Siltronic – a leading producer of silicon wafers

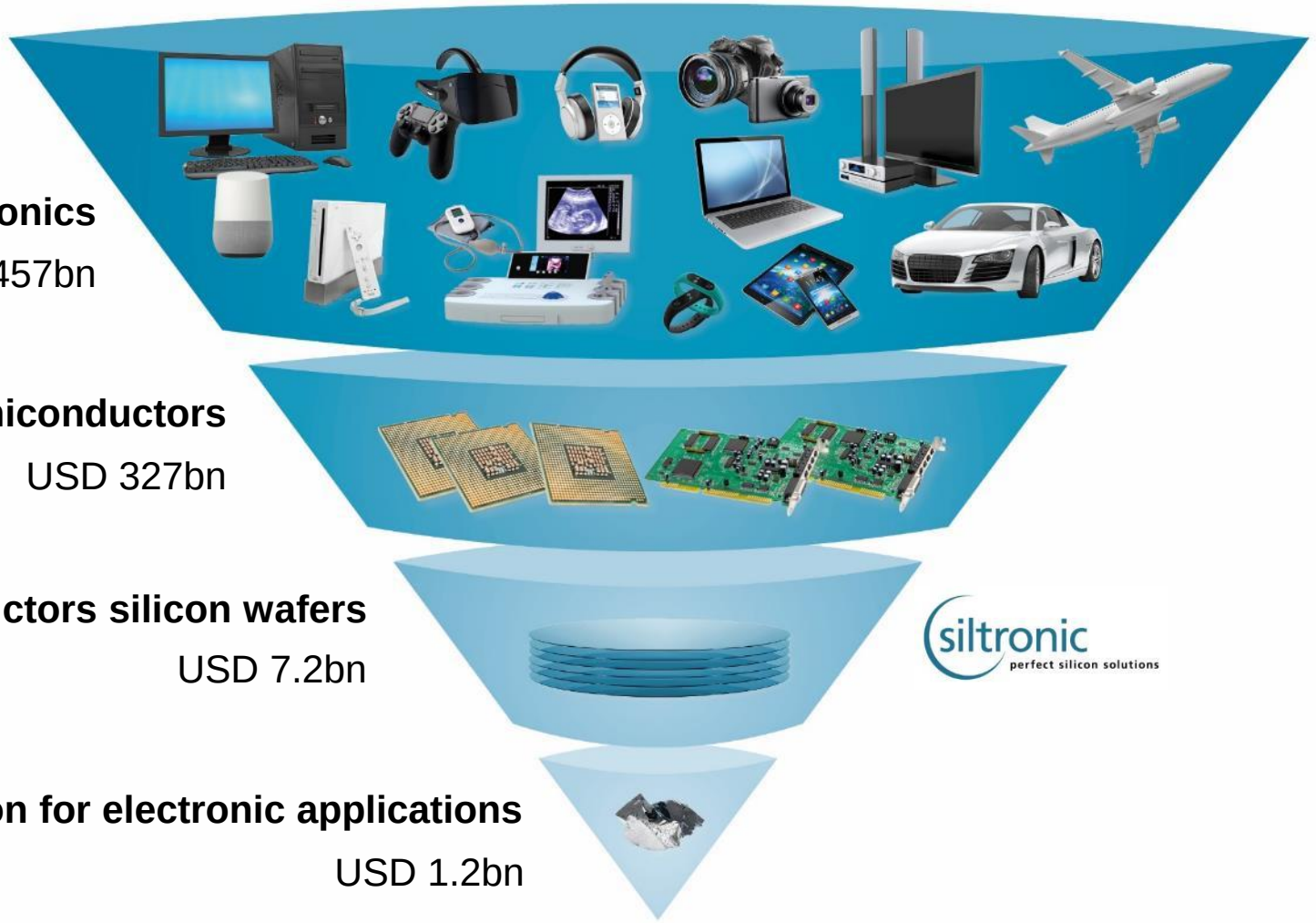
Fact Book
Investor Relations
October 2017

BUSINESS ENVIRONMENT

….operating in a continuous growing and improving environment……..

Increasing demand for electronic devices and new applications drive semiconductor growth, which in turn fuels silicon demand.

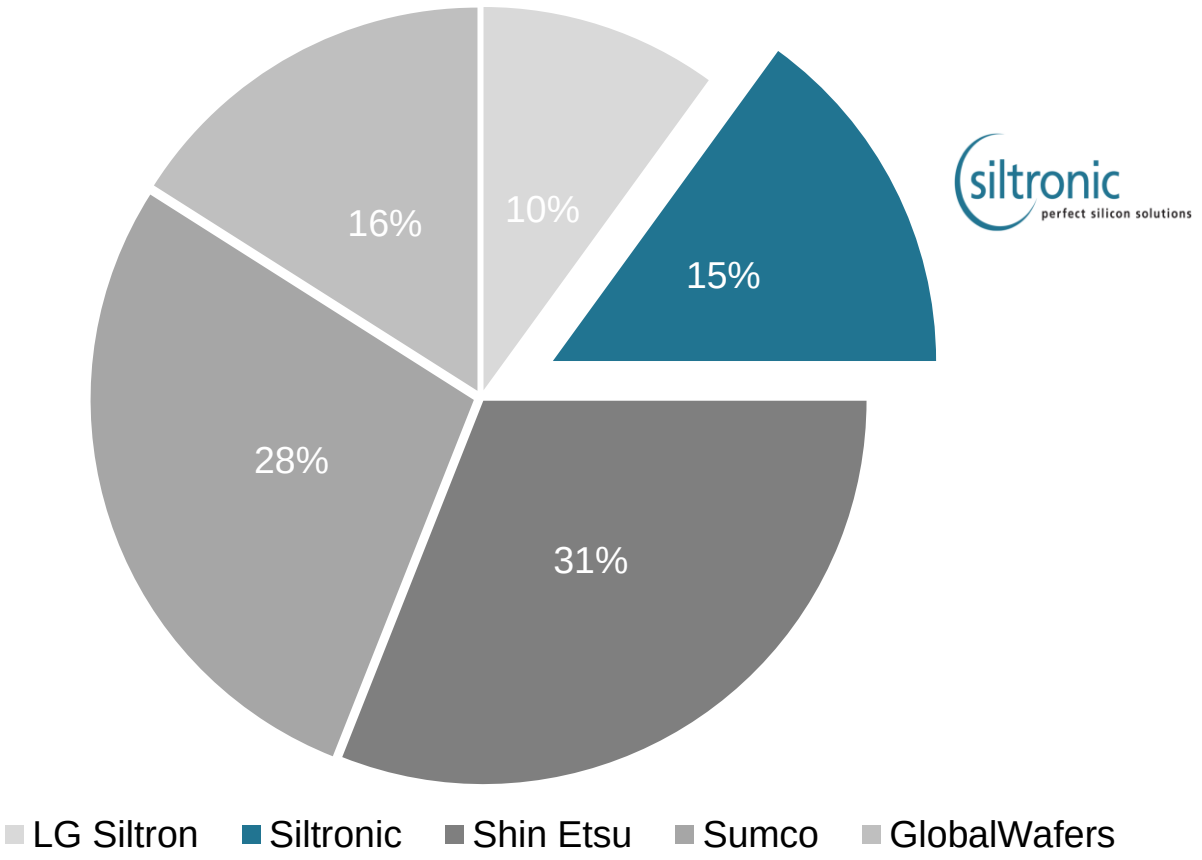
Electronics value chain 2016



Source: Electronics (IC Insights), Semiconductors (WSTS, only silicon-based), Silicon wafers (SEMI SMG), electronic applications (WACKER estimate)

Siltronic is a strong wafer supplier with leading-edge technology

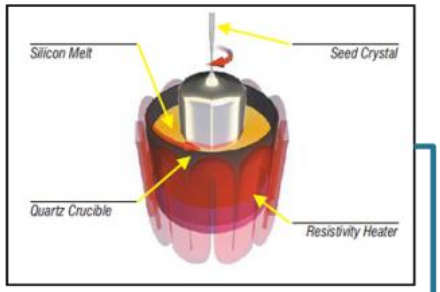
Top 5 wafer producers serve more than 90% of market across all diameters



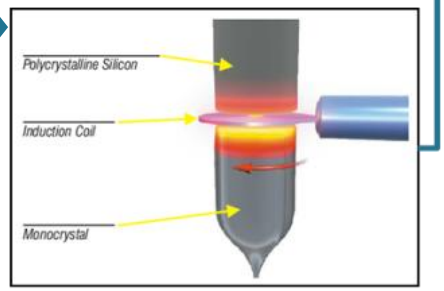
Sources: Companies' revenue reports 2016, converted to USD million

Value creation at Siltronic

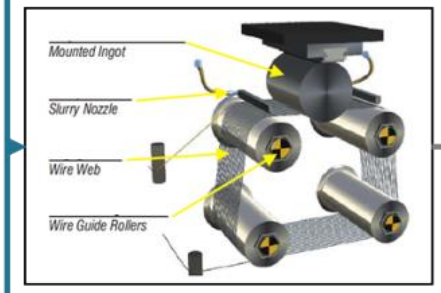
Czochralski pulling



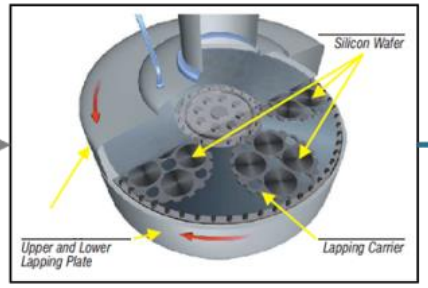
Float zone pulling



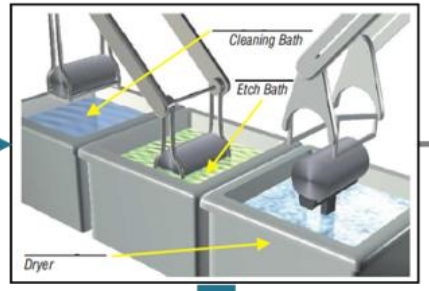
Multi wire slicing



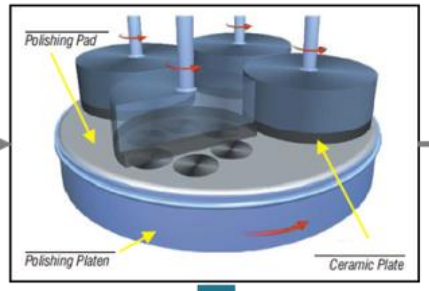
Lapping



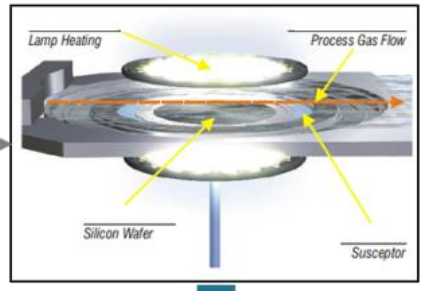
Cleaning and etching



Polishing



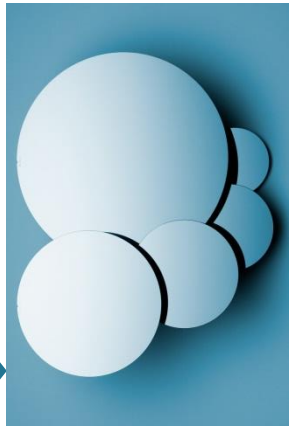
Epitaxy



FZ and CLE wafers

Polished wafers

Epitaxial wafers



International manufacturing network supports market leadership and business focus

High volume facilities for 300 mm in Germany and Singapore

Among **world's newest & largest fabs** in Singapore

SSW majority strengthens fab network and market position

(1) crystal pulling

Customer base well diversified across all major semiconductor Silicon wafer consumers

Siltronic is a supplier to all top 20 Silicon wafer consumers

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Siltronic **well positioned at all major** Silicon **consumers**

Top 10 customers represent **~72%** of 2016 **revenues**

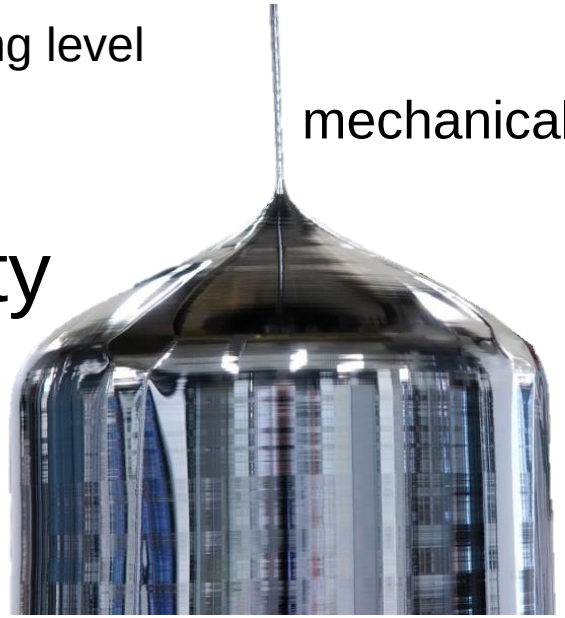
Source: Company Information, Siltronic

SILTRONIC - AN INDUSTRY TECHNOLOGY LEADER

……Technological leadership - a constant race for improvement…..

Flatness just one example – A number of key ingot & wafer properties needs to be continuously improved to meet customers‘ requirements

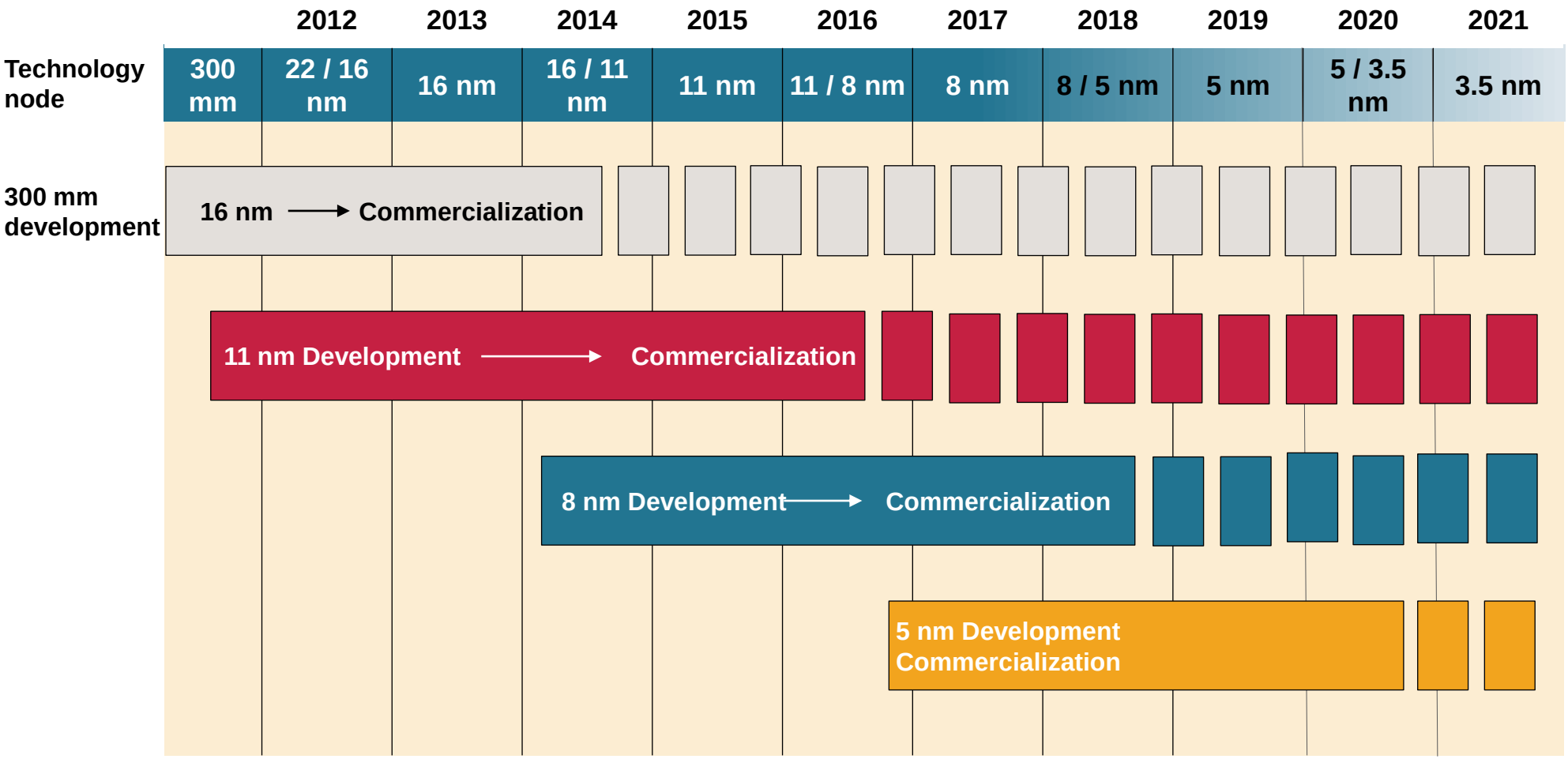
Ingot



Wafer

“More Moore” – Siltronic’s technology roadmap will stay “One Generation Ahead”

Siltronic’s Design Rule roadmap follows road to “More Moore”



Siltronic DR projects develop processes for upcoming wafer requirements one generation ahead

The transition to the next DR typically requires an improvement of critical wafer parameters by ~ 30%!

- Surface defects
- Shape
- Crystal homogeneity
- Surface/bulk metals
- Local/near-edge flatness
  Specifications down to 20nm!

How small is 20nm?

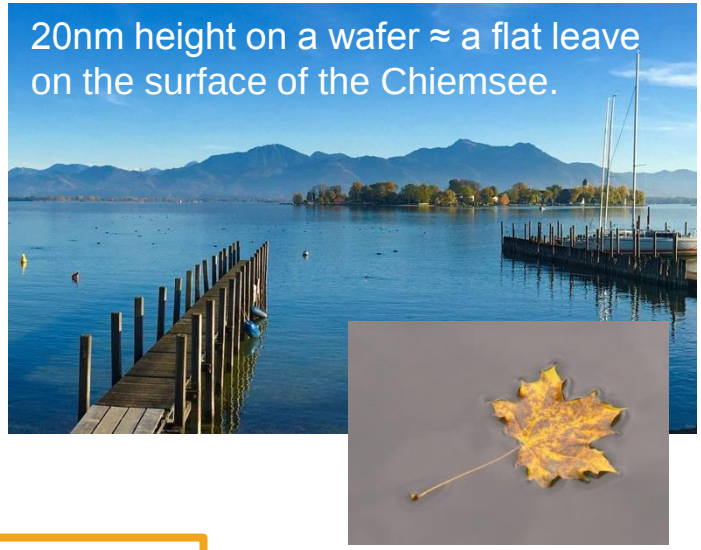


Image source: www.chiemsee-alpenland.de

Broad product portfolio

Siltronics offers a broad product portfolio to address all high volume wafer types and to meet different application requirements

Diameter	Process	Share of portfolio	Product	Applications
300 mm	CZ	~60%	Double side polished wafer Epitaxial wafer Argon annealed wafer Ultimate Silicon™	Memory, Logic, Analog
125 – 200 mm **+** **SD**	CZ + FZ	~40%	**Standard products:** Polished wafer Epitaxial wafer Cut/lapped/etched wafer **Special products:** Lowly-doped and highly-doped wafer	Logic, Analog, Discretes, Microprocessors, Image sensors, Power and opto-electronics, IGBTs

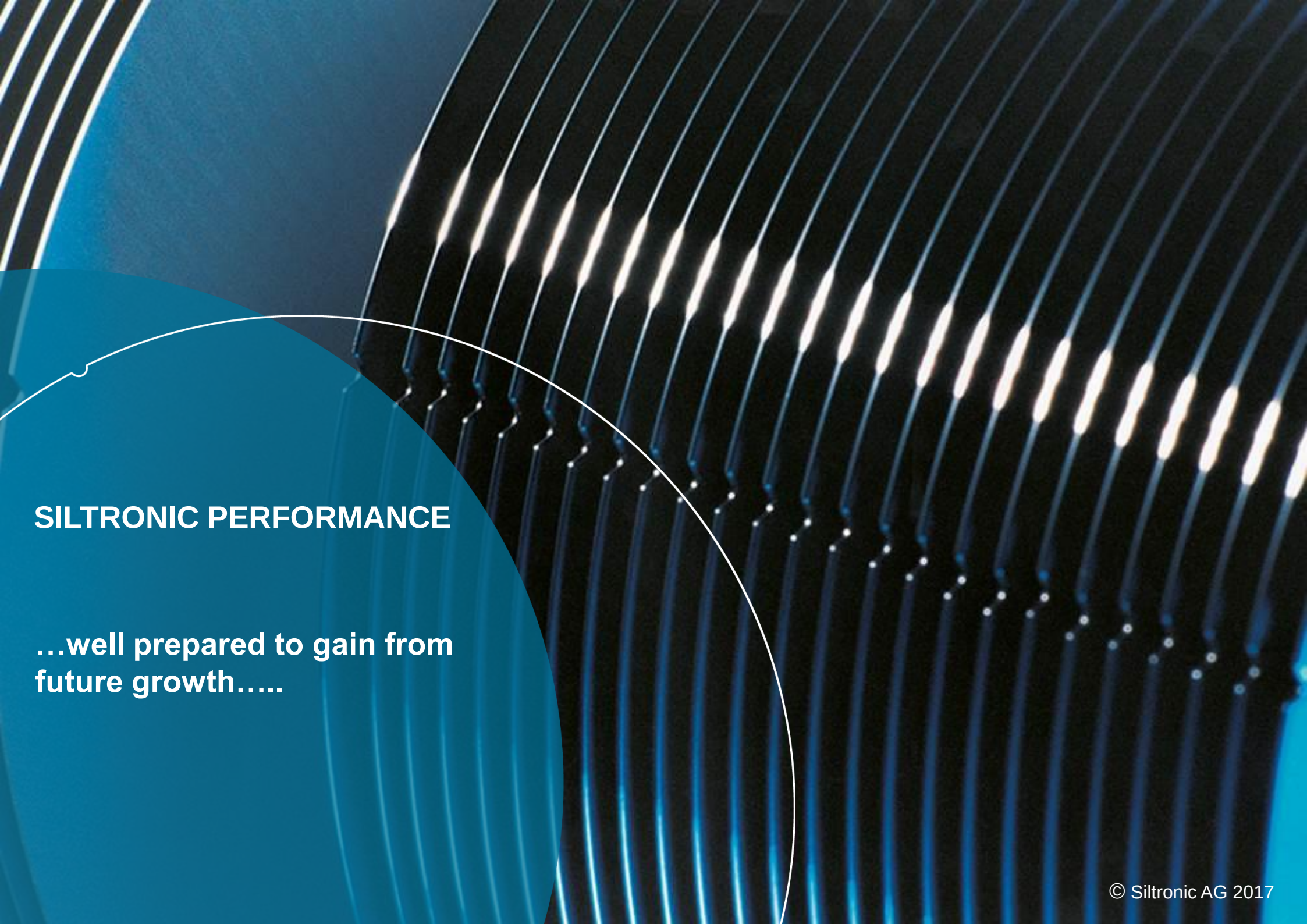
Note: CZ: Czochralski crystal growing, FZ: Float zone technology

Siltronic is a leader in wafer technology and quality

Technology leadership complemented with the highest level of quality

- First supplier to ship 300mm wafers
- Development of 8 nm design rule started in 2013 (commercialization 2017);
- Concurrently optimizing on 50+ wafer parameters of each design rule
- >400 engineers worldwide
- Approximately 1,700 patents issued and pending (as of Dec. 31, 2016)
- Single wafer traceability for 300mm
- Standardized processes across sites enabling “copy exactly” at product level

- Quality awards from several top semiconductor players

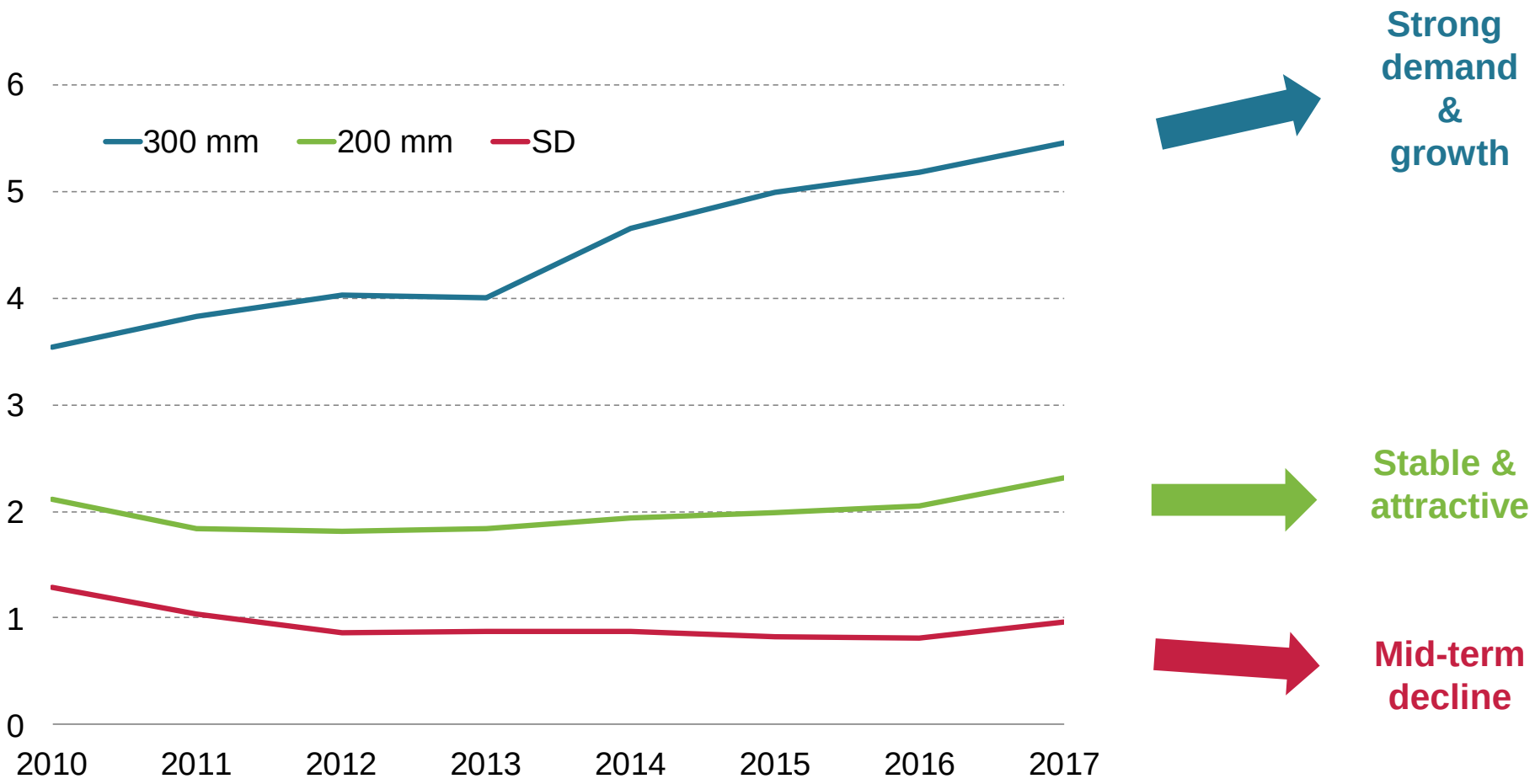


SILTRONIC PERFORMANCE

…well prepared to gain from future growth…..

Siltronic is focused on growing 300mm and attractive 200mm business

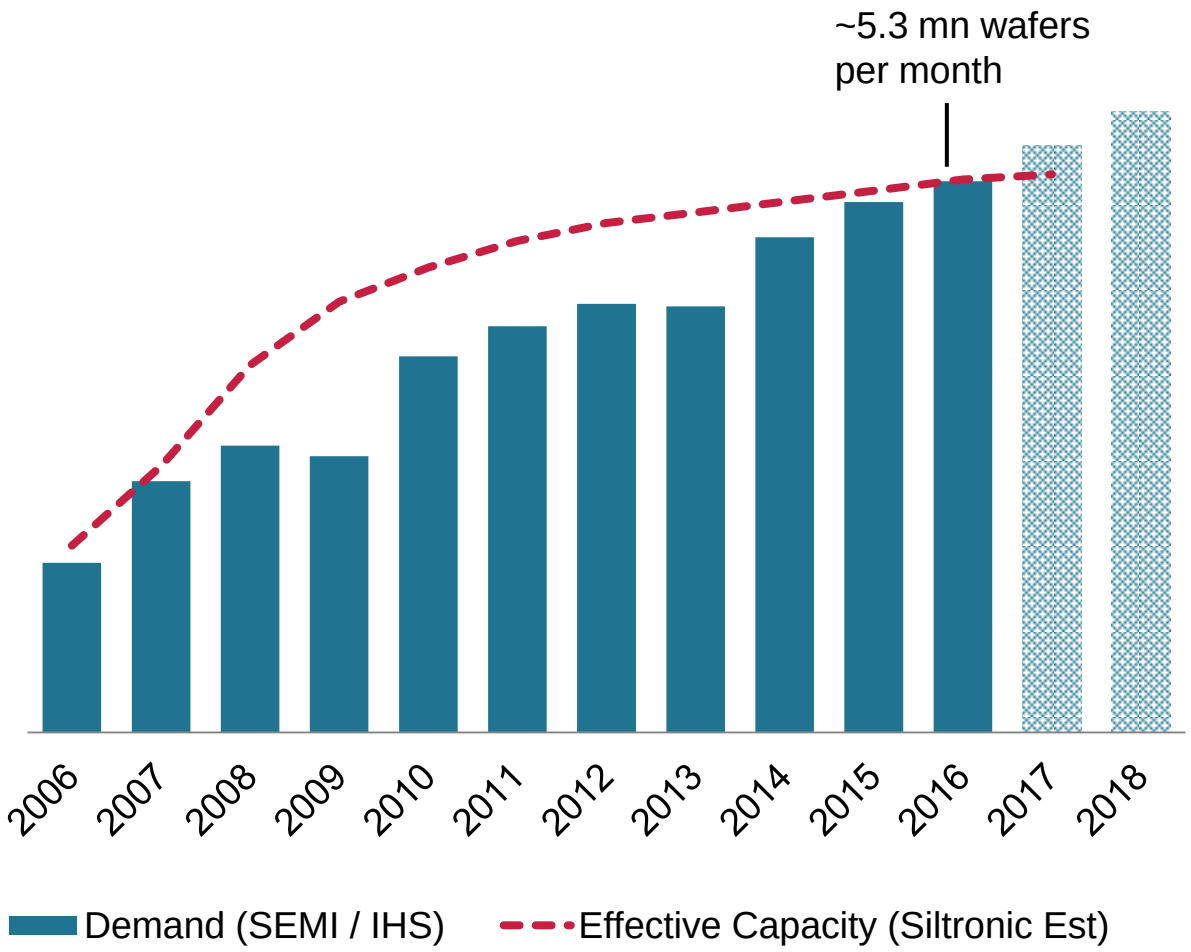
Development of total wafer demand per diameter, in million 300mm equivalents per month



Source: SEMI up to June 2017, Siltronic estimates

300mm wafer demand is expected above industry supply capacity, after almost a decade of oversupply

300mm effective capacity vs. demand, kpcs per month

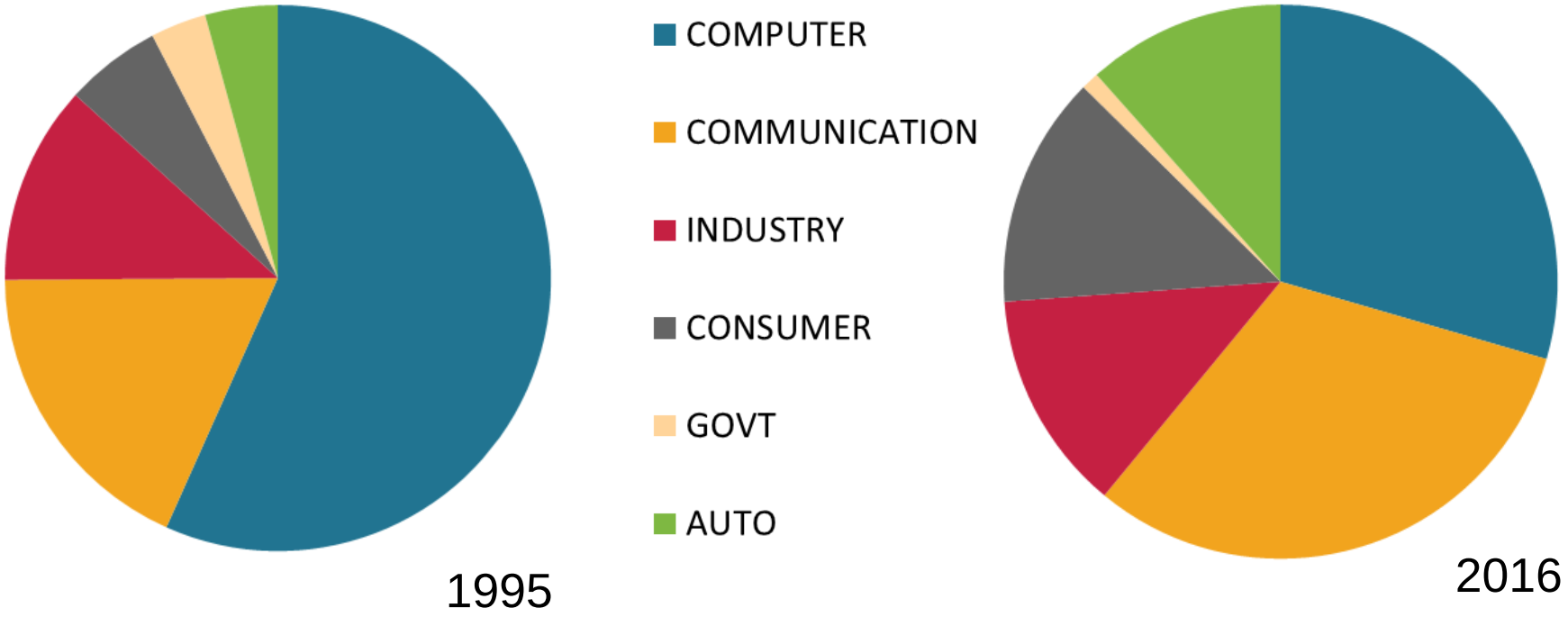


- Gap between supply and demand expected to increase further in 2018

Sources: SEMI, IHS, Siltronic

20 years back more than half of the semiconductor sales was for computing – todays markets are much more diversified

Percentage of semiconductor sales



Silicon demand less volatile on broader application and markets

Sources: Computer History Museum, Catalog 107273410, WSTS 2017

Ever new applications for electronic devices and the infrastructure to support them continue to drive silicon demand

Electronic equipment contains multiple devices built on tailormade Si substrates

Current growth drivers include:

- **Data explosion:** connected devices, data transport and storage, big data, logic/AI
- **Power:** renewable energy, smart grid, battery chargers
- **Automotive:** ADAS, infotainment, electro mobility

1972 Today

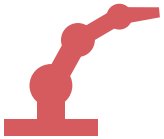
SSDs and industrial applications remain the main drivers for silicon demand. Turnaround in PC and tablet market also helps.

Computing

- Servers, mobile PCs and PC upgrades drive demand for SSDs.
- Mobile PC units will decline in 2017 but at the slowest rate in 10 years.

Mobile Phones

- Smartphone shipments are expected to grow.
- Technology migrations and content are key for silicon demand.



Industrial

- Industrial automation, smart homes and medical electronics will increase silicon demand for industrial applications in 2017.

Automotive

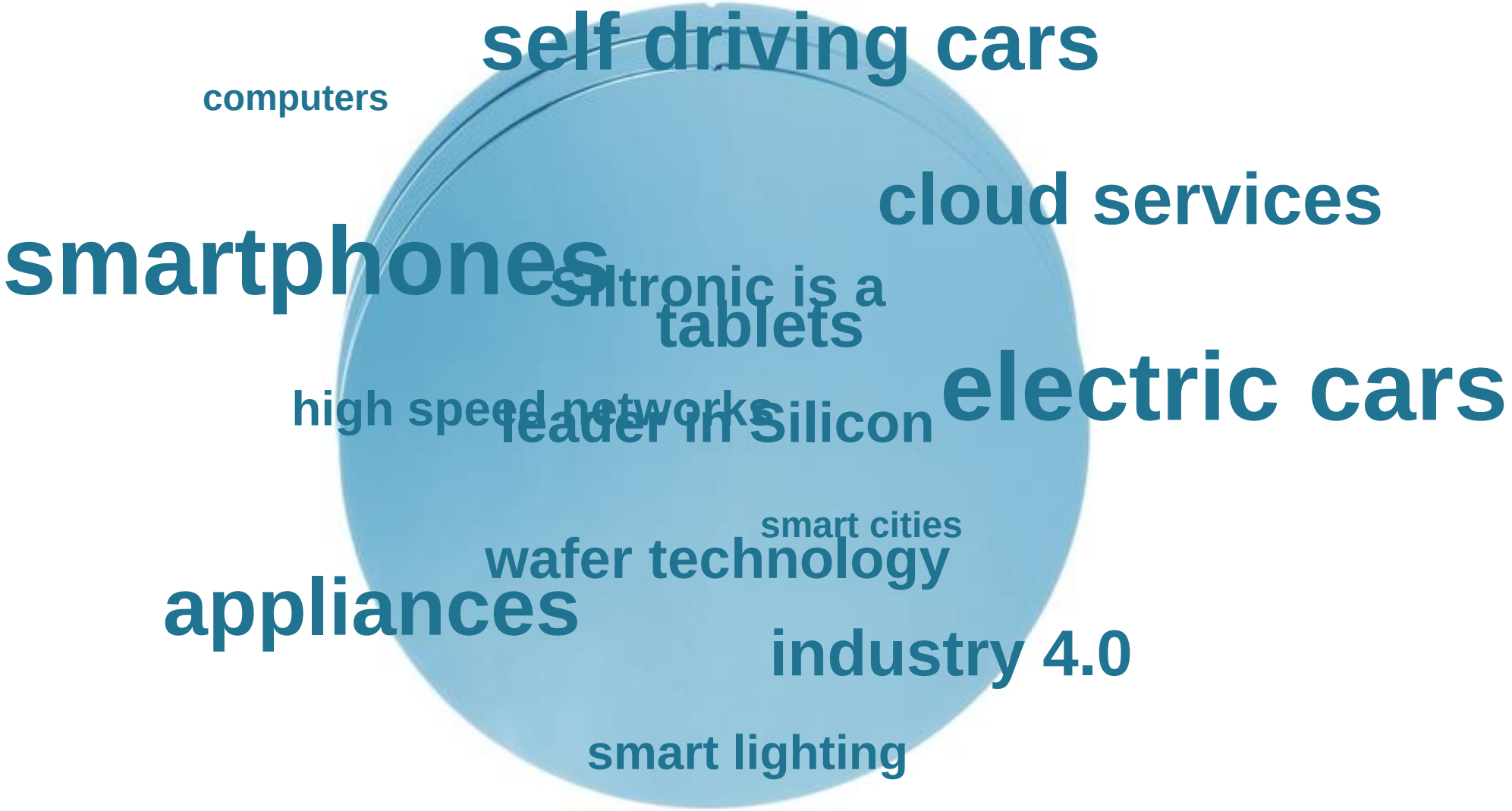
- Semiconductor content in new cars grows, driven by electrification, automated driving and connectivity.
- Vehicle production also rises slowly.

Source: IHS Markit Technology (Semiconductor Silicon Demand Forecast Tool, Q1‘17 Update)

END MARKETS

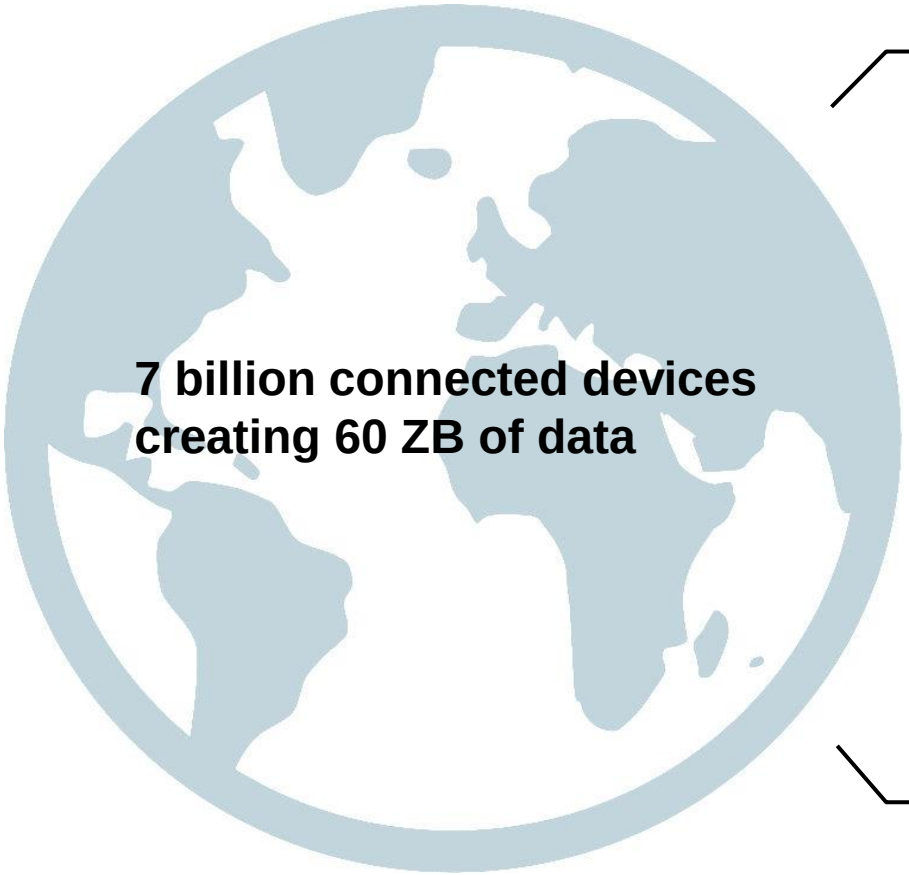
… are much more diverse nowadays.

All electronics are based on silicon



Data explosion: An inflation of connected devices and sensors lead to an unprecedented increase of generation of new data

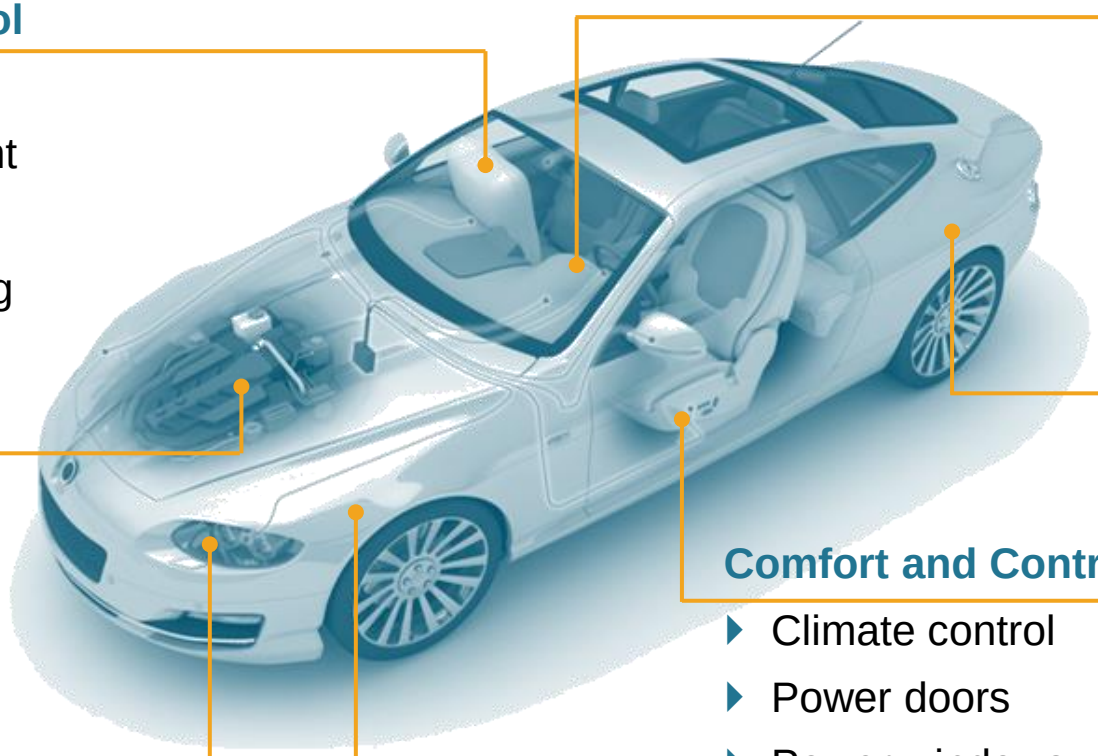
60 ZB of new data will be generated in 2021. Next year, more will be added…



- Stored locally
- Sent via internet
- Analyzed at point of generation and storage sites
- Stored in the cloud

Transmit, store and process these data fuels silicon demand

Remember the good old Volkswagen Beetle…
Modern passenger cars are stuffed with electronics



Safety and Control
- Airbag
- Parking assistant
- Rear monitor
- Collision warning

Infotainment
- Car audio
- Car navigation
- Dashboard

Networking
- Intra-car (bus system)
- Car-2-X communication

Powertrain
- Engine / emission control
- Transmission
- EV/HEV motor

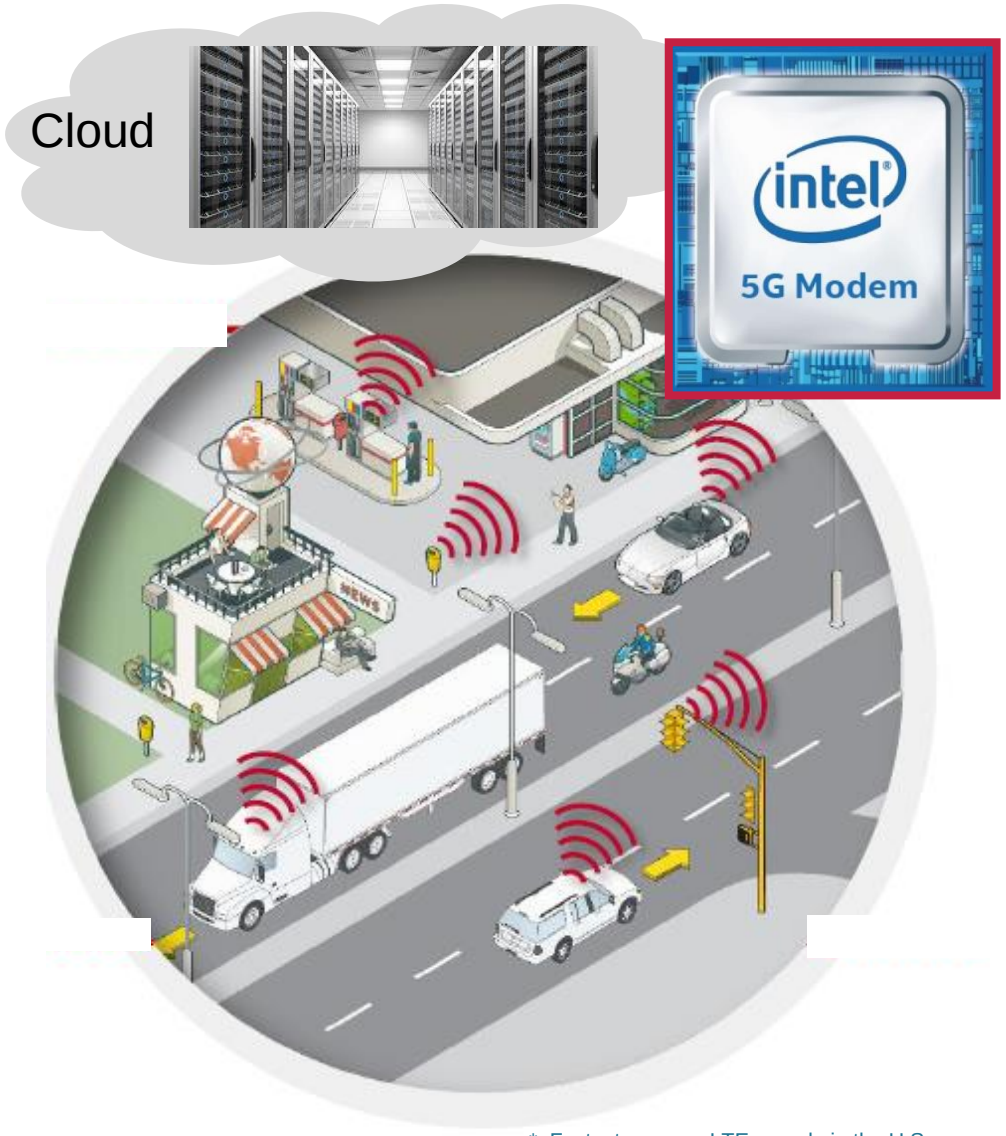
Comfort and Control
- Climate control
- Power doors
- Power windows
- Seat adjustment

Electronic Systems
- Lighting
- Battery management
- Starter
- Diagnostics

Chassis
- Steering
- Braking (ABS)
- Traction control

Source:McKinsey

Carmakers are working intensively on autonomous driving which will need even more silicon for infrastructure and networks



Requirement for Connectivity

- High-definition map downloads in real time
- Sensor data uploads for machine learning
- Over-the-air firmware and software updates

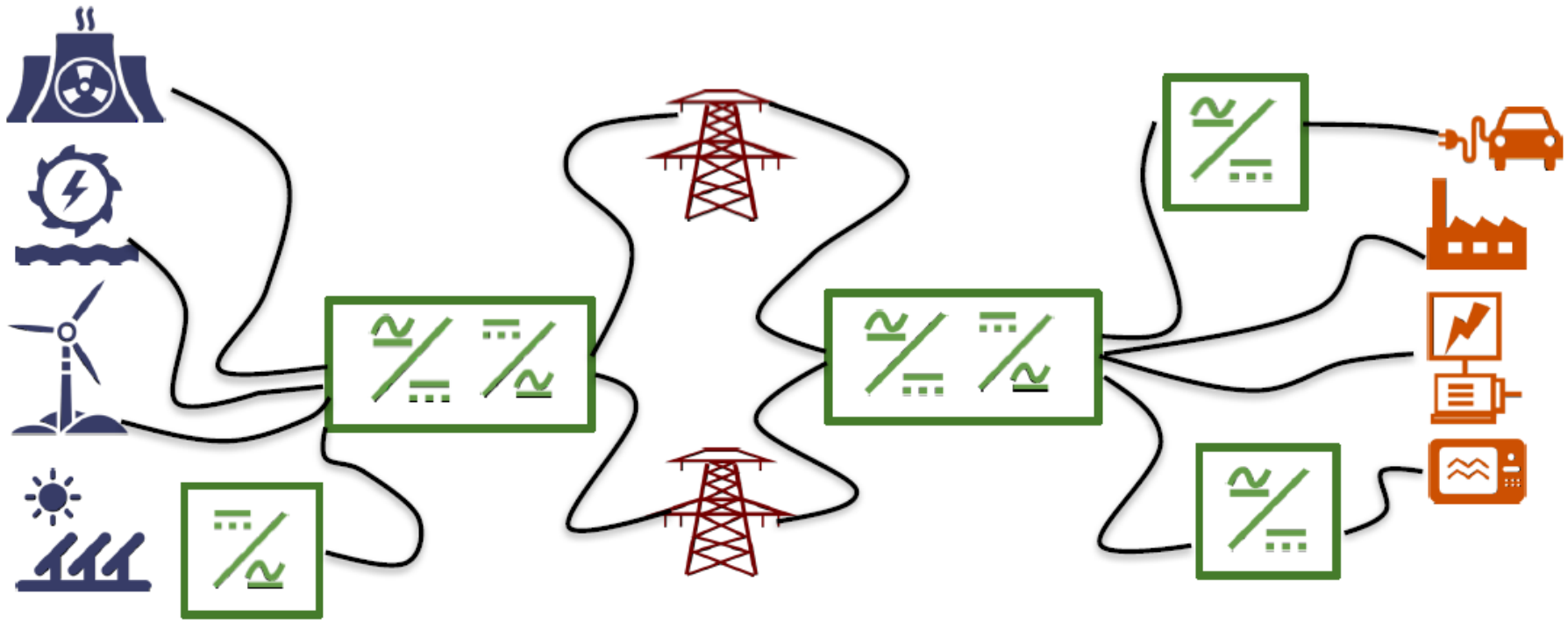
Benefit of 5G Network

- Faster speed: Handle massive amounts of data generated by autonomous cars
- Ultra latency: Max 10 GB per second (600 times faster than today's LTE*)
- Vehicle-to-vehicle and vehicle-to-infrastructure connectivity:
  Maximize use of available data, control traffic
- Intel® is offering Intel GO™ Automotive 5G platform for automakers' development

* Fastest average LTE speeds in the U.S.

Source: Audi EMFT-YOLE Sensors for IoT in Munich (Jul 2017); Intel News Fact Sheet (Jan 2017)

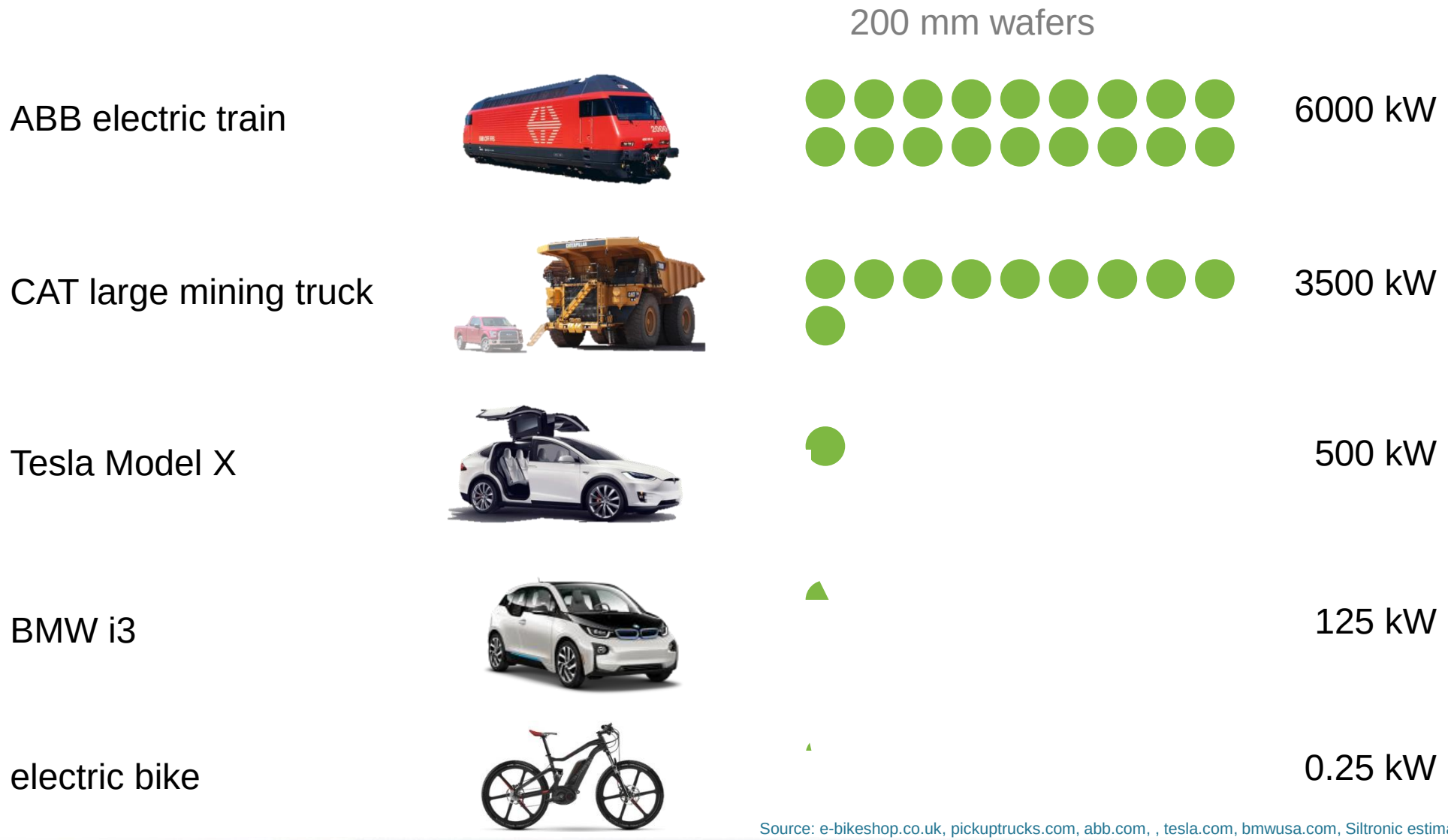
Power devices are everywhere – silicon based devices convert electricity multiple times before consumption



- Conversion of electric energy includes changing voltage, frequency and type of current (direct ⎓ vs. alternating ≈).
- Voltage ranges from hundreds of kilo Volts in power lines down to below 1 Volt in the logic chips within your smartphone.

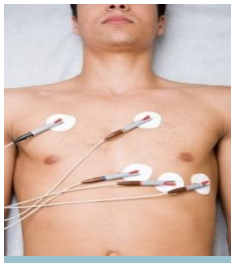
Source: Basics of power electronics, Point The Gap

The more power, the more silicon is needed in the inverter: from fractions of a wafer in an e-bike to ~20 wafers in a train.



Source: e-bikeshop.co.uk, pickuptrucks.com, abb.com, , tesla.com, bmwusa.com, Siltronic estimates

Industrial semiconductor segment comprises a wide range of applications



Medical

- diagnostics and control
- imaging equipment
- laboratory test
- patient monitoring

Building & Home

- built in climate control
- lighting
- safety & security equipment

Manufacturing

- manufacturing equipment
- robotics
- process control equipment
- measurement instruments
- motor controls

Power & Energy

- equipment for energy production and distribution
- industrial power supplies
- energy meters

Aerospace & Military

- aircraft systems
- radar, sonar, avionics
- missile guidance
- military grade computers

Other Industrial

- power tools
- ATMs
- ships, golf cars, electric bikes and trains

Source: appliedmaterials.com

STAKEHOLDERS‘ BENEFITS

…shareholders to benefit from improved financials…..

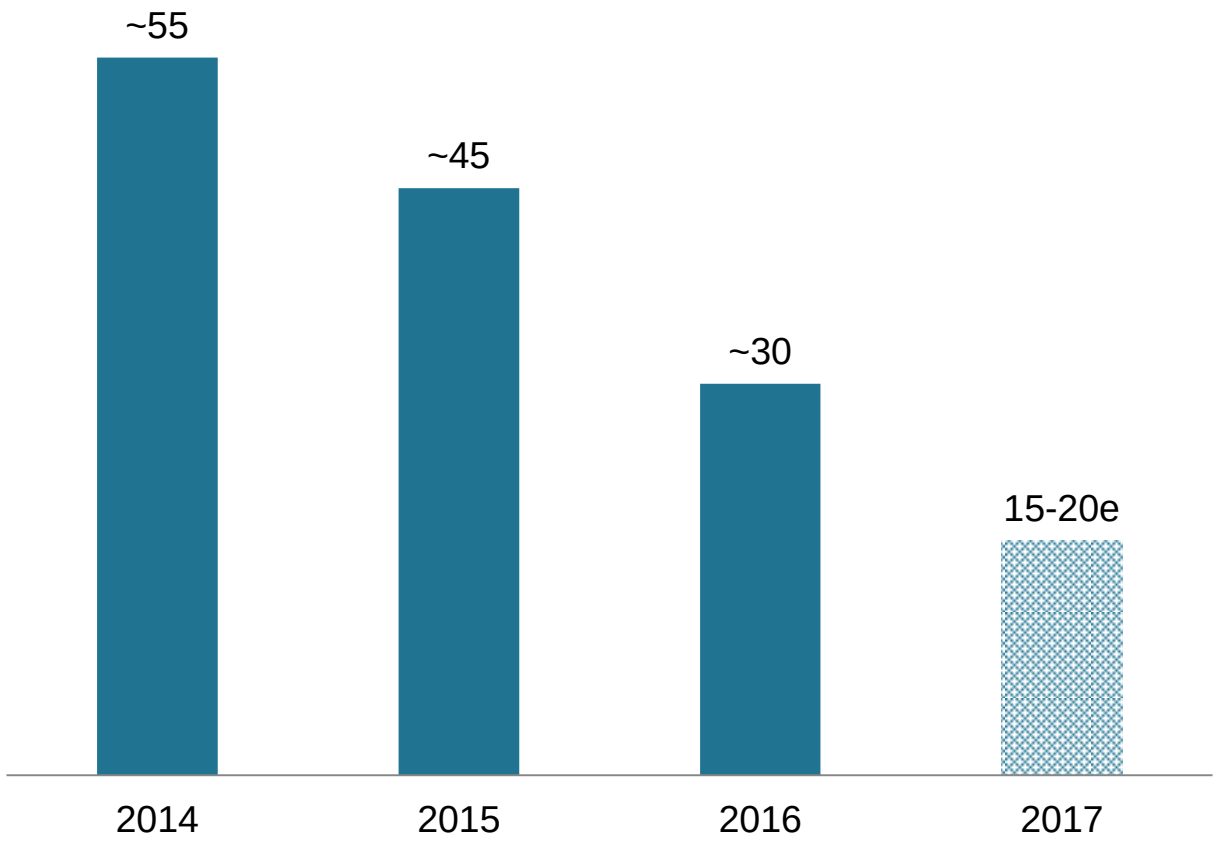
Financials improved strongly over the last years

Adjusted[1] financial figures (EUR mn)	2012	2013	2014	2015	2016
Sales	1030.0	875.5	853.4	931.3	933.4
EBIT	(75.5)	(87.3)	(31.6)	2.7	27.0
EBIT margin in %	(7.3)	(10.0)	(3.7)	0.3	2.9
EBITDA	122.5	112.6	117.7	124.0	146.0
EBITDA margin in %	11.9	12.9	13.8	13.3	15.6
CapEx	144.3	39.7	40.7	75.0	88.8
Free cash flow	(134.4)	64.7	86.3	37.4	19.0

[1] figures 2012-2014 adjusted for consolidation effects resulting from acquisition of SSW and restructuring

Successful cost reduction programs continue

Cost savings, in EUR millionn[1]



Additional savings levers:

- Investing in automation in Germany
- Investing in new pullers to improve yields and capabilities
- Poly cost optimization ongoing
- Further productivity increases through various initiatives

[1] Based on prior year cost basis to current year volumes and adjustments to certain current year costs to reflect prior year contractual and economic parameters (e.g. prior year unit labor cost).

A disciplined approach to capital budgeting – priority is to support and secure our business

Capital budgeting priorities

Selective investment in our business

1. Capability improvement
2. Cost reduction
3. Debottlenecking and extensions

Continuously

Further strengthening our balance sheet

1. High cash position in semiconductors needed
2. Flexibility to quickly execute potential future strategic options

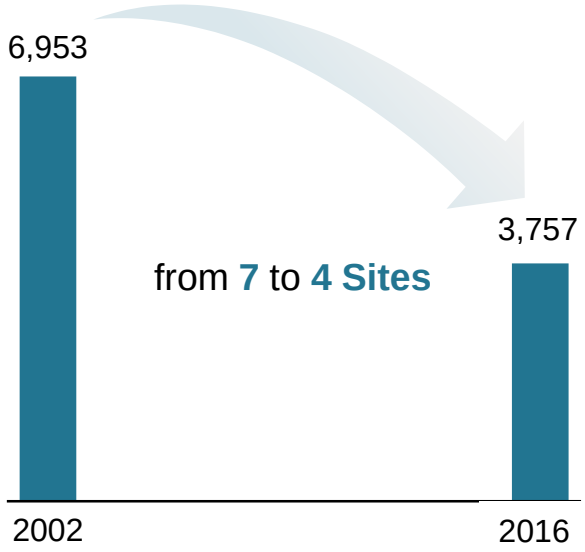
Strongly improved

Shareholder remuneration (dividends)

First dividend to be paid in 2018

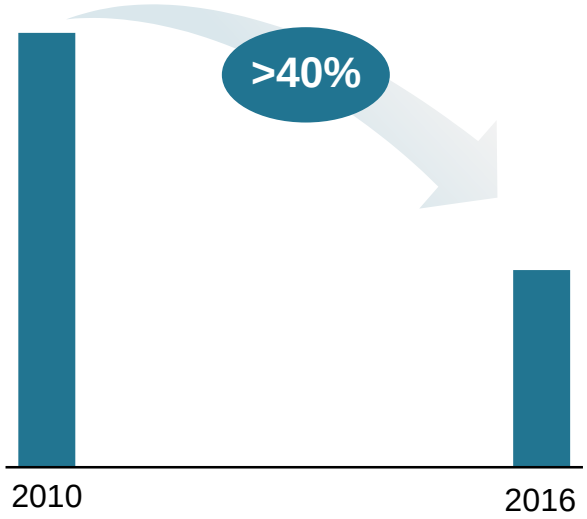
Outstanding Cost Reduction and Efficiency Improvement Track Record

Number of employees



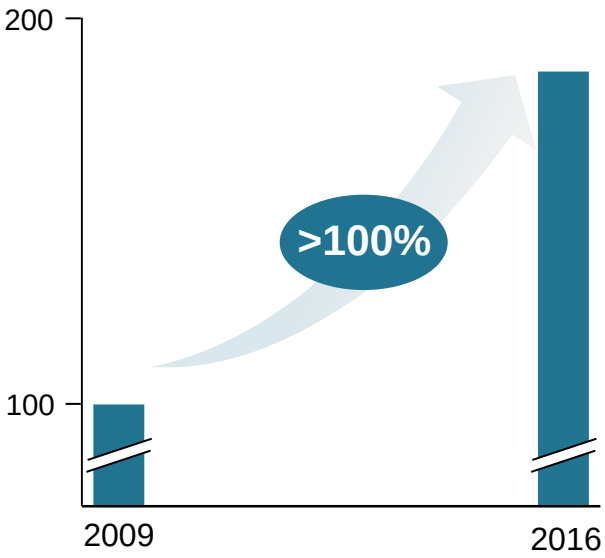
Successful restructuring including Germany

Variable costs of 300 mm wafer (Germany),
in EUR / Wafer



More than 40% reduction of the variable unit costs in 300 mm wafer

300 mm Productivity[1] (Germany)

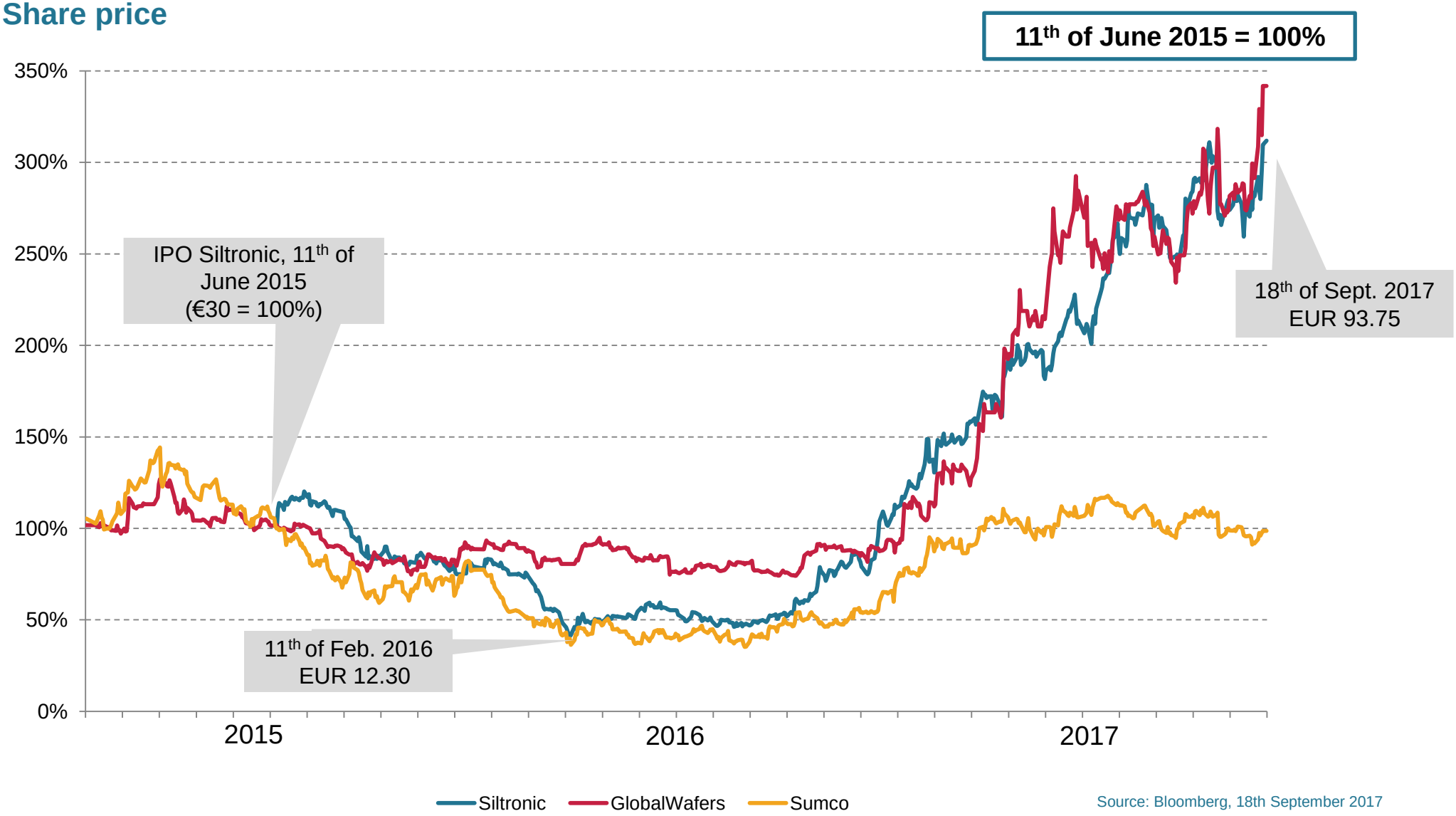


Almost 100% increase of employee productivity in 300 mm wafer

[1] Delivered wafer / paid hours (2009 = 100)

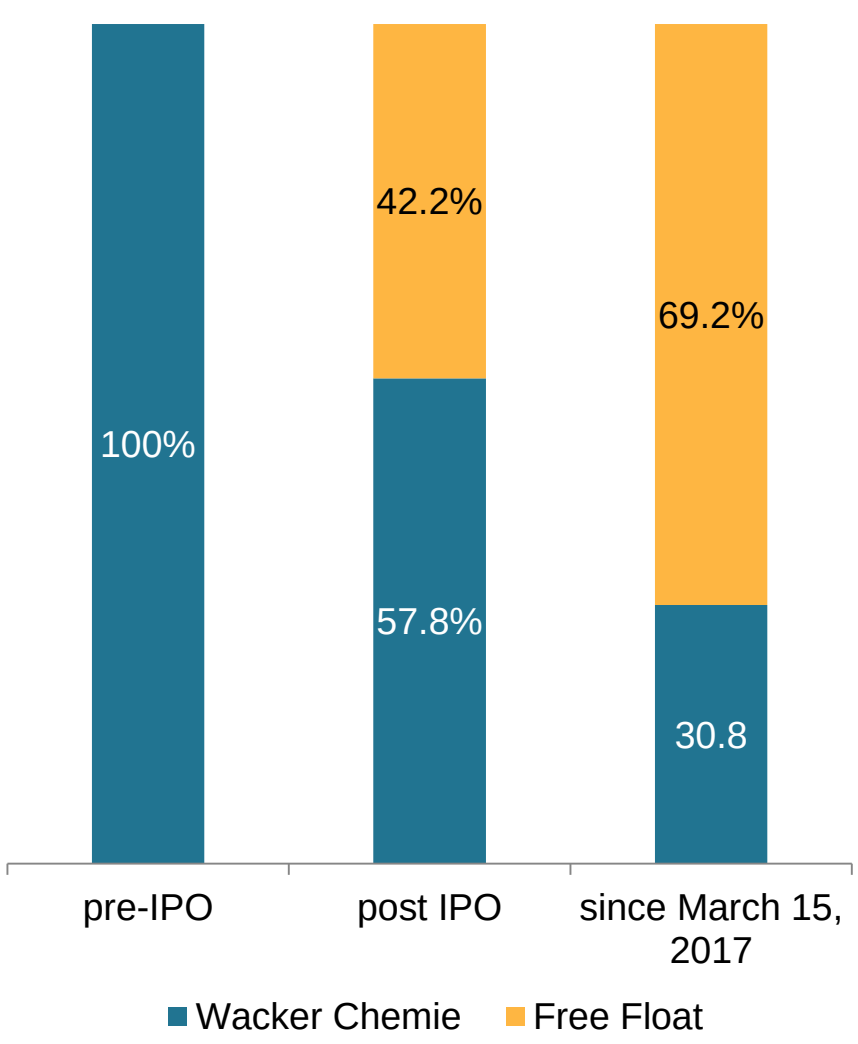
Siltronic share price more than tripled since IPO

Share price

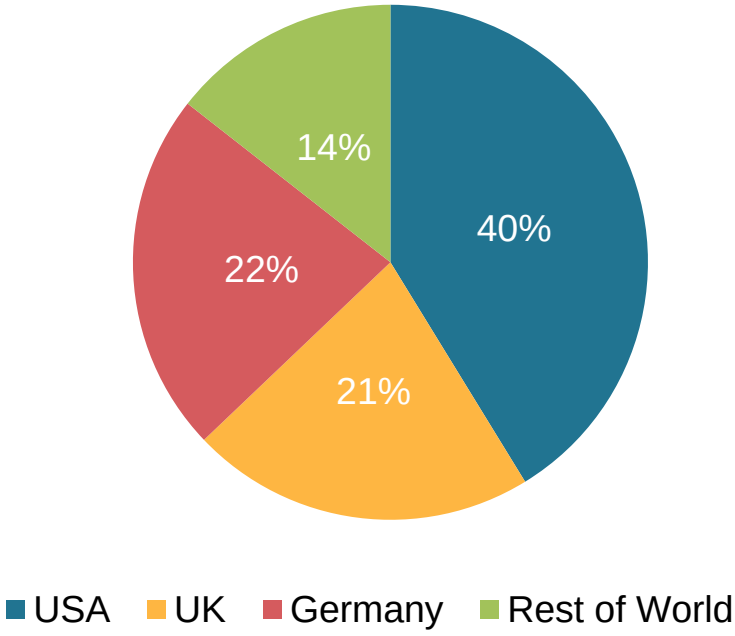


Source: Bloomberg, 18th September 2017

Shareholder structure



Identified freefloat per region
(as of March 30, 2017)



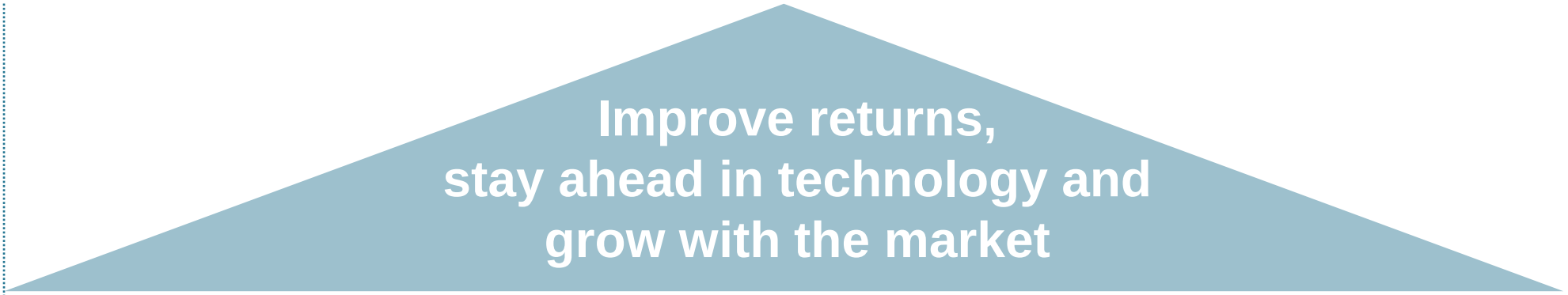
Investment Highlights – Siltronic Strengths

1. **Strong market position in semiconductor silicon wafer manufacturing**
2. **Technology and quality leader**
3. **Supplier to all top 20 silicon wafer consumers with well-established relationships**
4. **Strong track record in efficiency improvement and cost reduction**
5. **Strategic supply of high-quality polysilicon at competitive cost**
6. **Experienced management team and highly skilled workforce**

STRATEGY

……no change in our proven strategy while enjoying improving returns…..

Siltronic strategy - capitalize on market opportunities while focusing on 300mm & technological leadership by growing with the market



Strategic Focus

Benefit
from market growth

Ensure
technology & quality leadership

Improve
financial performance & cash flow

Execute
cost reduction roadmaps & debottlenecking concepts

We continuously increase the value for our stakeholders by providing best-in-class wafers at competitive costs.

Contact and Additional Information

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Additional Information

ISIN:	DE000WAF3001
WKN:	WAF300
Deutsche Börse:	WAF
Listing:	Frankfurt Stock Exchange Prime Standard

Financial Calendar

Full Year 2017 Results	March 5, 2018
Annual General Meeting	April 19, 2018
Q1 2018 Results	April 25, 2018
Q2 2018 Results	July 25, 2018
Q3 2018 Results	October 25, 2018

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