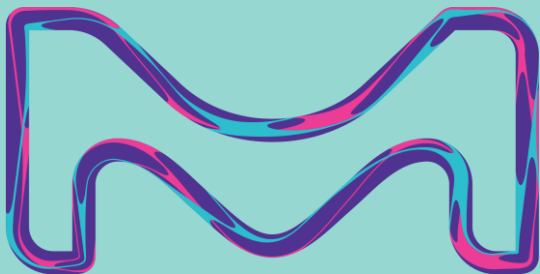


# electronics

Ready for accelerated growth

Kai Beckmann, CEO Electronics

2<sup>nd</sup> Virtual CMD – September 9, 2021



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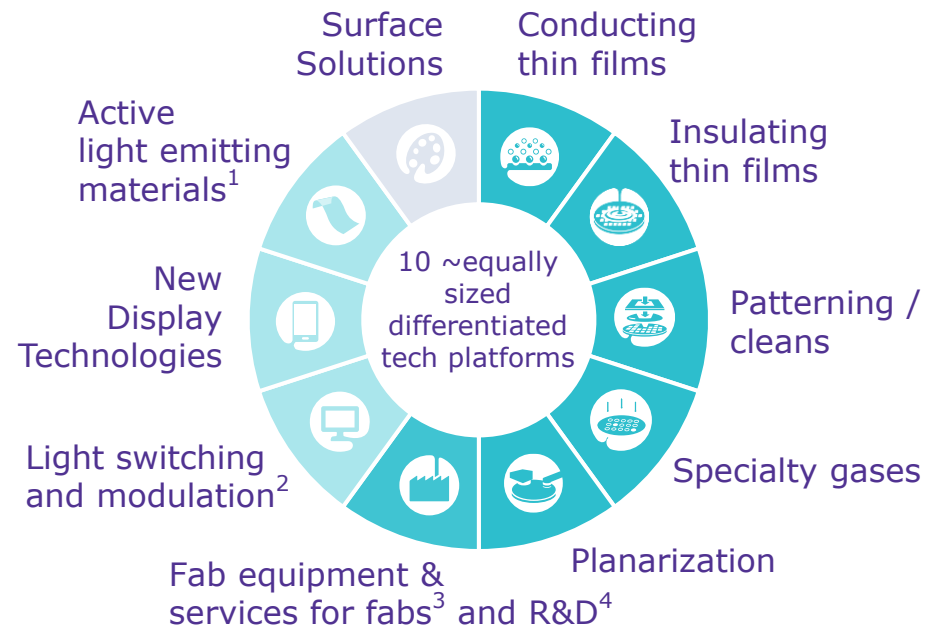
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# Electronics: Successful transformation, ready for accelerated growth

An integrated electronics innovation leader with one of strongest industry portfolios



INDICATIVE chart of mid-term future portfolio composition

■ Semiconductor Solutions   ■ Display Solutions   ■ Surface Solutions

1) Incl. materials for OLED displays   2) Incl. liquid crystal displays  
3) Delivery Systems & Services   4) Intermolecular

3

## Delivering on promises and above

- ✓ **Bright Future program**  
key deliverables & savings
- ✓ **€3.3 bn sales with ~90% of sales focused on electronics**
- ✓ **Successful integration of Versum**
- ✓ **Attractive, stable EBITDA pre margins**
- ✓ **Display & Surface well managed**  
according to Enterprise Planning Unit role
- ✓ **Upgraded mid-term guidance of 3% to 6% sales CAGR**

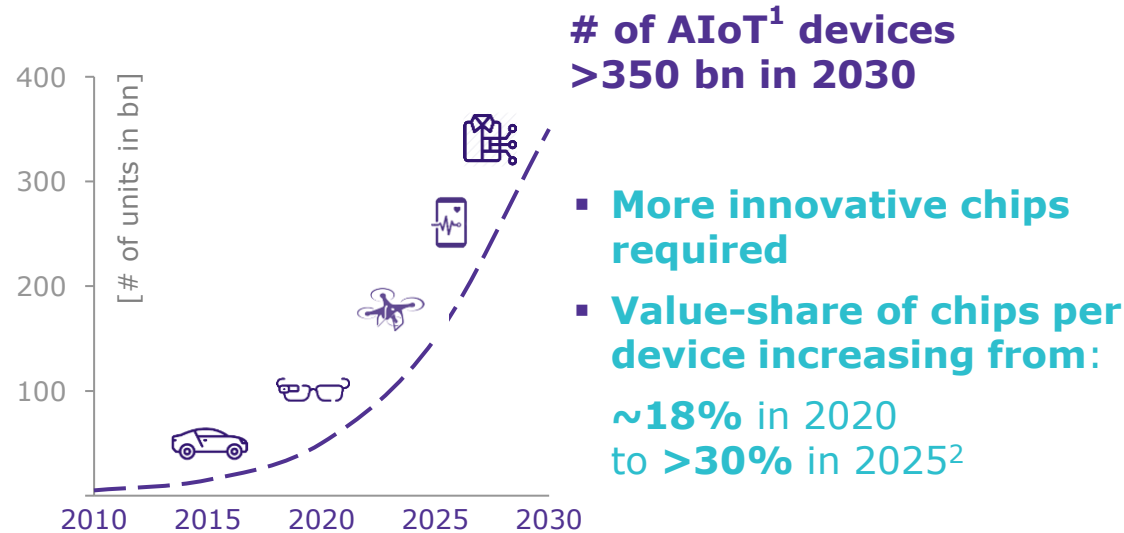
**Everything in place to gain further speed as vital growth engine for the Company**



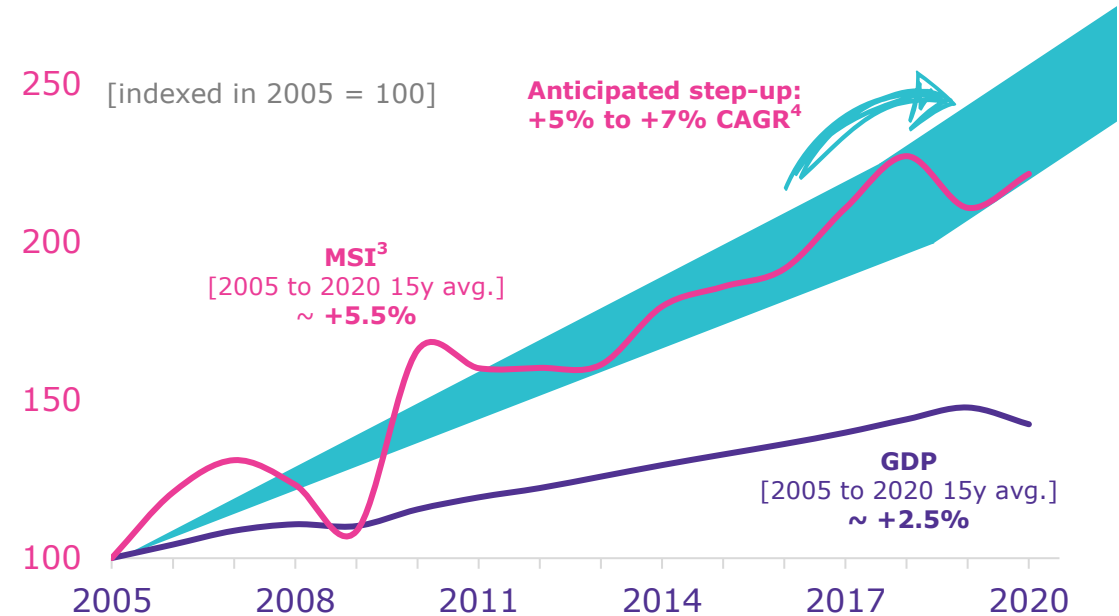
# Electronics industry has clear roadmaps with vast market potential and substantial need for materials innovation

## More applications than ever before to fuel Semiconductor growth

- 12% Automotive
- 7% Server / Storage / Communication infrastructure (5G)
- 6% Consumer (wearables/IoT)
- 5% Industrial/Medical/Military/Aviation
- 4% PC/Computing
- 4% Mobile phones / tablets



## Growth expected to accelerate... ...with reduced upward cyclicality



- Diverse end applications & higher capital discipline expected to reduce future cyclicality
- Semiconductor **Materials** show **lower cyclicality than Semiconductor market**

1) AIoT = Artificial Intelligence + Internet of Things; 2) McClean, Prismark Semiconductor and packaging report Q4 2020; 3) Million Square Inch of silicon wafers; 4) Group estimate based on industry forecasts



# “Level Up” - Shifting gears from transformation to growth execution

## Level up **scale**

- **Capacity investments** synchronized to **customers’ expansion plans**
- Ability to **tackle industry challenges** & supply reliability
- Continue **localizing footprint** close to customers in **Korea, Taiwan, China, and U.S.**

## Level up **portfolio**

- Commitment to **relevant portfolio breadth** in **high growth areas**
- Diligent **bolt-on** acquisitions
- Targeted expansion of **portfolio**

**Enabling ambition of 3 to 6% org. CAGR 2021 to 2025+**



## Level up **tech**

- Further sharpen **focus on profitable innovation**, addressing key inflection points
- Address **sustainable innovation**
- **Expand R&D** and keep one of the highest **R&D rates in the industry**

## Level up **people & capabilities**

- **Attractive** employer for **NextGen talents**
- Drive **safety, quality & sustainability**
- Drive **data analytics & digital transformation**

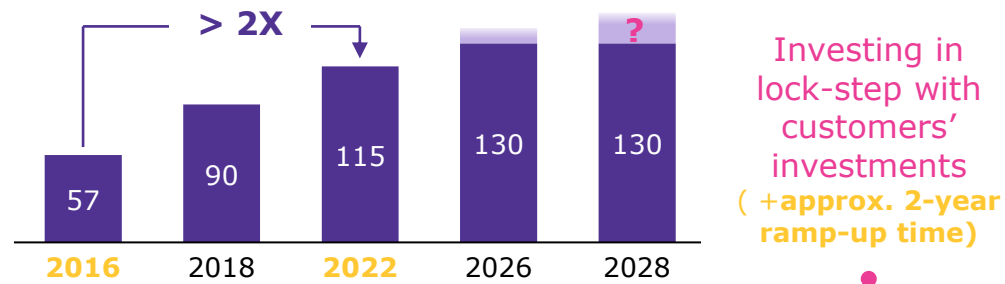
# “Level Up” scale - Expanding in sync with customer demand

A partner of choice, in step for higher demand

Smart localization, investing close to customers

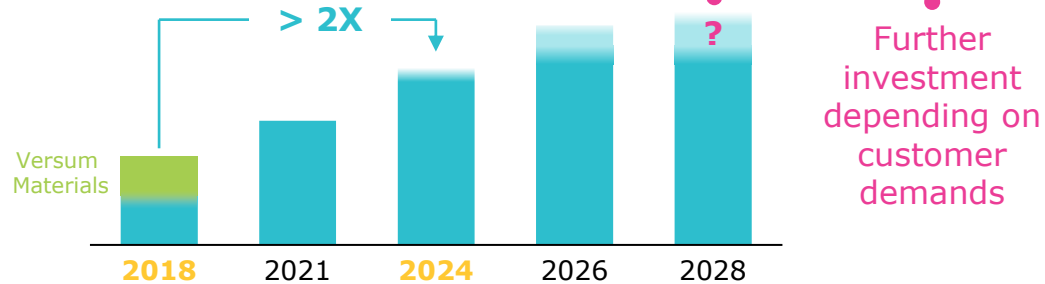
## Semiconductor industry





CAPEX p.a.<sup>1</sup> [€ bn]



## Electronics

CAPEX<sup>2</sup> illustration [majority in Semi]



Share of semi material market <sup>3</sup>	Key investments
<b>Taiwan</b>  ~25%	<ul style="list-style-type: none"> <li>Additional large site ensuring supply for key customers</li> <li>Further expand R&amp;D footprint</li> </ul>
<b>Korea</b>  ~25%	<ul style="list-style-type: none"> <li>Expand strong footprint, building on existing customer proximity</li> </ul>
<b>China</b>  ~15%	<ul style="list-style-type: none"> <li>Boosting localization as a multi-national ready for growth</li> <li>Expand production and R&amp;D</li> </ul>
<b>USA</b>  ~10%	<ul style="list-style-type: none"> <li>Expand capacity for global &amp; local supply</li> <li>Enable new sites of key customers</li> </ul>

1) McClean March 2021, Company announcements; FX rate: 1.18 \$/€; 2) incl. IT

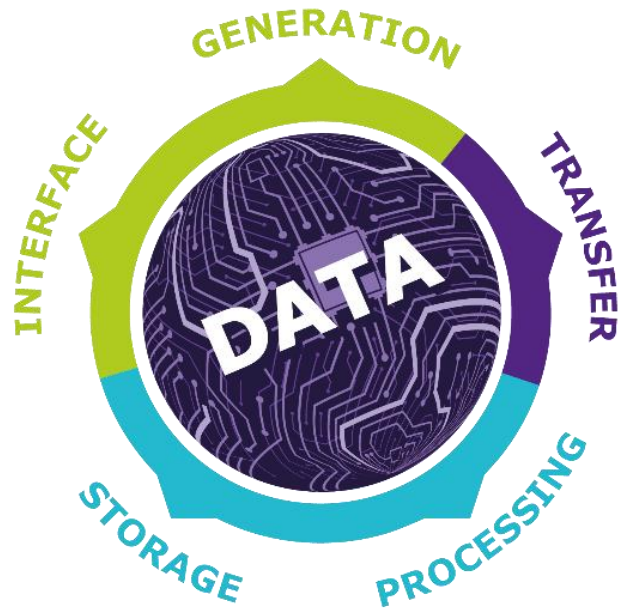
3) Source: Linx Consulting – only relevant segments, 2020



# “Level Up” tech – Empowering today and enabling tomorrow

## Strong portfolio of silicon & optical technologies empowering today’s applications

Solutions empowering customers to make **smaller, faster, more energy efficient**, and **more sustainable devices** in various applications across the entire **data sphere**



- Data Generation**  
Sensors, MEMS
- Data Transfer**  
Network chips, interconnects, antenna
- Data Processing**  
Logic chips: CPUs, GPUs
- Data Storage**  
Memory chips: DRAM, 3D NAND
- Data Interface**  
Displays: TV, mobile, AR/VR

## And enabling tomorrow’s leading-edge technologies

### Selected future applications

**Next-gen image sensors**

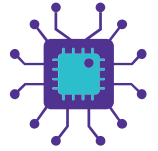
**Smart antennas**

**Transition to nanosheets**

**3D NAND with >300 layers**

**Foldable displays**

### Our contribution



Leverage semiconductor & display knowledge for new & optimized sensors

New LC, enabling beam forming, replacing bulky mechanical antennas

Novel etchants & dopants allowing higher scaling & lower power consumption

ALD<sup>1</sup> materials that help minimize cross talk between memory cells

Broad set of materials from encapsulation to the OLED stack

1) Atomic Layer Deposition





# Meet Our Management

## Speakers in Electronics deep dive Q&A

**Kai Beckmann**  
CEO Electronics



**Kate Dei Cas**  
Head of  
Delivery Systems & Services



**John Langan**  
Chief Technology Officer  
Electronics



**Stefan Kratzer**  
Head of  
Electronics Controlling



**Anand Nambiar**  
Head of  
Semiconductor Materials



**Michael Heckmeier**  
Head of  
Display Solutions



**Ed Shober**  
Head of  
Strategy & Business Transformation





**CONSTANTIN FEST**



Head of Investor Relations  
+49 6151 72-5271  
constantin.fest@emdgroup.com

**SVENJA DJAVAHERI**



Assistant Investor Relations  
+49 6151 72-3744  
svenja.djavaheri@emdgroup.com

**SARA HOFMANN**



Assistant Investor Relations  
+49 6151 72-3321  
sara.hofmann@emdgroup.com

**ILJA DOERING**



Institutional Investors /  
Analysts  
+49 6151 72-24164  
ilja.doering@emdgroup.com

**GUNNAR ROMER**



Institutional Investors /  
Analysts  
+49 6151 72-2584  
gunnar.romer@emdgroup.com

**AMELIE SCHRADER**



Institutional Investors /  
Analysts  
+49 6151 72-22076  
amelie.schrader@emdgroup.com

**FLORIAN SCHRAEDER**

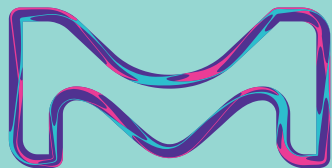


Institutional Investors /  
Analysts  
+49 6151 72-42005  
florian.schraeder@emdgroup.com

**EVA STERZEL**



ESG / Institutional & Retail Investors /  
AGM  
+49 6151 72-5355  
eva.sterzel@emdgroup.com



**E-MAIL:** [investor.relations@emdgroup.com](mailto:investor.relations@emdgroup.com)  
**WEB:** [www.emdgroup.com/investors](http://www.emdgroup.com/investors)  
**FAX:** +49 6151 72-913321

