

# SUSS MICROTEC INVESTOR PRESENTATION

May 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

- 1 Overview**
- 2 Strategy, products and markets**
- 3 Financials**
- 4 Outlook**

## 1 Overview

## 2 Strategy, products and markets

## 3 Financials

## 4 Outlook

- + **Announcement of growth strategy: SUSS 2025**
- + **Strong order entry for high-end photomask equipment**
- + **3D-integration is accelerating and turned bonder business into profitability**
- + **Delivery of UV-scanner evaluation tool to leading Asian semiconductor manufacturer**
  
- + **Order Entry FY 2018: € 191.0 million (thereof € 65 million in Q4 2018)**
- + **Sales FY 2018: € 203.9 million**
- + **EBIT FY 2018: € 10.9 million (5.3% EBIT-margin)**

## HIGHLIGHTS Q1 2019

- + Strong order intake in fragile market environment
- + Bonder orders from several Asian customers
- + Strong Photomask orders continue
  
- + Order Entry Q1 2019: € 46.7 million
- + Sales Q1 2019: € 47.1 million
- + EBIT Q1 2019: € 2.1 million (4.5% EBIT-margin)

### + UV-projection scanners:

- + Delivery of evaluation tool to Asian customer in November 2018
- + One year evaluation period is currently running
- + Additional evaluation order from one Asian customer
- + Some more tool orders from other customers are expected in 2019

### + Temporary bonding systems:

- + Delivery of several tools to Asian customers is in progress
- + New orders from lead customer and other customers expected for 2019

### + SUSS MicroOptics:

- + Automotive qualification achieved in 2018
- + 2<sup>nd</sup> clean room facility in Switzerland is being built and will be ready end of 2019 (this facility will also host the Imprint Excellence Center)
- + Considerable sales growth and margin improvement compared to 2018

### + Increased R&D spending for all segments

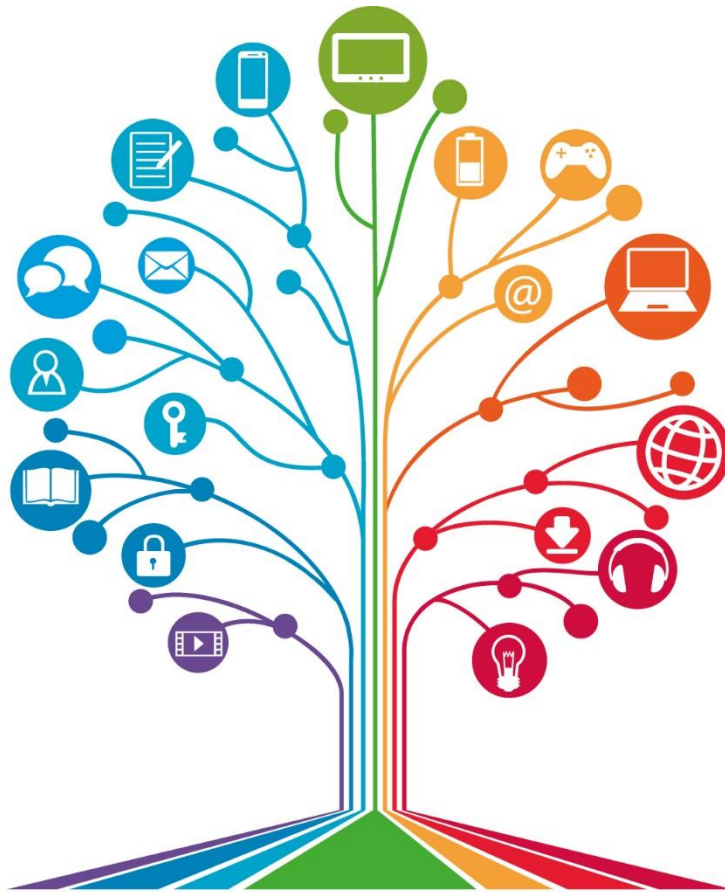
### + CapEx will go up by a mid-single digit amount compared to 2018:

- + New clean room facility Switzerland
- + Upgrade clean room facilities Sternenfels
- + Establishment of production site in Taiwan
- + Financial flexibility will be secured via credit facility



- + **Equipment provider for semiconductor and related industries**
- + **Semi front-, mid- and back-end, MEMS, RF, Opto, etc.**
- + **Tier one market players becoming major customers**
- + **Very demanding market environment**





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



# 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 m<sup>2</sup>**



### Garching\*

- + **SUSS MicroTec HQ**
- + **Development/production:**
  - Mask Aligner
  - Bond Aligner
- + **Core competencies:**
  - Exposure (proximity exposure)
  - Alignment
  - Bond Aligner
- + **Production facility ~9,000 m<sup>2</sup>**



## Switzerland



### Neuchatel (Switzerland)

- + **Core competencies:**
  - Production of micro-optical components
  - Imprint Excellence Center
- + **Production facility ~1,200 m<sup>2</sup>**
- + **2 sites for redundancy**



## USA



### Corona (California)

- + **Development/production:**
  - Stepper/Scanner
  - Laser Processing
- + **Core competencies:**
  - Exposure (UV projection)
  - Laser Ablation
- + **Production facility ~7,000 m<sup>2</sup>**



## Taiwan



### HsinChu (Taiwan)\*\*

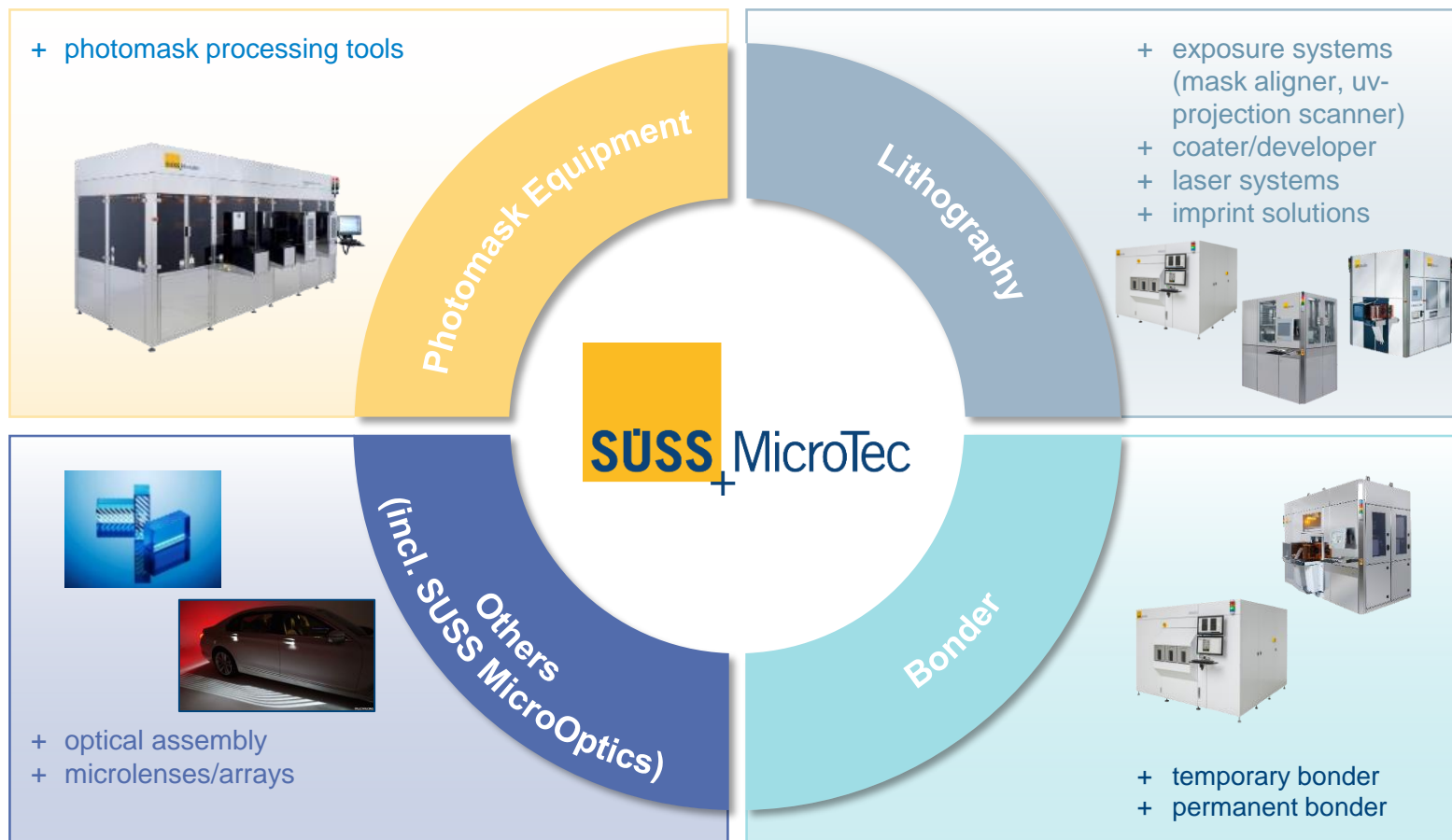
- + **Core competencies:**
  - Final Assembly Coater
  - Application
  - Show Room



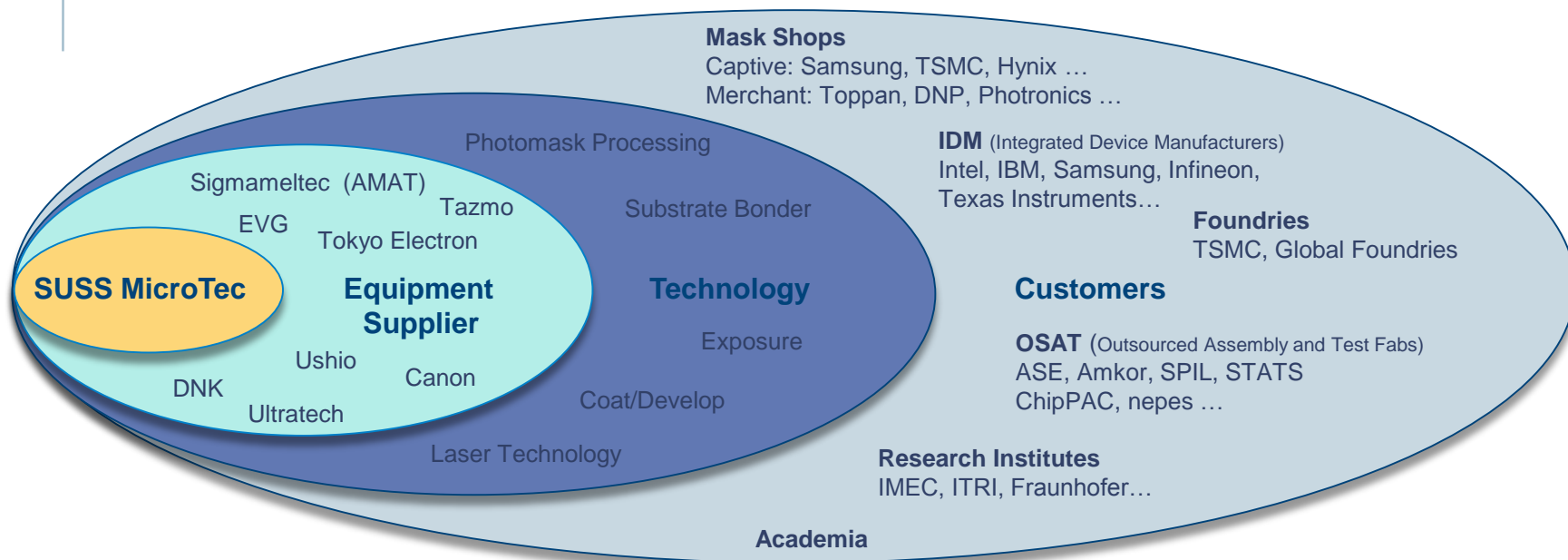
\*Production site is owned by SUSS MicroTec

\*\*planned

# OUR PRODUCT PORTFOLIO



# 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

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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, AI
- + Semiconductor industry is highly innovative and very demanding
- + Processes are getting more complex – customers asking for more support
- + New 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

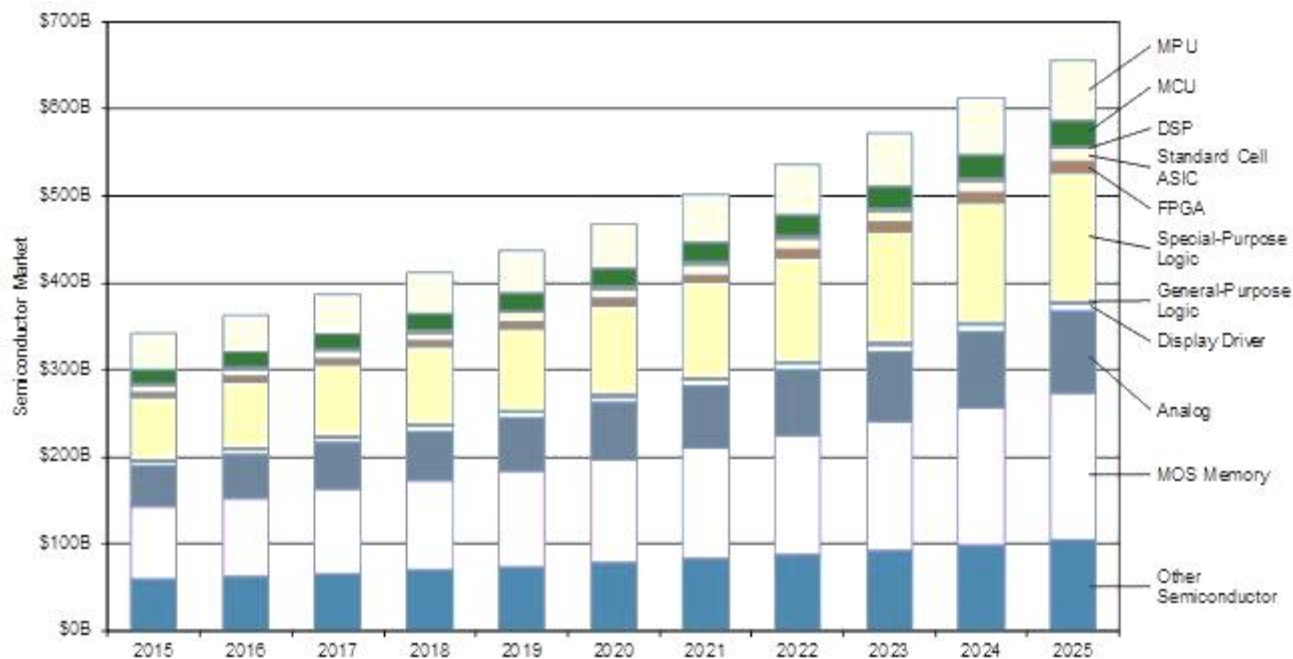
## OUR KEY GROWTH DRIVERS

Market	Advanced packaging	(RF) MEMS	Chipset integration	MicroOptics
	<ul style="list-style-type: none"> <li>- Micro-bumping</li> <li>- CU-pillar</li> <li>- Redistribution layer (RDL)</li> <li>- FOWLP</li> </ul>	<ul style="list-style-type: none"> <li>- SAW/BAW filters for 5G standard</li> <li>- Autonomous driving</li> <li>- Mobile devices</li> <li>- Smart factory</li> </ul>	<ul style="list-style-type: none"> <li>- 3D TSV</li> <li>- 2.5D integration</li> </ul>	<ul style="list-style-type: none"> <li>- Automotive light carpet</li> <li>- Optical assembly</li> <li>- Wafer level optics</li> </ul>

SUSS Products	- Coater/developer - UV - scanner	- Coater/developer - UV - scanner	- Temporary bonder - Coater/developer	- Mask Aligner platform for imprint solutions/ lens stacking
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# SEMICONDUCTOR MARKET LONG TERM OUTLOOK

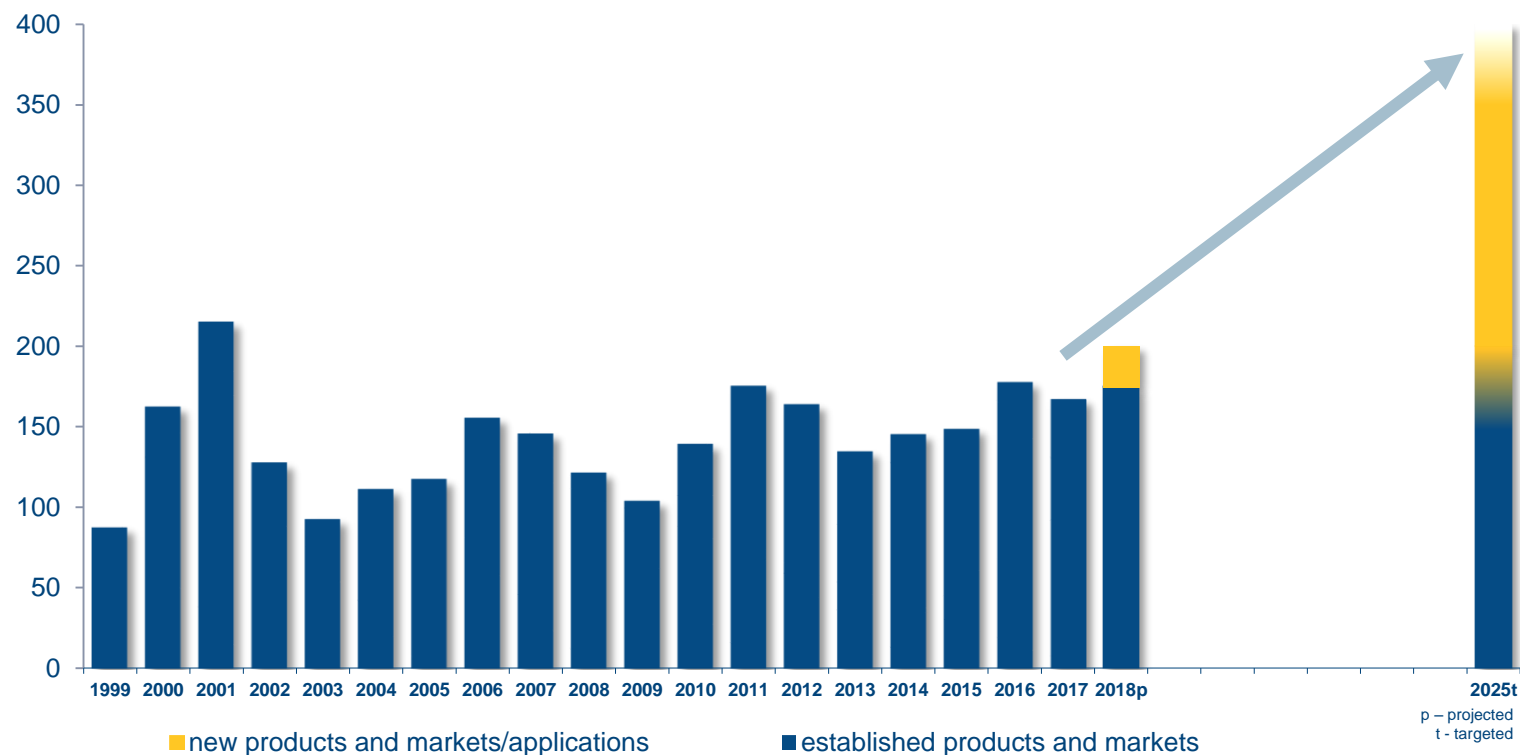


**The global semiconductor market will be \$656B in 2025 compared to \$343B in 2015 with a CAGR of 6.7%\***



# SEMICONDUCTOR MARKET OUTLOOK = SUSS POTENTIAL

Sales  
in € million



**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**

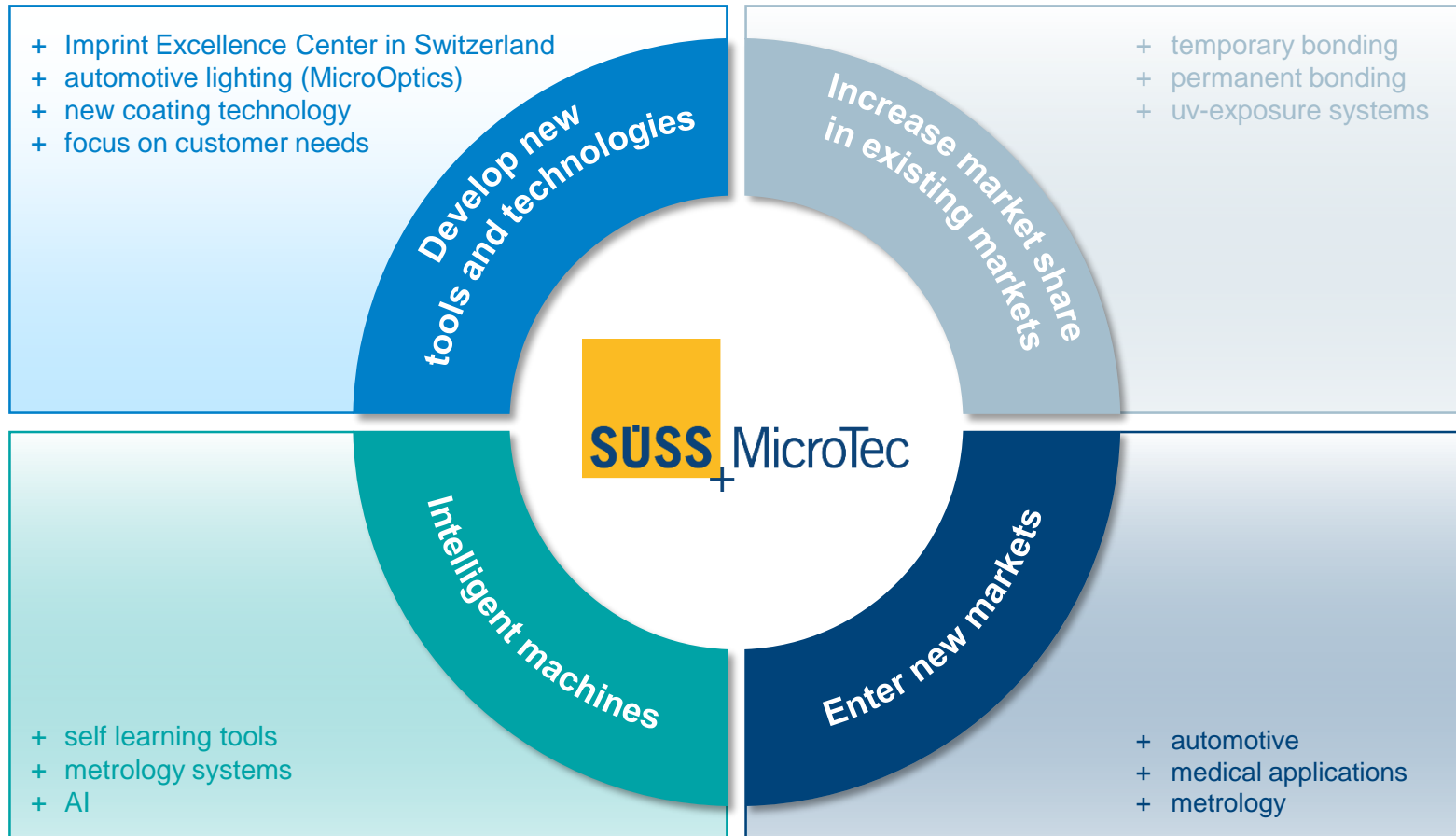
\*This chart contains forward-looking targets relating to the business and financial performance of SUSS MicroTec SE. These statements are based on current estimates, projections and expectations and are therefore subject to risks and uncertainties, most of which are difficult to estimate. Consequently, 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



# AGENDA

1 Overview

2 Strategy, products and markets

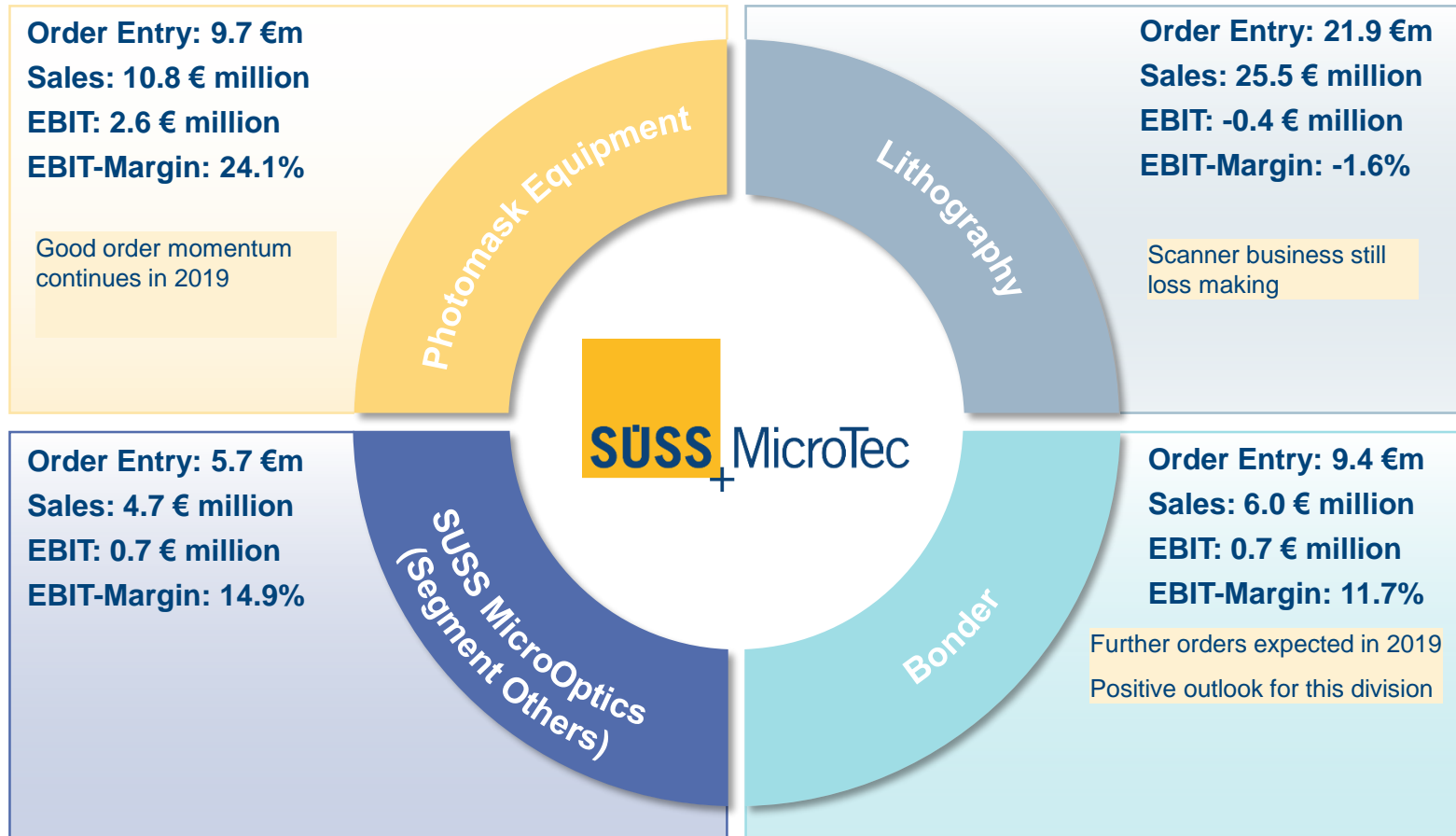
**3 Financials**

4 Outlook

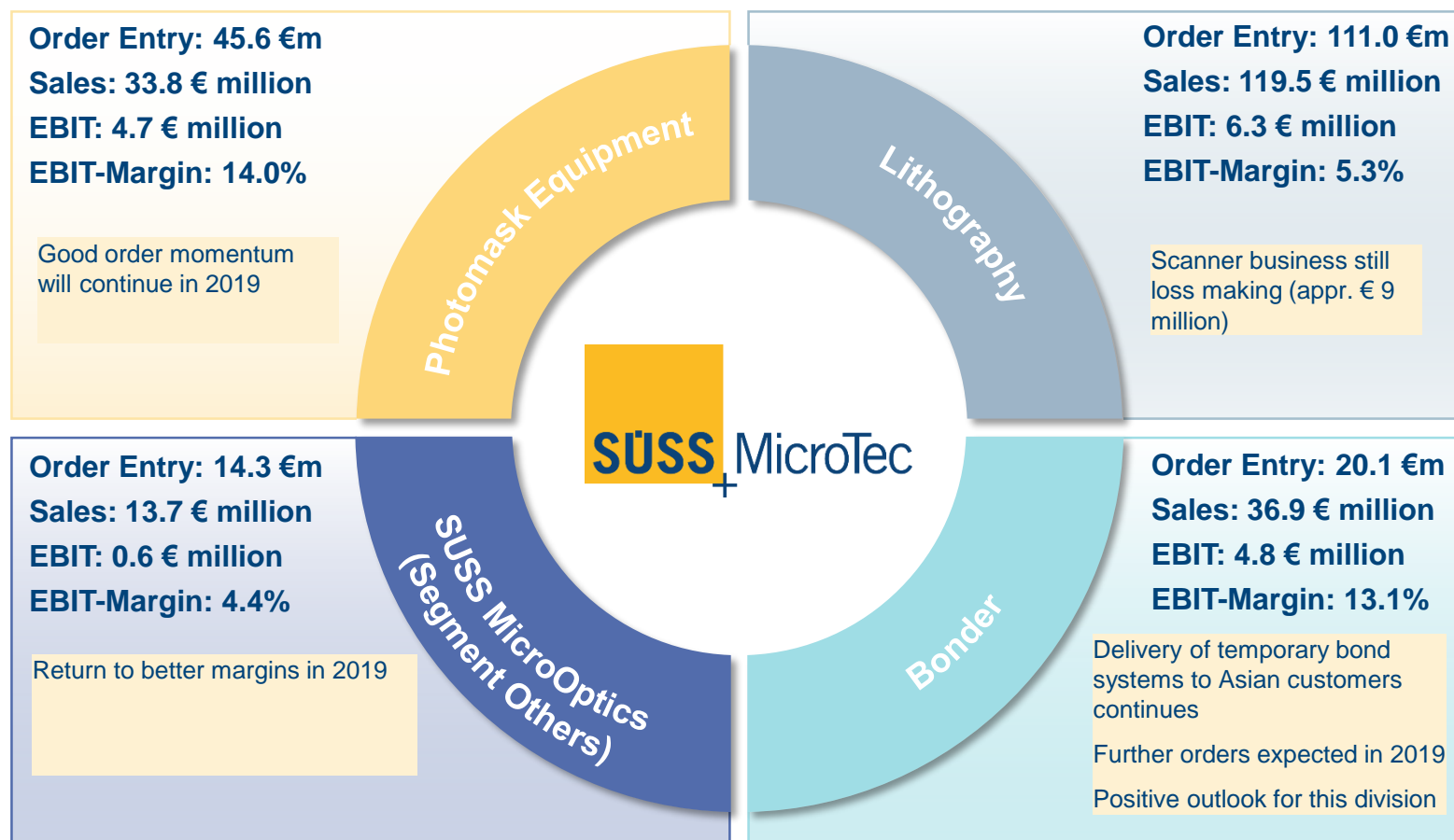
# KEY GROUP FIGURES Q1 2019

in € million	Q1 2019	Q1 2018	delta Q1 2019/ Q1 2018	FY 2018	FY 2017
Order Intake	46.7	38.6	+21.0%	191.0	200.3
Order Backlog 3/31	85.4	93.0	-8.2%	84.7	133.4
Revenue	47.1	45.2	+4.2%	203.9	166.5
EBIT	2.1	1.5	40.0%	10.9	13.9
<i>EBIT in % of Sales</i>	4.5%	3.3%	+1.2%pts	5.3%	8.3%
Earnings after tax	0.4	0.6	--	4.8	6.7
EPS in €	0.02	0.03	--	0.25	0.35
Free Cash Flow	-16.4	-13.7	--	-5.0	2.9
Net Cash	9.5	19.2	-50.5%	28.2	33.0
Employees 3/31	899	810	+11.0%	881	779

# BUSINESS DEVELOPMENT IN Q1 2019



## BUSINESS DEVELOPMENT IN FY 2018



# 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.



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- + 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 (Yole Sep. 2018)



- + Semiconductor market + 12.5% in 2018 to a volume of USD 475 bn and + 2.5% in 2019 (Gartner, April 2019)
- + Global Fab equipment spending +9,7% in 2018 to a volume of USD 62.1 bn and -14.0% in 2019, but + 27% in 2020 (Semi, March, 2019)
- + 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)





- + Fiscal year 2019:** Sales of € 200 million to € 215 million  
EBIT-margin ~ 6.5% - 8.0%
- + Q2 2019 + Q3 2019:** Order entry of € 80 million to € 90 million



## **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

# SUSS MICROTEC INVESTOR PRESENTATION

Back up





# INVESTOR RELATIONS INFORMATION

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## Contact

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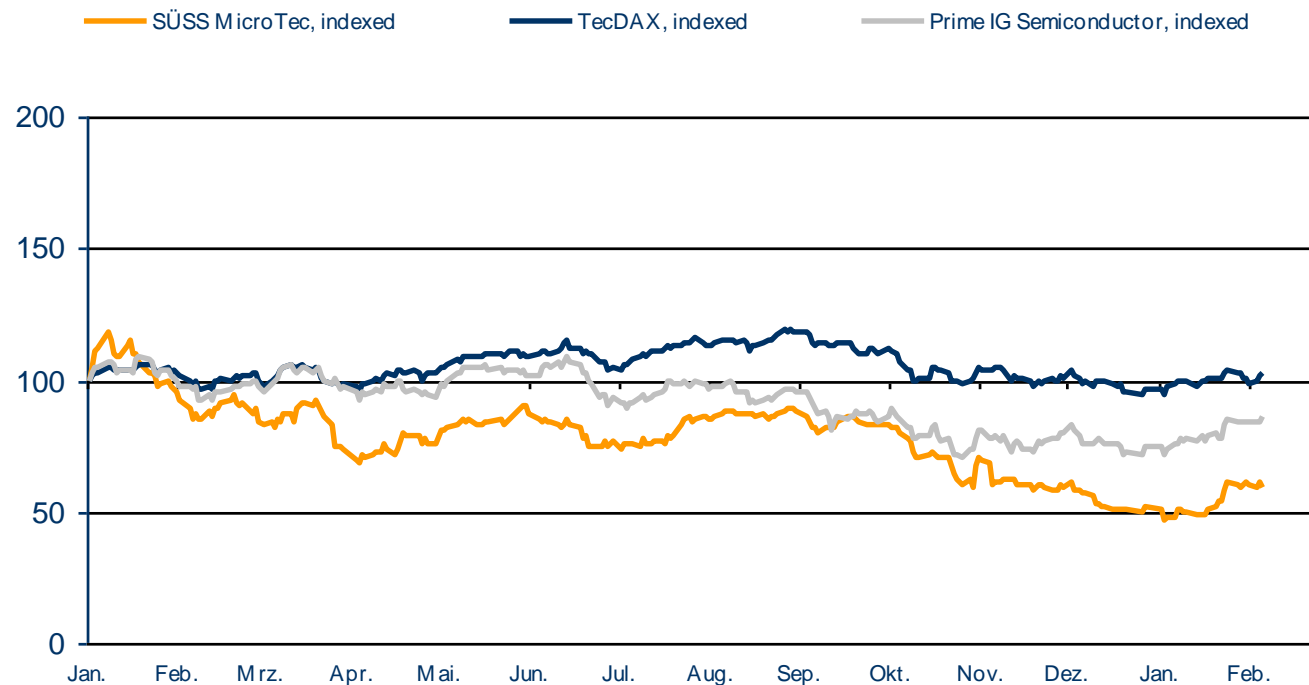
## Financial Calendar 2019

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Annual Report 2018	27 Mar
Quarterly Announcement 2019 (Q1)	8 May
Annual General Meeting 2019, Munich	6 Jun
Interim Report 2019	2 Aug
Quarterly Announcement 2019 (Q3)	6 Nov

# SHARE PRICE DEVELOPMENT AND MAJOR HOLDERS

(Price of the SÜSS MicroTec Share at January 2, 2018: 16.78 €)



## Major Shareholders > 3%:

Internat. Kap. Anl. (INKA)  
 Universal-Investment  
 Luxempart  
 Kempen Oranje  
 Sycomore Asset Man.  
 Janus Henderson Group  
 Gerlin NV  
 Dimensional Funds  
 Lupus Alpha  
 Hansa Invest

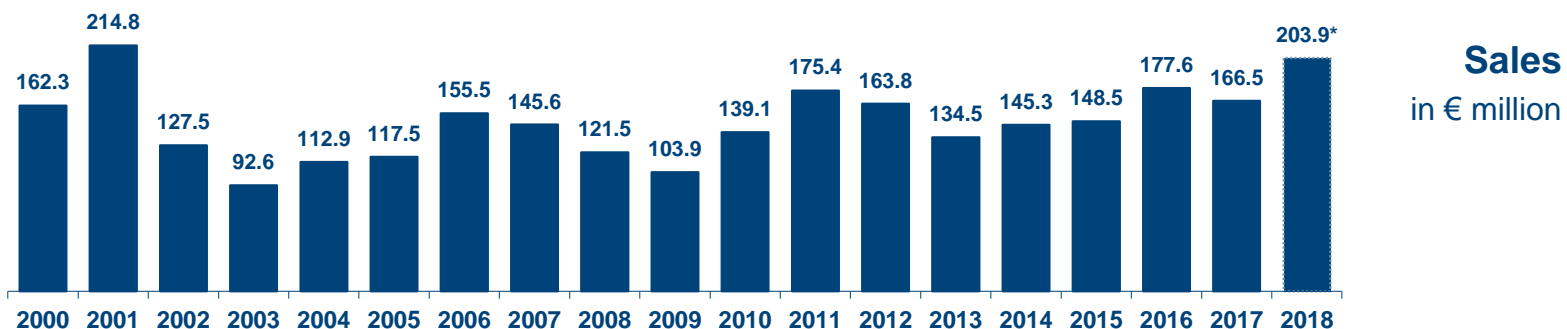
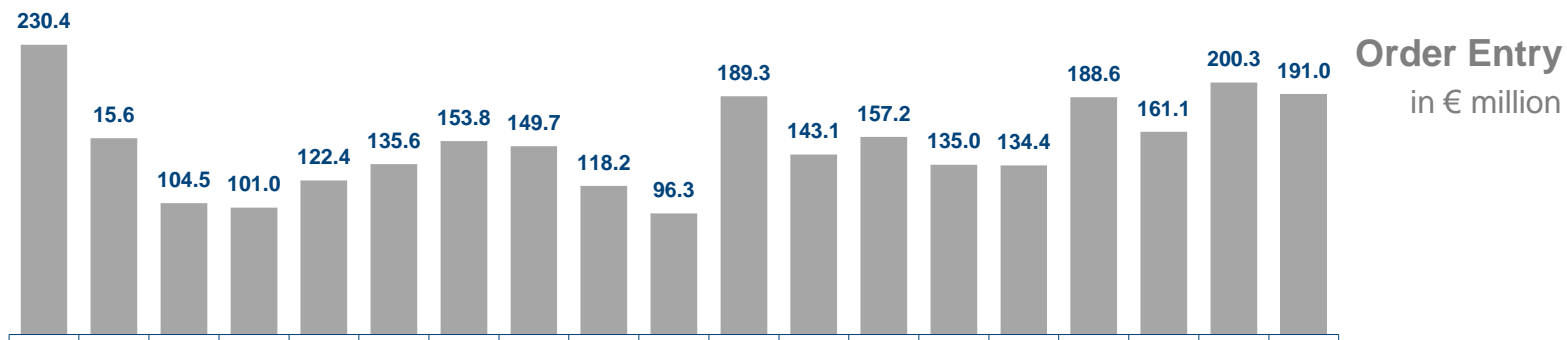
**Average daily trading volume January 2018 – May 2019: ~ 67.000**

# SUSS MICROTEC – A GLOBAL PLAYER



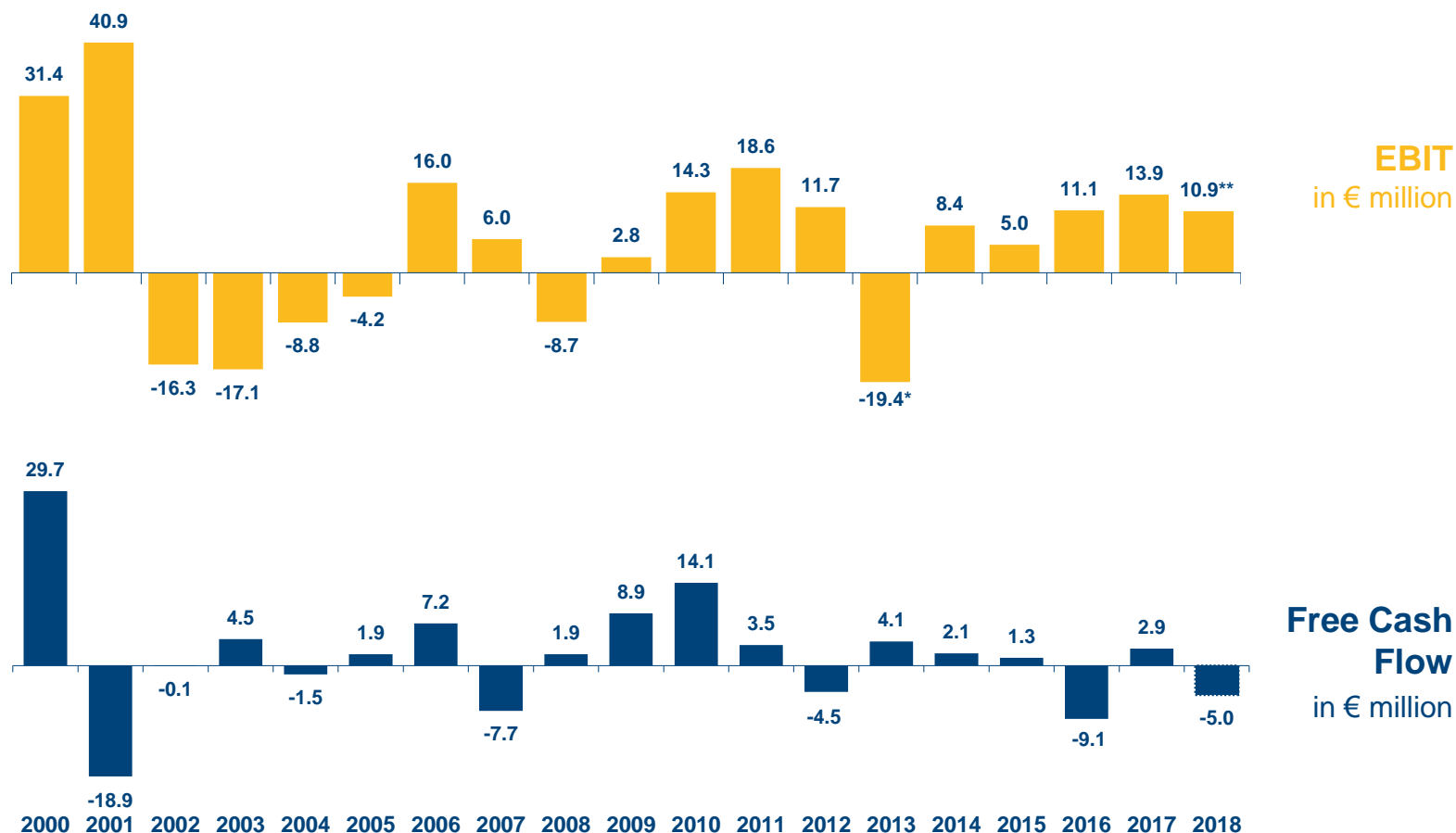


# LONG TERM BUSINESS DEVELOPMENT I



\* Sales recognition according to IFRS 15 for the first time in 2018 (comparable sales figure is € 213.9 million)

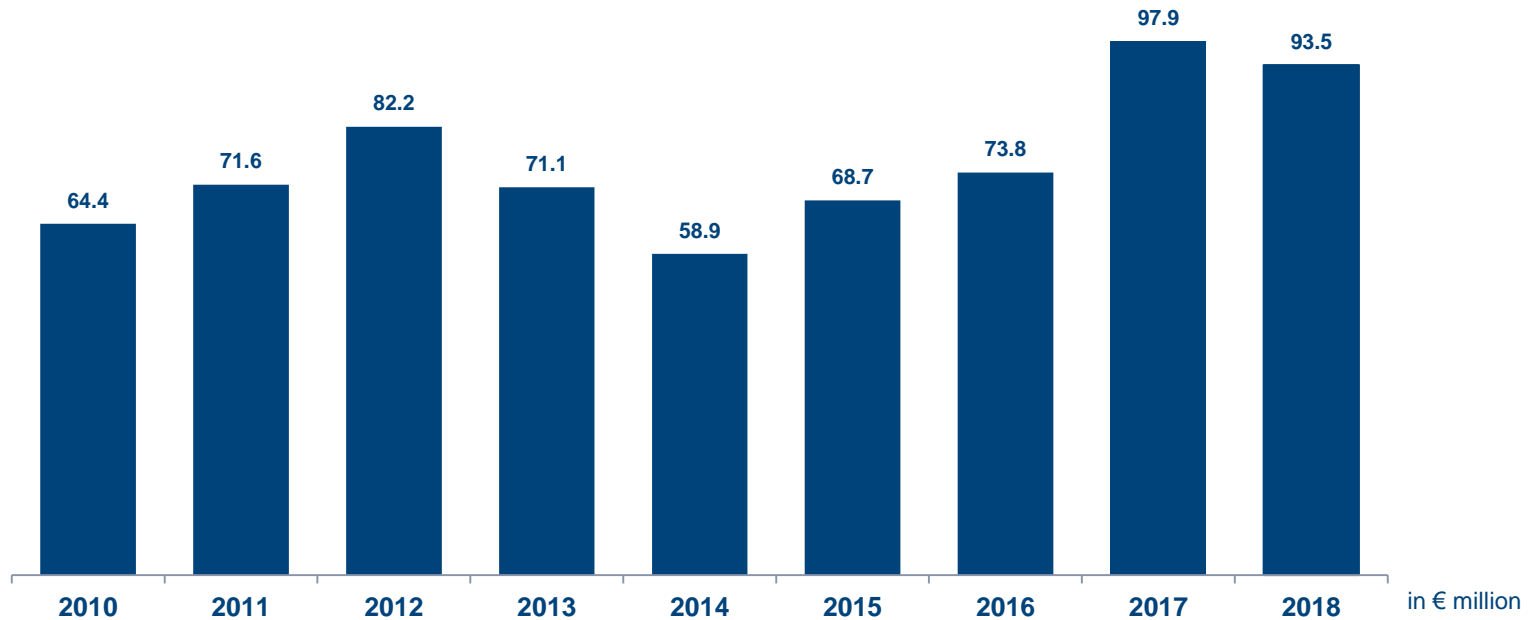
## LONG TERM BUSINESS DEVELOPMENT II



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

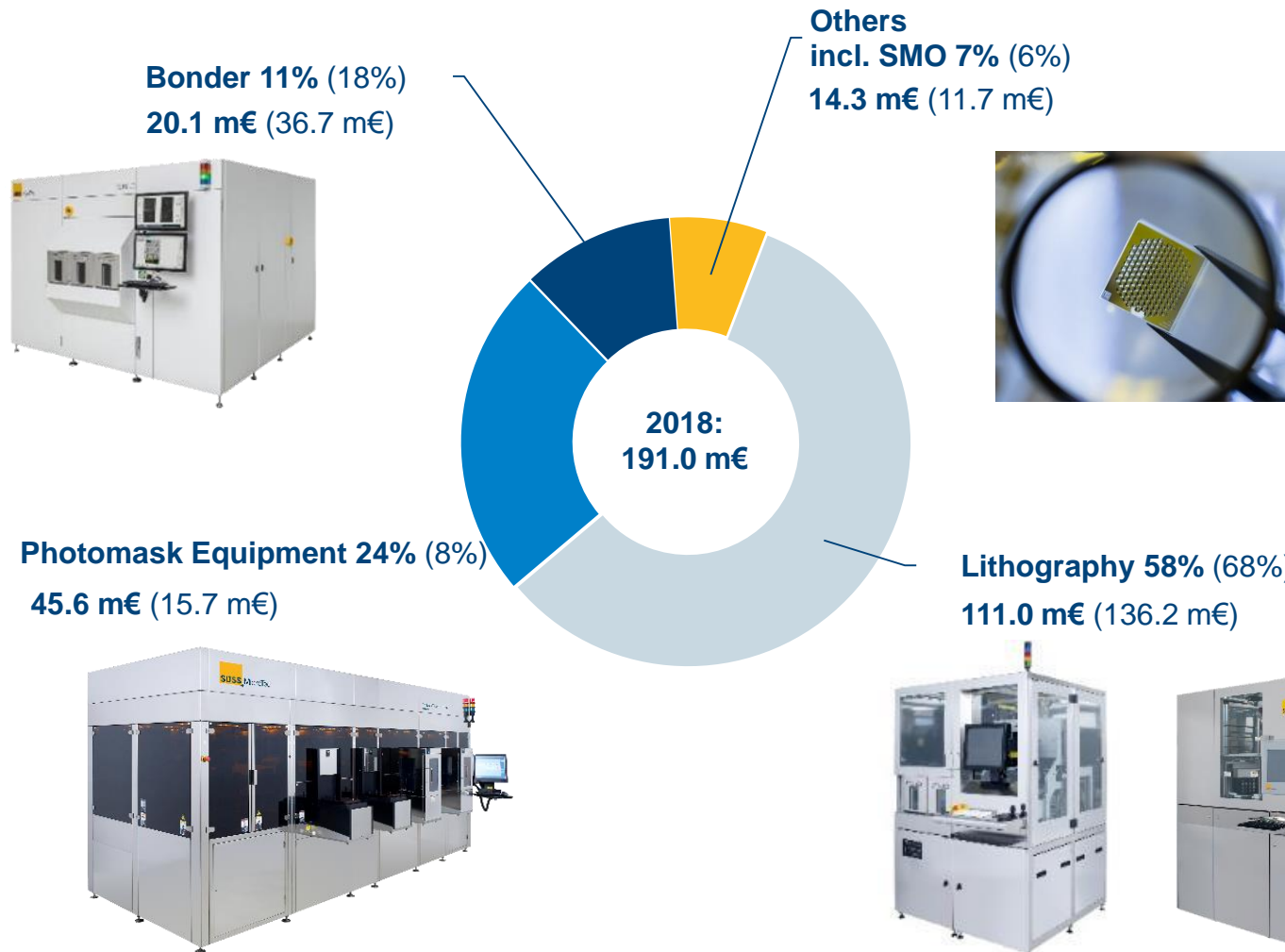
\*\* Sales recognition according to IFRS 15 for the first time in 2018 (comparable EBIT figure is € 15.6 million)

## INVENTORY DEVELOPMENT



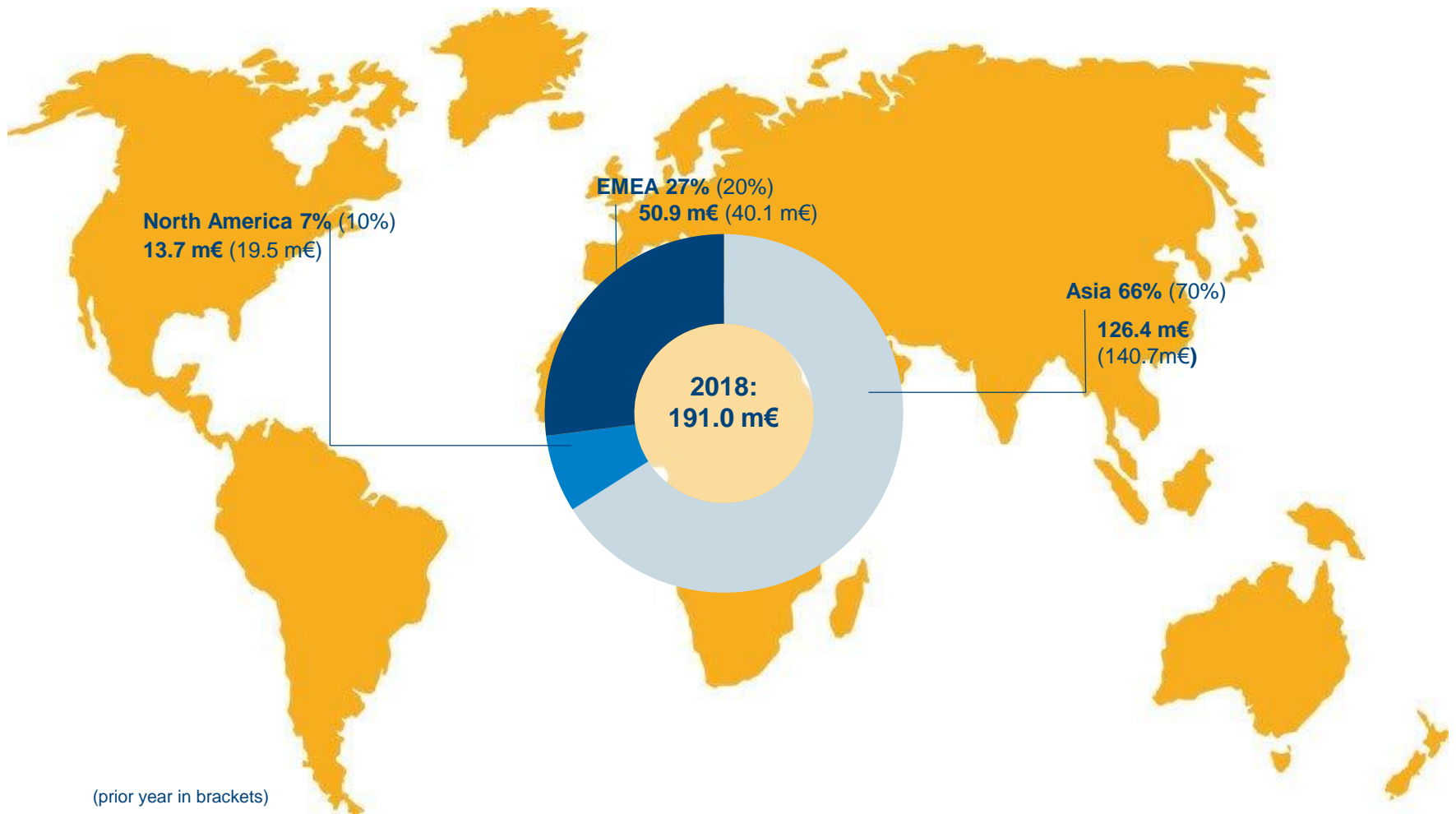
- + Increased number of evaluation and demonstration tools in the field
- + Preproduction of multiple tools in order to meet challenging lead times

## ORDER ENTRY BY SEGMENT FY 2018 (FY 2017)



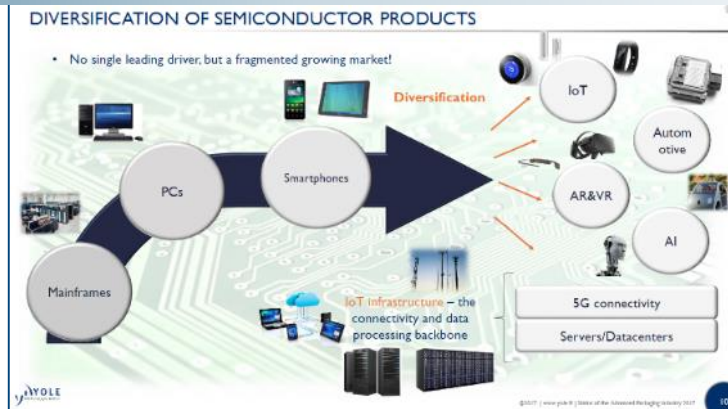
(prior year in brackets)

## ORDER ENTRY BY REGION FY 2018 (FY2017)



# OUR GROWTH DRIVERS

## Advanced Packaging



## RF MEMS



## 3D Packaging



## FOWLP



# BUILDING BLOCKS OF OUR STRATEGY - BONDER



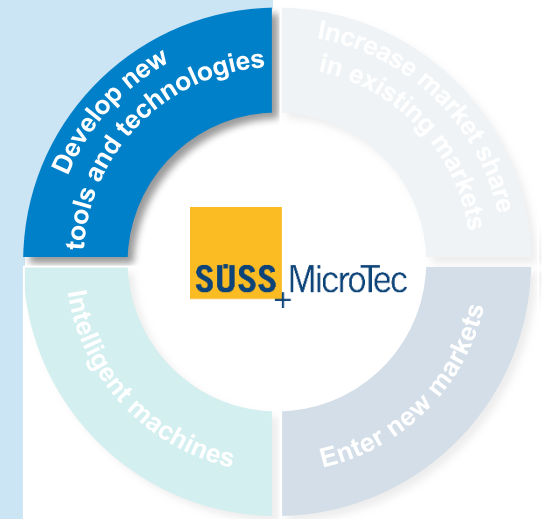
- + **Maintain and expand market position in temporary bonding**
- + **Penetrate into MEMS applications with permanent bond systems**
- + **Self learning machines and adaptive process improvements**
- + **Completion of 200mm permanent bond platform with scaling to 300mm possible**



XBS200  
permanent bonding system

## 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



ACS200 Gen3  
coater / developer



## BUILDING BLOCKS OF OUR STRATEGY - SCANNER

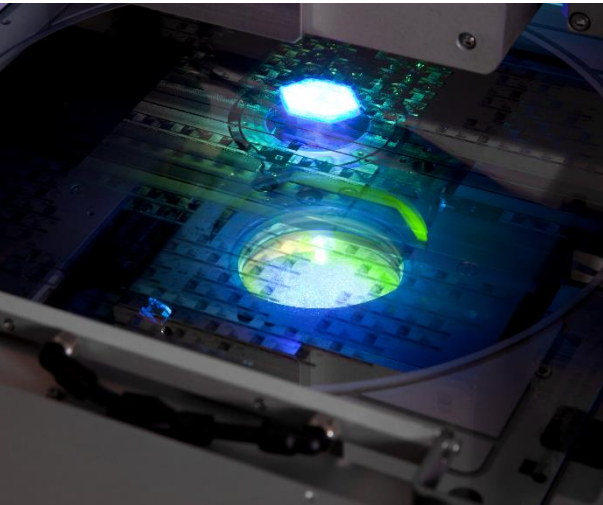


- + **Successful delivery of upgrade kit to lead customer**
- + **Evaluation tool placed at this customer**
- + **Move into volume production with lead customer**
- + **Establish a strong market position in uv-projection exposure**



DSC300 Gen3  
UV-projection scanner

## UV – PROJECTION SCANNER



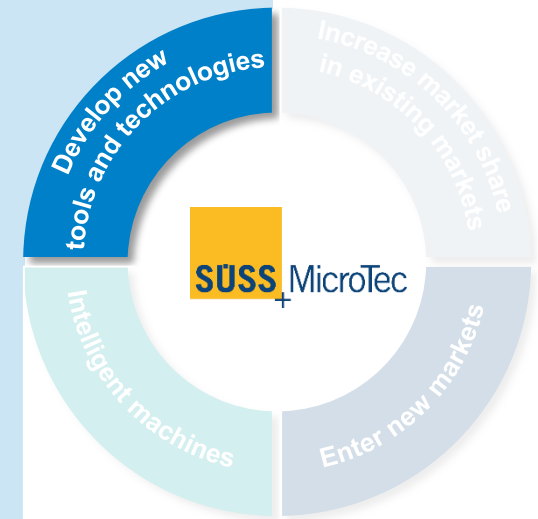
- + Target markets: advanced packaging (FOWLP, Cu-pillar...)
- + Package sizes are increasing (package size gets larger than step field of conventional 1x stepper)
- + Scanner is ideal exposure tool to address large package sizes
- + High resolution and overlay
- + Throughput of our DSC300 Gen3 increased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



**Wafer-Level Optics (WLO)**  
→ Aperture layers in bulk material  
→ Excellent overlay control

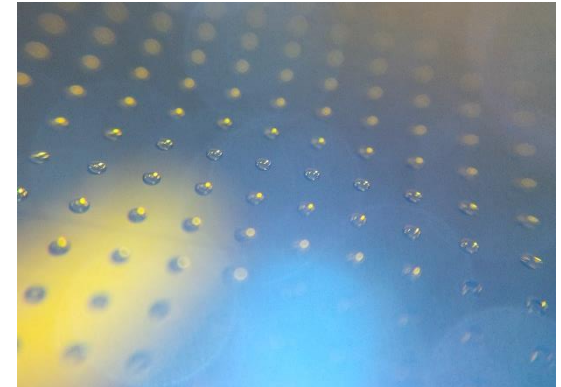
# MASK ALIGNER – GROWTH DRIVER IMPRINT SOLUTIONS

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.



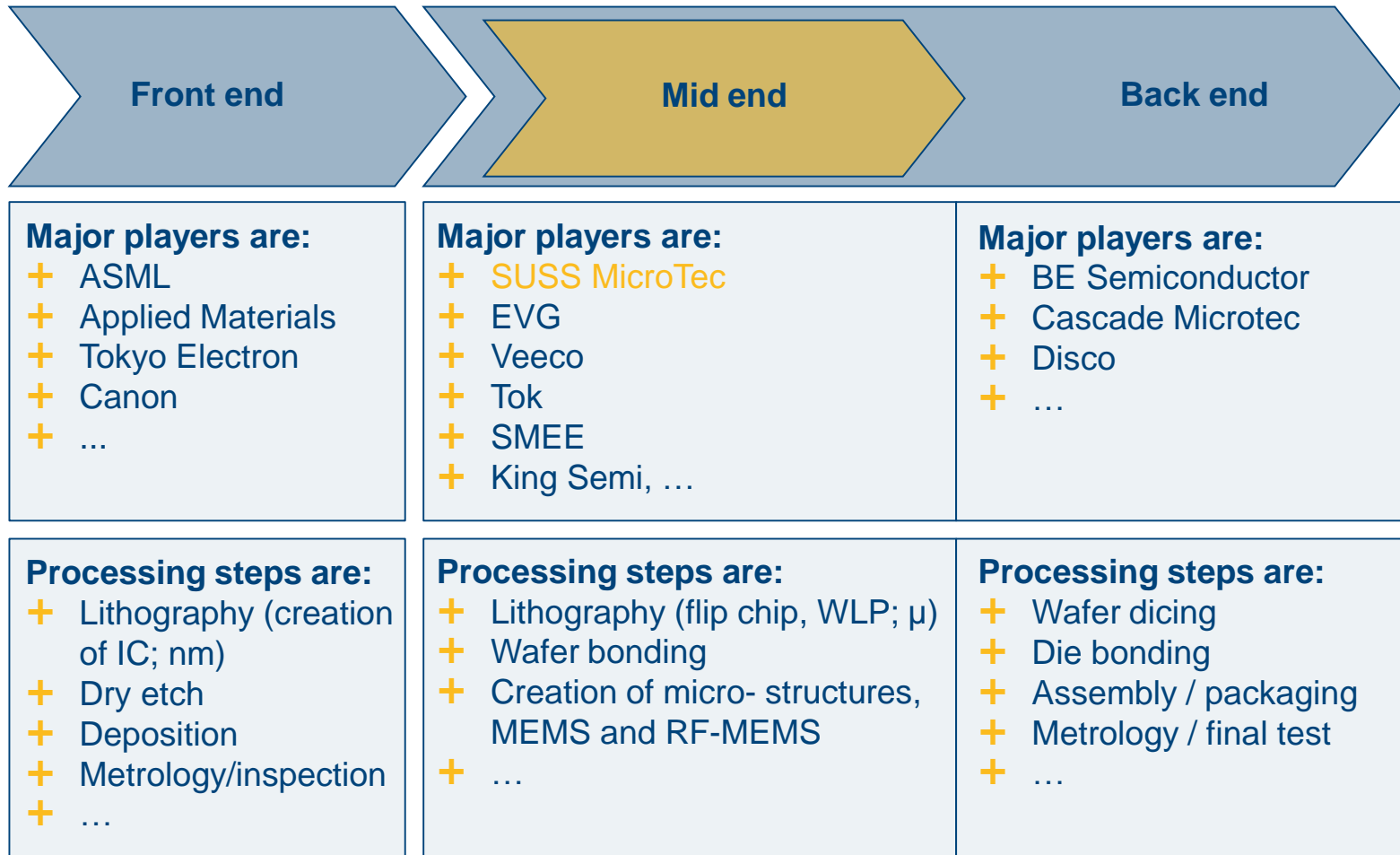
## Microoptics

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



# LITHOGRAPHY PROCESS STEPS: MEMS PRODUCTION



From wafer to airbag sensor

