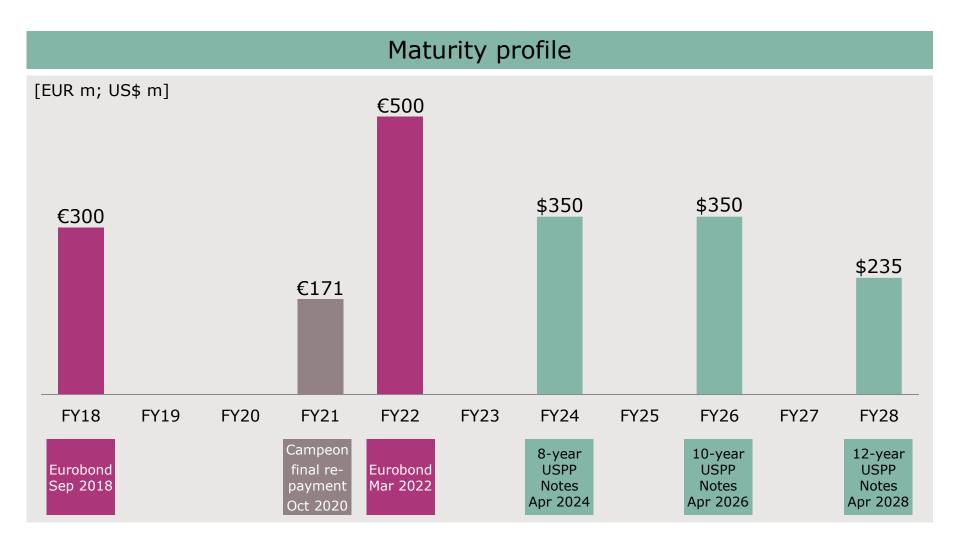
### Net cash decreased due to dividend payment



- > Free Cash Flow from continuing operations was €82m.
- Debt decreased by €26m due to repayment of €11m long-term debt and a change in FX-rates used for valuing US\$-based debt.
- Dividend payment of €248m on 21 Feb 2017.

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





Note: Additional debt with maturities between 2017 and 2023 totaling €178m of which €41m repayments related to Campeon.



Part of your life. Part of tomorrow.



# 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 2017: Infineon is listed in the Sustainability Yearbook for the 7<sup>th</sup> consecutive year and, according to RobecoSAM, among the top 15% most sustainable companies worldwide.
- Sep 2016: Infineon is listed in the Dow Jones
   Sustainability Europe Index for the 7<sup>th</sup> consecutive year and in the World Index for the 2<sup>nd</sup> time both achievements this year as the only European semiconductor company.

Sep 2016: Infineon is listed in the STOXX® Global ESG Leaders Indices, which serves as an indicator of the quality of Infineon's performance in the governance, social and environmental areas (ESG).





FTSF4Good

- > Infineon was added to the FTSE4Good Index Series in 2001 and has been confirmed as a member since then.
- > Jul 2016: Most recent review.
- Dec 2016: In the Carbon Disclosure Project (CDP) climate change report, Infineon achieved a placing among the best companies in the Information Technology sector.





 Mar 2017: Infineon has been reconfirmed as a constituent of the Ethibel Sustainability Index (ESI) Excellence Europe.



### Financial calendar

Date	Location	Event
13 - 14 Jun 2017	Paris	Exane European CEO Conference
20 Jun 2017	London	JPMorgan Tech CEO Conference
21 – 22 Jun 2017	Berlin	Dt. Bank German, Swiss & Austrian Conference
29 Jun 2017	London	PMM Presentation by Andreas Urschitz, Division President
01 Aug 2017*		Q3 FY17 Results
31 Aug 2017	Frankfurt	Commerzbank Sector Conference
6 - 7 Sep 2017	New York	Citi Global Technology Conference
18 Sep 2017	Munich	Berenberg Bank and Goldman Sachs German Corporate Conference
20 Sep 2017	Munich	Baader Investment Conference
10 Oct 2017	London	ATV Presentation by Peter Schiefer, Division President
14 Nov 2017*		Q4 FY17 and FY 2017 Results

<sup>\*</sup> 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

### **DOI** (days of inventory; quarter-to-date) = ('Net Inventories' / 'Cost of goods sold') \* 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.

#### **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')

**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



### Glossary

ACC	adaptive cruise control
AD	automated driving
ADAS	advanced driver assistance system
AEB	automatic emergency braking
ВоМ	bill of material
DPM	digital power management
EPS	electric power steering
EV	electric vehicle
FCW	forward collision waring
HEV	mild and full hybrid electric vehicle
ICE	internal combustion engine
МНА	major home appliances

micro- hybrid	vehicles using start-stop systems and limited recuperation
mild- hybrid	vehicles using start-stop systems, recuperation, DC-DC conversion, e-motor
ОВС	onboard charger
PHEV	plug-in hybrid electric vehicle
SiC	silicon carbide
SiGe	silicon germanium
UPS	uninterruptible power supply
V2X	vehicle-to-everything communication
VSD	variable speed drive
xEV	all degrees of vehicle electrification (EV, HEV, PHEV)



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