



# ACQUISITION OF VERSUM MATERIALS

Merck KGaA, Darmstadt, Germany

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## **Additional Important Information and Where to Find It**

This communication relates to the proposed merger transaction involving Versum and Merck KGaA, Darmstadt, Germany. In connection with the proposed merger, Versum and Merck KGaA, Darmstadt, Germany, intend to file relevant materials with the SEC, including Versum’s proxy statement on Schedule 14A (the “Proxy Statement”). This communication does not constitute an offer to sell or the solicitation of an offer to buy any securities or a solicitation of any vote or approval, and is not a substitute for the Proxy Statement or any other document that Versum or Merck KGaA, Darmstadt, Germany, may file with the SEC or send to Versum’s stockholders in connection with the proposed merger. STOCKHOLDERS OF VERSUM ARE URGED TO READ ALL RELEVANT DOCUMENTS FILED WITH THE SEC, INCLUDING THE PROXY STATEMENT, WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED MERGER. Investors and security holders will be able to obtain the documents (when available) free of charge at the SEC’s web site, <http://www.sec.gov>, or Versum’s website at <http://investors.versummaterials.com> or by phone at 484-275-5907.

## **Participants in Solicitation**

Versum, Merck KGaA, Darmstadt, Germany, and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from the holders of Versum common stock in respect of the proposed transaction. Information about the directors and executive officers of Versum is set forth in Versum’s Annual Report on Form 10-K for the fiscal year ended September 30, 2018, which was filed with the SEC on November 21, 2018, and the proxy statement for Versum’s 2019 annual meeting of stockholders, which was filed with the SEC on December 20, 2018. Information about the directors and executive officers of Merck KGaA, Darmstadt, Germany, is set forth on Schedule I of the Schedule 14A filed by Merck KGaA, Darmstadt, Germany, with the SEC on March 22, 2019. Other information regarding the participants in the proxy solicitation and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the Proxy Statement and other relevant materials to be filed with the SEC in respect of the proposed transaction when they become available.

# Merger agreement signed

## TERMS & valuation



- All cash proposal at \$53 per Versum Materials share recommended by Versum Materials Board of Directors
- €5.8bn<sup>1</sup> Enterprise value, representing a 13.7x 2019E EV/EBITDA<sup>2</sup> multiple and an 11.6x 2019E EV/EBITDA<sup>2</sup> multiple, adjusted for full synergy run-rate

## Financing



- Fully financed with cash and debt, Facilities Agreement in place
- Strong investment grade credit rating preserved
- Maintaining commitment to swift deleveraging

## Regulatory Approvals



- No anticipated regulatory issues
- Regulatory process is underway, regulatory clearances expected in a timely manner
- Waiting period for HSR<sup>3</sup> expired

## Shareholder Approvals



- No shareholder vote required by our shareholders
- Subject to approval by Versum shareholders



**The transaction is expected to close in H2 2019**

<sup>1</sup>Converted from USD to EUR at 1.12 EUR/USD exchange rate;

<sup>2</sup>Pro-forma calculation based on Versum: Wall Street consensus estimates for 2019E EBITDA as of April 5, 2019;

<sup>3</sup>HSR = Hart Scott Rodino Act; When HSR period is expired it is no longer a barrier to closing.

# Value creating combination of two highly complementary industry leaders

## Rebalancing portfolio towards high-growth markets

- Rebalances portfolio to a diversified structure with three strong business sectors
- Drive Performance Materials (PM) growth aspiration in electronic materials and double sales share of high-growth Semiconductor Solutions to ~50%<sup>1</sup>

## Strong industrial logic to capitalize on electronics growth

- Semiconductor industry subject to long-term secular growth drivers requiring highly innovative cutting-edge materials
- Creates one of the leading electronic materials players focused on the semiconductor and display industries
- Complementary capabilities increase scale, product and services depth and establish truly global presence

## Financially attractive and immediately value accretive

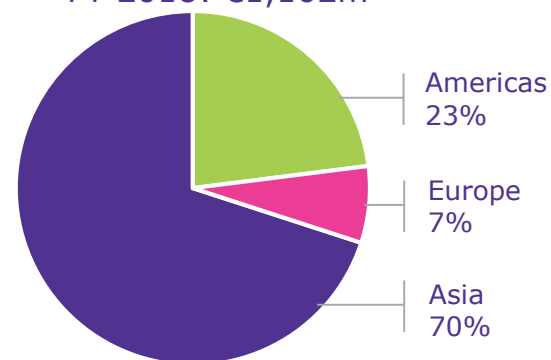
- Compelling financial metrics: industry-leading growth and profitability profile
- ~€75m in annual cost synergies expected to be fully realized in 3<sup>rd</sup> year after closing
- Transaction expected to be EPS pre accretive in 1<sup>st</sup> year after closing, and to reported EPS in year 3

<sup>1</sup>Sales share based on Merck KGaA, Darmstadt, Germany PM net sales for Q1 2018 – Q4 2018; Pro-forma net sales consolidates Versum Materials LTM net sales as per December 31, 2018; Versum Materials net sales as per Versum Materials' SEC Filings.

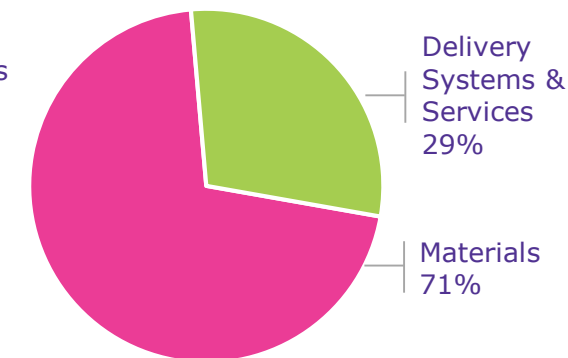
# Versum Materials – A leading supplier to the electronics industry

- **Leading global supplier** of high-purity process chemicals, gases and equipment serving mainly semiconductor manufacturers
- **Established positions** in advanced deposition, specialty gases, chemical mechanical planarization<sup>2</sup> as well as delivery systems and services
- **Today headquartered in Tempe, Arizona** with **production facilities in the U.S., Korea, Taiwan and China**
- 15 production facilities worldwide
- ~ 2,300 employees
- **Track record of accelerated growth and industry leading profitability**

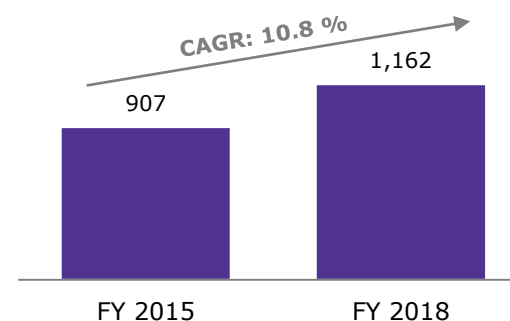
**Sales<sup>1</sup> by region**  
FY 2018: €1,162m



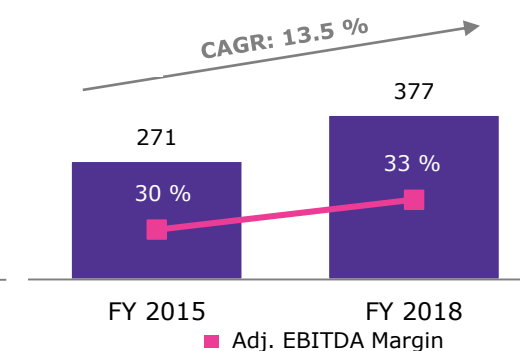
**Adjusted EBITDA<sup>3</sup> by segment**  
FY 2018: €377m



**Sales<sup>1,4</sup> (€m)**



**Adjusted EBITDA (€m)<sup>1,4</sup>**



Note: Financials converted from US\$ to EUR based on average annual EUR/USD exchange rate of 2015: 1.11; 2018:1.18;  
<sup>1</sup>Source: Versum Materials investor relations materials, FY 2018 (ending September 30, 2018); <sup>2</sup>Chemical mechanical planarization = CMP; <sup>3</sup>Adjusted EBITDA for FY 2018 excluding Corporate segment; <sup>4</sup> CAGRs based on Versum Materials' published numbers in USD.

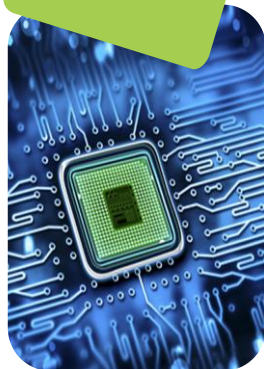
# Combination creates a leading electronic materials player

## Partner of choice



- Creating a leading electronic materials player with focus on the semiconductor and display industries and deep customer relationships
- Combined pro-forma Performance Materials annual sales ~ €3.6bn<sup>1</sup>

## Innovation



- Accelerating ability to innovate through the combination of R&D efforts
- Combine technological capabilities in order to generate novel technologies and better serve our customers

## Poised for growth



- Optimally positioned to capitalize on strong long-term secular trends in the semiconductor industry, incl. the emergence of artificial intelligence, autonomous mobility, big data, internet of things, global connectivity
- Increasing diversification of end-markets

## Complementary



- Complementary capabilities
- Versum Materials' business adds positions in advanced deposition, specialty gases and chemical mechanical planarization to our established presence

## Deep portfolio



- Build an attractive portfolio in high value materials
- E.g. in advanced deposition materials, dielectrics, CMP slurries, and cleaning chemicals

## Broadened offering



- Expanding Merck's KGaA, Darmstadt, Germany electronic materials business and tapping new growth opportunities
- Versum Materials' equipment and services business allows broader positioning along the wafer processing value chain for Merck KGaA, Darmstadt, Germany

<sup>1</sup>Includes Performance Materials' Semiconductor Solutions business Q1 2018-Q4 2018 and Versum Materials FY 2018.

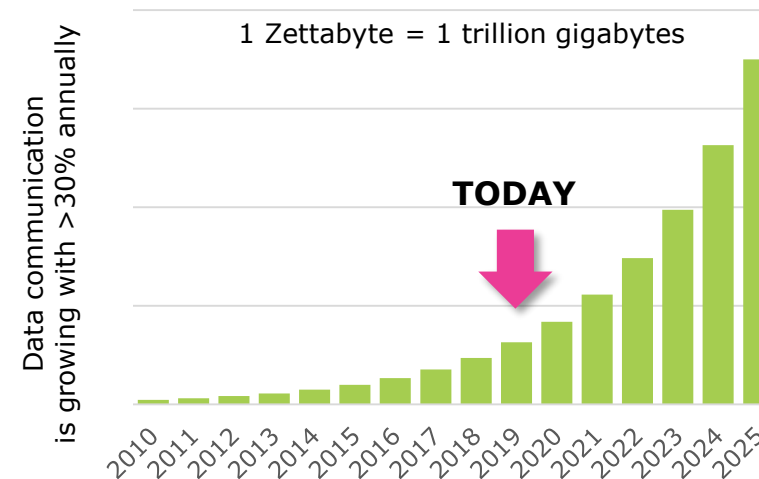
# The combined business capitalizes on electronics industry growth

## New markets and applications emerge daily...

- 1 Artificial intelligence
- 2 Autonomous mobility
- 3 Big data
- 4 Internet of things
- 5 Global connectivity

## ...driving the digital revolution as semiconductors are required for data processing and storage

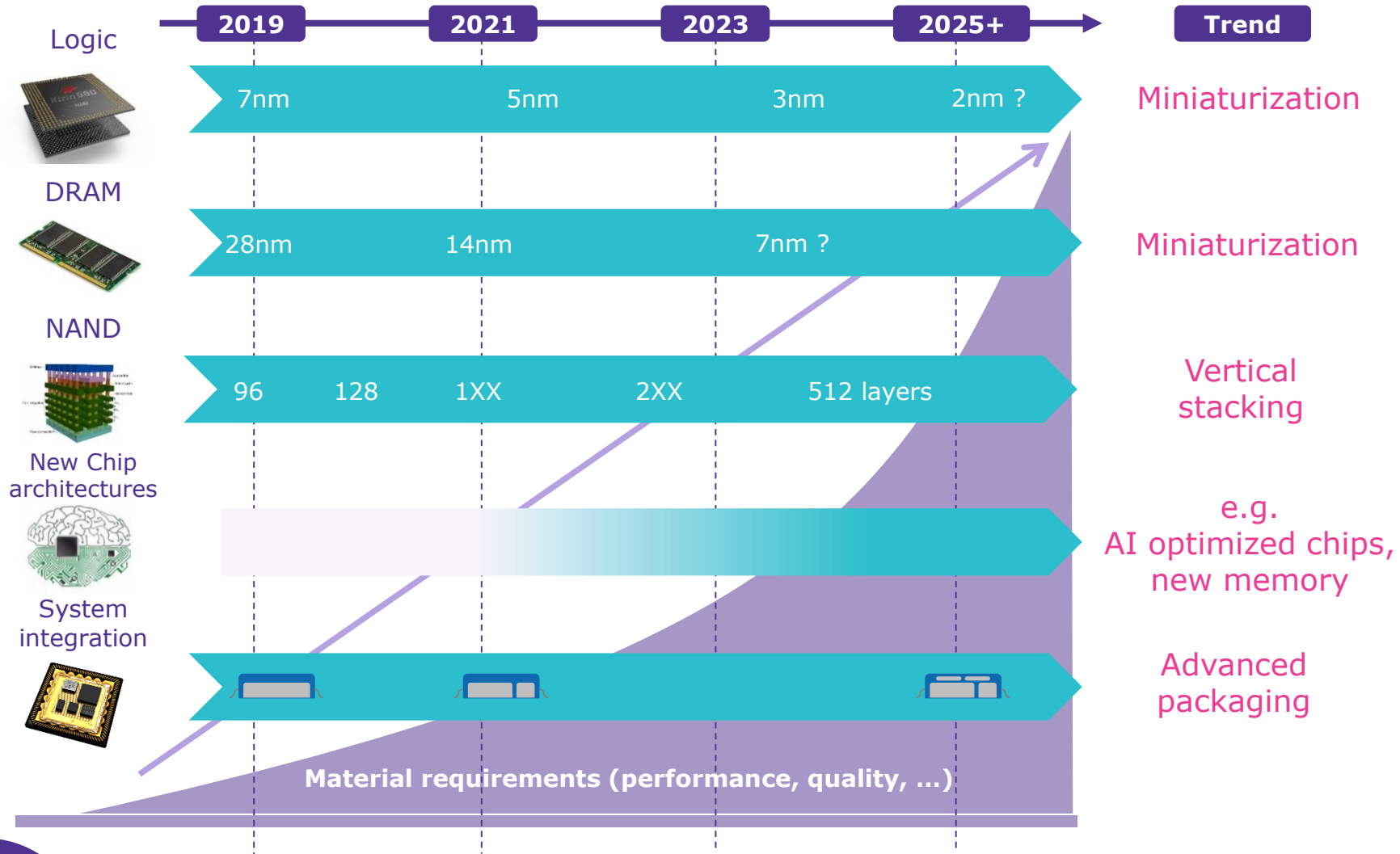
Size of global data sphere in zettabytes<sup>1</sup>





# Increased chip complexity and miniaturization will drive accelerated growth for high-performance and high-purity materials

Indicative semiconductor industry roadmap



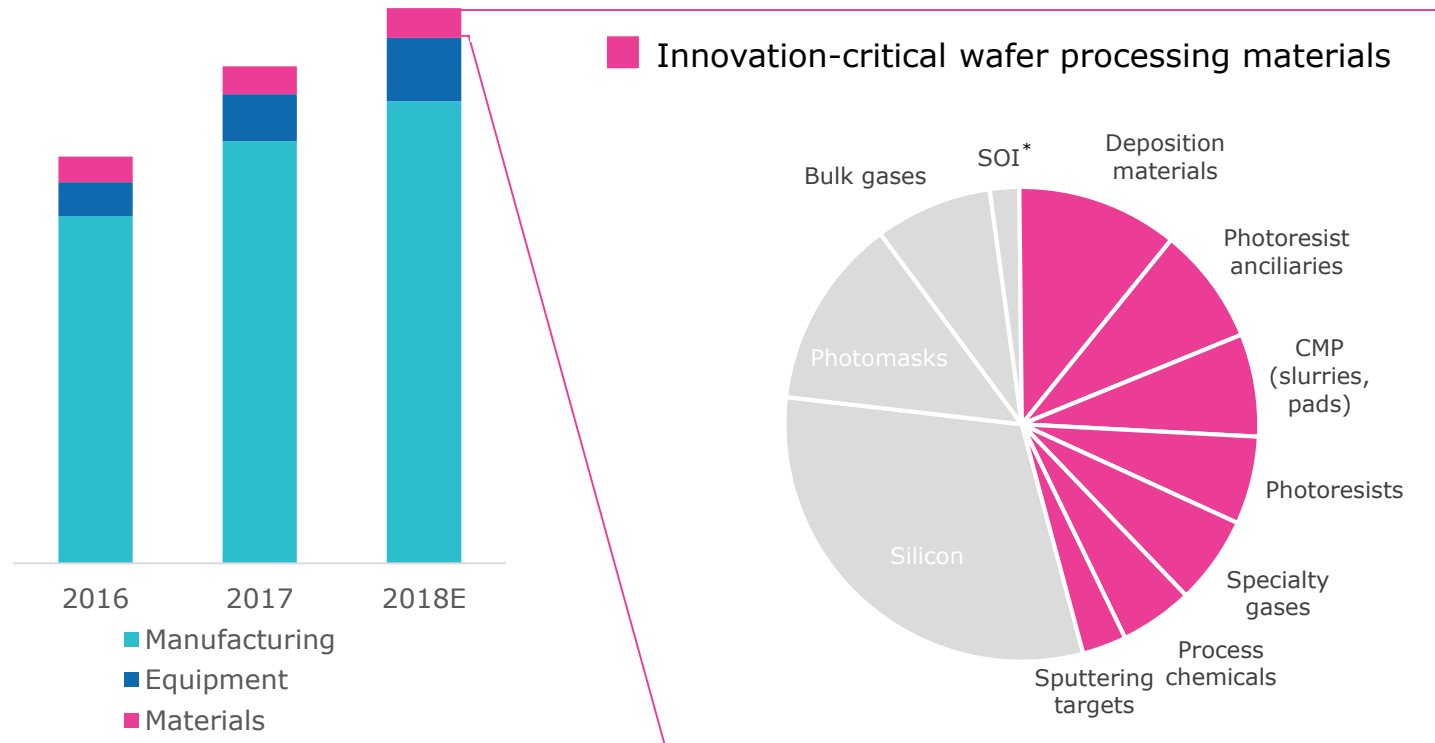
Continuous technological progress drives requirements for new materials with improved performance, quality and yield



Creates a fundamental opportunity for electronics materials companies

# Combination with Versum Materials enables competitive edge, as future-critical materials will become increasingly important

## Semiconductor market value<sup>1</sup>



Electronics materials market is driven by innovation



High purity materials (CMP, deposition materials) for wafer processing play a crucial role in enabling semiconductor industry innovation

# Value accretive for Merck KGaA, Darmstadt, Germany shareholders

Updated synergies

## pro-forma

### Enhancing sales and EBITDA pre

- Merck's KGaA, Darmstadt, Germany 2018 sales<sup>1</sup> increase by ~8%
- Merck's KGaA, Darmstadt, Germany 2018 EBITDA pre<sup>1</sup> rises by ~13%<sup>2</sup>
- Merck's KGaA, Darmstadt, Germany EBITDA pre margin expansion by ~60 bps<sup>3</sup>

## value creation

### Expected synergies drive value creation

- Cost synergies of ~€75m p.a.
- To be fully captured by year 3
- Immediately accretive to EPS pre
- Accretive to reported EPS including all transaction-related costs in year 3
- Transaction IRR > WACC

## balance sheet

### Solid financial structure preserved

- Fully financed with cash and debt (Term Loan, hybrid bond, EUR bond)
- Strong investment grade credit rating preserved
- Solid pro-forma balance sheet with estimated net debt / EBITDA pre<sup>4</sup> of 3.0x and pro-forma 2.9x including 100% run-rate cost synergies

**Acquisition of Versum Materials strengthens Merck KGaA, Darmstadt, Germany portfolio and meets group's clear financial M&A criteria**

<sup>1</sup>Based on results FY 2018; <sup>2</sup>Pro-forma including 100% synergy run-rate of €75m; <sup>3</sup>bps = basis points; <sup>4</sup>Pro-forma as per December 31, 2018.

# Transaction offers well-founded cost synergies driving value creation

- ▶ Due diligence completed
- ▶ ~€75m in annual run-rate cost synergies identified
- ▶ Time to realization reiterated<sup>1</sup>: 100% by year 3, up to 50% realized in year 1
- ▶ Integration costs of €125m, spread over 2 years
- ▶ Cost synergies of 6%<sup>2</sup> of acquired net sales

## Corporate / Administrative Functions

- Integrate corporate & administrative functions
- Save U.S. public company costs

## Procurement / Supply Chain

- Optimize production and supply chain network
- Achieve savings through joint procurement

## Business Optimization

- Transform country setup
- Streamline duplicate structures

## Solid financing structure for Versum Materials acquisition secured



**Financing structure secured with mix of cash and debt**

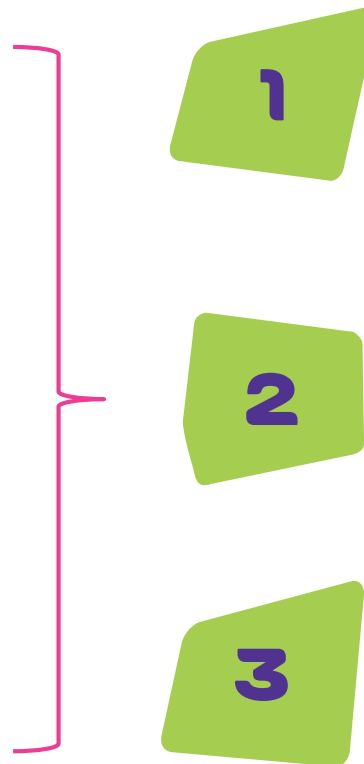
- Fully committed financing is in place by way of a facilities agreement with Bank of America Merrill Lynch, BNP Paribas Fortis and Deutsche Bank
- Facilities Agreement consists of a USD 4.0bn **Bridge Loan** and a USD 2.3bn **Term Loan**
- The Bridge Loan is targeted to be taken out by a EUR **hybrid bond** as well as EUR **senior bond** offering



**Strong commitment to rating reiterated**

- Merck KGaA, Darmstadt, Germany has a history of **rapid deleveraging** after larger acquisitions and will continue to keep that focus
- The hybrid bond offering underpins Merck's KGaA, Darmstadt, Germany commitment to support its **strong credit ratings**

# Indicative timeline to closing



## Closing after:

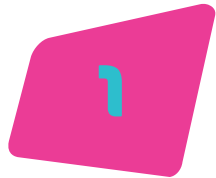
Versum Materials shareholders approval<sup>1</sup>

Regulatory approvals

Fulfillment of other customary closing conditions

<sup>1</sup>Day of Versum Materials-EGM to be confirmed.

# Executive summary



**Rebalancing group's and Performance Materials' portfolio towards high-growth markets**



**Creating a leading electronic materials players focused on the semiconductor and display industries**



**Capitalizing on attractive secular electronics industry growth trends**



**EPS pre accretive in first full year after closing and to reported EPS in year 3**



**Sustainable value creation for Merck KGaA, Darmstadt, Germany**



**BACK-UP**



# A compelling proposal for all stakeholders

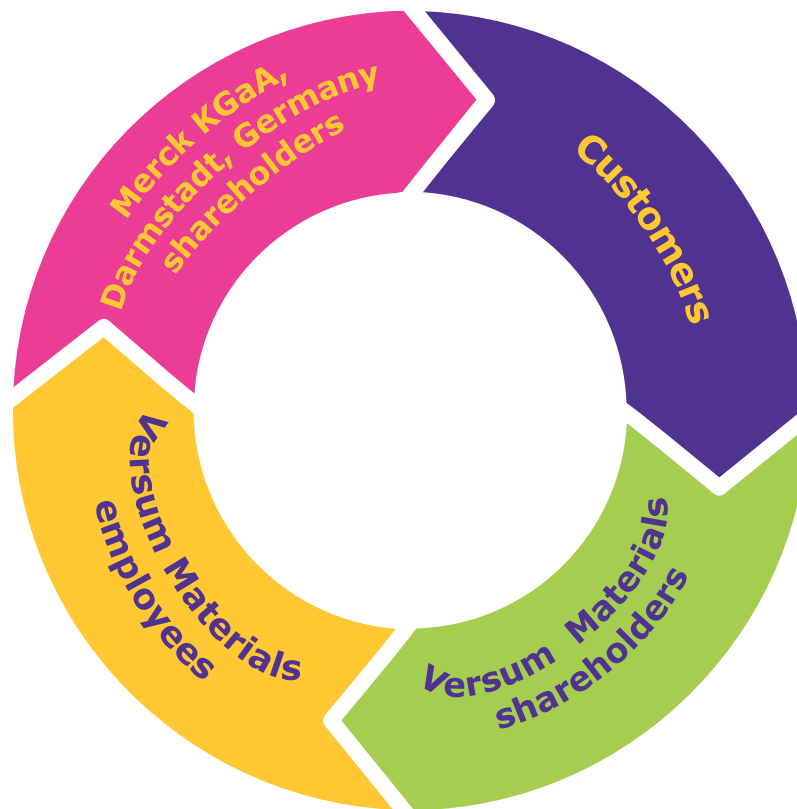
A **strategically and financially compelling** transaction for Merck KGaA, Darmstadt, Germany shareholders

Delivers on strategy of **building leading positions in attractive markets**

**11.6x EBITDA 2019E multiple** (incl. synergies) and all cash consideration make the transaction financially attractive

Becoming an **integral part** of **leading science and technology** company Merck KGaA, Darmstadt, Germany

**Commitment to maintain Tempe, Arizona presence** as **the major hub** for the combined electronic materials business in the U.S.



Providing **leading-edge technology** backed by the capabilities, scale and quality of Merck KGaA, Darmstadt, Germany

**Truly global footprint** and **close proximity** to customers worldwide

Combines **innovation strength** to better serve our customers in a rapidly evolving marketplace

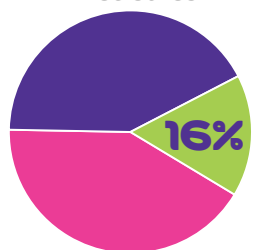
Combining the **certainty of an all-cash** transaction with an **attractive valuation**

**Merck KGaA, Darmstadt, Germany – the best strategic owner of Versum Materials to the highest benefit of shareholders, employees and customers**

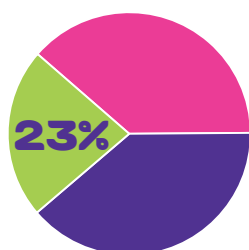
# Actively rebalances the Group portfolio for diversified, accelerated growth

## Rebalancing Group portfolio to diversified structure of three strong pillars

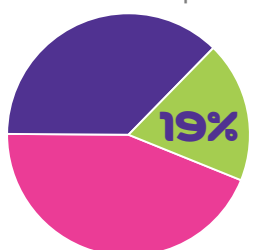
Merck KGaA, Darmstadt, Germany  
Net sales<sup>1</sup>



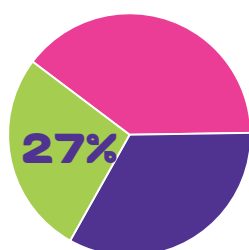
Pro-forma net sales<sup>1</sup>



Merck KGaA, Darmstadt, Germany  
EBITDA pre<sup>1</sup>



Pro-forma EBITDA pre<sup>1, 2</sup>



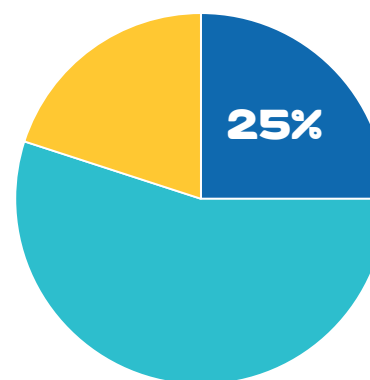
■ Healthcare  
■ Life Science  
■ Performance Materials



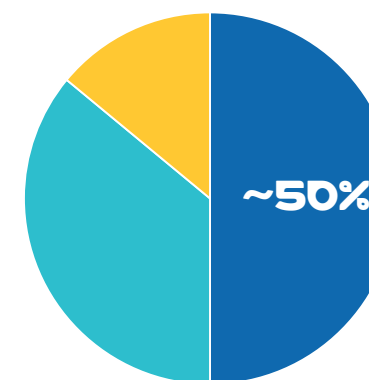
Performance Materials and Versum Materials will have pro-forma LTM net sales of ~€3.6bn<sup>1</sup> and LTM EBITDA pre of ~€1.3bn<sup>1,2</sup>

## Performance Materials executes on its transformation program

Today<sup>3</sup>



Pro-forma<sup>4</sup>



■ Semiconductor Solutions  
■ Display Solutions  
■ Surface Solutions



Increasing exposure to high-growth market segments in electronic materials and solutions

<sup>1</sup>LTM results as of December 31, 2018. EBITDA pre excludes Corporate & Other; <sup>2</sup>Including 100% synergies; <sup>3</sup>Merck KGaA, Darmstadt, Germany PM net sales for LTM Q1 2018 – Q4 2018; <sup>4</sup>Pro-forma net sales consolidates Versum Materials LTM net sales as of September 30, 2018; All Versum Material's data as per Versum Materials SEC filings.

## Versum Materials Financials

€m <sup>1, 2</sup>	2015	2016	2017	2018
Net sales	907	880	997	1,162
Adjusted EBITDA	271	297	329	377
Adjusted EBITDA margin	29.9%	33.7%	33.0%	32.5%
EBITDA	251	296	307	360
D&A	51	46	41	43
EBIT	200	251	266	317

### Robust historical financial performance

- 2015-2018 CAGR sales of ~11%
- 2015-2018 CAGR adjusted EBITDA of ~14%

<sup>1</sup>Source: Versum Materials SEC filings; Financials converted from US\$ to EUR based on average annual exchange rate of EUR/USD; <sup>2</sup>Versum Materials Fiscal Year ends September 30.

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