

# **SÜSS MicroTec SE INVESTOR PRESENTATION**

**September 2019**



## DISCLAIMER

This presentation contains forward-looking statements relating to the business, financial performance and earnings of SÜSS MicroTec SE and its subsidiaries and associates. Forward-looking statements are based on current plans, estimates, projections and expectations and are therefore subject to risks and uncertainties, most of which are difficult to estimate and which in general are beyond the control of SÜSS MicroTec SE. Consequently, actual developments as well as actual earnings and performance may differ materially from those which explicitly or implicitly assumed in the forward-looking statements. SÜSS MicroTec SE does not intend or accept any obligation to publish updates of these forward-looking statements.



- I. Overview
- II. Strategy SÜSS 2025
- III. Results of H1 2019





- + Mid-sized global provider of specialized production equipment for the semiconductor and related industries (micro-chips and similar parts)
- + Semi front-, mid- and back-end, MEMS, RF, Opto, etc.
- + Global customer base with a focus on Asia-Pacific
- + Two production sites in Germany; one in the US and in Switzerland; site in Taiwan planned
- + Tier 1 market players becoming major customers
- + Very demanding market environment

# SÜSS MICROTEC – A GLOBAL PLAYER

+ Order entry (2018):      **North America 7%**      **EMEA 27%**      **Asia 66%**





# MAIN PRODUCTION SITES

## Germany



### Sternenfels\*

- + **Development/production:**
  - Bonder
  - Coater and Developer
  - Photomask Equipment
- + **Core competencies:**
  - Wet Processing
  - Wafer Bonding
  - Photomask Equipment
- + **Production facility ~15,000 m²**

### Garching\*

- + **SÜSS MicroTec HQ**
- + **Development/production:**
  - Mask Aligner
  - Bond Aligner
- + **Core competencies:**
  - Exposure (proximity exposure)
  - Alignment
  - Bond Aligner
- + **Production facility ~9,000 m²**

## Switzerland



### Neuchatel (Switzerland)

- + **Core competencies:**
  - Production of micro-optical components
  - Imprint excellence center
- + **Production facility ~1,200 m²**
- + **2 sites for redundancy**

## USA



### Corona (California)

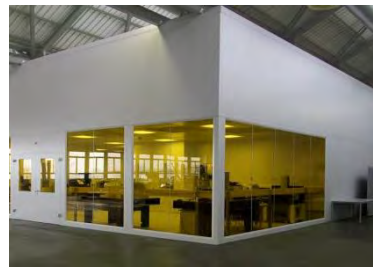
- + **Development/production:**
  - Stepper/Scanner
  - Laser Processing
- + **Core competencies:**
  - Exposure (UV projection)
  - Laser Ablation
- + **Production facility ~7,000 m²**

## Taiwan



### HsinChu (Taiwan)\*\*

- + **Core competencies:**
  - Final Assembly Coater
  - Application
  - Show Room



\*Production site is owned by SÜSS MicroTec

\*\*planned

# OUR PRODUCTION PORTFOLIO (EQUIPMENT)

## Semiconductor Industry

### Frontend

### Mid- and Backend

#### Photomask Equipment

Photomask Processing



MaskTrack Pro

#### Lithografie

Laser Equipment



ELP300 Gen2

Exposure Systems



Mask Aligner  
MA200 / MA300



Projection Scanner  
DSC300 Gen2

Coater and Developer



ACS200 Gen3

#### Bonder

Wafer Bonder



XBC300 Gen2



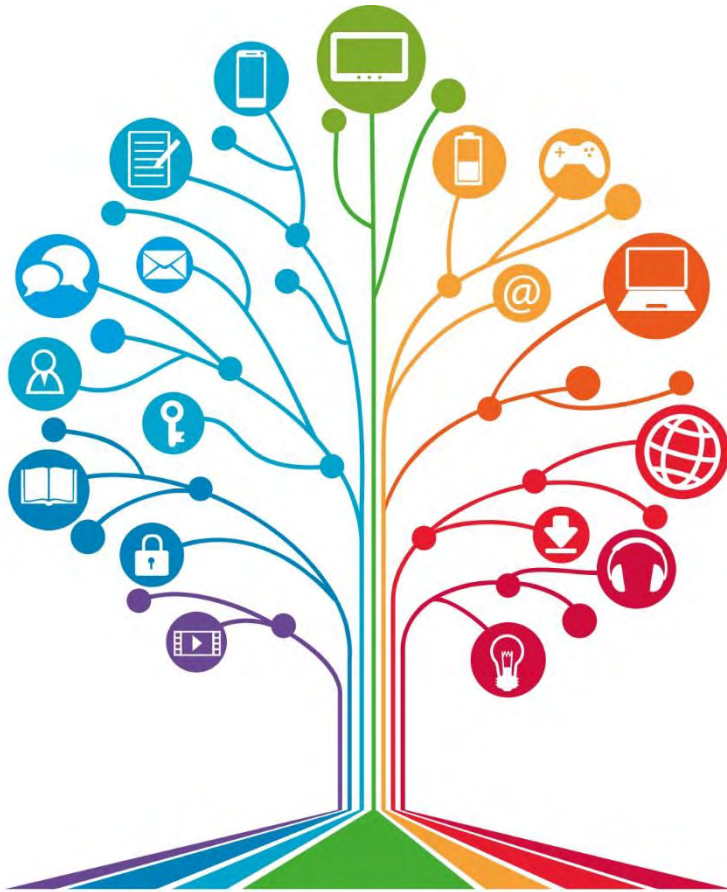
XBS200

 = Current revenue drivers



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- + **Megatrends are driving our business:** digitization, wireless communication (5G), the Internet of Things, mobility, autonomous driving, artificial intelligence...
- + **The Semiconductor industry is highly innovative and very demanding**
- + **Customers expect more support in increasingly complex processes**
- + **New business areas for SUSS MicroTec:**
  - + UV-Projection Scanner for Advanced Packaging
  - + Imprint solutions for optical elements
  - + SUSS MicroOptics products for the Automotive Industry

## SEVEN MEGA-TRENDS TO BOOST THE SEMICONDUCTOR INDUSTRY

2021

**\$420B**

Bandwidth  
x100  
Latency  
/100  
Compared to 4G



**5G**

2021

**\$12B**

Hardware Market  
value



**AI/ML**

2021

**\$1,630B**

100M vehicles (incl. 25%  
Level 2 and more)



**Smart Automotive**

*Yole Développement, May 2018*

2021

**\$500B**

Market value  
2.5B  
Units sold  
per year



**Mobile**

2021

**\$8.5B**

35M units  
(included  
VR/AR/MR  
untethered and  
tethered  
headsets)

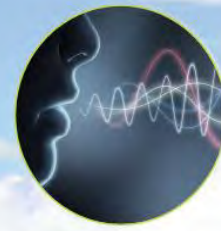


**AR/VR**

2021

**\$20B**

(microphone +  
audio IC +  
microspeaker)



**Voice Processing**

2021

**\$ 80B**

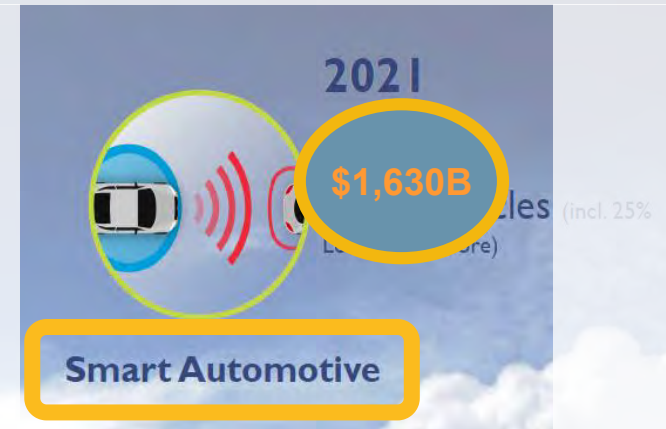
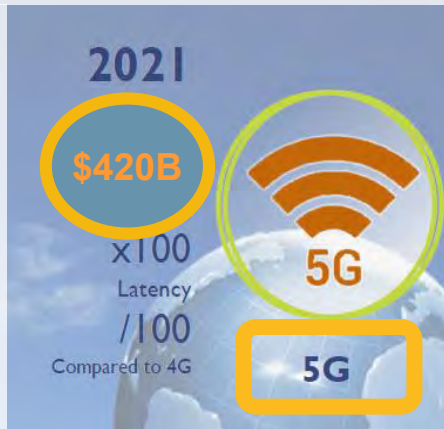
Hardware  
value



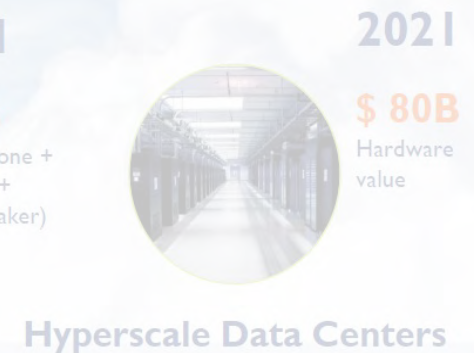
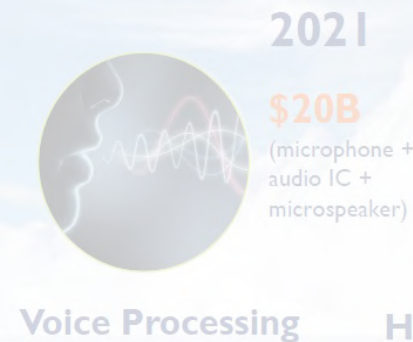
**Hyperscale Data Centers**

# THE MOST IMPORTANT GROWTH DRIVERS

## SEVEN MEGA-TRENDS TO BOOST THE SEMICONDUCTOR INDUSTRY



Yole Développement, May 2018





### + **Top-line growth**

- Attractive products for maximum productivity
- Additional features to increase attractiveness (e.g.: scanners, metrology, more intelligent products)

### + **Improved profitability**

- Improvement of delivery times, costs, cash commitment

### + **Exceed customer expectations**

- Increase proximity to the customers
- Production, demo and application center in Asia

### + **SUSS Excellence Program**

- Product training for customers
- Training and development of employees
- Corporate Culture

**Goal in 2025: € 400 million with > 15% EBIT**



# SUSS 2025 STRATEGY

## TOP-LINE GROWTH: SCANNER EXAMPLE



- + **All 12 Gen 2 scanners accepted** by key customer (used in production)
- + New scanner generation (Gen 3) **installed as evaluation tool** at various customers in Asia
- + **Upgrade kit (Gen 2.6)** developed as an interim solution and tested by key customer
- + **Upgrade orders** placed
- + Gen 3 **rated very positively** by key customer
- + **Very good prospects** for the next investment round of the key customer

## Focus in 2019

**Productivity  
& Costs**

**NWC /  
Inventory**

**Margin  
Management**

**Delivery  
Excellence**

- + 2018: marked by significant sales growth, profitability fell short of expectations
- + Operational Excellence Program defined in autumn 2018 and implementation started
- + Intensification of net working capital management (inventory) to improve net liquidity
  - + Internationalization of strategic purchasing
  - + Re-organization of production processes for more transparency and flexibility
- + First results will be visible in the course of 2019



# SUSS 2025 STRATEGY

## CUSTOMER EXPECTATIONS



- + Focus: get closer to the customer
- + Taiwan as largest single market
- + Production, demo and application center for Asian customers in Taiwan planned and real estate rented
- + Stable political relationships, IP security given
- + Outlook: extend purchasing activities to Asia (international sourcing)

# SÜSS 2025 STRATEGY

## TRAINING FOR CUSTOMERS AND EMPLOYEES

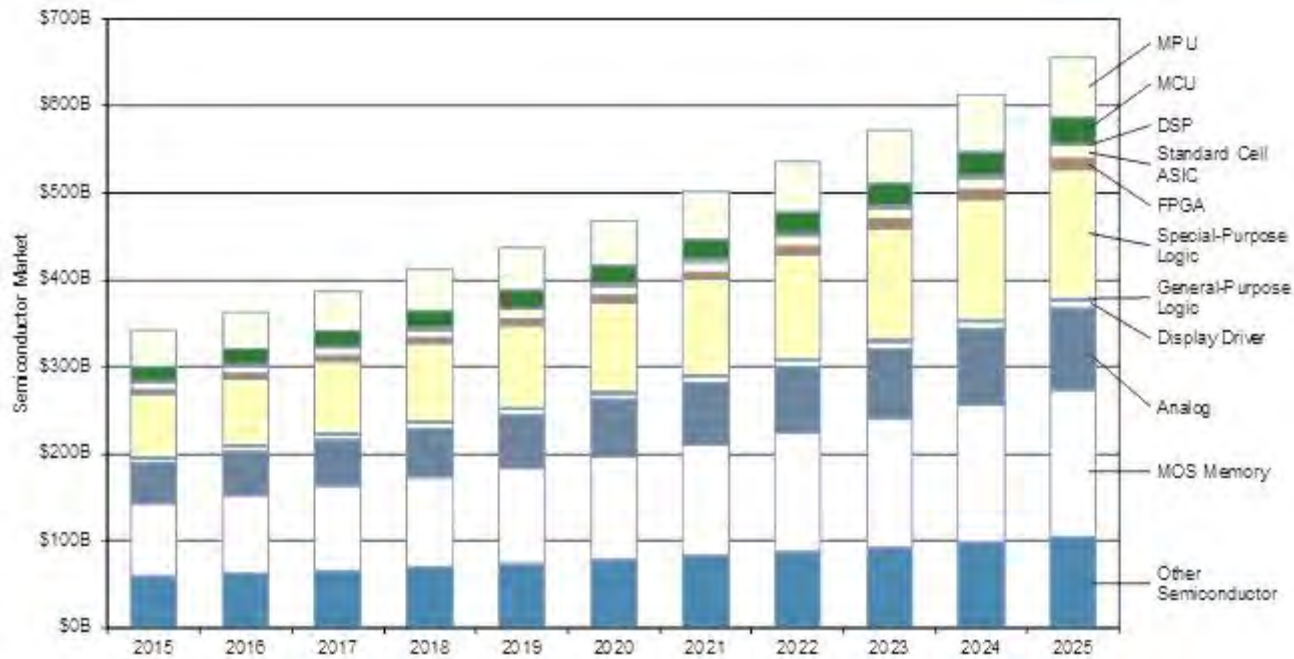


- + Imprint Excellence Center Neuchâtel to be available at the end of 2019
- + 20 years experience in micro-optic manufacturing
- + Expansion to a second location in Neuchatel due to automotive certification



- + Application and Training Center in Sternenfels, DE and Garching, DE

# SEMICONDUCTOR MARKET LONG-TERM OUTLOOK



**The global semiconductor market will be \$656B in 2025 compared to \$343B in 2015 with a CAGR of 6.7%\***



## SIGNIFICANT INCREASE IN SALES UNTIL 2025

Sales in € million



**Growth in the coming years through market growth, new products and market share gains**



+ “Worldwide semiconductor revenue is forecast to total \$429 billion, a decline of 9.6% from \$457 billion in 2018.” (Gartner, July 2019)

+ “Global sales of semiconductor manufacturing equipment by original equipment manufacturers are projected to drop 18.4% to \$52.7 billion in 2019 from last year’s historic high of \$64.5 billion,... growth in equipment sales resuming in 2020 with an 11.6 percent jump to \$58.8 billion.” (SEMI, Mid-Year Total Equipment Forecast, July 2019)



+ “Despite the semiconductor industry’s slowdown, advanced packaging is growing at an impressive 8% CAGR (2018 – 2024).” (Yole, July 2019)

+ “The market will exhibit +8.3% growth in value.” (MEMS for the period 2019 – 2024, (Yole, June 2019)

+ “Global fab equipment spending will rebound in 2020, growing 20 percent to US\$58.4 billion after dropping 19 percent to US\$48.8 billion in 2019.” (Semi, June 2019)



+ The semiconductor industry is amidst of a big transition and it is entering a disruptive phase where mobile and other merging mega-drivers, such as big data, 5G, high performance computing (HPC), the internet of things (IoT) as well as smart automotive and smart factory will significantly impact business dynamics and create a tremendous opportunity across the semiconductor supply chain” e.g. “3D TSV and Fan-out markets are expected to grow by a CAGR of 29% and 15% respectively from 2017 – 2023 (Yole, Sep. 2018)



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## HIGHLIGHTS H1 2019

- + Consistent order intake in fragile market environment
- + Continuing strong photomask equipment and microoptics business
- + Order entry H1 2019: € 91.7 million
- + Sales H1 2019: € 94.1 million
- + EBIT H1 2019: € -0.8 million (-0.9% EBIT margin)



MaskTrack Pro



XBC300 Gen2

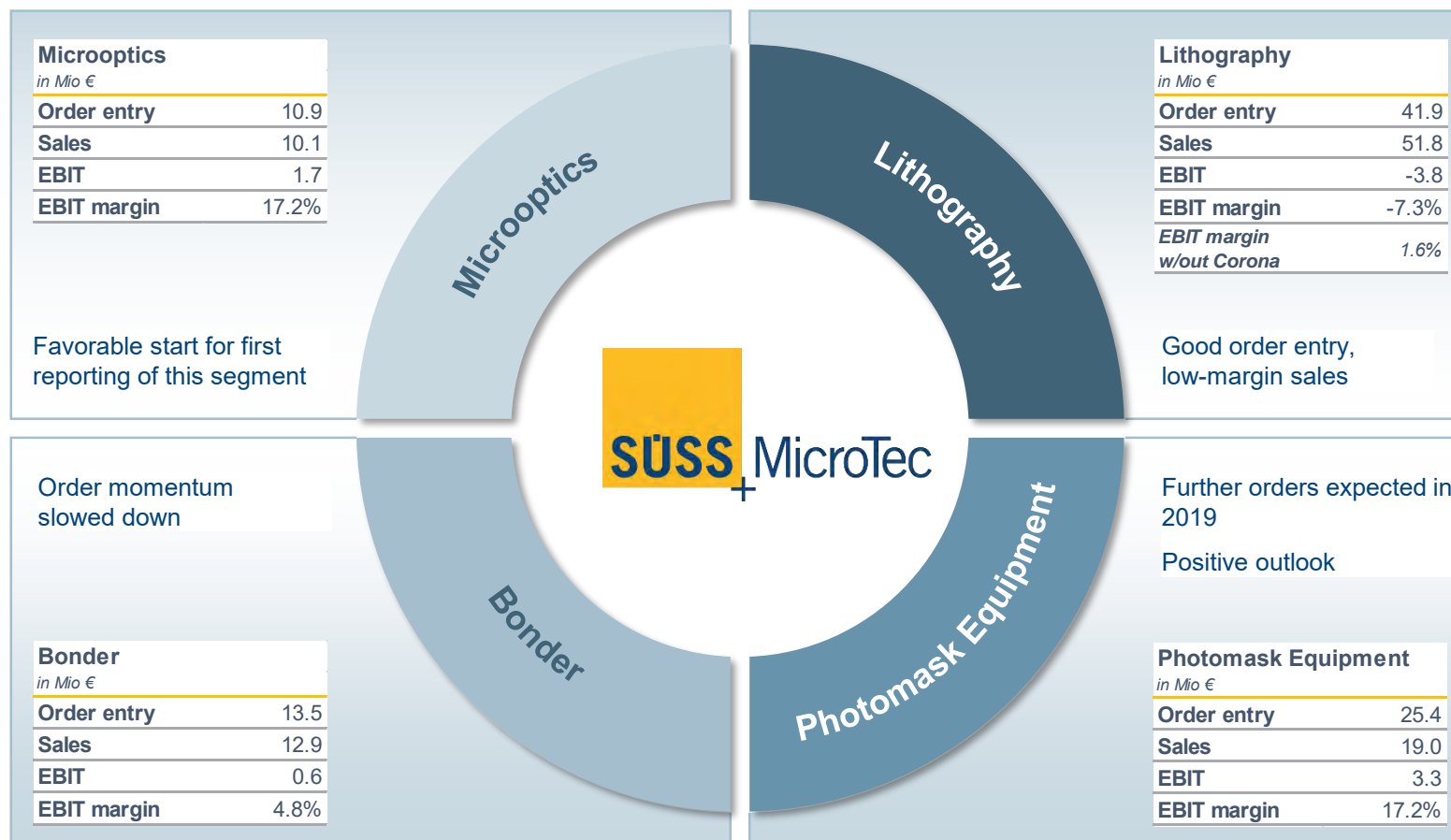
## KEY GROUP FIGURES H1 / Q2 2019

In € million	H1 2019	H1 2018	Delta H1 2019/2018	Q2 2019	Q2 2018
<b>Order entry</b>	91.7	78.2	17.3%	45.0	39.6
<b>Order backlog</b>	85.4	83.9	1.8%	---	---
<b>Sales</b>	94.1	94.2	-0.1%	47.0	49.0
<b>EBIT</b>	-0.8	8.4	-109.5%	-2.9	6.9
<b>EBIT margin</b>	-0.9%	8.9%	-9,8 points	-6.2%	14.1%
<b>Earnings after tax</b>	-1.9	4.7	---	-2.3	4.2
<b>EPS in €</b>	-0.10	0.25	---	-0.12	0.22
<b>Free cash flow *</b>	-18.9	-15.9	---	-2.5	-2.2
<b>Net cash **</b>	6.9	17.1	-59.6%		
<b>Employees 30/6</b>	910	850	7.1%		

\* Before consideration of transactions with interest-bearing securities (only 2018)

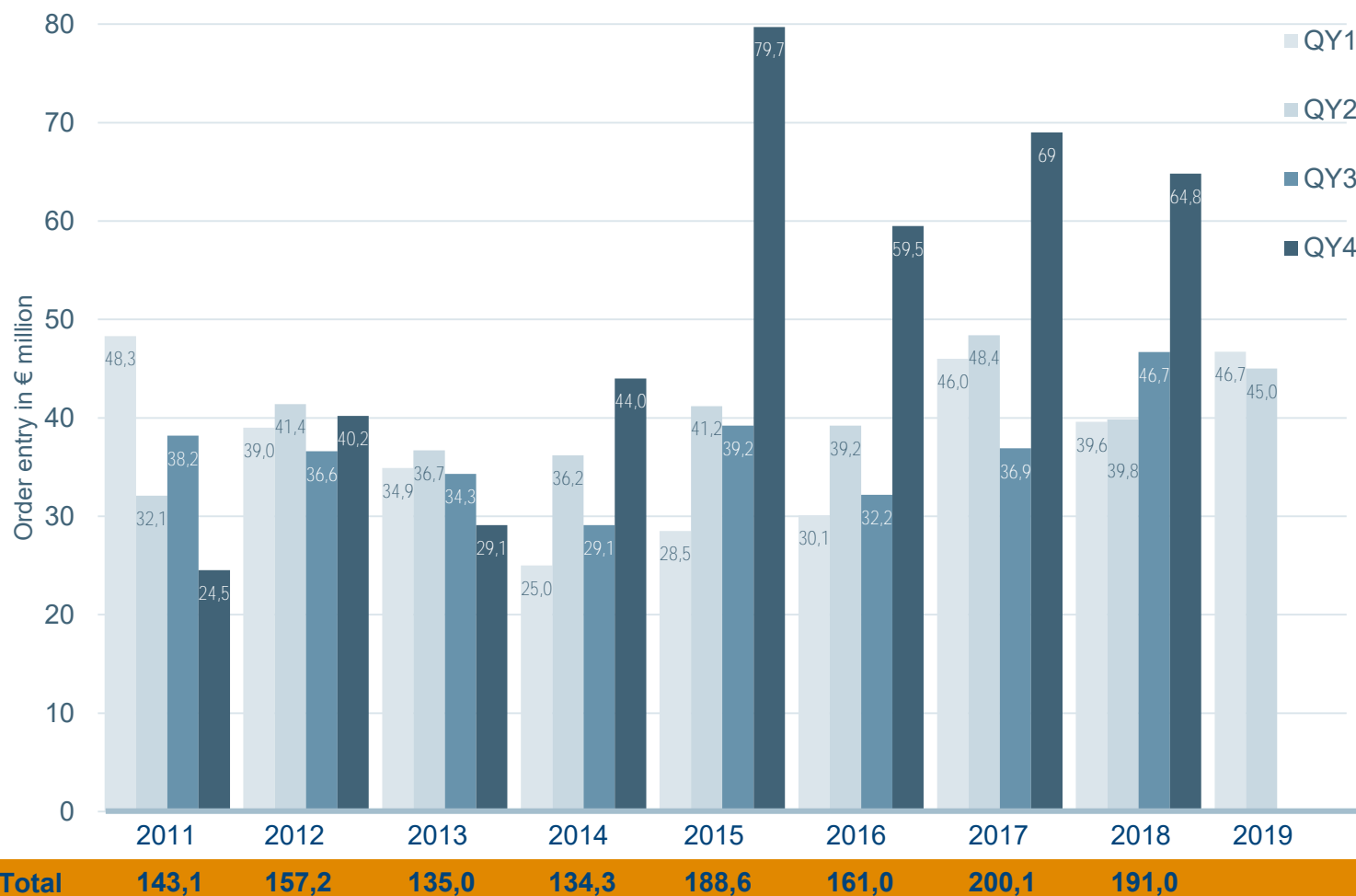
\*\* Net cash 2019 includes leasing liabilities in the amount of € 2.0 million

# BUSINESS DEVELOPMENT IN H1 2019



Others: corporate overhead, consolidation effects, FX-effects: -2.6 million €

## ORDER ENTRY: QUARTERLY PERFORMANCE



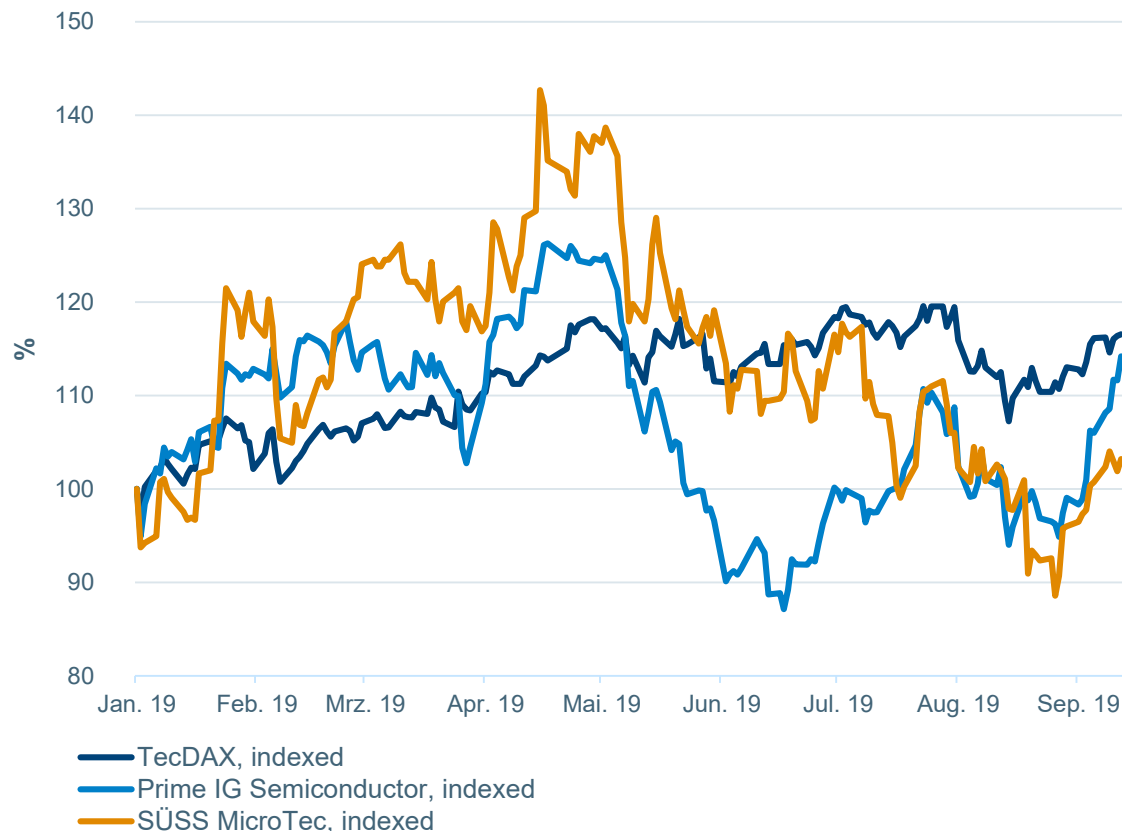




- + Fiscal year 2019:** Sales of € 200 million to € 215 million  
EBIT margin ~ 6.5% - 8.0%
- + Q3 2019 + Q4 2019:** Order entry of more than € 95 million

# SHARE PRICE, COVERAGE, SHAREHOLDERS

## Share Performance in 2019



**SÜSS MicroTec share price: € 8.48**  
(January 2, 2019)

**Average daily trading  
volume ~27.000 shares**  
(Jan. 2019 – Sep. 2019)

### Coverage:

- Baader
- Bankhaus Lampe
- DZ Bank
- Kempen
- NIBC
- ODDO BHF
- Warburg

### Shareholders > 3%:

- Dimensional Funds
- Gerlin NV
- Hansainvest
- INKA
- Janus Henderson
- Kempen Oranje
- Luxunion
- Lupus Alpha
- Sycomore Asset Mgm.
- Universal Investment

# SÜSS MicroTec SE INVESTOR PRESENTATION

**Supplementary Information**





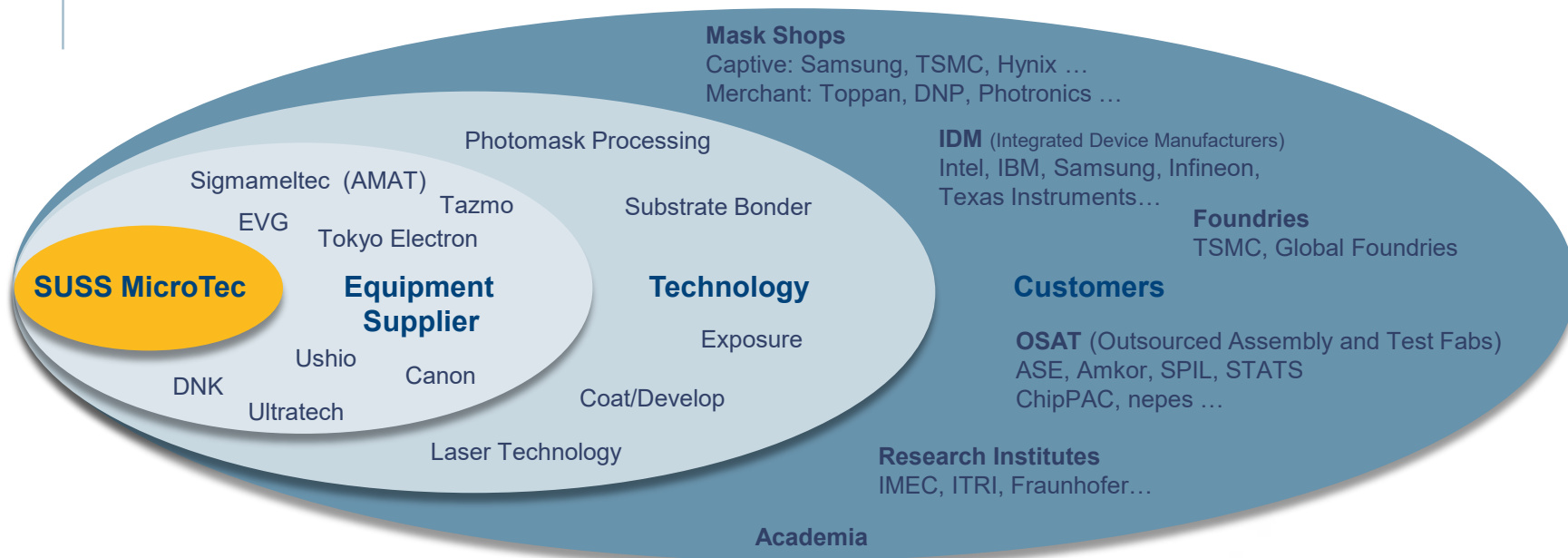
# KEY GROUP FIGURES FY 2018 VS FY 2017 (OLD AND IFRS15 ACCOUNTING SYSTEM)

	IFRS 15		
in € million	FY 2018	FY 2017	<i>delta</i> 2017/2018
<b>Revenue</b>	<b>203.9</b>	<b>179.9</b>	<b>13.1%</b>
<b>EBIT*</b>	<b>10.9</b>	<b>18.2</b>	<b>-40.1%</b>
<i>EBIT in % of Sales</i>	<i>5.3%</i>	<i>10.1%</i>	<i>-4.8pts</i>
<b>Earnings after tax</b>	<b>4.8</b>	<b>10.0</b>	<b>-52.0%</b>
<b>EPS in €</b>	<b>0.25</b>	<b>0.52</b>	<b>-51.9%</b>

old accounting system		
FY 2018	FY 2017	<i>delta</i> 2017/2018
<b>213.9</b>	<b>166.5</b>	<b>28.5%</b>
<b>15.6</b>	<b>13.9</b>	<b>12.2%</b>
<i>7.3%</i>	<i>8.3%</i>	<i>-1pts</i>
<b>8.2</b>	<b>6.7</b>	<b>22.4%</b>
<b>0.43</b>	<b>0.35</b>	<b>22.9%</b>

\*one-off effect 2017: license income of € +2.0 million; one-off effect 2018: severance payment of appr. € -700 thous.

# MAIN COMPETITORS AND PEER GROUP



## Peer Group

### BE Semiconductor:

Equipment for leadframe, substrate and WLP applications (die attach, wire-bonding, plating), target markets include electronics, computer, automotive, industrial, LED and solar energy

### Veeco/UTEC:

Steppers for the semiconductor market, advanced packaging, nanotechnology, laser processing (LSA)

### Kulicke & Soffa:

Design and manufacture of equipment for semiconductor, LED and electronic assembly (wire-bonding, advanced packaging)

### Rudolph Tech:

Equipment and software solutions for macro defect inspection, probe card test and analysis, thin film metrology, advanced packaging lithography systems (steppers)

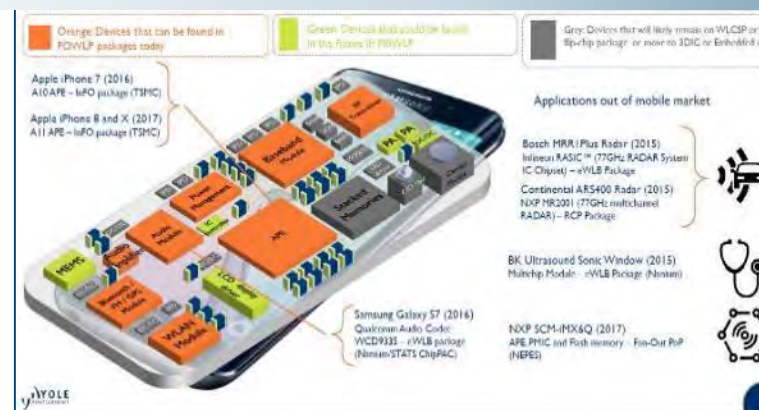
### EV Group:

Equipment for wafer-bonding, lithography/nanoimprint lithography (NIL), metrology, photoresist coating, cleaning and inspection for the target markets: advanced packaging, compound semiconductor and silicon-based power devices, MEMS, nanotechnology and SOI

## RF MEMS



## FOWLP





# SUSS MICROOPTICS – GROWTH DRIVER AUTOMOTIVE LIGHTING

## Automotive Lighting

- + Light Carpet (External and internal)
- + Front Lights (LED Matrix and Laser Light)



## Low volume high quality

- + LVHQ is the traditional Micro-Optics business, which addresses profitable niche markets with low growth but high margins

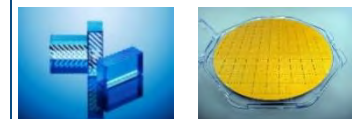
SMO products and end applications:



Microlens Array  
13x13mm<sup>2</sup>



Asclepion TattooStar



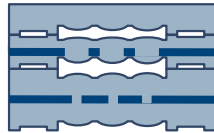
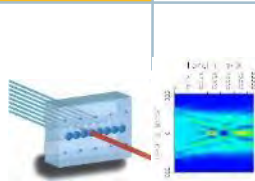
ROE + DOE  
40x50mm<sup>2</sup>



ASML 193nm wafer stepper

# SUSS IMPRINTING EXCELLENCE CENTER

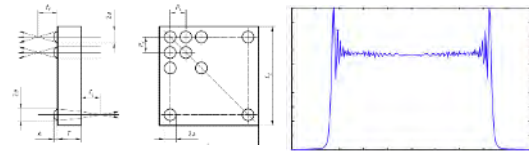
## CUSTOMER SERVICES @ SUSS MICROOPTICS PRODUCTION



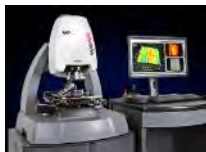
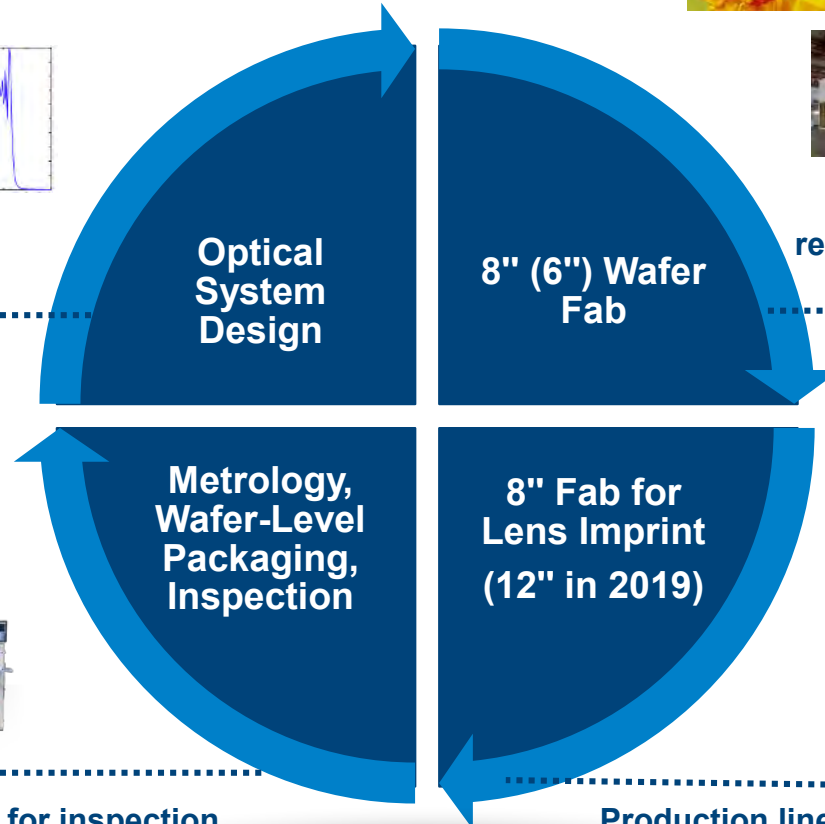
**wafer-level optics (WLO)**  
 → aperture layers in bulk material  
 → excellent overlay control



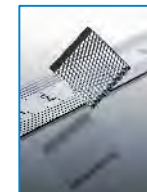
**Production line high-quality refractive & diffractive micro-optics (fused Silica, silicon)**



**Optical design, system design, micro-optics simulation**



**Fully equipped metrology lab for inspection and sorting of micro-optical components. (ISO 9001, IATF 16949, Six Sigma)**



**Production line for micro lens imprint (polymer), wafer-level packaging (WLP), dicing start-up service for SUSS customers**

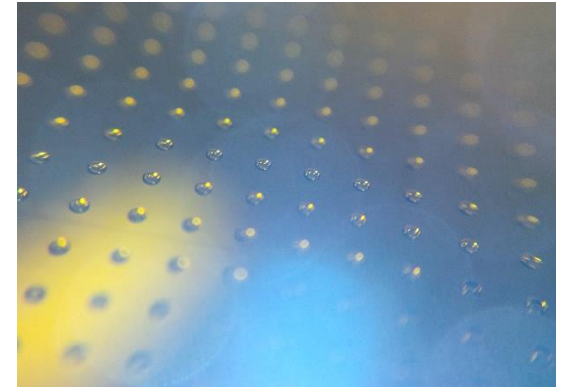
# MASK ALIGNER – GROWTH DRIVER IMPRINT SOLUTIONS

The flexible imprint portfolio for

**Nano – Imprint**

**Micro – Imprint**

**Optical Assembly**



is covering a wide range of growing applications & markets



## LED

(nano)PSS for High Brightness LEDs.



## MEMS/NEMS

Nano- and micro-patterning need to be extensively adopted in device manufacturing.



## Optoelectronic sensors

Optical nano-gratings are key components for the communication market worldwide.



## Microoptics

Imprint is essential to fabricate micro-optical devices for wafer-level cameras and image sensors.



## Augmented Reality

Imprinted nano-metric DOE de-fractional optical elements are required for the glasses with augmented reality