

Industrial Power Control

Investor and Analyst Call

24 March 2014



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Agenda

- IPC Segment Overview
- Growth Drivers and Market Opportunities
- `Product to System` Approach Improves Customers' Systems
- Summary

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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- IPC Segment Overview

- Growth Drivers and Market Opportunities

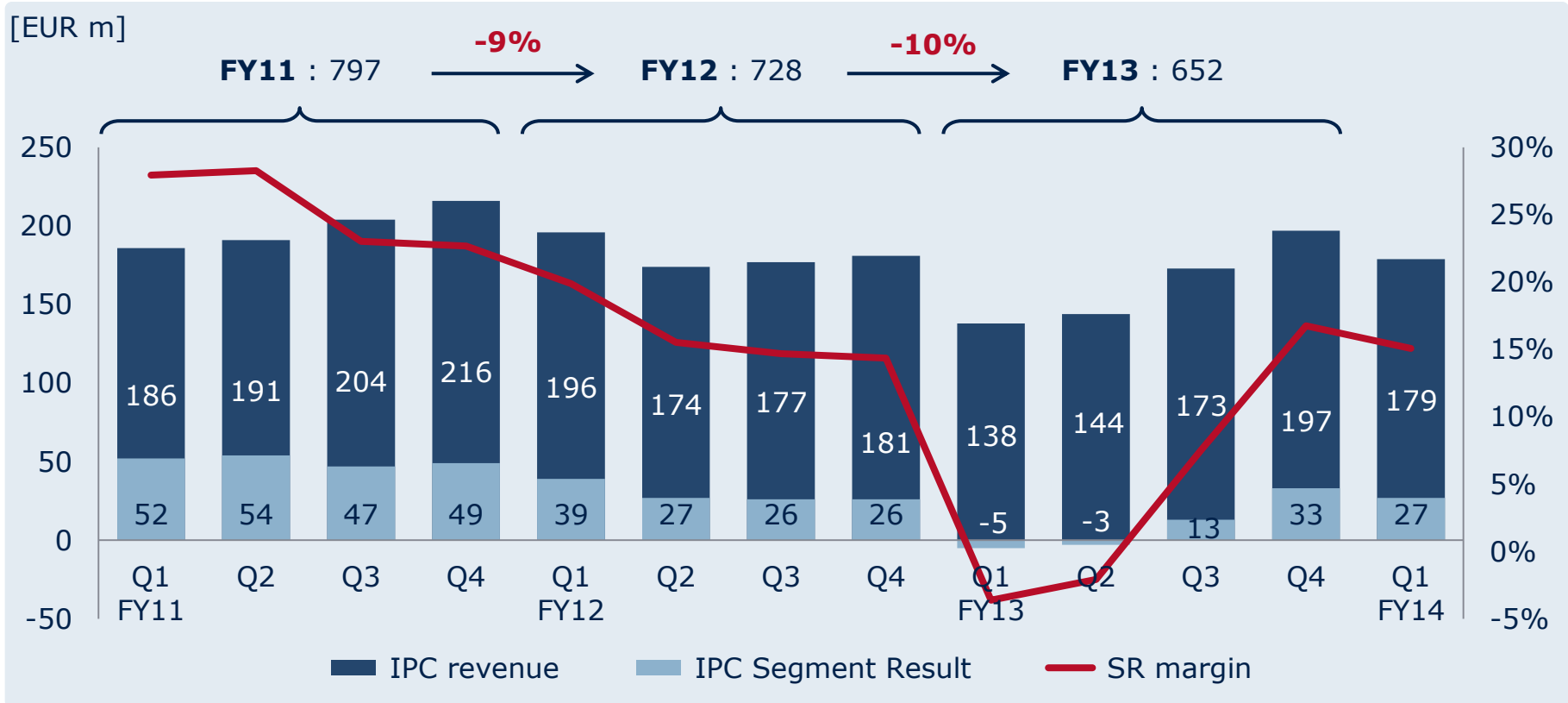
- `Product to System` Approach Improves Customers' Systems

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Robust Business Modell; Margin Back to High-Teens Level



Revenue and Segment Result development



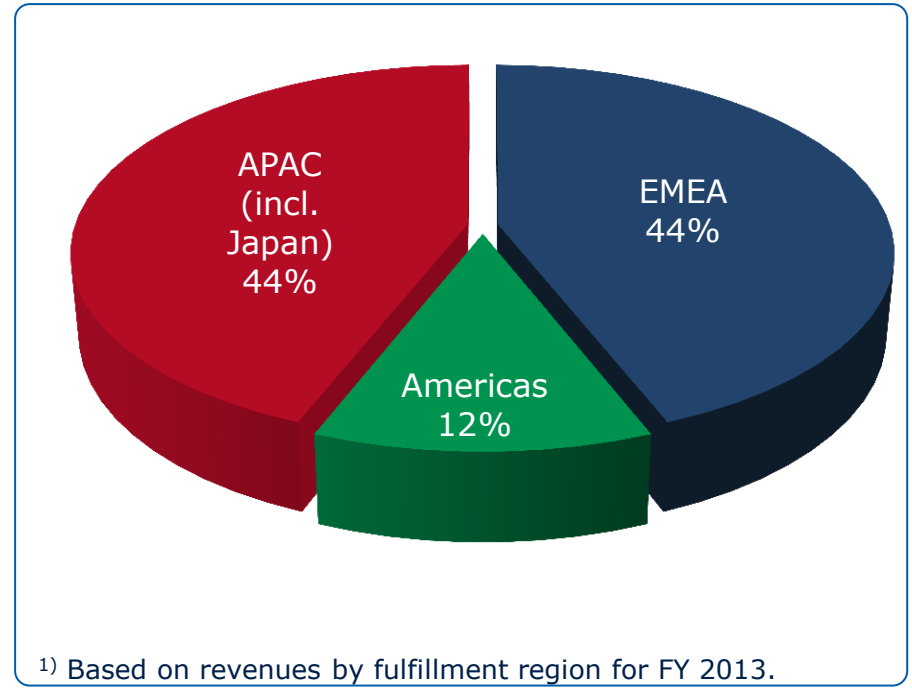
- From Q4 FY11 to Q1 FY13 longest downturn for IGBT business ever; driven by overstocking of European customers and Chinese market cool-down.

Diverse Customer Base Across All Regions and Applications

Major customers



Revenue split by region¹⁾

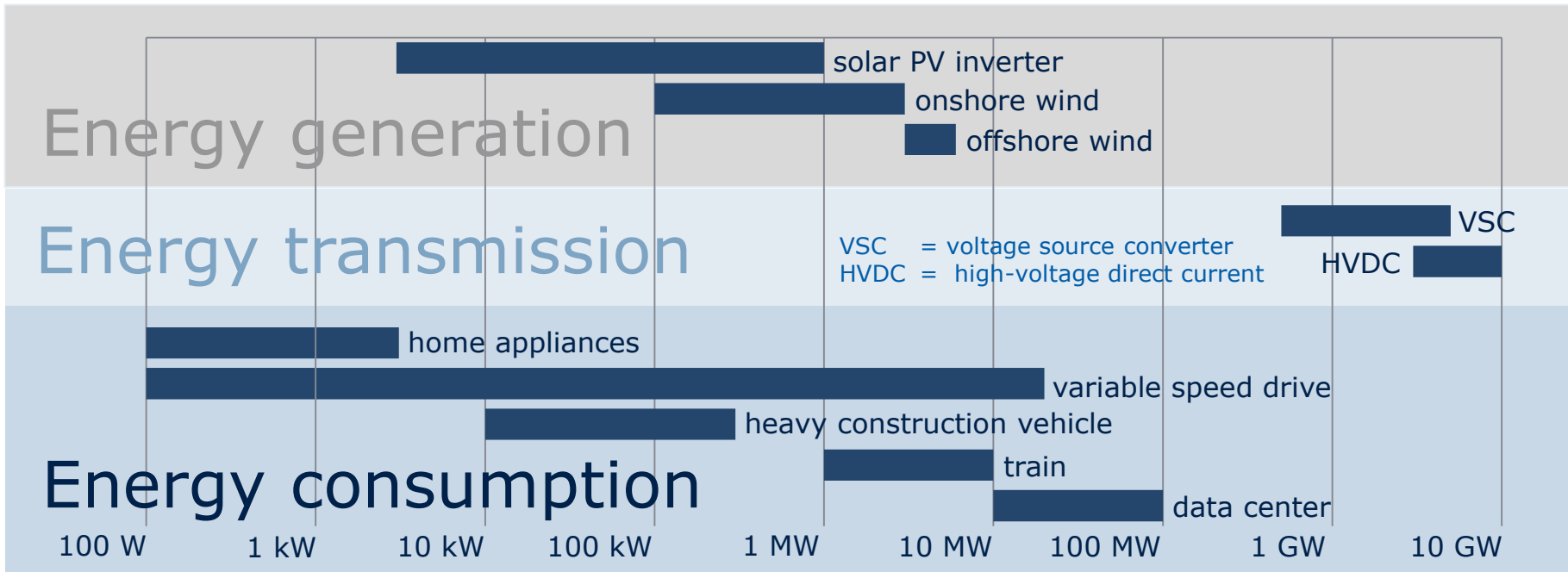


Distribution partners²⁾

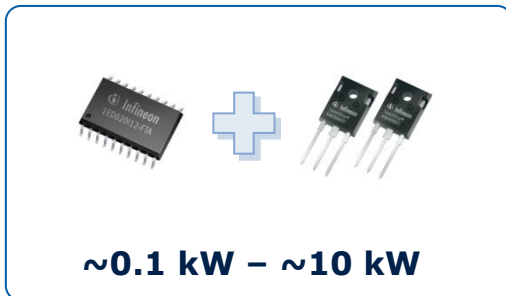


²⁾ 34% of FY13 revenue was attributable to distributors.

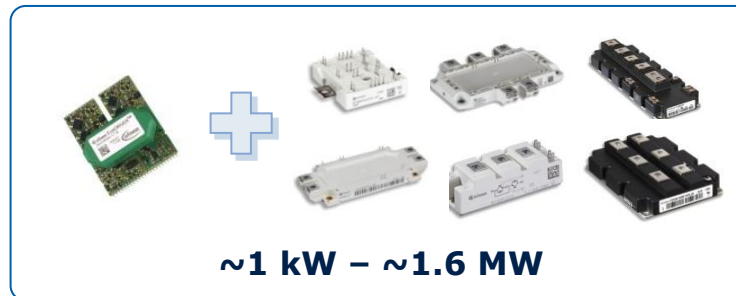
IPC Portfolio Addresses Applications Across a Broad Spectrum of Power Levels



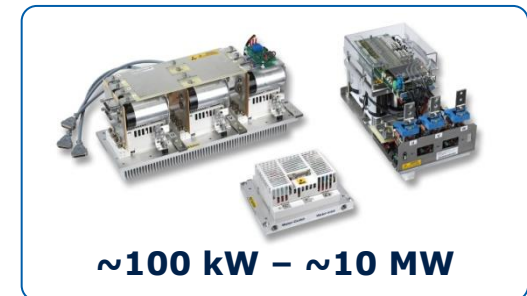
Driver ICs + Discretes



Driver boards + IGBT modules



Stacks



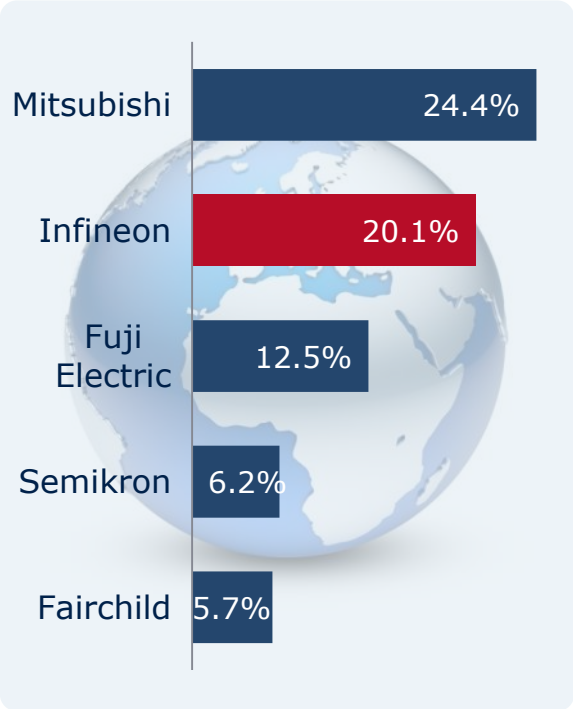
Power level of applications and products are approximate.

Infineon Is a Leading IGBT Player, Especially in the Fast Growing China Market

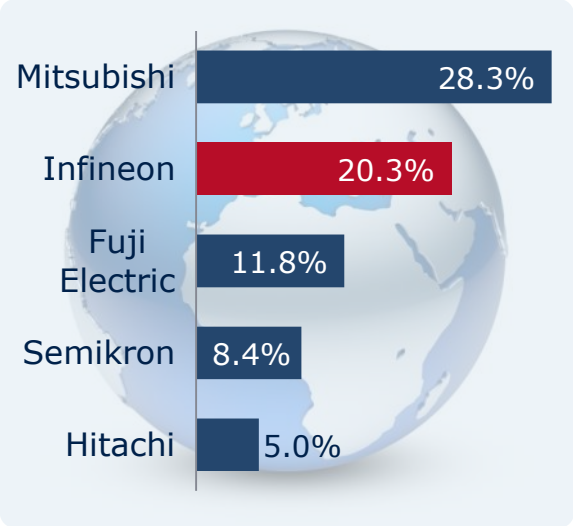


2012 total IGBT market (modules and discretes)

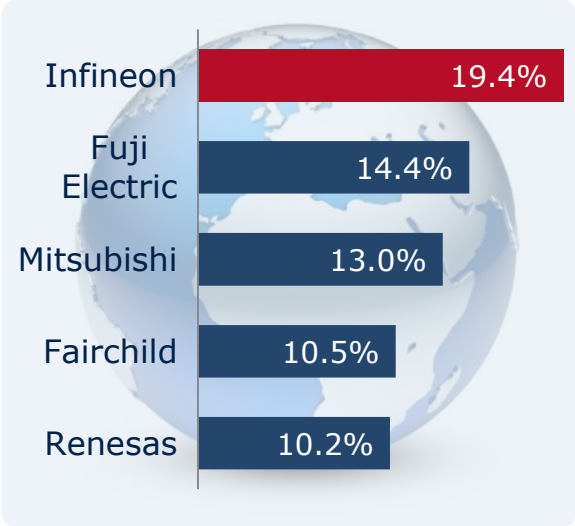
total market size: \$4.05bn



IGBT modules
total market size: \$3.01bn



Discrete IGBTs
total market size: \$1.04bn

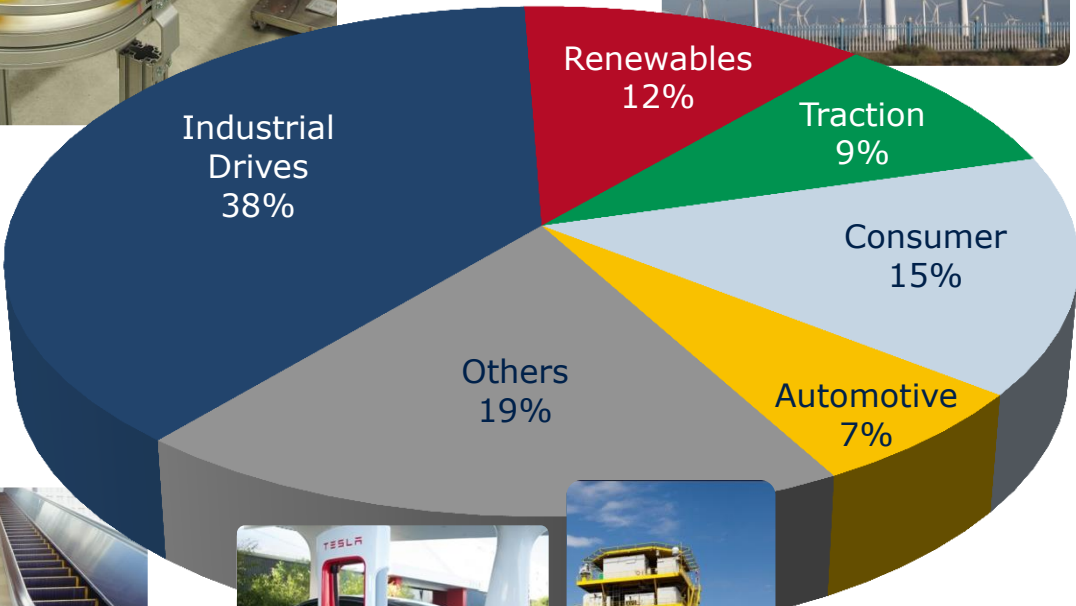


Source: IHS, "Power Semiconductor Discretes and Modules – World – 2013", December 2013.

Drives (incl. Pumps, Fans, Compressors) by Far Biggest Application Segment



2012 IGBT market by application (\$4.06bn)

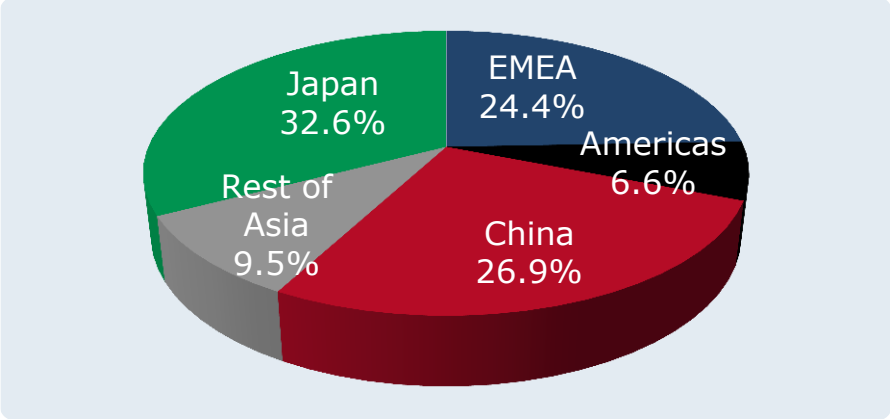


Source: IHS, "Power Semiconductor Discretets and Modules – World – 2013", December 2013.

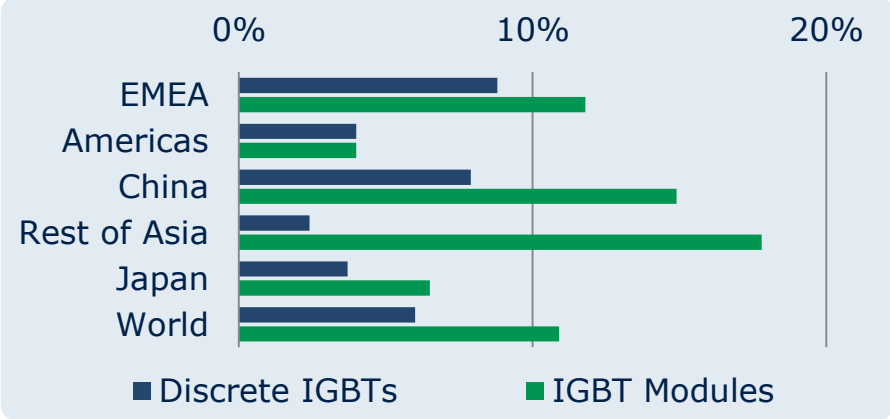
Infineon Holds Dominant Position in Most Dynamic Markets EMEA and China



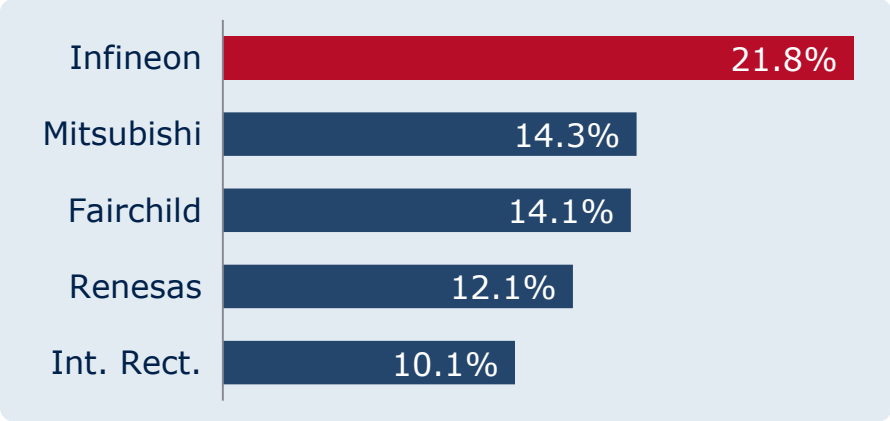
2012 market by region (\$4.06bn)



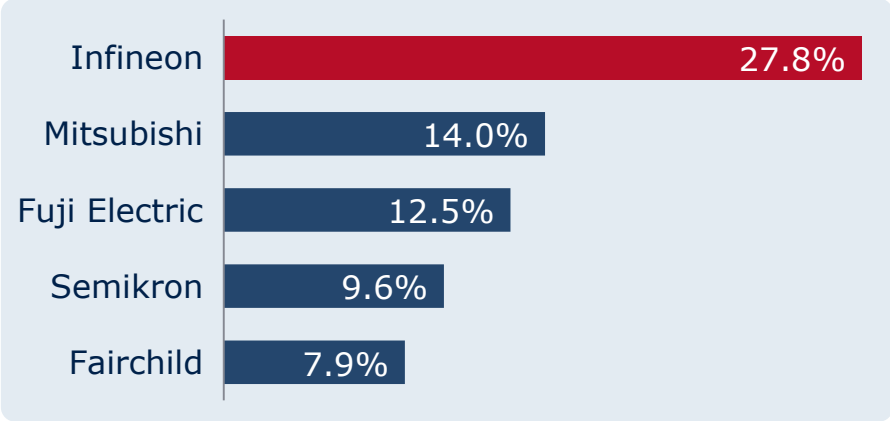
Growth of the regions (CAGR₁₂₋₁₇)



China discrete IGBT market (\$295m)



China IGBT module market (\$795m)



Source: IHS, "Power Semiconductor Discretets and Modules – World – 2013", December 2013. All figures refer to calendar year 2012.

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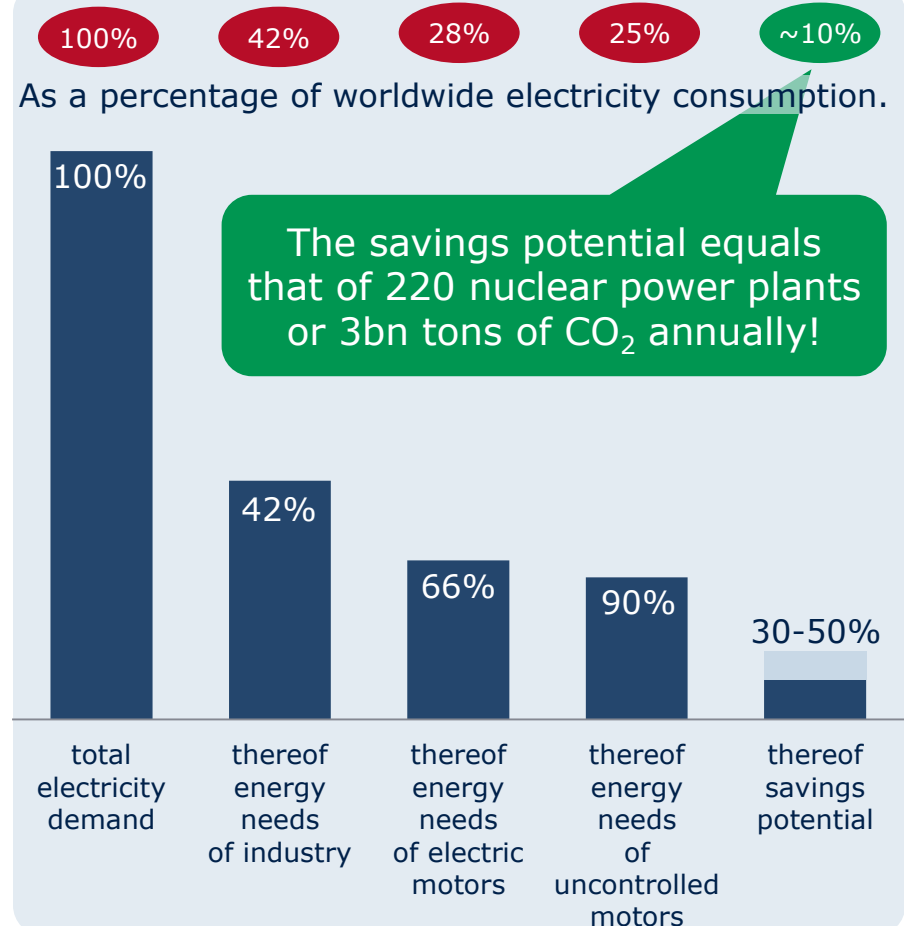
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Factory Automation: Huge Savings Possible with Variable Speed Drives (VSD)



- About 300 million electric motors are in use worldwide.
- Rising electric energy cost and ErP (Energy-related Products) directive force energy efficiency.
- Rising labor cost in low labor cost countries drives automation level.
- “Mechanic goes electric”; e.g. hydraulic is replaced by electric motors.

Savings potential of VSD

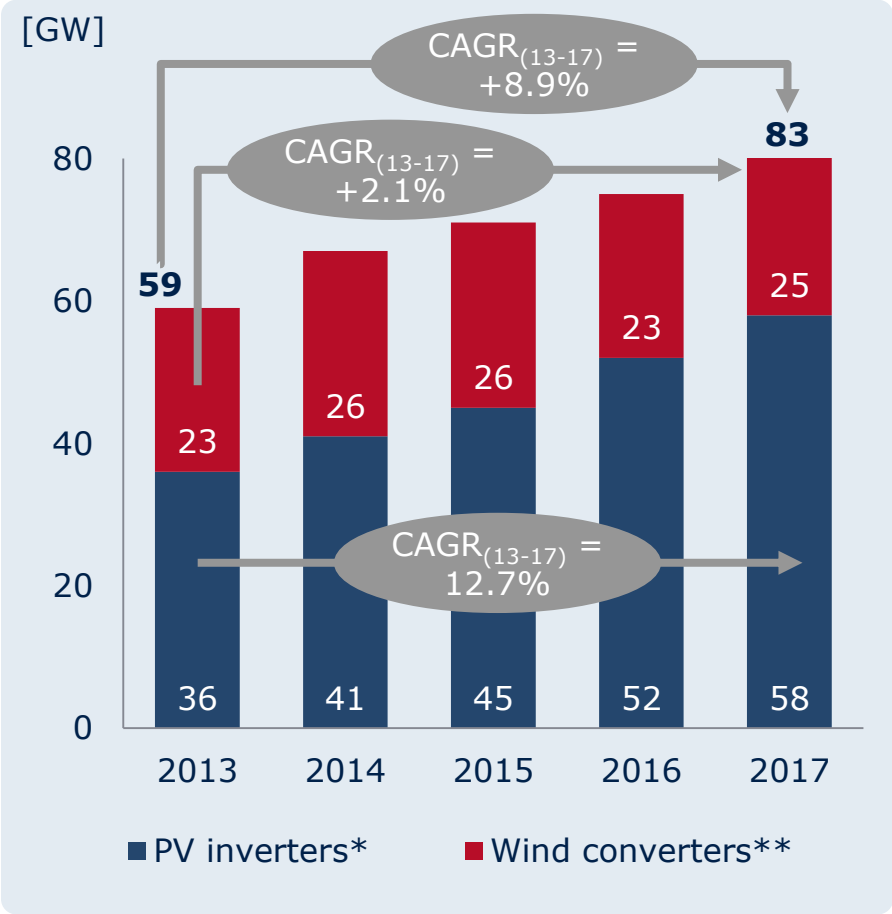


Source: ABB, 2013.

Power Semiconductor Market for Renewables Should Grow Mid-single Digits



New installations of PV and wind



- Wind: Increase in 2014 and 2015; Production tax credits (PTC) in the US will come to an end.
- Wind: China fastest growing region with CAGR of 3.9%. Infineon participates via Goldwind.
- PV: In 2013, China became the world's biggest PV market. Infineon has several local partners, e.g. Sungrow.

* Source: IHS, "PV Inverter Market Tracker", December 2013.

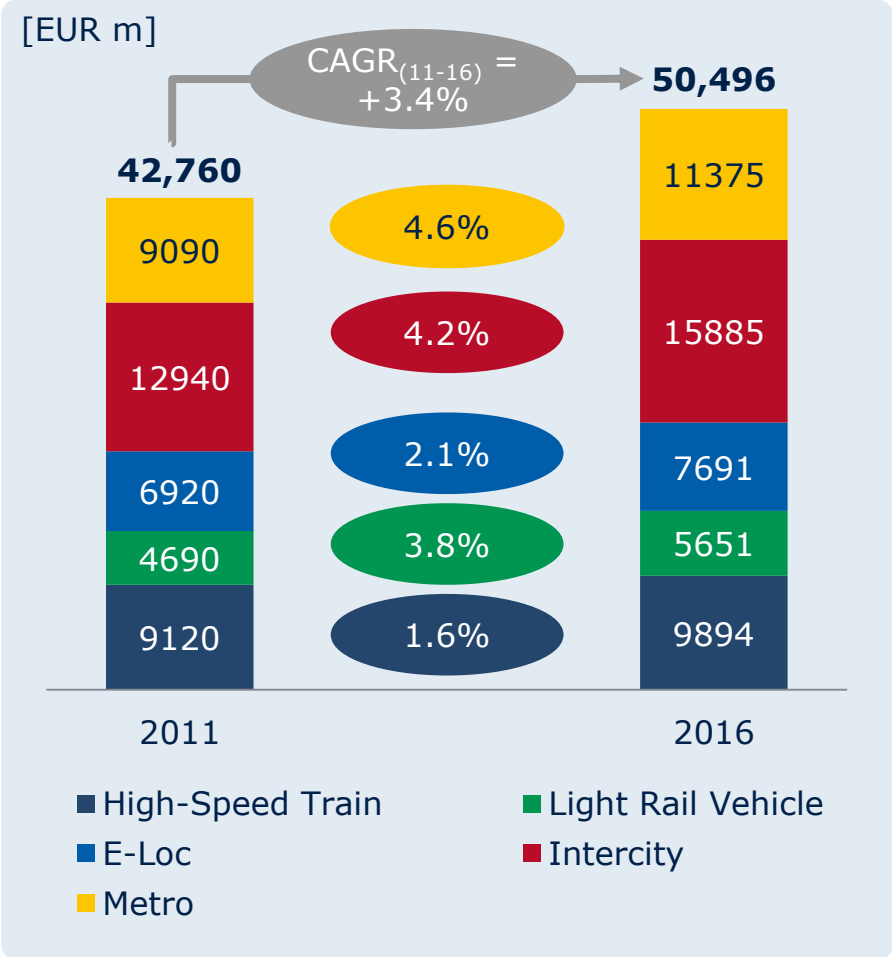
** Source: IHS, "The World Market for Wind Converters – World - 2013", January 2014.

Intercity and Metro Remain Biggest Markets with Highest Growth Rates



- Urbanization ongoing; many regions still lack sufficient urban passenger transport. Intercity, Light Rail Vehicles and Metro will grow most.
- Global trade (freight transport) drives the use of electric locomotives.
- Infineon has biggest and fastest growing players as customers, e.g. Alstom, Bombardier, CNR, CSR and Siemens.

Development of traction market

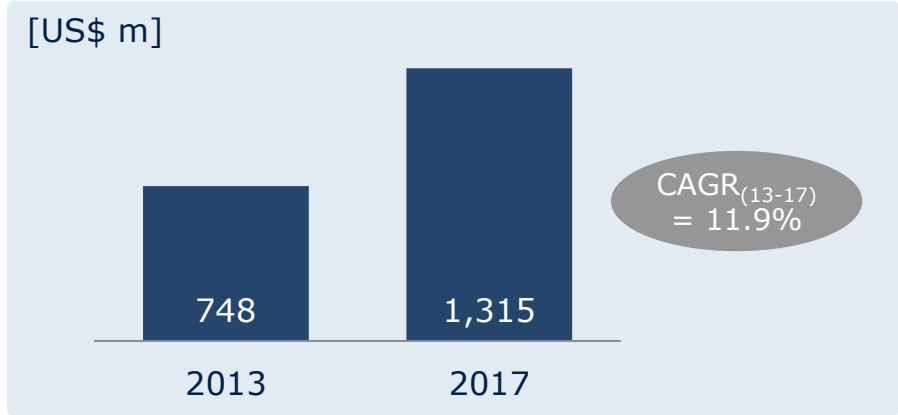


Source: SCI Verkehr GmbH, "The Worldwide Market for Railway Technology 2012", September 2012.

Increasing Inverterization Drives Power Semiconductors in Home Appliances



IGBTs modules in home appliances



- Biggest home appliances market for IGBT modules is room air conditioning.
- Efficiency programs led and still lead to higher variable speed drive (VSD) penetration rate.
- “Energy efficiency” labeling key differentiator vs competition.

Penetration of VSD

[units m]	2011	2016	CAGR
electric motor-based home appliances	420	514	4%
VSD penetration	~20%	~40%	
total VSD appliances	86	205	19%

Source: IHS, “Major Home Appliances – World 2013”, October 2013.

New Applications for IGBTs on the Rise

Grid connection



Hybrid bus



Charger



Trends




- High-voltage modules (4.5kV, 6.5kV) partly replacing thyristors for HVDC links, e.g. offshore wind park connection
- Higher efforts on load management and grid stability

- CO₂ emission reduction
- Noise and pollution reduction in inner city traffic
- Suburbs – city center traffic on the rise
- Asia and Europe are the major areas of growth

- Onboard charger in pure EVs and plug-in HEVs
- Buildup of charger infrastructure along highways and in cities
- Buildup of infrastructure for inductive charging

Drives, Home Appliances and Others Show Strongest Growth Rates



Drives	Renewables	Traction	Home Appliances	Others
				
~10% p.a.	> 5% p.a.	~5% p.a.	> 10% p.a.	> 10% p.a.

IPC: ~10% p.a.

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New Generation RC-H5 IGBT Optimized for Induction Cooking Applications



Application-specific RC-H5



Improvements on component-level

- better thermal performance
- reduced power dissipation

- better soft-switching capabilities reduce EMI (electromagnetic interference)

Advantages on system-level

- less stress on passive components
- higher system reliability

- less filtering requirements
- lower system cost

New Thermal Interface Material (TIM) Improves Customers' System Reliability



EconoPACK™+ coated with TIM



Improvements on component-level

- TIM significantly reduces contact resistance between IGBT module and heat sink
- thereby helps optimize heat dissipation from IGBT module

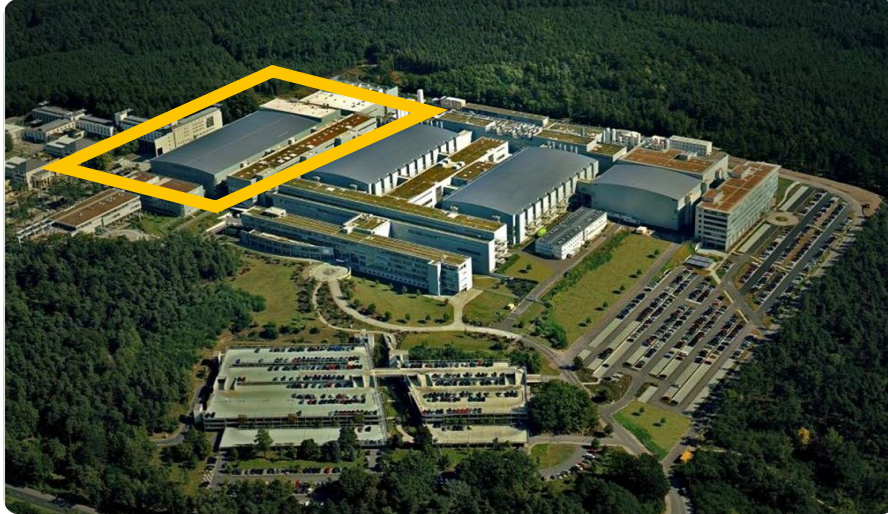
- TIM applied during backend process

Advantages on system-level

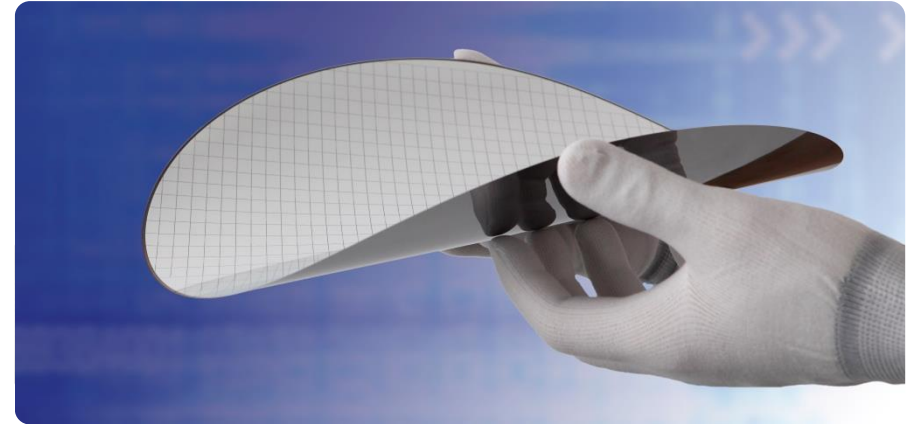
- higher power density
- greater reliability
- longer service life

- simplifies customers' mounting and assembly processes

First IGBT Product to Ramp in Dresden on 300 mm Manufacturing Line in 2H FY14



300 mm thin wafer



RC-D discrete IGBT

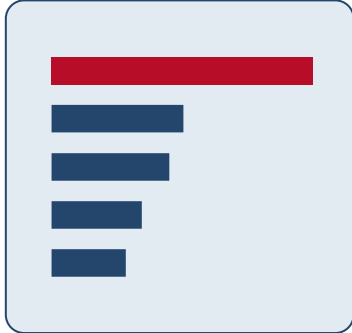
- First IPC product to ramp on 300 mm thin wafer technology: 3rd generation RC-D IGBT.
- Target applications: induction cooking stoves, rice cookers, microwave ovens, and solar inverters.
- CoolMOS™, OptiMOS™ and RC-D IGBT products will further increase utilization rate of Dresden 300 mm fab throughout FY15.



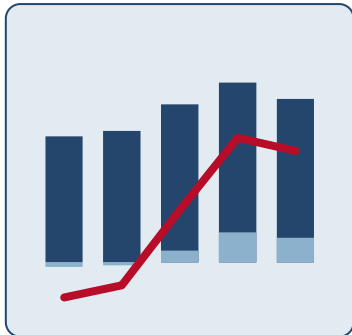
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Summary



- Growth of ~10% p.a. appears plausible given growth potential of main applications.
- Leading position in all relevant regional markets.
- Penetration of new markets (e.g. grid infrastructure, hybrid buses, chargers) secures further growth.



- Sales in excess of €180m per quarter drive Segment Result margin exceeding 15%.
- Innovative products ensure sustainable earnings power.



- Product-to-System: we create value for customers through products specifically optimized for the requirements of their systems.
- We are the clear technology leader.



ENERGY EFFICIENCY MOBILITY SECURITY

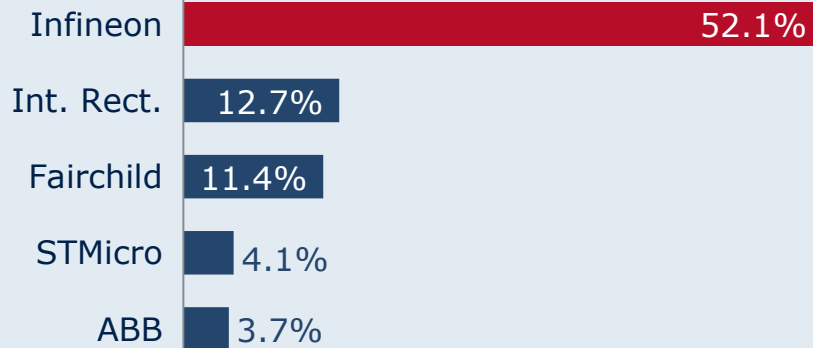
Innovative semiconductor solutions for energy efficiency, mobility and security.



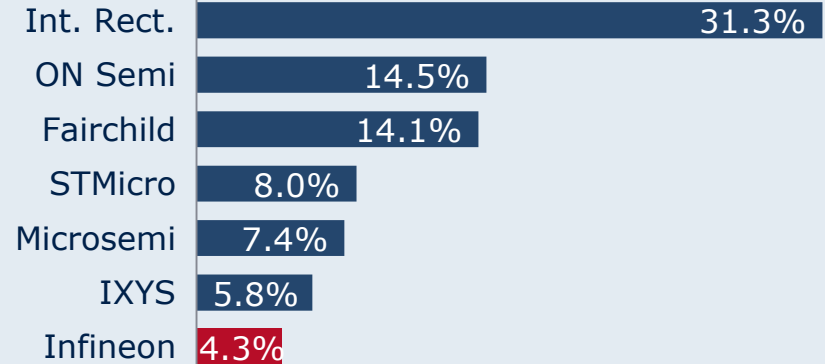
Appendix 1: Infineon's Market Positions in 2012 Discrete IGBT Market



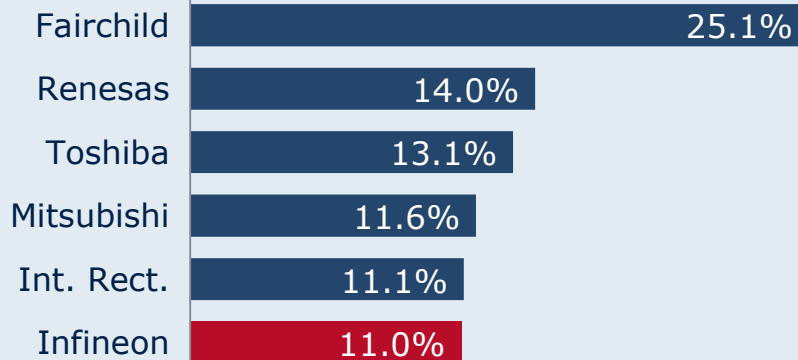
EMEA (\$221m)



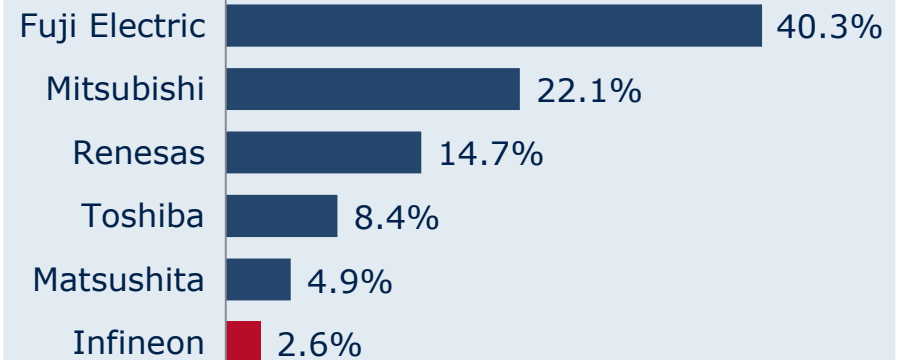
Americas (\$59m)



Rest of Asia (\$98m)



Japan (\$372m)

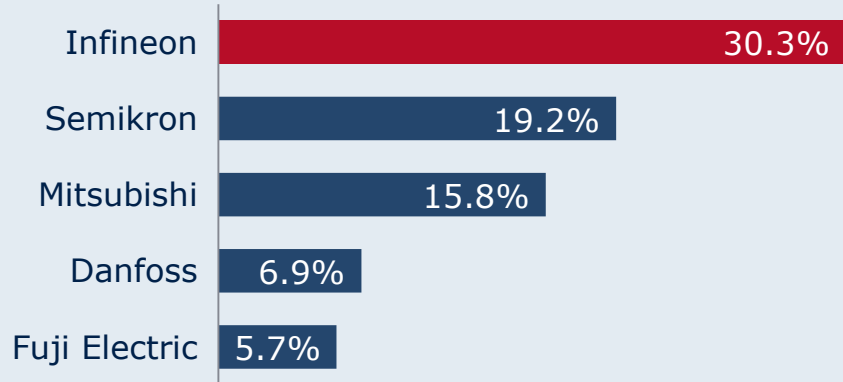


Source: IHS, "Power Semiconductor Discretets and Modules – World – 2013", December 2013.

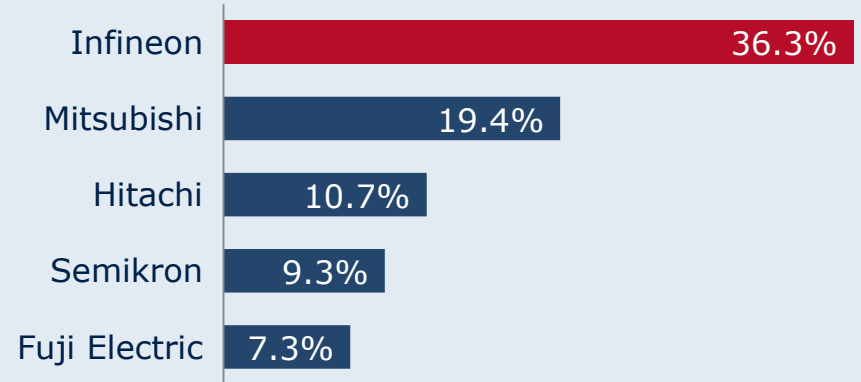
Appendix 2: Infineon's Market Positions in 2012 IGBT Module Market



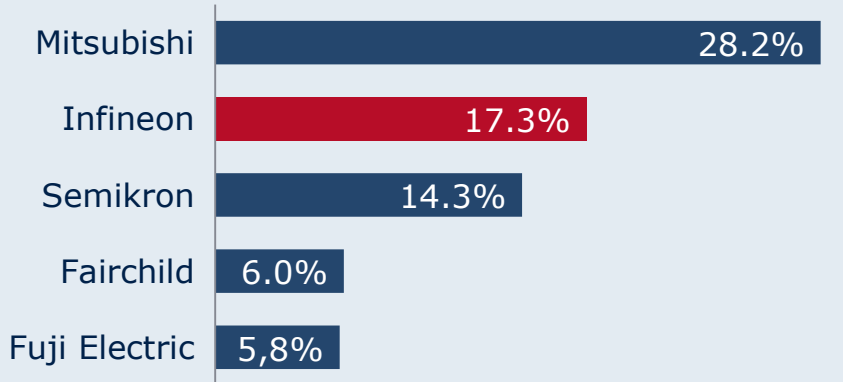
EMEA (\$768m)



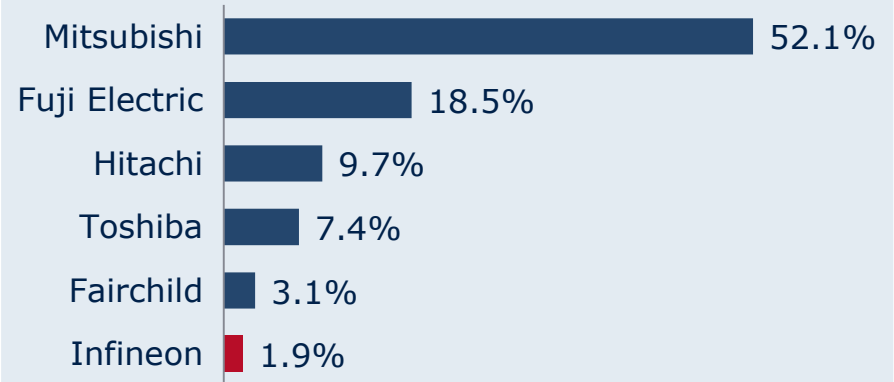
Americas (\$290m)



Rest of Asia (\$207m)



Japan (\$953m)



Source: IHS, "Power Semiconductor Discretets and Modules – World – 2013", December 2013.