

SUSS MICROTEC INVESTOR PRESENTATION

February 2019



DISCLAIMER



This presentation contains forward-looking statements relating to the business, financial performance and earnings of SUSS 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 SUSS 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. SUSS MicroTec SE does not intend or accept any obligation to publish updates of these forward-looking statements.

AGENDA



Overview
Strategy, products and markets
Financials
Outlook

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Strategy, products and markets
Financials
Outlook

HIGHLIGHTS AND PRELIMINARY NUMBERS FY 2018



- + Announcement of growth strategy: SUSS 2025
- + Good order entry for high-end photomask equipment
- + 3D-integration is accelerating and turning bonder business into profitability
- + Delivery of UV-scanner evaluation tool to leading Asian semiconductor manufacturer

	delta 2018				
in € million	(IFRS15) / 2017	2018 (IFRS15)	2018 (old)	2017	2016
Order Intake	-4.6%	191.0	191.0	200.3	161.1
Revenue	+20%	~200	~213	166.5	177.6
EBIT*	-40%	~8.4	~15.5	13.9	11.1
EBIT in % of Sales	-4%pts	~4.2%	~7.3%	8.3%	6.3%
Net Cash	-14.5%	28.2	28.2	33.0	31.1

SUSS MICROTEC TODAY





MARKET ENVIRONMENT - MEGATRENDS





- + Digitization
- + Wireless Communication
- + Data Networks
- + Cloud Computing
- + Internet of Things
- + Smart Factory
- + Autonomous Driving
- + Mobility
- + Automation



SUSS MICROTEC - A GLOBAL PLAYER





MAIN PRODUCTION SITES



The st

Germany



USA

Taiwan





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





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



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





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



Sternenfels*

Development/production:

Wet Processing Wafer Bonding

Core competencies:

Coater and Developer

Photomask Equipment

Photomask Equipment

Production facility ~15,000 m²







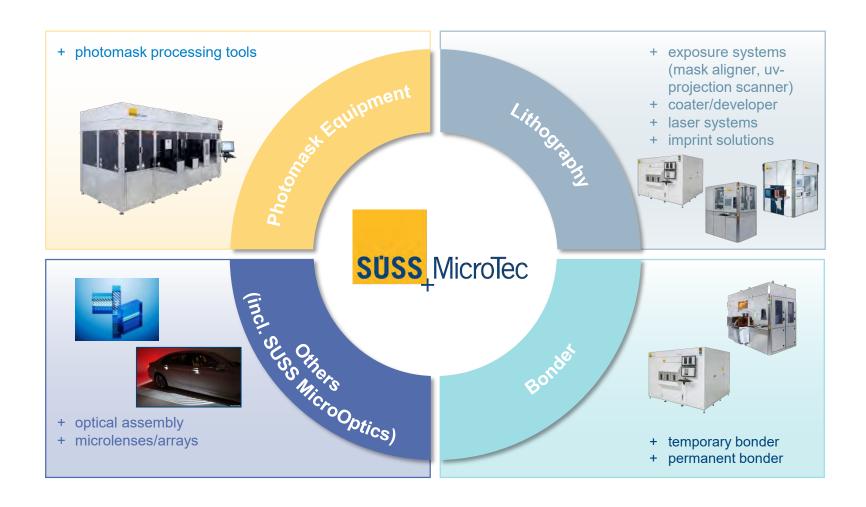


^{*}Production site is owned by SUSS MicroTec

^{**}planned

OUR PRODUCT PORTFOLIO





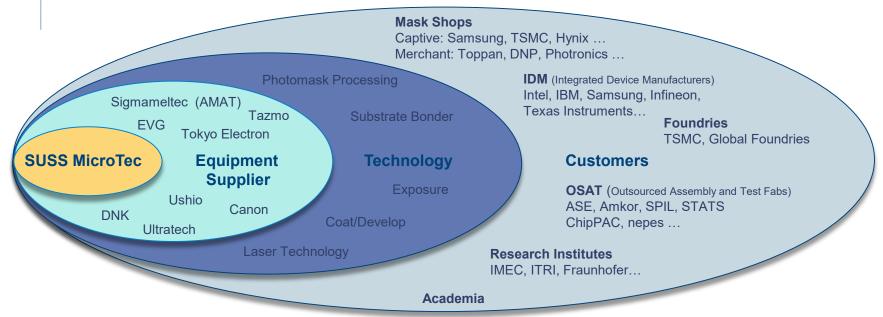
MAIN COMPETITORS AND PEER GROUP

Peer Group

Rudolph Tech:

EV 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.

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

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

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

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MARKETS ARE CHANGING – WE RECOGNIZE AND WE REALIZE OPPORTUNITIES





- + Megatrends are driving our business: digitization, wireless communication (5G), data networks, cloud computing, IoT, smart factory, autonomous driving, mobility, Al
- Semiconductor industry is highly innovative and very demanding
- Processes are getting more complex customers asking for more support
- News business fields arise:
 - + UV projection scanners for advanced packaging, esp. FOWLP
 - + Imprint solutions for production of optical elements
 - + SUSS MicroOptics products for the automotive industry

OUR KEY GROWTH DRIVERS



Market	Advanced packaging	(RF) MEMS	Chipset integration	MicroOptics
	- Micro-bumping- CU-pillar- Redistributionlayer (RDL)- FOWLP	SAW/BAW filters for 5G standardAutonomous drivingMobile devicesSmart factory	- 3D TSV - 2.5D integration	- Automotive light carpet- Optical assembly- Wafer level optics

SUSS Products

- Coater/developer
- UV scanner
- Coater/developer
- UV scanner
- Temporary bonder
- Coater/developer
- Mask Aligner platform for imprint solutions/ lens stacking



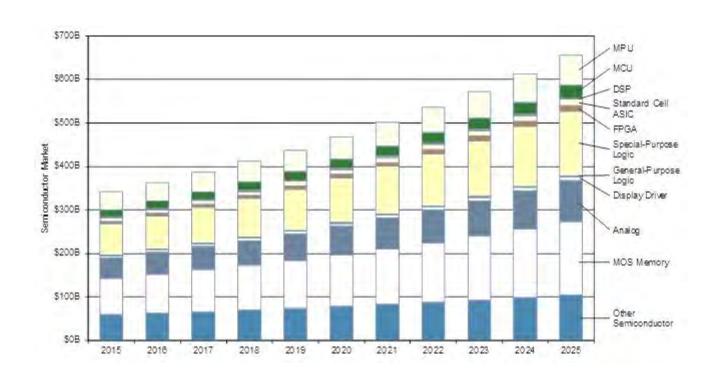






SEMICONDUCTOR MARKET LONG TERM OUTLOOK

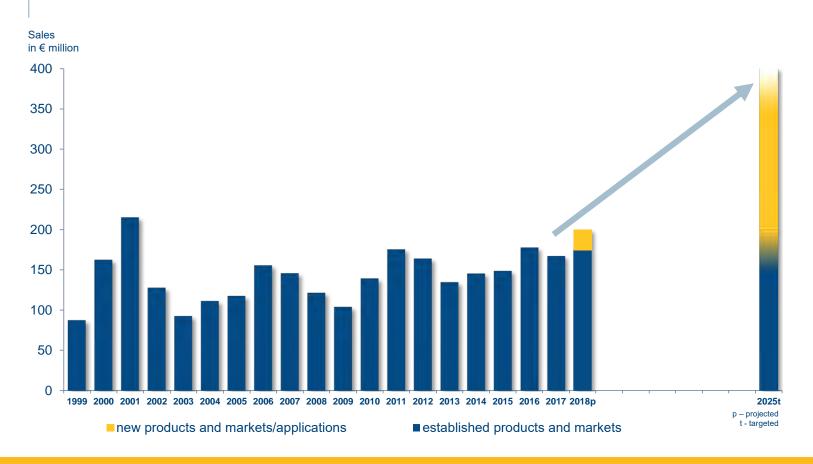




The global semiconductor market will be \$656B in 2025 compared to \$343B in 2015 with a CAGR of 6.7%*

SEMICONDUCTOR MARKET OUTLOOK = SUSS POTENTIAL





Based on the favorable market trends and our targeted market share gains, we should be able to show sustainable growth of sales over the years to come, always keeping in mind, that the business will remain cyclical

^{*}This chart contains forward-looking targets relating to the business and financial performance of SUSS MicroTec SE. These statements are based on current estimates, projections and expectations and are therefore subject to risks and uncertainties, most of which are difficult to estimate. Consequently, actual developments as well as performance may differ materially from those which is explicitly or implicitly assumed in this graphic.

SUSS 2025 - DOUBLE OUR SALES VOLUME

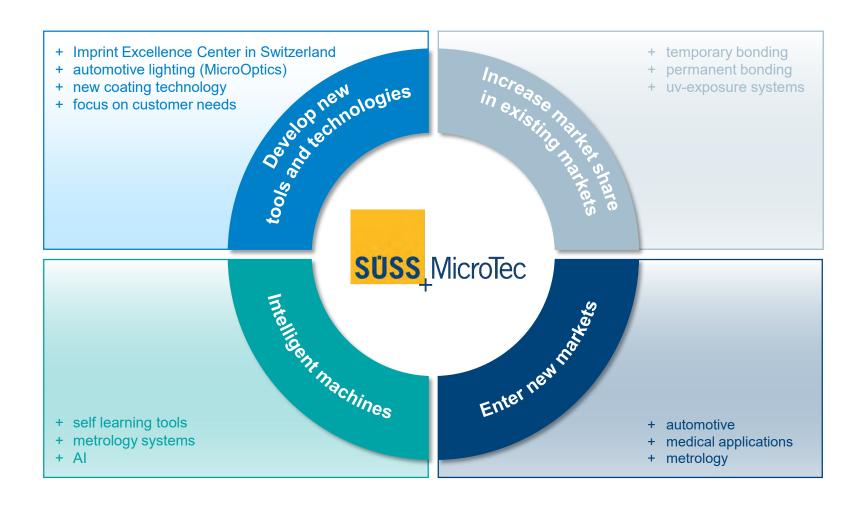


- Customer satisfaction is our highest priority
- + Convince as solutions provider
- + Enter new business fields
- + Establish co-operations with leading semiconductor suppliers
- Develop / acquire new technologies to improve our core products
- Increase production capacity by outsourcing
- + Establish a production site for final assembly in Asia



BUILDING BLOCKS OF OUR STRATEGY





BUILDING BLOCKS OF OUR STRATEGY - BONDER





- + Maintain and expand market position in temporary bonding
- Penetrate into MEMS applications with permanent bond systems
- + Self learning machines and adaptive process improvements
- Completion of 200mm permanent bond platform with scaling to 300mm possible

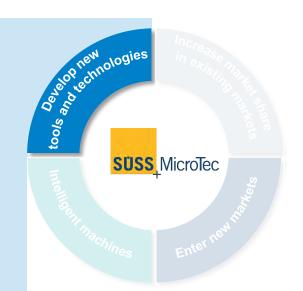


BUILDING BLOCKS OF OUR STRATEGY - COATER



- + Maintain market share at existing customers
- Mid-term: increase market share in AdP and MEMS via new coating technology with improved cost of ownership
- + Self learning and -improving machines
- + Cost reduction (e.g. via outsourcing)
- Longer-term: enter new application fields with new coating technology





BUILDING BLOCKS OF OUR STRATEGY - SCANNER





- + Successful delivery of upgrade kit to lead customer
- + Evaluation tool placed at this customer
- Move into volume production with lead customer
- + Establish a strong market position in uv-projection exposure



UV - PROJECTION SCANNER





- Target markets: advanced packaging (FOWLP, Cu-pillar...)
- Package sizes are increasing (package size gets larger than step field of conventional 1x stepper)
- Scanner is ideal exposure tool to address large package sizes
- High resolution and overlay
- Throughput of our DSC300 Gen3 increased considerably
- + Excellent cost of ownership





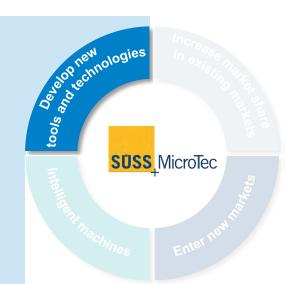
Our UV – projection scanner is THE tool to address next generation exposure requirements

BUILDING BLOCKS OF OUR STRATEGY – HIGH VOLUME IMPRINT ON BASIS OF OUR MASK ALIGNER



- + Establish an Imprint Excellence Center in Switzerland
- + Utilize our mask aligner platform to offer imprint processes and solutions
- + High quality and low volume production





BUILDING BLOCKS OF OUR STRATEGY - MICROOPTICS





- Enter automotive market for lighting solutions
- + Automotive qualification obtained in 2018
- + First orders for light carpet have been placed
- Other automotive lighting solutions are possible





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KEY GROUP FIGURES 9M 2018

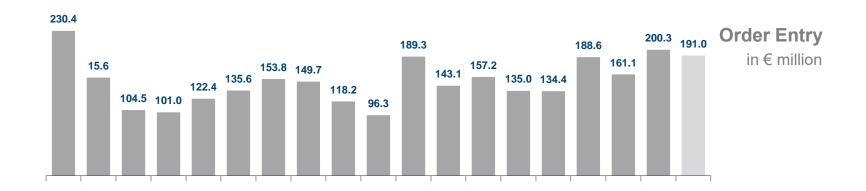


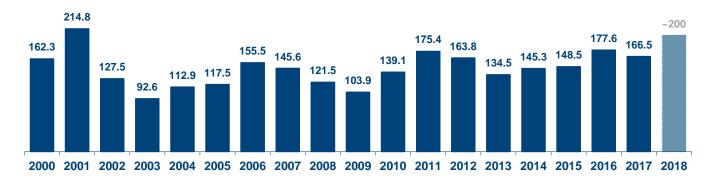
			delta 9M 2018/			
in € million	Q3 2018	Q3 2017	9M 2017	9M 2018	9M 2017	in %
Order Intake	47.0	36.9	+27.4%	125.2	131.4	-4.7%
Order Backlog 9/30				119.5	117.7	1.5%
Revenue	41.9	47.1	-11.0%	139.3	113.4	22.8%
EBIT	-0.7	7.0		6.9	8.6	-19.8%
EBIT in % of Sales	-1.7%	14.9%	-16.5%pts	5.0%	7.6%	-2.6%pts
adjusted EBIT*	-0.1	5.0		7.5	6.6	-13.6%
adj. EBIT in % of Sales	-0.02%	10.6%		5.4%	5.8%	-0.4%pts
Earnings after tax	-0.8	4.5		3.4	3.8	-10.5%
EPS in €	-0.04	0.24		0.18	0.20	-10.0%
Free Cash Flow	-6.8	6.3		-22.7	0.7	
Net Cash				10.4	30.9	-66.3%
Employees 9/30	_			863	762	19.6%

^{*}one-off effect 2017: license income of € 2.0 million one-off effect 2018: severance payment of appr. € 600 tsd.

LONG TERM BUSINESS DEVELOPMENT I







Sales in € million

LONG TERM BUSINESS DEVELOPMENT II

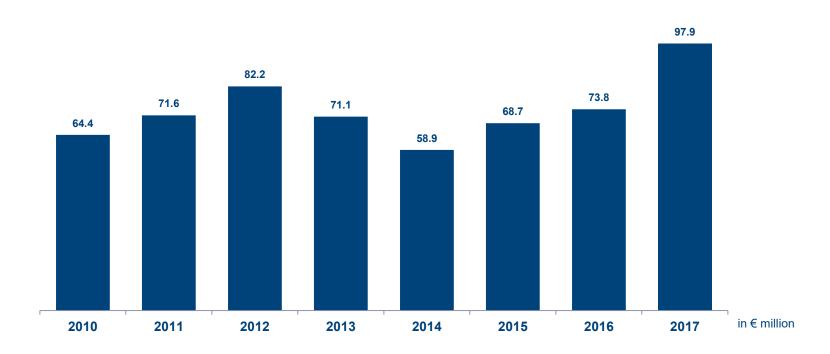




^{*} EBIT 2013: one-off effect from restructuring the product line permanent bonding (€ -13.2 million)

INVENTORY DEVELOPMENT

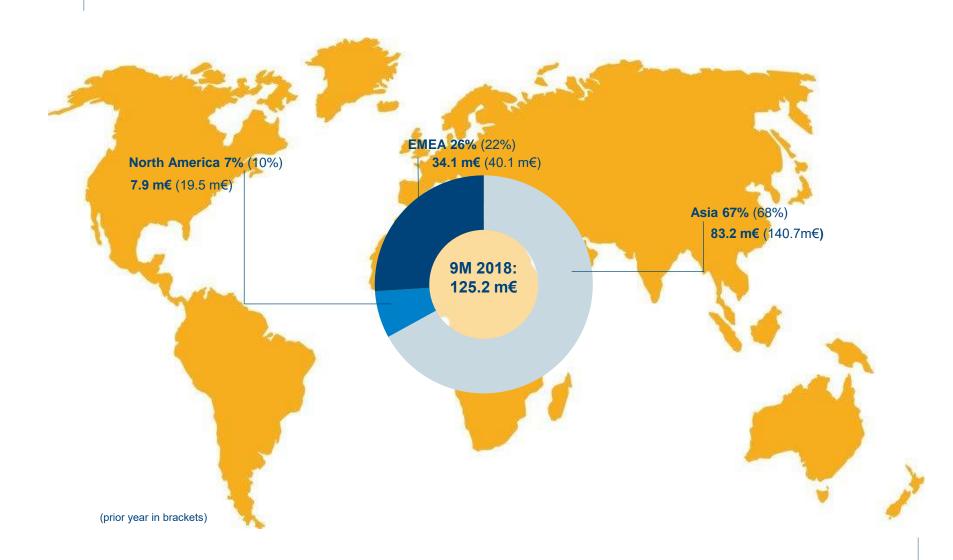




- + Inventory went up because of high order backlog
- + Increased number of valuation and demonstration tools in the field
- Preproduction of multiple tools in order to meet challenging lead times

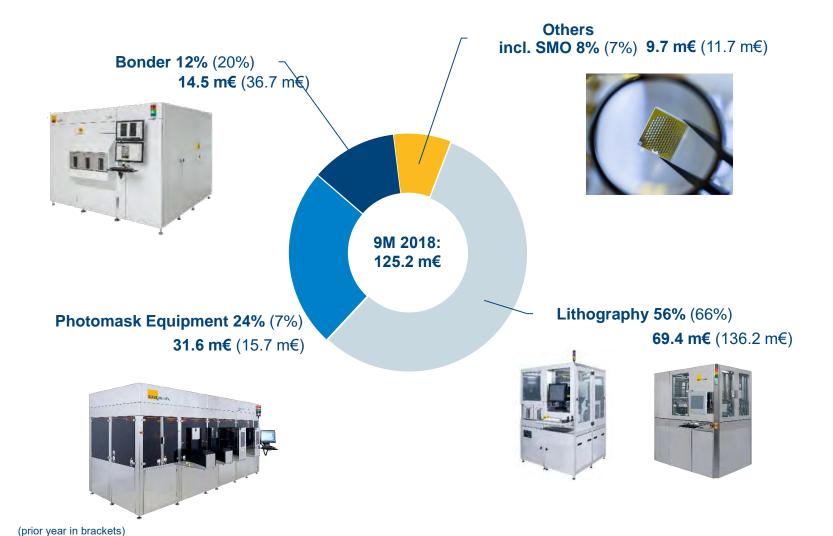
ORDER ENTRY BY REGION 9M 2018 (FY2017)





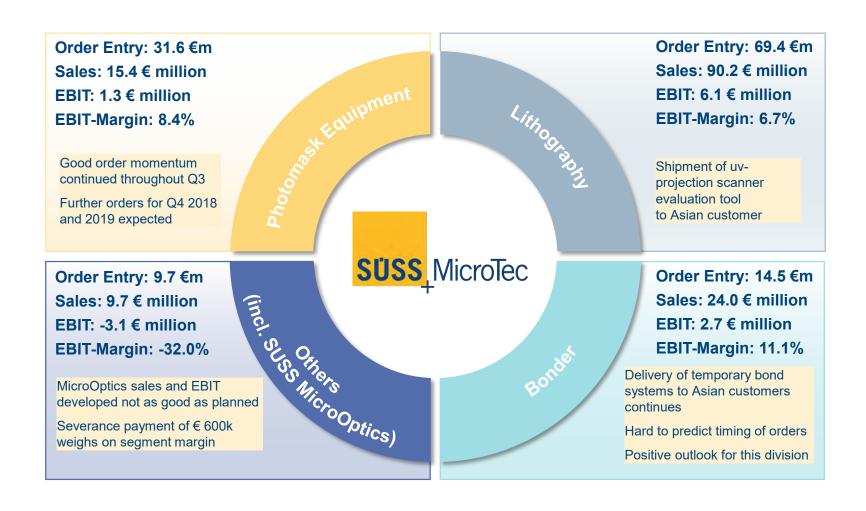
ORDER ENTRY BY SEGMENT 9M 2018 (FY 2017)





SEGMENTS DEVELOPMENT IN 9M 2018





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MARKET OUTLOOK











- → 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 an create a tremendous opportunity across the semiconductor supply chain (Yole Sep. 2018)
- Semiconductor market + 13,4% in 2018 to a volume of USD 477 bn and + 2.5% in 2019 (Gartner, January 2019)
- + Global Fab equipment spending +9,7% in 2018 to a volume of USD 62.1 bn and -4.0% in 2019 (Semi, December 2018)
- More than Moore (MtM) equipment (lithography tools and bonders) to grow by 10% annually (CAGR 2017 – 2023) to an equipment market volume of appr. USD 750 million (Yole, Oct. 2018)
- → 3D TSV and Fan-out markets are expected to grow by a CAGR of 29% and 15% respectively from 2017 2023 (Yole, Sep. 2018)

OUTLOOK 2018





+ Fiscal year 2018:

preliminary Sales ~ € 200 million (old method: € 213 million) preliminary EBIT-margin ~ 4.2% (old method: € 7.3%)

+ Q4 2018 + Q1 2019:

Order entry of more than € 90 million (Q4 2018: € 64.8 million)

INVESTMENT HIGHLIGHTS





Situation:

- Highly innovative markets
- Megatrends support business case
- + International customers
- Increased R&D
- Long term growth targets

Outlook:

- Semiconductor market growth will continue
- + IOT, digitization, AI, mobility,... are just taking off
- Entering new business fields with established and new products
- Imprint excellence center starts operating in Switzerland
- More volume orders for temporary bonding systems to come
- + Position permanent bonding systems in market
- 2019 will be the decisive year for uv-projection scanners



INVESTOR RELATIONS INFORMATION



Contact

Franka Schielke

Tel.: +49 89 32007- 161 Fax.: +49 89 32007- 451

Email: franka.schielke@suss.com

SÜSS MicroTec SE

Schleissheimer Strasse 90 85748 Garching Germany www.suss.com

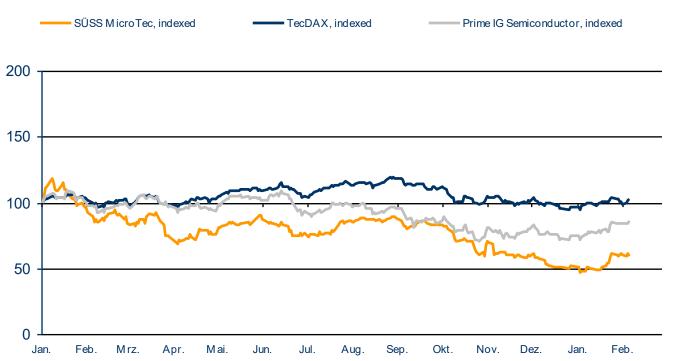
Financial Calendar 2019

Annual Report 2018	
Quarterly Announcement 2019 (Q1)	
Annual General Meeting 2019, Munich	
Interim Report 2019	
Quarterly Announcement 2019 (Q3)	

SHARE PRICE DEVELOPMENT AND MAJOR HOLDERS







Major Shareholders > 3%:

Internat. Kap. Anl. (INKA)

Universal-Investment

Luxempart

Kempen Oranje

Sycomore Asset Man.

Janus Henderson Group

Dimensional Funds

Lupus Alpha

Hansa Invest

Gerlin NV

Average daily trading volume January 2018 – January 2019: ~ 65.200

SEGMENTS, ORDER ENTRY AND SALES FULL YEAR 2017



Segments

Photomask Equipment

Order Entry: 15.7 € million

Sales: 19.7 € million

EBIT: 5.1 € million

EBIT-Margin: 25.9%

Adj. EBIT-Margin: 15.7%*

*€ -2m licence agreement

Lithography

Order Entry: 136.2 € million

Sales: 112.8 € million

EBIT: 6.3 € million

EBIT-Margin: 5.6%

Adj. EBIT-Margin: 14.5%*

*€ +10m losses Photonic Systems

Bonder

Order Entry: 36.7 € million

Sales: 22.1 € million

EBIT: 3.3 € million

EBIT-Margin: 14.9%

Adj. EBIT-Margin: 10.4%*

*€ -1m extraordinary margin perm. bonder

SUSS MicroTec Group FY 2017**

Order Entry: 200.3 € million

Sales: 166.5 € million

EBIT: 13.9 € million

EBIT margin: 8.3%

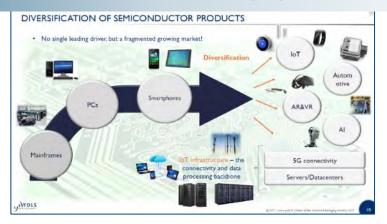
Adj. EBIT-Margin: 12.6%

^{**} Including Others (2017: order entry € 11.7 million, sales € 11.9 million, EBIT € -0.8 million)

OUR GROWTH DRIVERS



Advanced Packaging



RF MEMS



3D Packaging



FOWLP



SEMICONDUCTOR EQUIPMENT INDUSTRY



Front end Mid end Back end

Major players are:

- + ASML
- + Applied Materials
- + Tokyo Electron
- + Canon
- + ...

Major players are:

- + SUSS MicroTec
- + EVG
- + Veeco
- + Tok
- + SMEE
- + King Semi, ...

Major players are:

- + BE Semiconductor
- Cascade Microtec
- Disco
- **+** ...

Processing steps are:

- + Lithography (creation of IC; nm)
- + Dry etch
- + Deposition
- + Metrology/inspection
- **+** ...

Processing steps are:

- + Lithography (flip chip, WLP; μ)
- + Wafer bonding
- Creation of micro- structures, MEMS and RF-MEMS
- + ...

Processing steps are:

- Wafer dicing
- Die bonding
- + Assembly / packaging
- Metrology / final test
- + ...

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

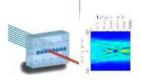
SMO products and end applications:

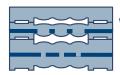




SUSS IMPRINTING EXCELLENCE CENTER CUSTOMER SERVICES @ SUSS MICROOPTICS PRODUCTION







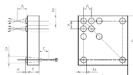
Wafer-Level Optics (WLO)

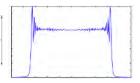
- → Aperture layers in bulk material
- → Excellent overlay control











Optical Design, System Design, Micro-Optics Simulation

Optical System Design 8" (6") Wafer Fab Production line high-quality refractive & diffractive micro-optics (Fused Silica, Silicon)







8" Fab for Lens Imprint (12" in 2019)







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

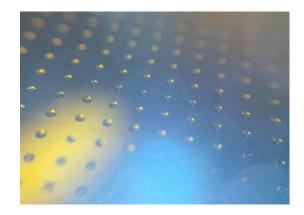


The flexible imprint portfolio for

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 micropatterning 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-fractive optical elements are required for the glasses with augmented reality

LITHOGRAPHY PROCESS STEPS: MEMS PRODUCTION





From wafer to airbag sensor

