

## Siltronic – a leading producer of silicon wafers

Investor Presentation September 2017

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

#### **Electronics value chain 2016**

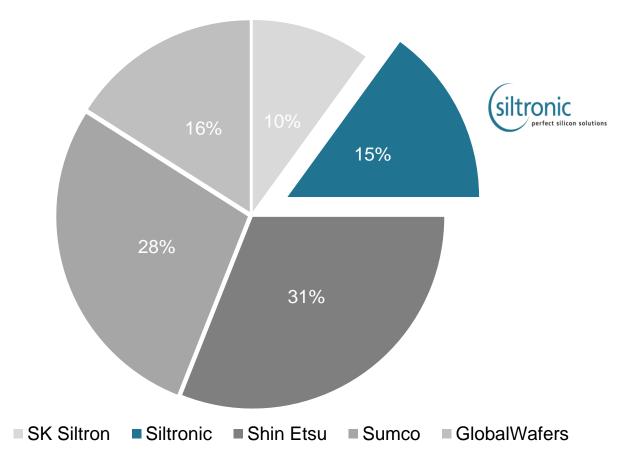


Source: Electronics (IC Insights), Semiconductors (WSTS, only silicon-based), Silicon wafers (SEMI SMG), electronic applications (WACKER estimate)



## Siltronic is a strong wafer supplier with leading-edge technology



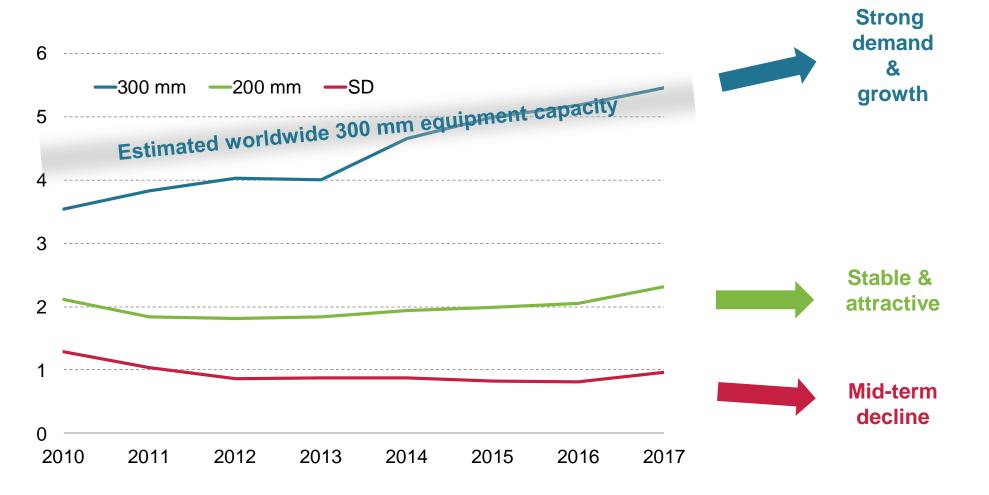


Sources: Companies' revenue reports 2016, converted to USD mn



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

Development of Total Wafer Demand per Diameter, in mn 300 mm equivalents per month

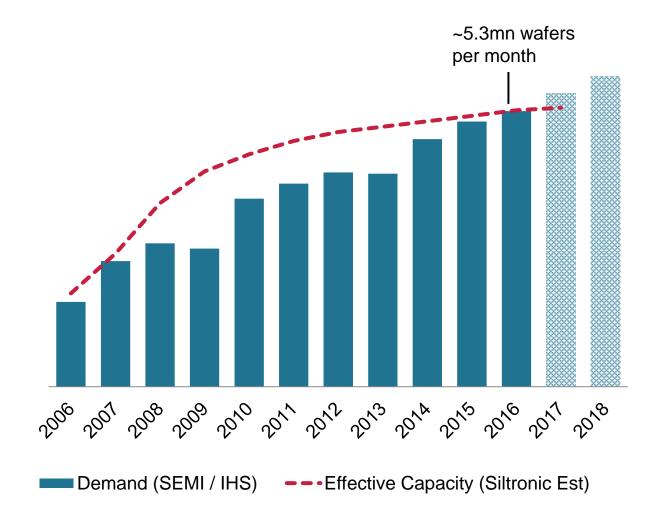


Source: SEMI up to June 2017, Siltronic estimates



# 300mm demand is expected above industry capacity, after almost a decade of over-supply

### 300mm effective capacity vs. demand, kpcs per month



#### Comments

- Extension not considered at current price levels
- ~30% to 35% overall empty shell capacity estimated to be available
  - Would allow for costefficient brownfield extension according to demand growth without need of creating overcapacity
  - Takes around 12-18 months to bring brownfield capacity online

Sources: SEMI, IHS, Siltronic



## **Market highlights**

#### Semiconductors

- Semiconductor market continued its strong growth in May
- Units grew +16.8% y-o-y (3MMA)
- IC Insights predicts a new all-time high for semiconductor CapEx in 2017 (~USD 76bn)

### Silicon wafer demand

SEMI market in Q2 was ~6.4bn cm<sup>2</sup>/month, 4.2% up q-o-q and 10.1% up y-o-y

### **Price increases**

- Substantial increase in wafer prices for 300mm
- Price increase for 200mm wafers
- Siltronic negotiated additional price increases for Q3

### Competition

Wafer suppliers continue to report strong demand for all diameters, with fully utilized 200mm and 300mm lines

Source: WSTS up to May 2017, IC Insights (May 2017 Update), SEMI up to Jun 2017



## Silicon area demand continues to grow



Silicon wafer demand, in bn in<sup>2</sup>

Source: SEMI (Silicon Area until 2016), IHS Markit Technology (Semiconductor Silicon Demand Forecast Tool, Q3'17 Update, Estimate 2017)



# 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**



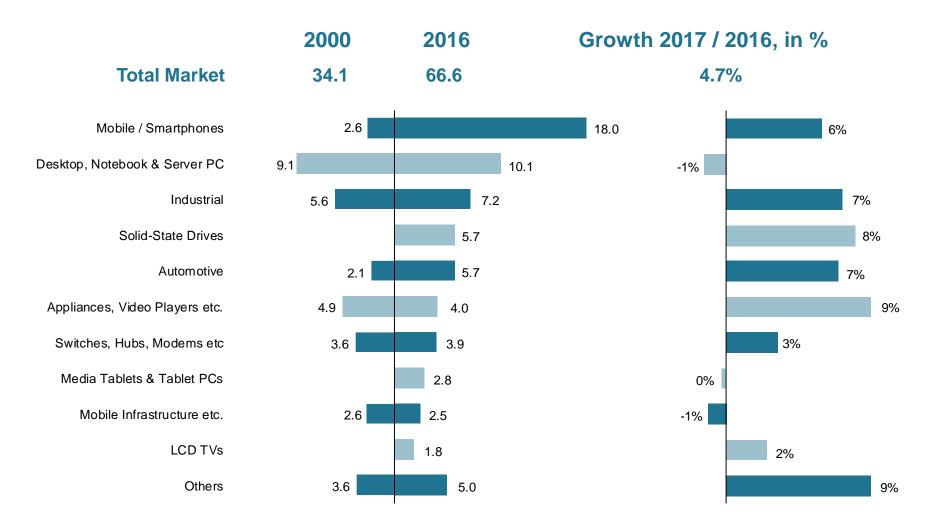
- Semiconductor content in new cars grows, driven by electrification, automated driving and connectivity.
- Vehicle production also rises slowly.

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



## IHS confirms silicon area growth forecast of 4.7% for 2017, with growth spread upon a wide range of applications

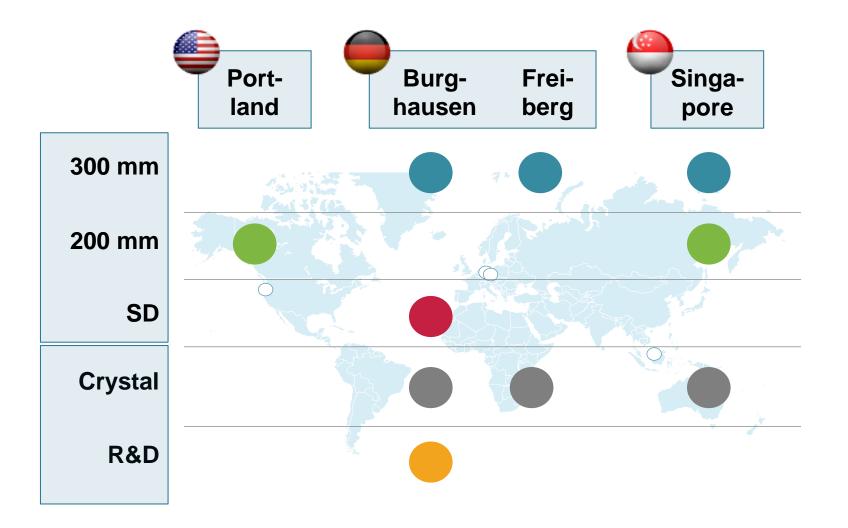
### Wafer Demand 2000 / 2016, in bn. cm<sup>2</sup>



Source: IHS Markit Technology (Semiconductor Silicon Demand Forecast Tool, Q3'17 Update)



## International manufacturing network supports market leadership and business focus





## Customer base well diversified across all major semiconductor Silicon wafer consumers

#### Siltronic is a supplier to all top 20 Silicon wafer consumers Hirace 華勢宏カ Micron infineon **GLOBAL**FOUNDRIES íntel ROHM Powerchip力晶科技 RENESAS **ON Semiconductor®** SONY SM SAMSUNG ife.augmented SK hynix UMC VIS TOSHIBA TEXAS INSTRUMENTS Siltronic well positioned at all Top 10 customers represent ~72% major Silicon consumers of 2016 revenues

Source: Company Information, Siltronic



### Financials improved strongly over the last years

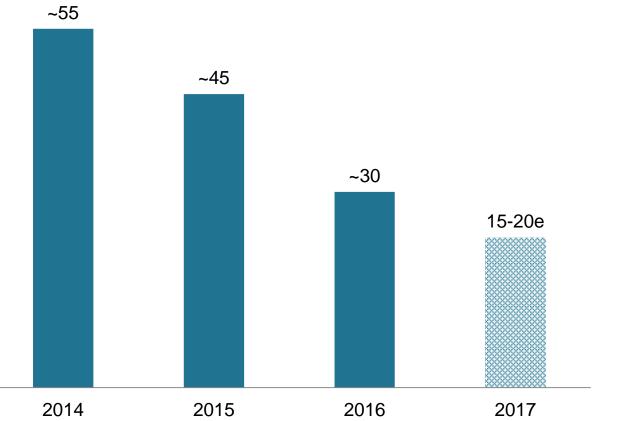
Adjusted <sup>1</sup> financial figures (EUR mn)	2012	2013	2014	2015	2016	H1 2017
Sales	1030.0	875.5	853.4	931.3	933.4	541.1
EBIT	(75.5)	(87.3)	(31.6)	2.7	27.0	66.8
EBIT margin in %	(7.3)	(10.0)	(3.7)	0.3	2.9	12.3
EBITDA	122.5	112.6	117.7	124.0	146.0	125.7
EBITDA margin in %	11.9	12.9	13.8	13.3	15.6	23.2
CapEx	144.3	39.7	40.7	75.0	88.8	44.9
Free cash flow	(134.4)	64.7	86.3	37.4	19.0	73.2

<sup>1</sup> figures 2012-2014 adjusted for consolidation effects resulting from acquisition of SSW and restructuring



## Successful cost reduction programs continue

### Cost savings, in EUR mn<sup>1</sup>



#### Additional savings levers:

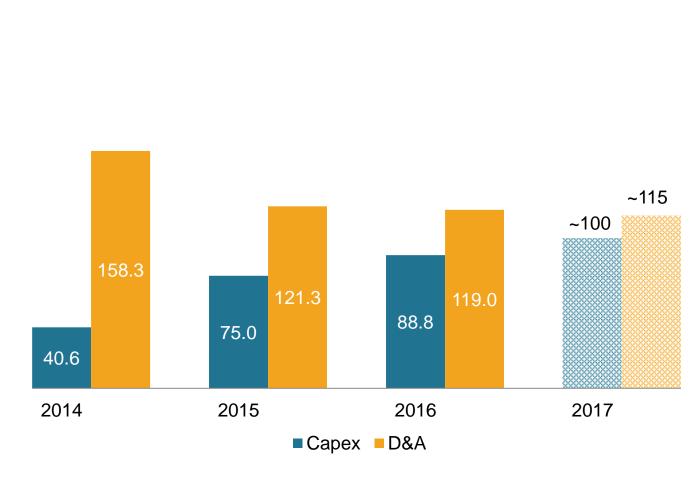
- Investing in automation in Germany
- Investing in new pullers to improve yields and capabilities
- Poly cost optimization ongoing
- Further productivity increases through various initiatives

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).



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## CapEx: spending mostly for capability and cost reductions



Adjusted<sup>1</sup> CapEx and D&A, in EUR mn

### CapEx 2015 and 2016

- New crystal pulling hall in Freiberg
- Exchange of crystal pullers vs. state-of-the-art equipment
- Automation projects in Germany

### 2017 focus on

- Capability improvement
  - New design rules
  - New generation crystal pullers
- Cost reduction (e.g. further automation)
- Debottlenecking

adjustments are based on the assumption that SSW would have been consolidated prior to January 1, 2014. Initial consolidation of SSW was made as of January 24, 2014. The adjustments are not in compliance with IFRS.



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## Siltronic Outlook 2017 (Update as of July 28, 2017)

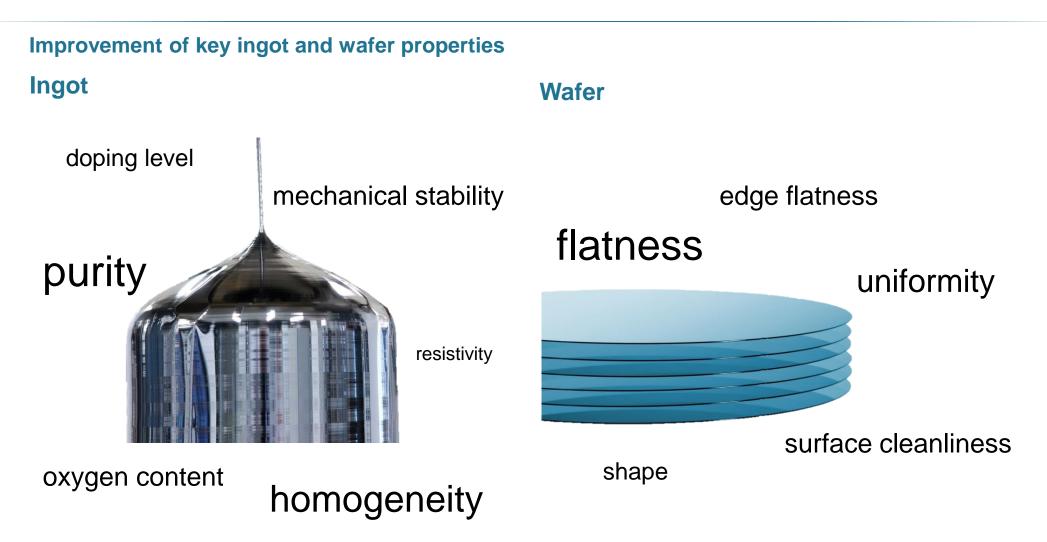
EBITDA margin	at least 27%: update
ROCE	substantially higher than in 2016, considerably higher than WACC
Free Cash Flow	clearly positive; by far above 2016
Sales	at least EUR 1.12bn: update
R&D	unchanged at approx. 7% of sales
Cost Position	potential savings of around EUR 15m to EUR 20m
Hedging Expenses	substantially lower around EUR 10m
Depreciation	on the level of 2016
Tax rate	20% or slightly below
Financial Result	roughly EUR 10mn interest expense
Earnings per Share	significantly higher than in 2016
СарЕх	around EUR 100m, partly financed by USD 20m customer prepayments



## Appendix



## Continuous improvement of key ingot and wafer properties to meet customers' requirements





## **Financial Year 2016: Highlights**

Sales	Sales of EUR 933.4mn (2015: EUR 931.3mn)
EBITDA	EUR 146.0mn (2015: EUR 124.0mn), Without negative FX effects* EBITDA would have been EUR 166.9mn
Margin	EBITDA margin 15.6% (2015: 13.3%) Without negative FX effects* EBITDA margin would have been 17.9%
EBIT	positive at EUR 27.0mn (2015: EUR 2.7mn)
Cost Savings	around EUR 30mn
Investments**	EUR 88.8mn (2015: EUR 75.0mn), mainly in enhanced capabilities
Free Cash Flow	EUR 19.0mn (2015: EUR 37.4mn), despite EUR 11.1mn one-time payment to pension fund and EUR 20.5mn repayment of customer prepayments
Net Cash	EUR 175.0mn (2015: EUR 155.9mn)

\*other operating income and expenses influenced by FX effects, mainly due to hedging. In 2016, FX effects added up to expenses of EUR 20.9mn. \*\* without investment in financial assets

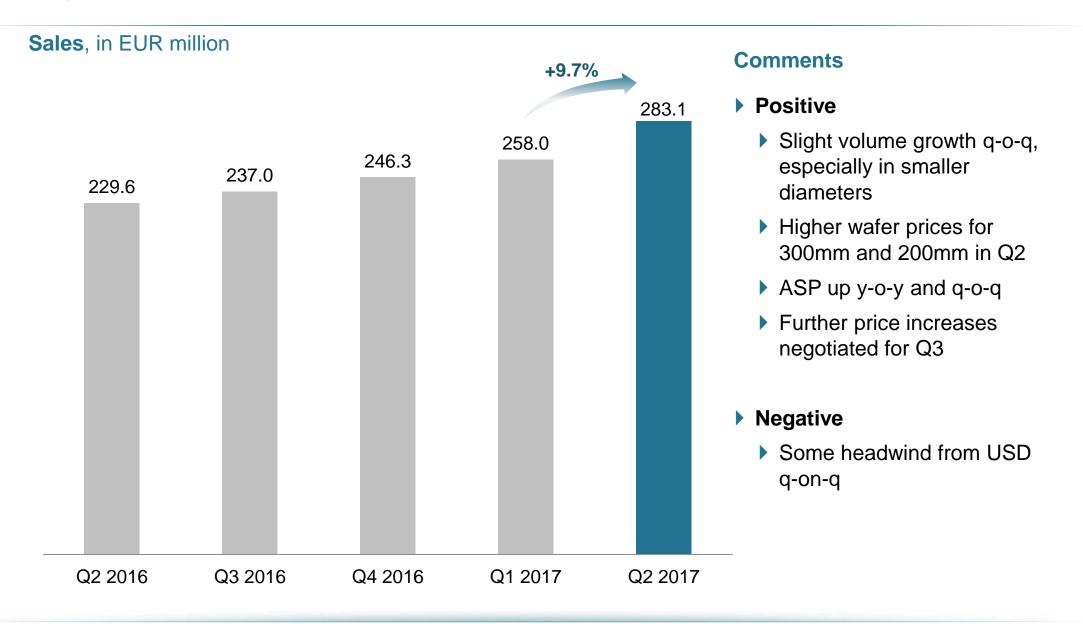


## **Highlights Q2/2017: Financials**

Sales	Sales of EUR 283.1m (Q1/2017: EUR 258.0m) +9.7% q-o-q
EBITDA	EUR 72.7m (Q1/2017: EUR 53.0m) +37.2% q-o-q
Margin	EBITDA margin of 25.7% (Q1/2017: 20.5%)
EBIT	EUR 43.4m (Q1/2017: EUR 23.4m) +85.5% q-o-q
CapEx	EUR 25.5m (Q1/2017: EUR 19.3m)
Free Cash Flow	EUR 41.8m (Q1/2017: EUR 31.3m)
Financial Assets	EUR 241.2m (December 31, 2016: EUR 175.0m)

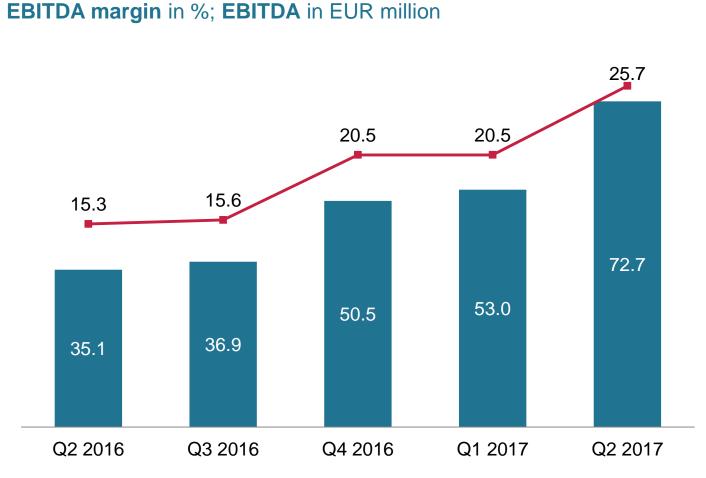


## Q2 sales development driven by increased prices and slightly higher wafer volumes





# Positive development of EBITDA and EBITDA margin mainly due to higher ASP

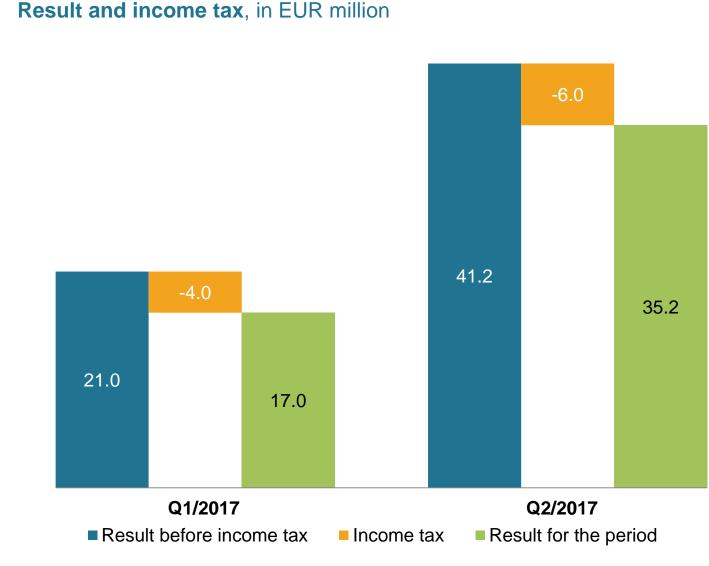


#### Comments

- Positive
  - Higher ASP y-o-y and q-o-q
  - Successful cost reduction program continued – cost of sales per wafer area decreased



## Positive development of net result due to price increases and lower costs per wafer area



#### Comments

- Net profit of EUR 35.2m in Q2/2017
- Price increases and lower cost of sales per wafer area have positive effect
- EUR 6.0m effective taxes
- Potential future tax advantages based on tax losses carried forward not capitalized (accounting policies)



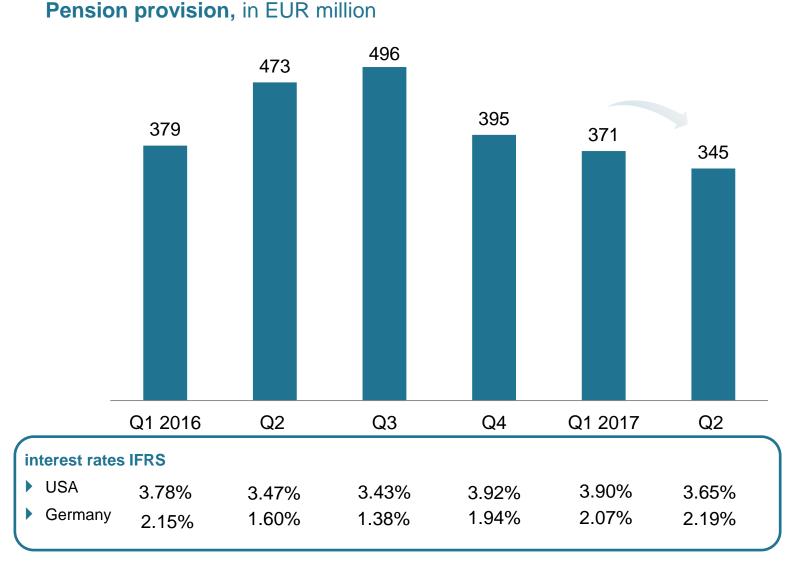
## Equity ratio of 46.9% Net financial assets of EUR 241.2m

### Balance sheet, in EUR million

Assets	Jun 30, 2017	Dec 31, 2016	<i>Comments Jul 30, 2017</i>	Equity and liabilities	Jun 30, 2017	Dec 31, 2016	<i>Comments Jul 30, 2017</i>
Non-current	531.4	554.1		Equity	522.1	425.3	
PP&E	498.1	519.8		Siltronic	526.9	431.9	
Other fixed	33.3	34.3	25 intangibles (related to SSW) 3 hedging	Other shareholders	-4.8	-6.6	Samsung's 22% ir SSW
Current	581.1	502.7		Liabilities	590.4	631.5	
Inventories	139.9	140.9		Pension provision	345.1	395.1	Germany and US
Trade receivables	131.0	118.2		Other provisions	45.1	51.1	42 personnel relat (e.g. early retirement)
Other current	29.2	28.2	12 hedging	Financial debt	39.8	40.4	Samsung
				Trade liabilities	79.2	81.6	
Cash and fixed term deposits	281.0	215.4		Other	81.2	63.3	30 prepayments 35 employee-relat 1 hedging
Total	1,112.5	1,056.8		Total	1,112.5	1,056.8	



## Fluctuations in pension provision due to interest rate movements



#### Comments

- Changes in interest rates influence evaluation of pension provision
- Change in interest rates directly reflected in equity (OCI)



## Payments for CapEx partly financed by customer prepayments

### Cash flow, in EUR million

	Q2/ 2017	Q1/ 2017
Cash flow from operating activities	65.6	48.7
thereof repayment of prepayments	-5.2	-5.1
thereof new customer prepayments	9.3	5.5
Payments for CapEx	-23.8	-17.4
Free cash flow	41.8	31.3

#### Comments

- CapEx for investments in:
  - state-of-the-art crystal pullers and further automation of production sites
  - product mix
    optimization (leadingedge products)
- CapEx for 2017 will be around EUR 100m; partly financed by USD 20m customer prepayments
- Strong net profit lead to high free cash flow of EUR 41.8m in Q2



## **Contact and Additional Information**

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