



# Merck KGaA, Darmstadt, Germany – Q3 2014 Roadshow Presentation

*Investor Relations*

**Merck KGaA**  
Darmstadt · Germany

*December 2014*



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Risks and uncertainties relating to the proposed transaction with Sigma-Aldrich Corporation (“Sigma-Aldrich”) include, but are not limited to: the risk Sigma-Aldrich’s shareholders do not approve the transaction; uncertainties as to the timing of the transaction; the risk that regulatory or other approvals required for the transaction are not obtained or are obtained subject to conditions that are not anticipated; competitive responses to the transaction; litigation relating to the transaction; uncertainty of the expected financial performance of the combined company following completion of the proposed transaction; the ability of Merck KGaA, Darmstadt, Germany, to achieve the cost-savings and synergies contemplated by the proposed transaction within the expected time frame; the ability of Merck KGaA, Darmstadt, Germany, to promptly and effectively integrate the businesses of Sigma-Aldrich and Merck KGaA, Darmstadt, Germany; the effects of the business combination of Merck KGaA, Darmstadt, Germany, and Sigma-Aldrich, including the combined company’s future financial condition, operating results, strategy and plans; the implications of the proposed transaction on certain employee benefit plans of Merck KGaA, Darmstadt, Germany, and Sigma-Aldrich; and disruption from the proposed transaction making it more difficult to maintain relationships with customers, employees or suppliers.

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The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included elsewhere, including the Report on Risks and Opportunities Section of the most recent annual report and quarterly report of Merck KGaA, Darmstadt, Germany, and the Risk Factors section of Sigma-Aldrich’s most recent reports on Form 10-K and Form 10-Q. Any forward-looking statements made in this communication are qualified in their entirety by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us or our business or operations. Except to the extent required by applicable law, we undertake no obligation to update publicly or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.

## Important Additional Information

This communication may be deemed to be solicitation material in respect of the proposed acquisition of Sigma-Aldrich by Merck KGaA, Darmstadt, Germany. The proposed acquisition will be submitted to the stockholders of Sigma-Aldrich for their consideration. In connection therewith, on November 3, 2014, Sigma-Aldrich filed a definitive proxy statement with the SEC. Sigma-Aldrich will also begin mailing the definitive proxy statement on November 3, 2014, to its stockholders of record as of the close of business on October 29, 2014. BEFORE MAKING ANY VOTING OR ANY INVESTMENT DECISION, INVESTORS AND STOCKHOLDERS ARE URGED TO READ THE DEFINITIVE PROXY STATEMENT REGARDING THE PROPOSED TRANSACTION AND ANY OTHER RELEVANT DOCUMENTS FILED OR TO BE FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Investors and stockholders may obtain free copies of the proxy statement, any amendments or supplements thereto and other documents containing important information about Sigma-Aldrich, once such documents are filed with the SEC, through the website maintained by the SEC at [www.sec.gov](http://www.sec.gov). Copies of the documents filed with the SEC by Sigma-Aldrich will be available free of charge on Sigma-Aldrich’s website at <http://investor.sigmaaldrich.com> under the heading “Financial Information—SEC Filings”. Stockholders of Sigma-Aldrich may also obtain a free copy of the definitive proxy statement by contacting Sigma-Aldrich’s Investor Relations Department at (314) 898-4643.

Sigma-Aldrich and certain of its directors, executive officers and other members of management and employees may be deemed to be participants in the solicitation of proxies in connection with the proposed transaction. Information about the directors and executive officers of Sigma-Aldrich is set forth in its proxy statement for its 2014 annual meeting of stockholders, which was filed with the SEC on March 21, 2014, its annual report on Form 10-K for the fiscal year ended December 31, 2013, which was filed with the SEC on February 6, 2014, and in subsequent documents filed with the SEC, each of which can be obtained free of charge from the sources indicated above. Other information regarding the participants in the proxy solicitation of the stockholders of Sigma-Aldrich and a description of their direct and indirect interests, by share holdings or otherwise, is contained in the definitive proxy statement and other relevant materials filed with the SEC.

# Agenda

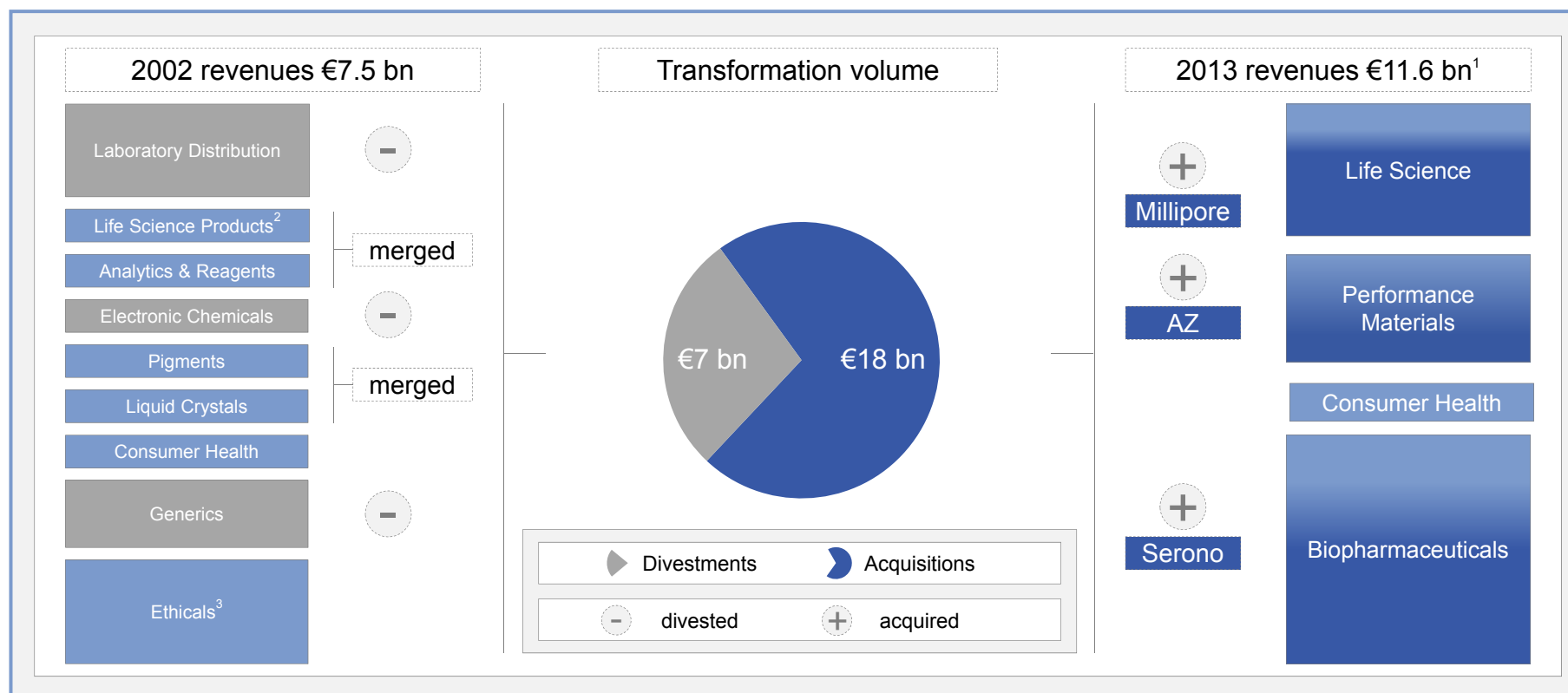
## **Business overview**

Transforming the company

Strategic update on Biopharmaceuticals

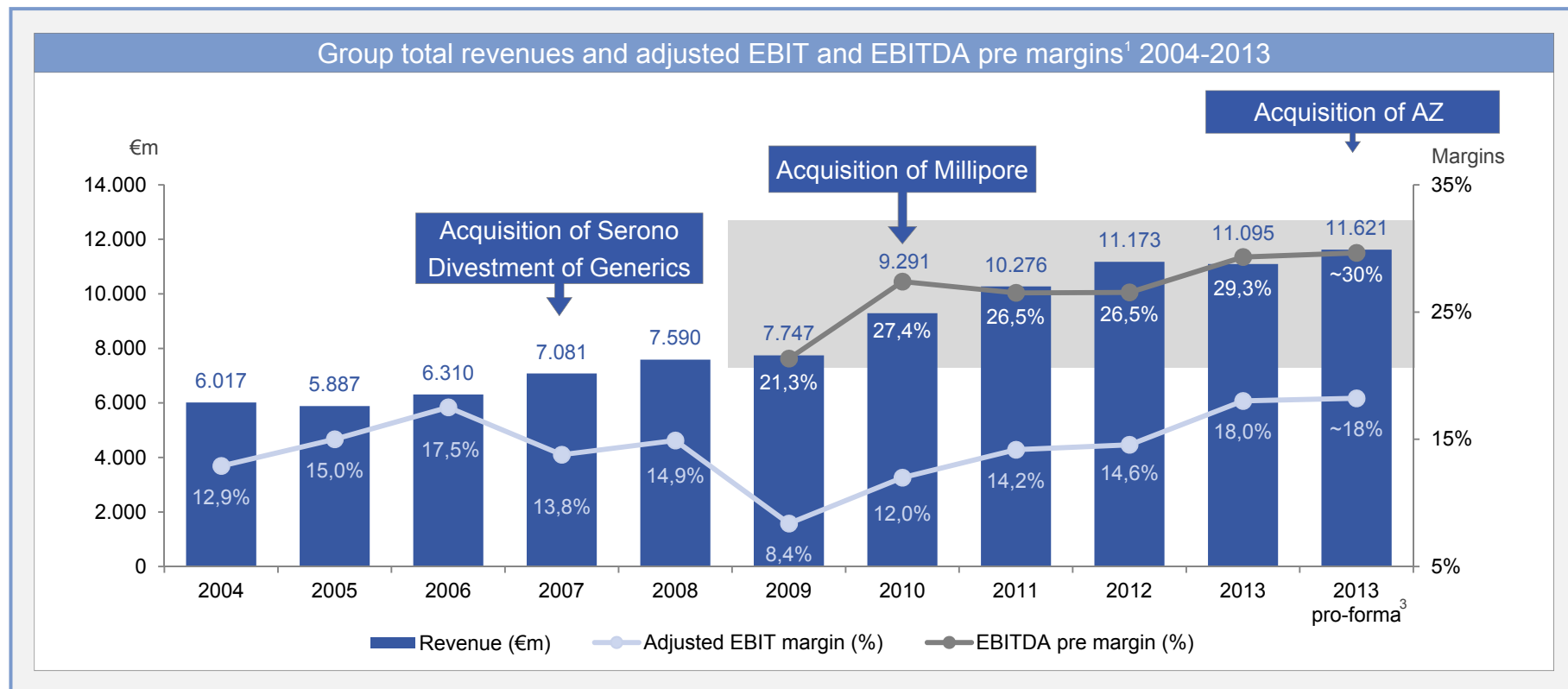
Financial review and guidance

# We have added scale while strengthening the attractiveness of our portfolio



<sup>1</sup>Proforma figure including FY 2013 sales of AZ Electronic Materials acquired as of 2 May 2014, <sup>2</sup>Excluding "Crop Bioscience", which was divested; <sup>3</sup>Excluding "Theramex", which was divested

# Growth initiatives have fundamentally improved profitability



<sup>1</sup>adjusted EBIT<sup>2</sup> and EBITDA pre divided by total revenues; <sup>2</sup>adjusted EBIT is EBIT less exceptional items (e.g. impairments, integration costs, restructuring costs)

<sup>3</sup>Pro-forma calculation based on published FY 2013 results for Merck KGaA, Darmstadt, Germany (including pro-forma AZ); based on 100% expected synergies; including Corporate & Other

# A balanced portfolio of four divisions

## Merck KGaA, Darmstadt, Germany

### Biopharmaceuticals



Leading in certain specialty pharma markets

- Life cycle management
- Biologics
- Emerging markets

### Consumer Health



Present in OTC niche markets

- Vitamins
- Supplements
- Strong presence in Latin America and Europe

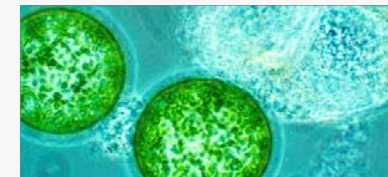
### Performance Materials



No. 1 in display materials

- Customer intimacy
- Innovation power
- Cost and technology leadership

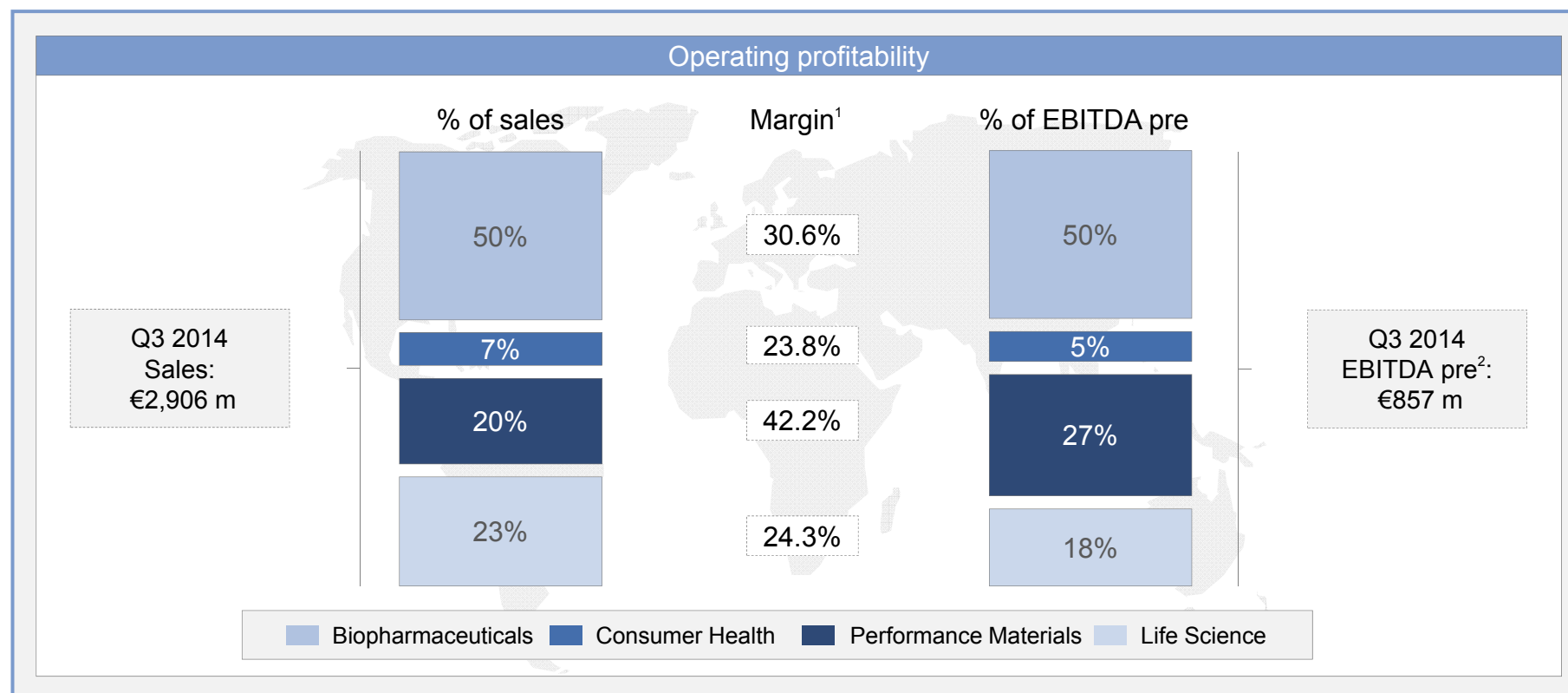
### Life Science



Top 3 in life science tools

- Global presence
- Innovation
- End-to-end solutions for pharma industry

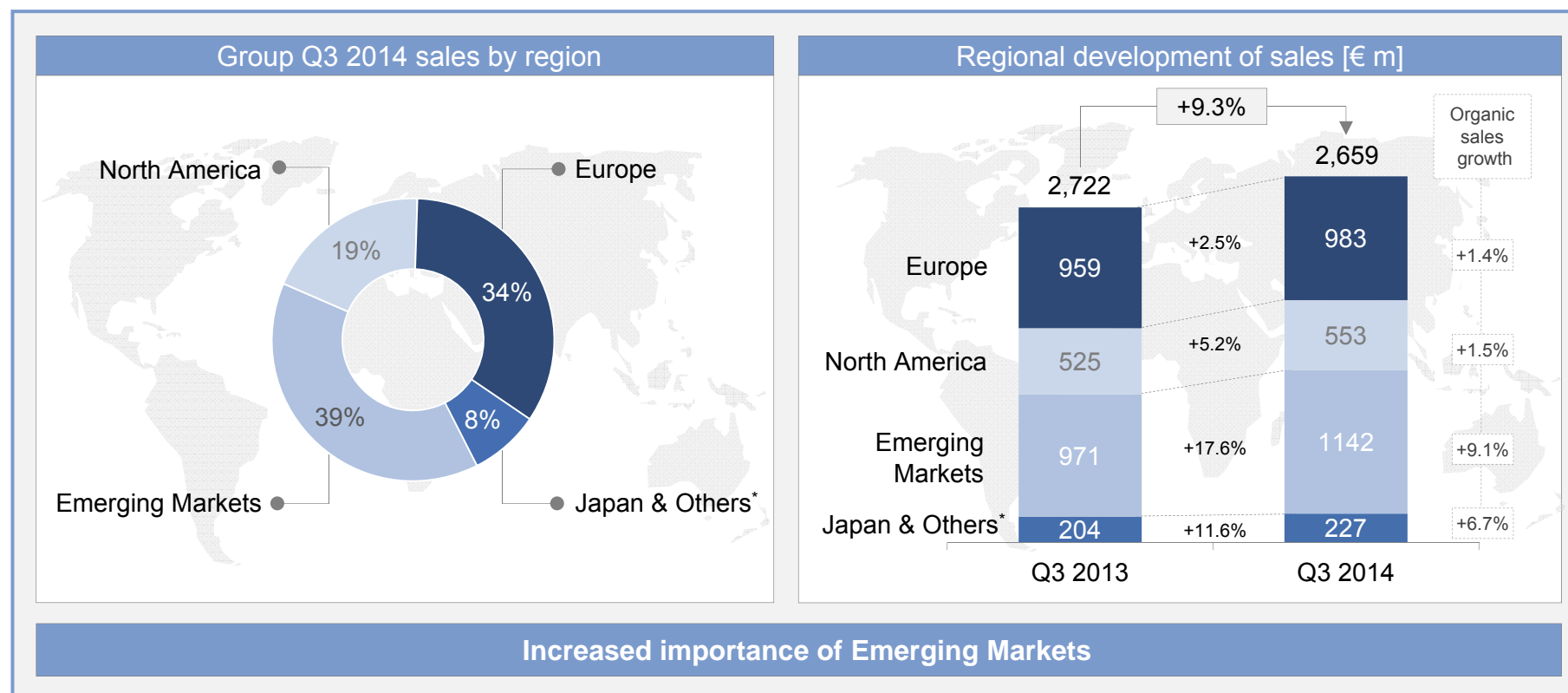
# Strong businesses with attractive margins



<sup>1</sup>EBITDA pre margin in % of sales; <sup>2</sup>Including Corporate/Others (-€44.1 m)  
Totals may not add up due to rounding

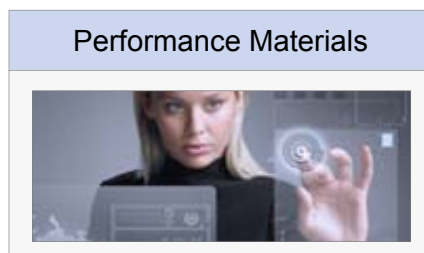


# Growth across all regions

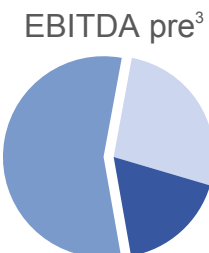
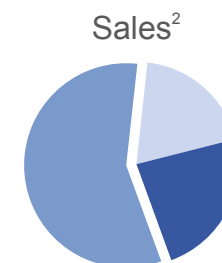


\*Australia/Oceania, Africa  
Totals may not add up due to rounding

# Our portfolio will remain diversified



- Diversification and risk management
- Attractive markets
- High-margin businesses
- Overlapping core competencies (meeting customer needs, innovation, regulated markets, quality, lifecycle management, handling of portfolio and product complexity)
- Company heritage

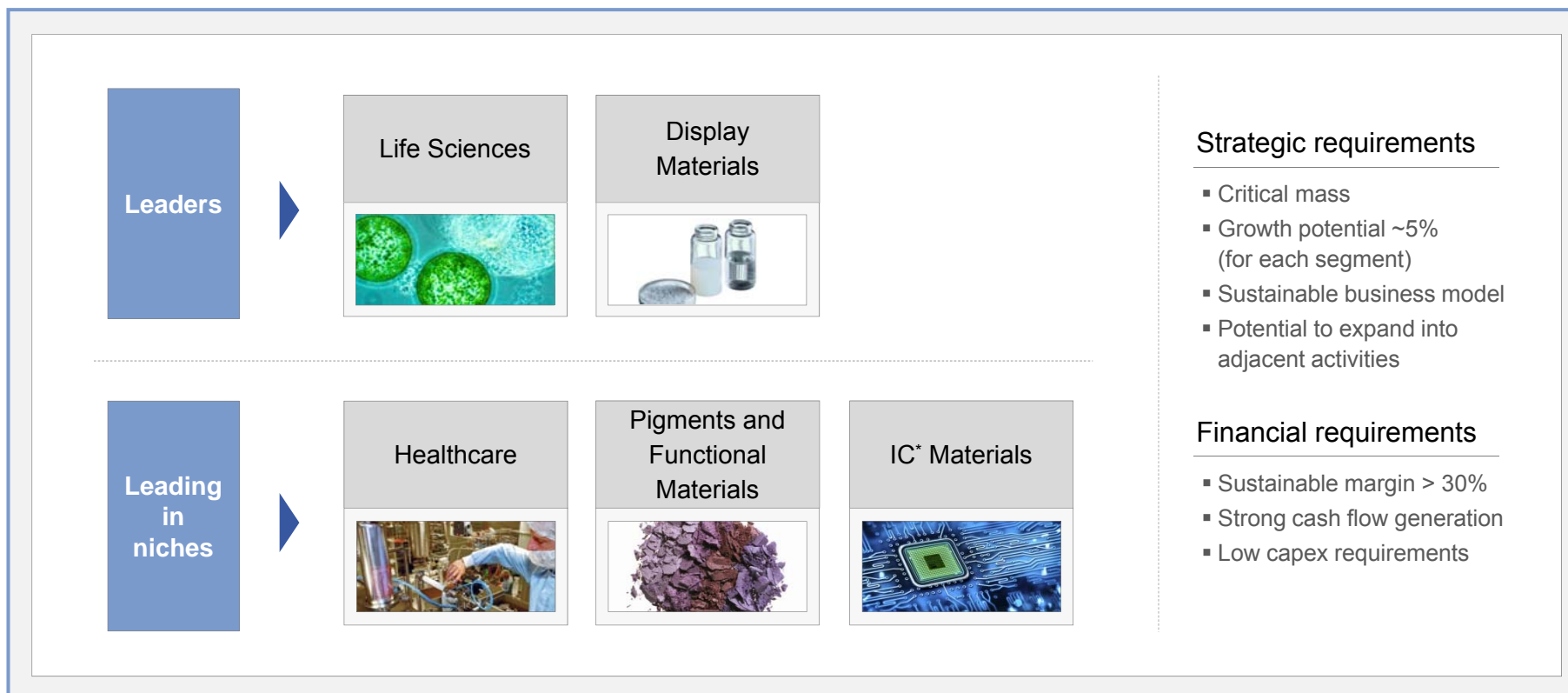


◆ Healthcare  
◆ Performance Materials  
◆ Life Sciences

<sup>1</sup>Healthcare includes Biopharmaceuticals and Consumer Health; <sup>2</sup>Proforma calculation based on published figures for FY 2013 for Merck KGaA, Darmstadt, Germany and AZ Electronic Materials

<sup>3</sup>Proforma calculation including AZ Electronic Materials and 100% expected synergies; excluding Corporate+Other

# All businesses in our portfolio have to meet stringent criteria



\*Integrated Circuit

## Agenda

Business overview

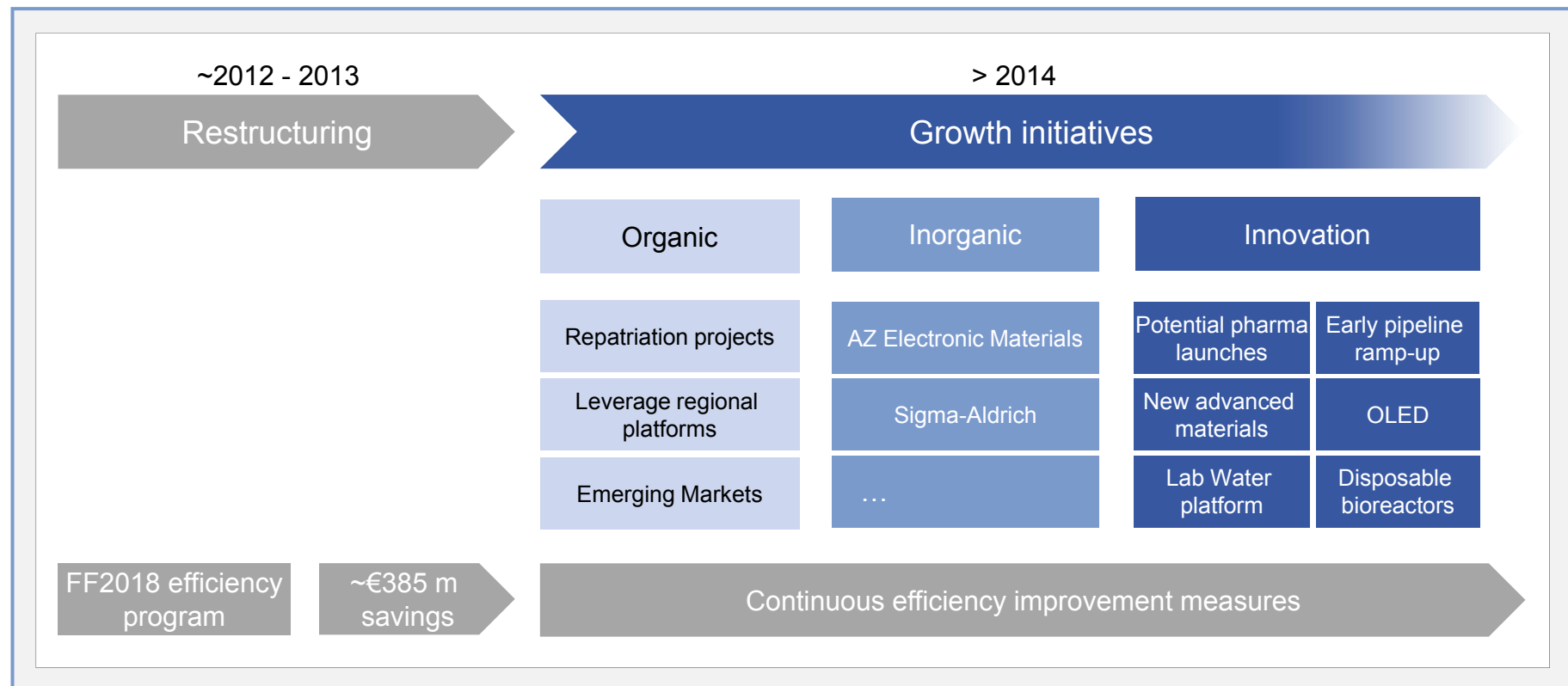
**Transforming the company**

Strategic update on Biopharmaceuticals

Financial review and guidance

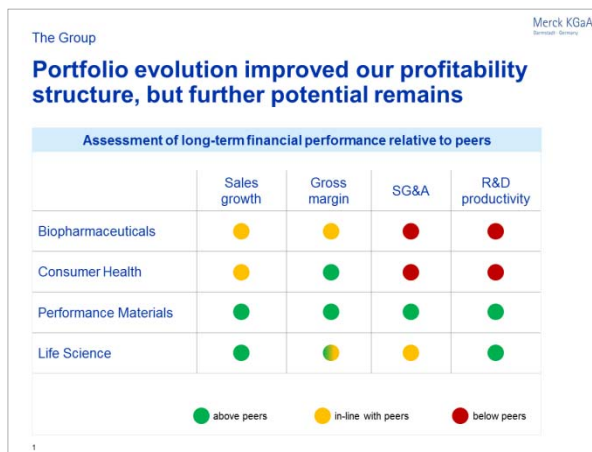
# Strategic agenda beyond 2014 – Focus on growth

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# Strong progress since 2012 but further room for efficiency improvements

May 2012



November 2014



# Ongoing efficiency initiatives to reduce costs and to support our growth strategy

## Structures and processes



- Harmonization of IT systems
- Standardization of processes
- Leverage and upscale shared services

## Costs



- Further reduction of operating leverage
- Additional focus on non-headcount-related costs
- Permanent cost control as part of our DNA

Scalable business model enabling swift M&A integration and synergy generation

# Sigma-Aldrich – Next step to enhance Life Science segment

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## Attractive life science industry



- Attractive industry driven by sustainable underlying market trends
- Stable growth pattern, offering additional growth opportunities
- Strong companies with healthy margins

## Taking our life science business to the next level



- Strong track record of delivering profitable growth
- Adding scale with step change acquisition



# Sigma Aldrich acquisition – A compelling transaction rationale

## Strategic and operational fit

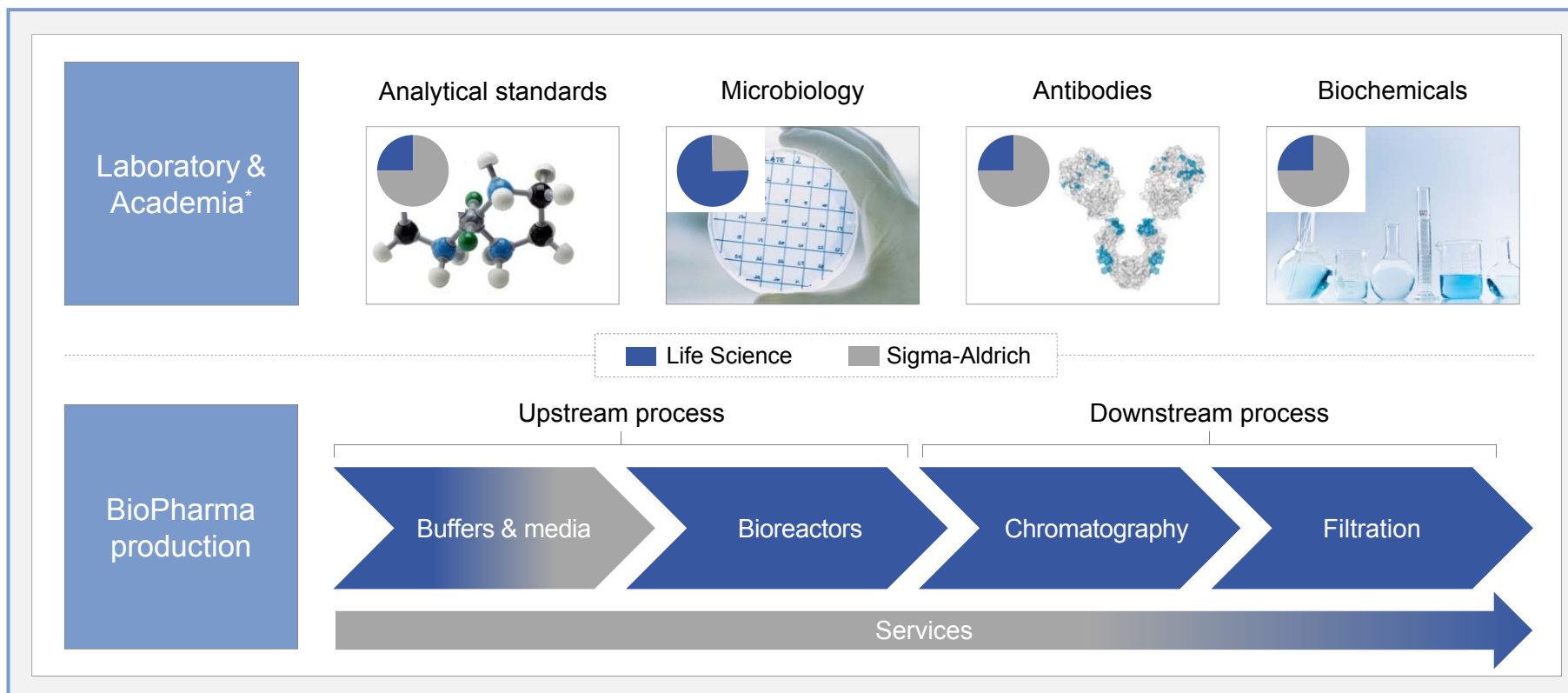
- Increasing scale – expanding position in attractive life science industry
- Enhancing value for our customers
  - Broadens product range and ease of doing business for Laboratories & Academia
  - Complements Process Solutions product offering
- Closing the gap in U.S. – adequate presence in all geographies
- Leveraging existing platforms for global innovation rollout

## Financial fit

- Further diversification of revenue stream
- Substantial synergy potential
- Immediately accretive to EPS pre\* and EBITDA margin
- Solid investment grade rating will be maintained

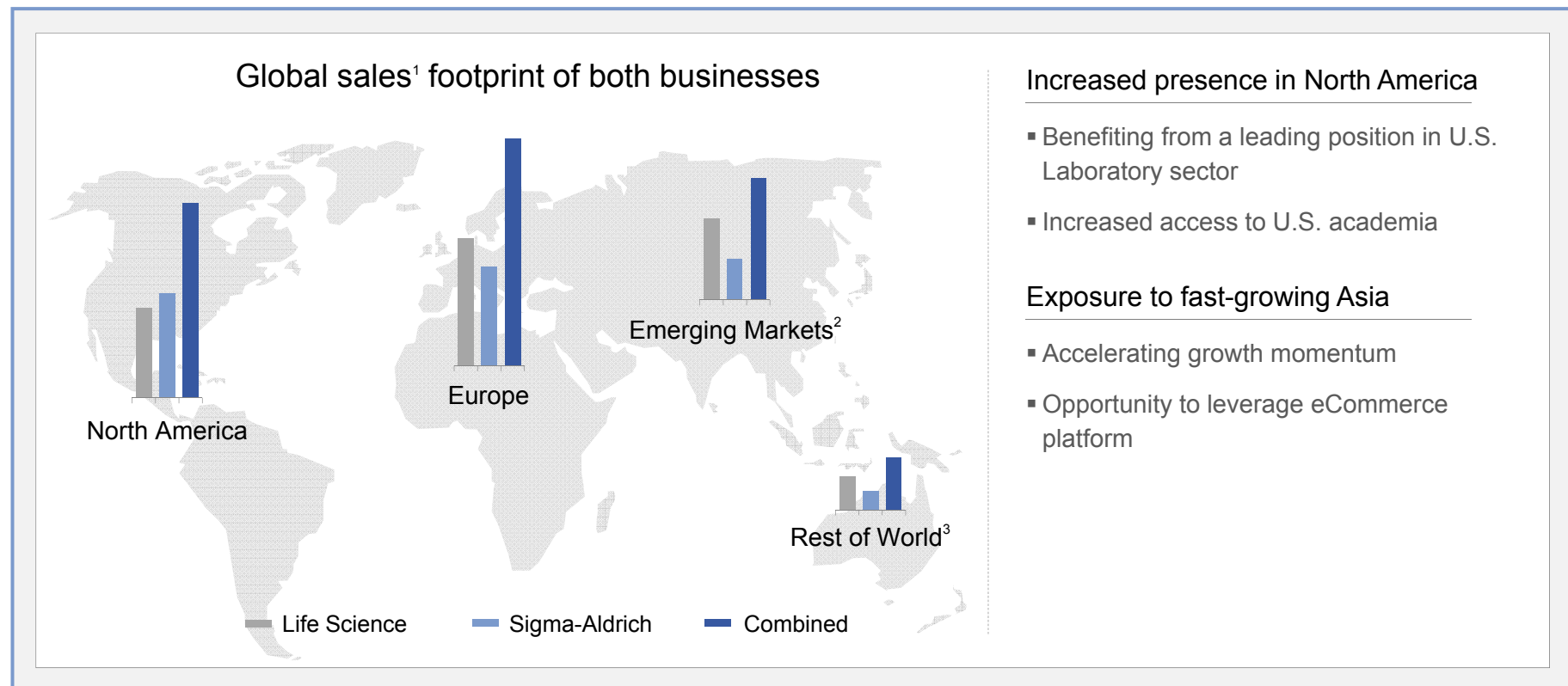
\*EPS pre one-time items and amortization, especially from purchase price allocation (PPA)

## Broad and complementary product fit in attractive segments



\*Key laboratory and academia areas illustrated

# Expanding global reach and scale



<sup>1</sup>Based on FY 2013 data in €m; <sup>2</sup>Latin America, Asia w/o Japan; <sup>3</sup>Japan, Australia/Oceania, Africa

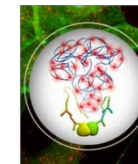
# Leveraging operational excellence to deliver superior value to customers

## Product innovation

- Delivering innovative workflow solutions to increase customers' efficiency
- Broad technology and platforms
- Recurring winners of renowned innovation awards



Mobius FlexReady



Duolink



Amnis

## Process innovation

- Efficient supply chain for >300,000 products
- Best in class customer experience; e.g. 24 hour delivery in major markets
- Top-notch customer interface supported by eCommerce platform



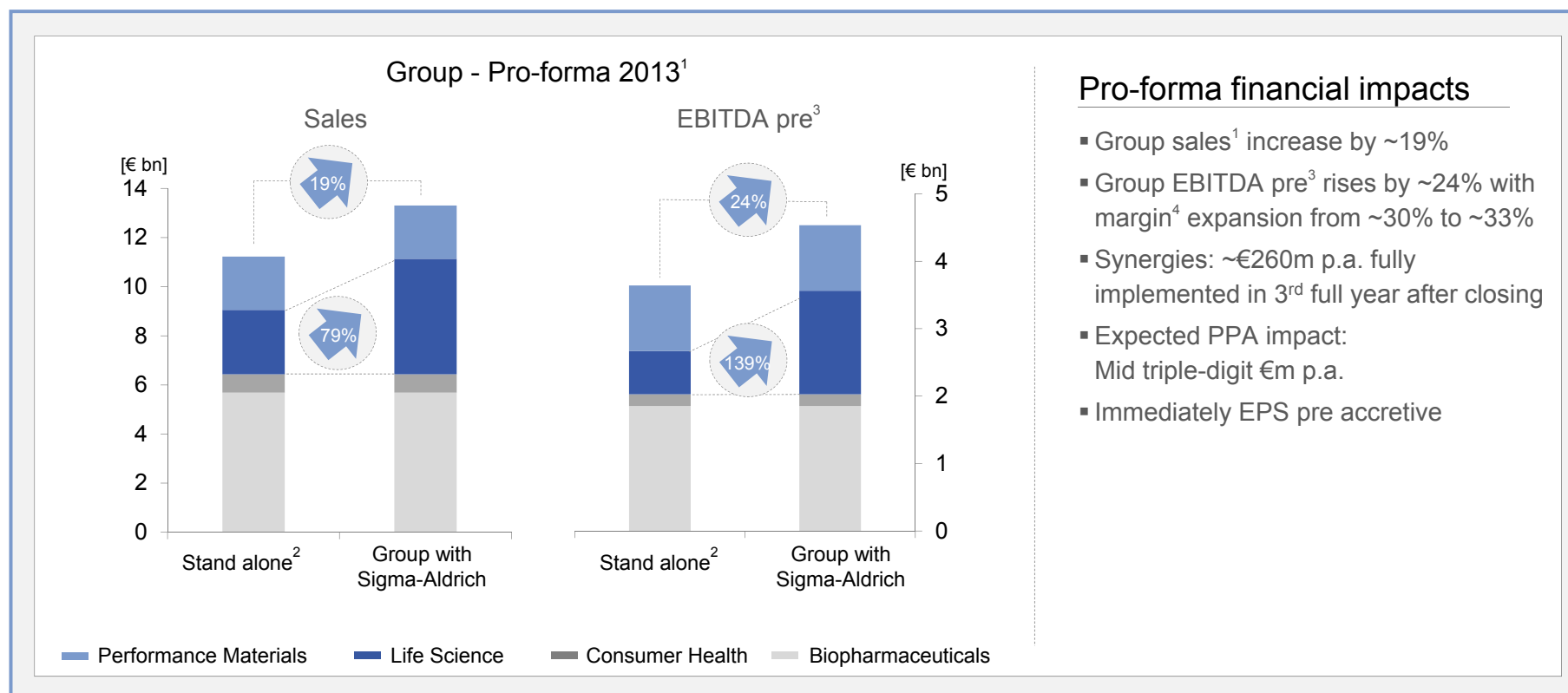
eCommerce platform



Supply chain

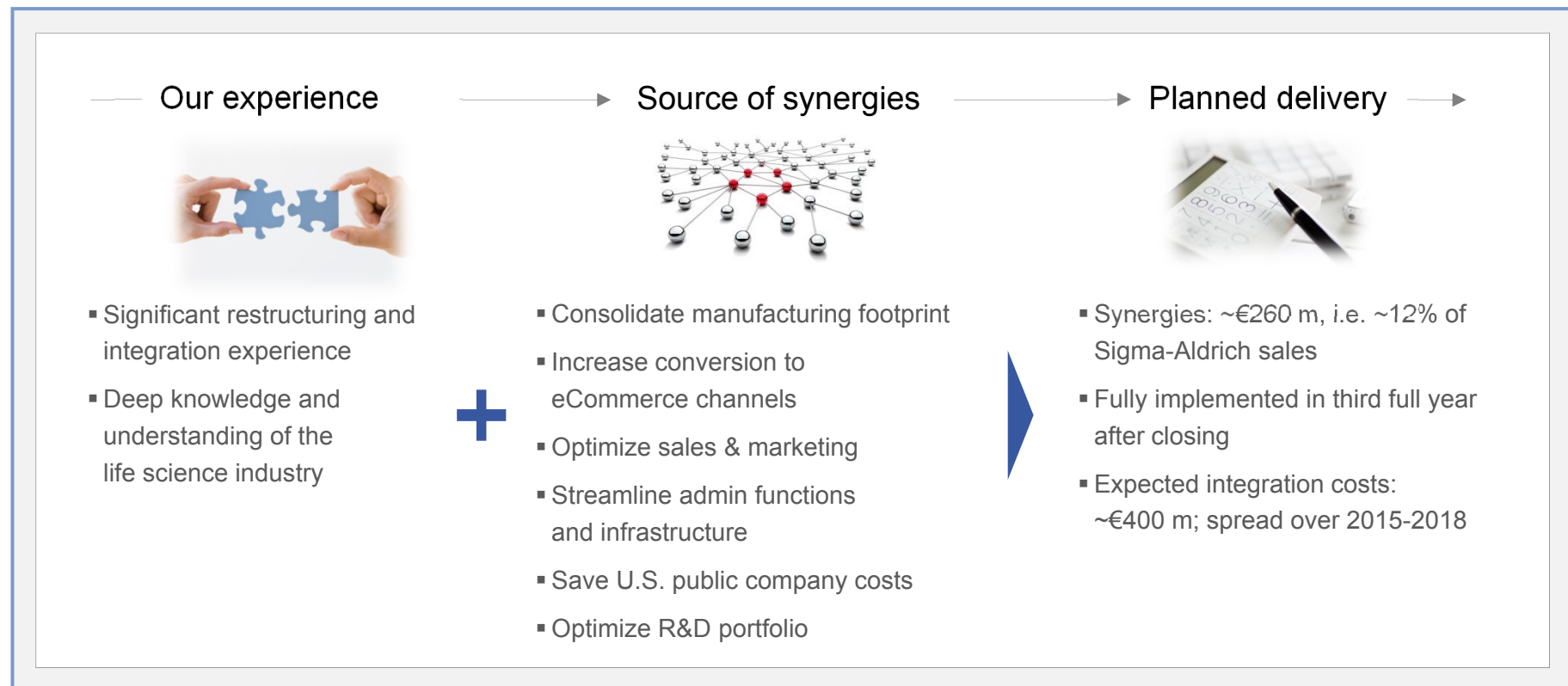
Efficient work flow solutions and unique customer experience

# Transaction enhances our financial profile



<sup>1</sup>Pro-forma calculation based on published sales for FY 2013 for Merck KGaA, Darmstadt, Germany (including pro-forma AZ Electronic Materials) and Sigma-Aldrich; <sup>2</sup>Pro-forma calculation based on published sales for FY 2013 for Merck KGaA, Darmstadt, Germany (including pro-forma AZ Electronic Materials); <sup>3</sup>Pro-forma calculation based on 100% expected synergies; excluding Corporate & Other; <sup>4</sup>Including Corporate & Other

# Support from meaningful synergies



## Agenda

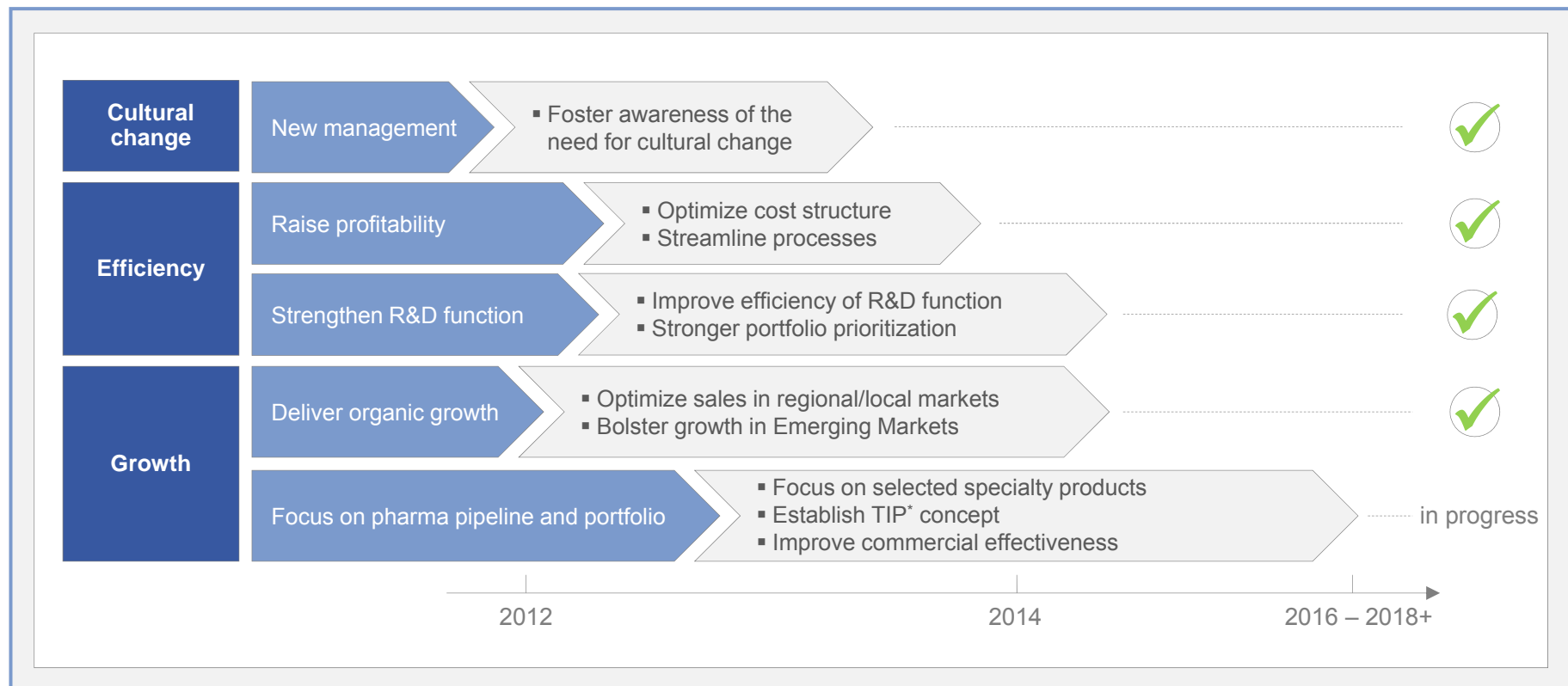
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# A substantial number of “Fit for 2018” measures have already been implemented



\*TIP = Translational Innovation Platform



# Portfolio management: Differentiating across diverse business models

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Darmstadt · Germany

## General Medicine portfolio



- Limited risk with high cash generation
- Sustainable steady growth fueled by Emerging Markets



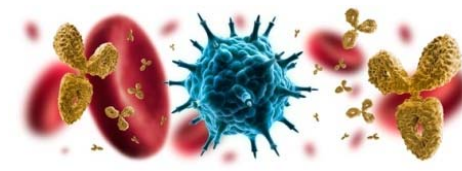
## Biologicals portfolio



- Moderate risk and reward profile
- Economies of scale due to state-of-the-art production capabilities
- Emerging Markets gain importance



## Oncology & Immunology innovation portfolio

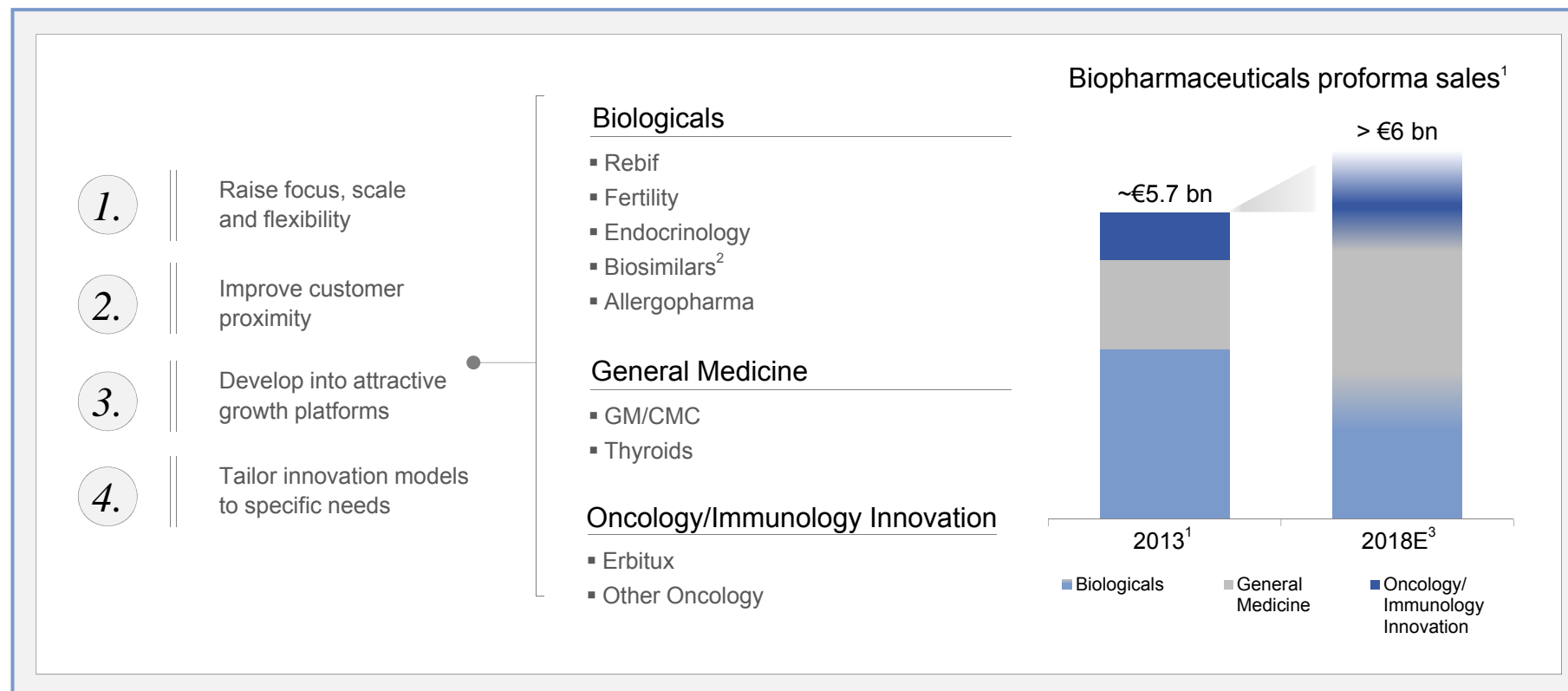


- High reward at high risk
- Innovation key success factor – high R&D spend
- Promising pipeline projects



Mid-term, all parts of the portfolio need to earn their cost of capital

# Biopharmaceuticals has three different business models with specific strengths and requirements



<sup>1</sup>Source: Proforma re-calculation based on 2013 data for Biopharmaceuticals; excluding Consumer Health; <sup>2</sup>Gradual sales ramp-up expected from 2017 onwards

<sup>3</sup>Excluding contributions from R&D pipeline

# The road to maximizing Biopharmaceuticals' existing franchises is clear



Continue to drive front-line mCRC share by increasing patient testing and expanding head and neck coverage



Capitalize on strong efficacy and new smart devices to maximize differentiation and defend franchise



Build on No.1 position and ART<sup>1</sup> channel access with embryo diagnostics and other innovative technologies



Harness strengths of existing business and build a new focus area driven by innovative devices and services for patients

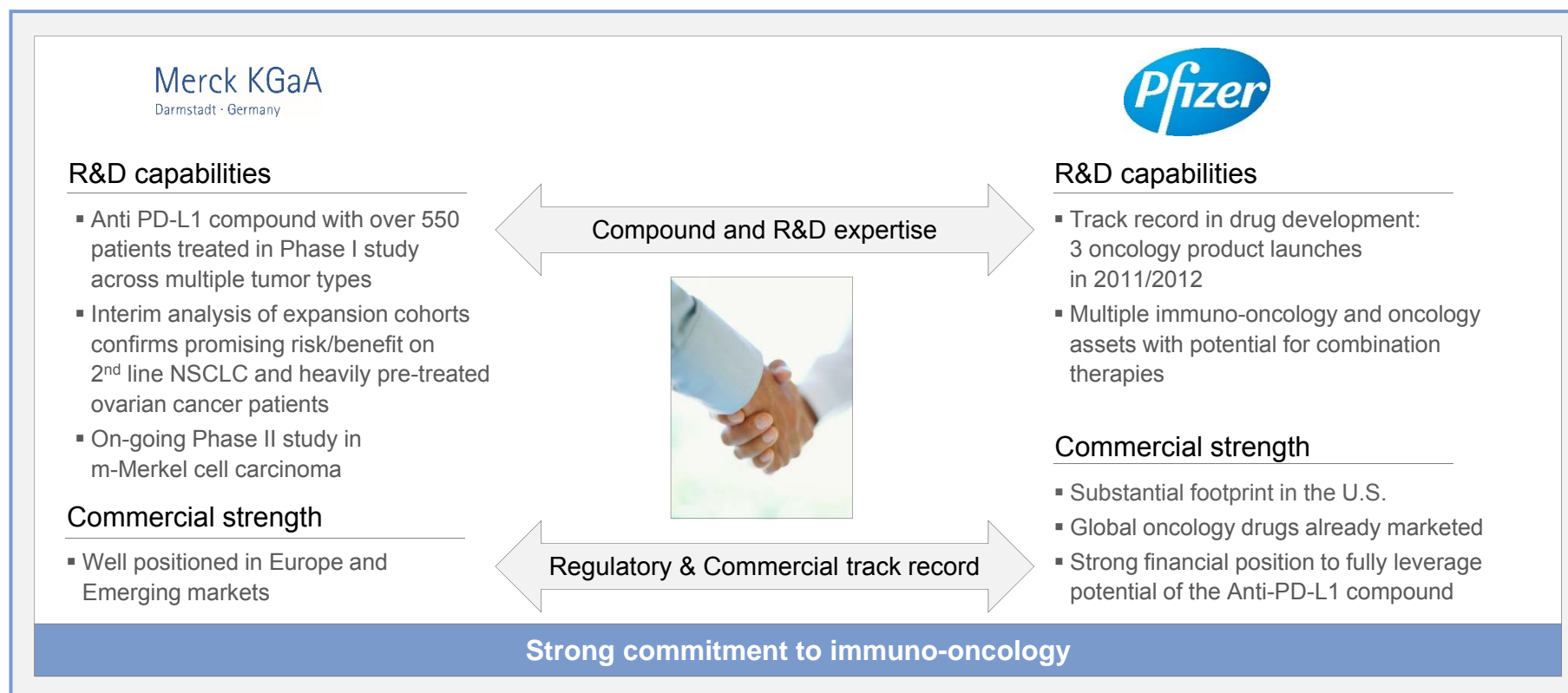


Build on existing track record in Emerging Markets, drive brand and life-cycle management and expand business including asset repatriation



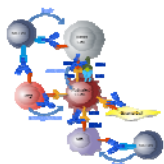
<sup>1</sup>ART = Assisted Reproductive Technology

# Merck KGaA, Darmstadt, Germany and Pfizer – two strong players combining forces in oncology



# Three strategic drivers for collaboration

## Leverage Anti PD-L 1 asset



- Combine Biopharmaceuticals' R&D and Pfizer's commercialization capabilities
- Speed up overall development process through joint R&D efforts
- Combine financial resources of two global pharma players
- Share development risk



## Tackle combination therapies



- Enlarge pool of potential combinations through use of Pfizer's pipeline assets and existing products of Pfizer
- Leverage scientific expertise through joint research efforts
- Increase momentum to bring combinations to the market



## Build new commercialization strength



- Co-commercialization of Xalkori in major markets
- Build up Oncology infrastructure and capabilities, especially in North America
- Broaden experience and knowledge base in advance of potential Anti-PD-L1 launch
- Additional income stream to drive R&D activities



# Financial implications of the deal with Pfizer

▶ \$850 m upfront cash payment, accrual to be released over several years

▶ ~50:50 R&D Cost split for drug development

▶ Milestone payments of up to \$2.0 bn based on filing/approval and commercialization of the compound across various indications & markets

▶ Co-commercialization of Xalkori – 2015 reimbursement for ramping up infrastructure and capabilities; followed by profit sharing agreement

▶ Following regulatory approval, first potential sales of Anti PD-L1 compound



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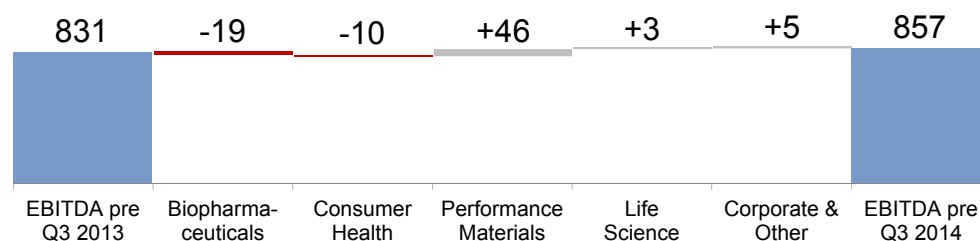
Strategic update on Biopharmaceuticals

**Financial review and guidance**

# All our businesses drive organic growth, while currency headwinds abate

Q3 YoY sales	Organic	Currency	Portfolio	Total
Biopharmaceuticals	4.5%	-0.8%	0.0%	3.7%
Consumer Health	1.4%	0.0%	0.0%	1.5%
Performance Materials	7.0%	-0.2%	35.0%	41.7%
Life Science	4.5%	-0.1%	-1.0%	3.4%
<b>The Group</b>	<b>4.6%</b>	<b>-0.5%</b>	<b>5.1%</b>	<b>9.3%</b>

Q3 YoY EBITDA pre contributors [€ m]



- All key franchises of Biopharmaceuticals deliver organic growth
- Good volumes in Liquid Crystals drive Performance Materials
- Life Science benefits from strong performance of Process Solutions
- Biopharmaceuticals affected by Humira and Enbrel royalty income loss and higher production costs
- Consumer Health shows solid trend, but high comparables and investments in marketing
- Performance Materials includes a full quarter of AZ contribution

Totals may not add up due to rounding



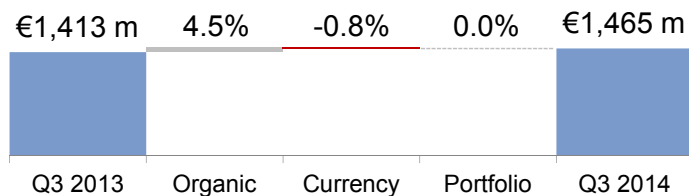
## Q3 2014: Sound financials

[€ m]	Q3 2013	Q3 2014	Δ	Q3 2014
<b>Sales</b>	<b>2,659</b>	<b>2,906</b>	<b>9.3%</b>	<ul style="list-style-type: none"> <li>▪ Sales up on organic improvement and full AZ contribution</li> <li>▪ EBITDA pre increases on organic growth and AZ, margin reflects royalty income losses</li> <li>▪ EPS pre flat amid higher D&amp;A and lower financial result</li> <li>▪ Operating cash flow impacted by lower royalty income and increase in working capital</li> <li>▪ Higher headcount includes employees from AZ</li> </ul>
<b>EBITDA pre</b>	<b>831</b>	<b>857</b>	<b>3.1%</b>	
<i>Margin (% of sales)</i>	<i>31.2%</i>	<i>29.5%</i>		
<b>EPS pre [€]</b>	<b>1.15</b>	<b>1.15</b>	<b>0%</b>	
<b>Operating cash flow</b>	<b>827</b>	<b>726</b>	<b>-12.2%</b>	
[€ m]	Dec 31, 2013	Sept. 30, 2014	Δ	
<b>Net financial debt</b>	<b>307</b>	<b>1,521</b>	<b>&gt;100%</b>	
<b>Working capital</b>	<b>2,132</b>	<b>2,554</b>	<b>19.8%</b>	
<b>Employees</b>	<b>38,154</b>	<b>39,355</b>	<b>3.1%</b>	
<b>Net financial debt increases on AZ acquisition</b>				

# Biopharmaceuticals: Emerging Markets drive organic growth

[€ m]	Q3 2013*	Q3 2014
<b>Sales</b>	<b>1,413</b>	<b>1,465</b>
Marketing and selling	-428	-433
Admin	-49	-55
R&D	-296	-410
<b>EBIT</b>	<b>240</b>	<b>237</b>
EBITDA	446	436
<b>EBITDA pre</b>	<b>467</b>	<b>449</b>
<i>Margin (% of sales)</i>	33.1%	30.6%

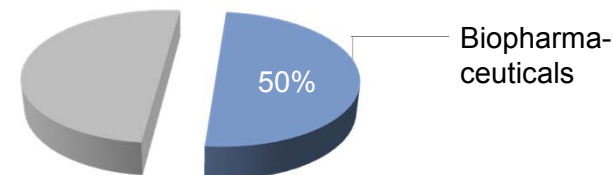
Sales bridge



Comments

- Sales improve due to solid organic growth, slightly impacted by FX
- Rebif with organic growth as U.S. pricing outweighs volume loss
- Erbitux with good organic performance driven by all regions
- Increase in R&D due to pipeline prioritization (tecemotide and plovamer discontinuations) and Biosimilars initiatives
- Higher R&D expense balanced by reduction in litigation provision reported under other operating income/expenses line
- EBITDA pre burdened by lower royalties (Humira, Enbrel) and higher production costs

Q3 2014 share of group sales



\*Restated for product reclassification of Neurobion and Floratil from Biopharmaceuticals to Consumer Health

# Consumer Health: Q3 compares to a strong base

[€ m]	Q3 2013*	Q3 2014	Comments
<b>Sales</b>	<b>201</b>	<b>204</b>	<ul style="list-style-type: none"> <li>▪ Slight organic sales growth despite tough comparables, country exits and destocking</li> <li>▪ Emerging Markets main driver of organic growth, especially driven by Neurobion and Floratil in Brazil</li> <li>▪ Femibion continues to grow organically, especially in Germany</li> <li>▪ Higher marketing and selling costs due to investments in global marketing initiatives</li> <li>▪ EBITDA pre impacted by higher marketing and selling costs, last year benefited from strong contribution of new brands</li> <li>▪ Margin maintained at sustainable level</li> </ul>
Marketing and selling	-72	-77	
Admin	-6	-7	
R&D	-6	-5	
<b>EBIT</b>	<b>55</b>	<b>42</b>	
EBITDA	57	45	
<b>EBITDA pre</b>	<b>58</b>	<b>49</b>	
<i>Margin (% of sales)</i>	<i>28.9%</i>	<i>23.8%</i>	
<b>Sales bridge</b>			<b>Q3 2014 share of group sales</b>
<p>€201 m    1.4%    0.1%    0.0%    €204 m</p> <p>Q3 2013    Organic    Currency    Portfolio    Q3 2014</p>			<p>Consumer Health 7%</p>

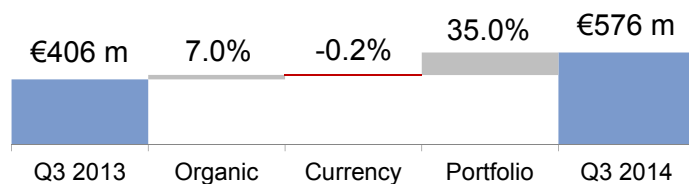
\*Restated for product reclassification of Neurobion and Floratil from Biopharmaceuticals to Consumer Health

# Performance Materials: IPS and PS-VA fuel divisional performance

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[€ m]	Q3 2013	Q3 2014
<b>Sales</b>	<b>406</b>	<b>576</b>
Marketing and selling	-38	-45
Admin	-7	-18
R&D	-37	-45
<b>EBIT</b>	<b>177</b>	<b>152</b>
EBITDA	202	218
<b>EBITDA pre</b>	<b>197</b>	<b>243</b>
<i>Margin (% of sales)</i>	<i>48.4%</i>	<i>42.2%</i>

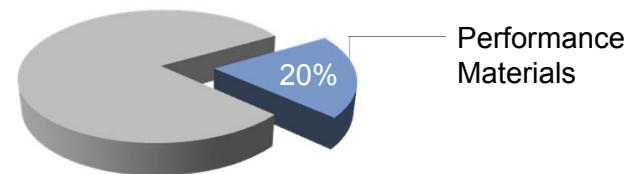
Sales bridge



Comments

- Sales increase on portfolio effect and good organic growth
- Liquid Crystals largest contributor to organic growth driven by good volumes
- Excellent performance of PS-VA and IPS due to strong demand for premium TV's, supported by new UB-FFS mode for mobile devices
- EBIT impacted by AZ inventory step-up
- EBITDA pre rises visibly due to AZ and good organic growth; AZ contributes lower average margins
- AZ integration well on track

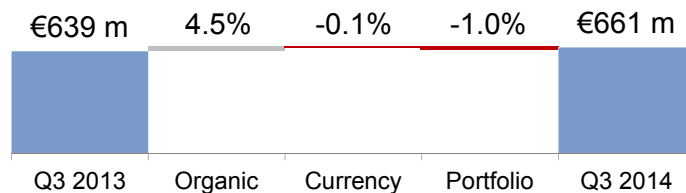
Q3 2014 share of group sales



# Life Science: Process Solutions drives growth

[€ m]	Q3 2013	Q3 2014
<b>Sales</b>	<b>639</b>	<b>661</b>
Marketing and selling	-209	-206
Admin	-25	-26
R&D	-40	-42
<b>EBIT</b>	<b>67</b>	<b>72</b>
EBITDA	145	150
<b>EBITDA pre</b>	<b>157</b>	<b>161</b>
<i>Margin (% of sales)</i>	<i>24.6%</i>	<i>24.3%</i>

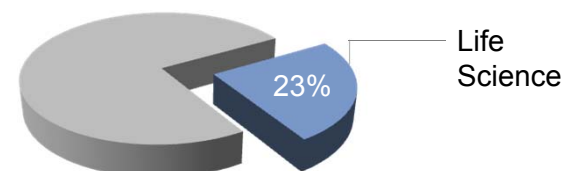
Sales bridge



Comments

- Sound organic growth slightly reduced by FX and portfolio
- Process Solutions drives divisional growth mainly due to strong demand from biopharma industry for purification & sterilization
- Lab Solutions flat as Emerging Markets demand for water purification solutions is almost offset by softness in Europe
- Impact of U.S. sequestration as well as lower demand for antibodies in Europe and North America weigh on Bioscience
- Profitability remains on healthy level owing to solid volumes

Q3 2014 share of group sales



# Full-year guidance confirmed

Merck KGaA  
Darmstadt · Germany

## Group guidance for 2014, including AZ<sup>1</sup>

▶	<b>Sales:</b>	<b>~ €11.0 – 11.2 bn</b>	◀
▶	<b>EBITDA pre:</b>	<b>~ €3.3 – 3.4 bn</b>	◀
▶	<b>EPS pre<sup>2</sup>:</b>	<b>~ €4.50 – 4.75</b>	◀



<sup>1</sup>Including AZ Electronic Materials from May to December 2014

<sup>2</sup>Based on number of shares after the share split, which has been effective since June 30, 2014




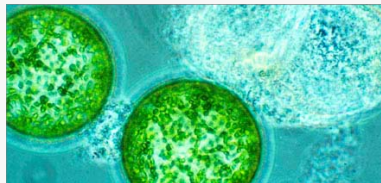
# Merck KGaA

Darmstadt · Germany

# Appendix



# Guidance details

Biopharmaceuticals	Consumer Health	Performance Materials	Life Science
			
Sales	Sales	Sales	Sales
Slight organic growth	Moderate organic growth	Slight organic growth	Moderate organic growth
EBITDA pre	EBITDA pre	EBITDA pre*	EBITDA pre
~ €1,770 – 1,830 m	~ €170 – 180 m	~ €860 – 880 m	~ €640 – 670 m
<b>Group 2014 guidance*: ~ €3.3 to €3.4 billion EBITDA pre</b>			

\* Including AZ Electronic Materials from May to December 2014

## Additional financial guidance

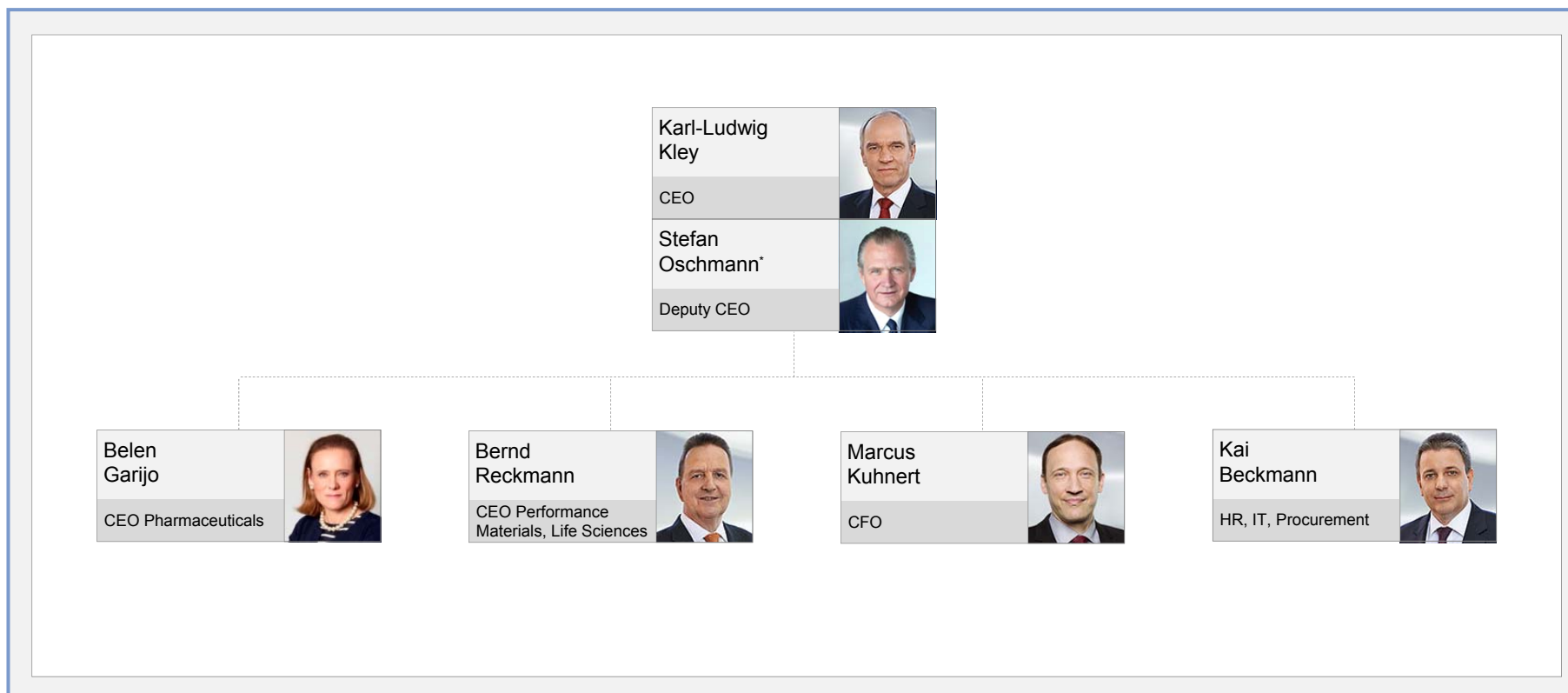
### Further financial details

Group royalty, license and commission income in 2015	~€130 – 150 m
Corporate & Other EBITDA pre	~€ -160 – 190 m
Underlying tax rate	~23% to 25%
Capex on PPE and software	~€500 – 550 m
Hedging / USD assumption	2014 & 2015 hedge rate ~30% at EUR/USD ~1.30 to 1.35



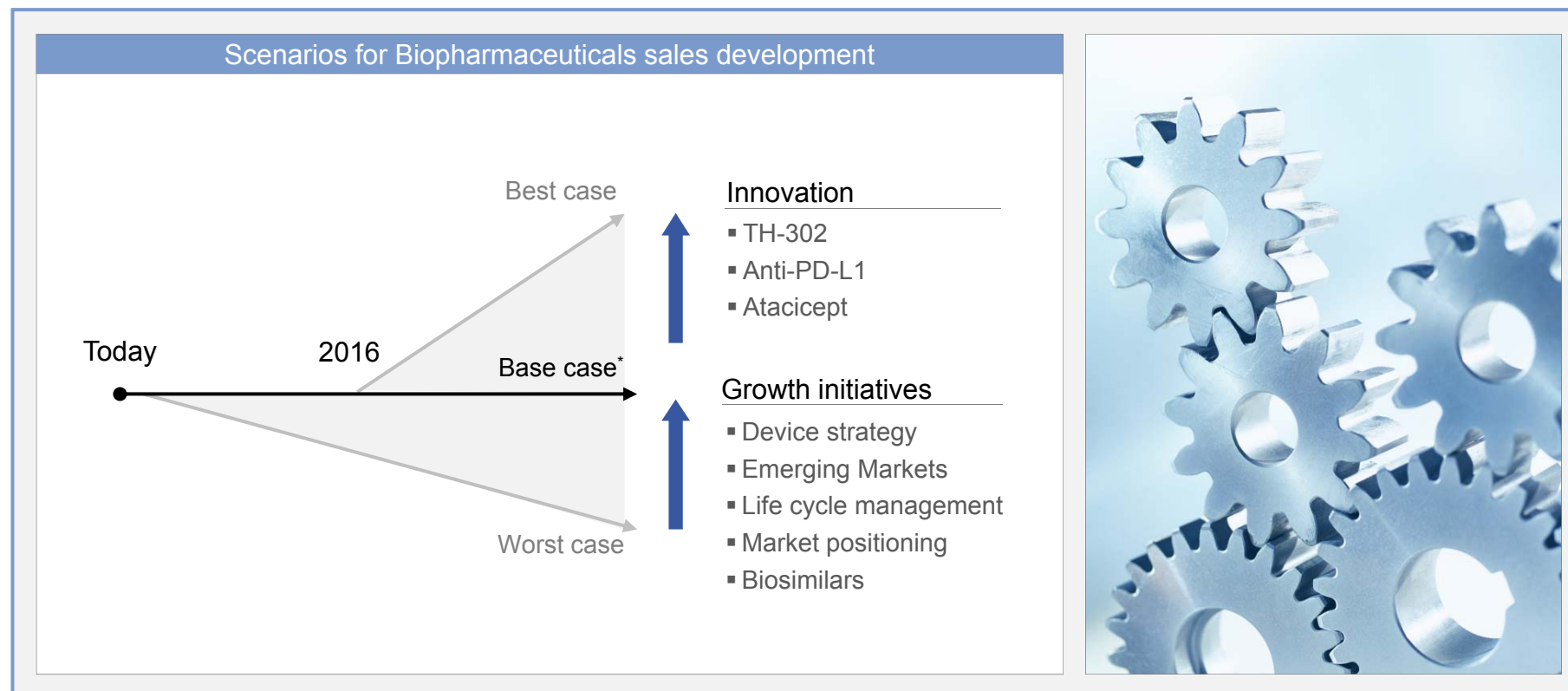
# Executive Board as of January 1, 2015

Merck KGaA  
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\*Responsibilities include Group Strategy & Organization, Regional Strategies, Public Affairs, Patents

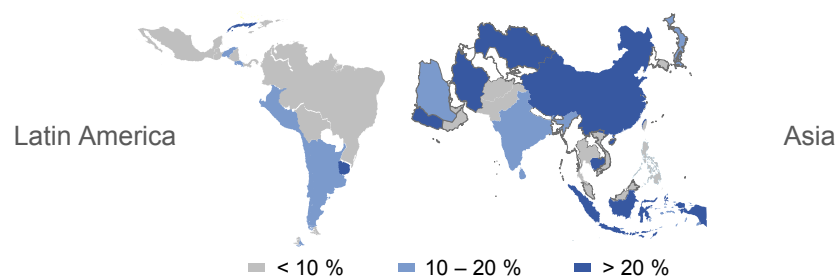
## Growth initiatives will balance rising Rebif pressure – 'Innovation projects' provide upside potential



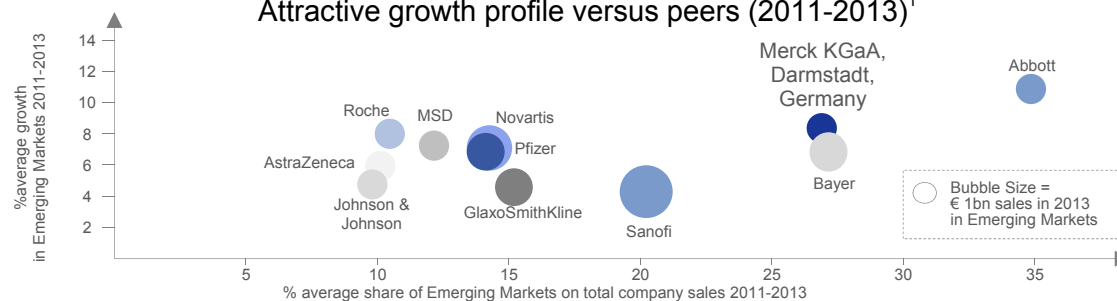
Illustration; \* without pipeline contribution

# Emerging Markets are a key pillar of growth for Biopharmaceuticals

2013 Organic growth rates of Biopharmaceuticals in Emerging Markets



Attractive growth profile versus peers (2011-2013)<sup>1</sup>



## Key facts

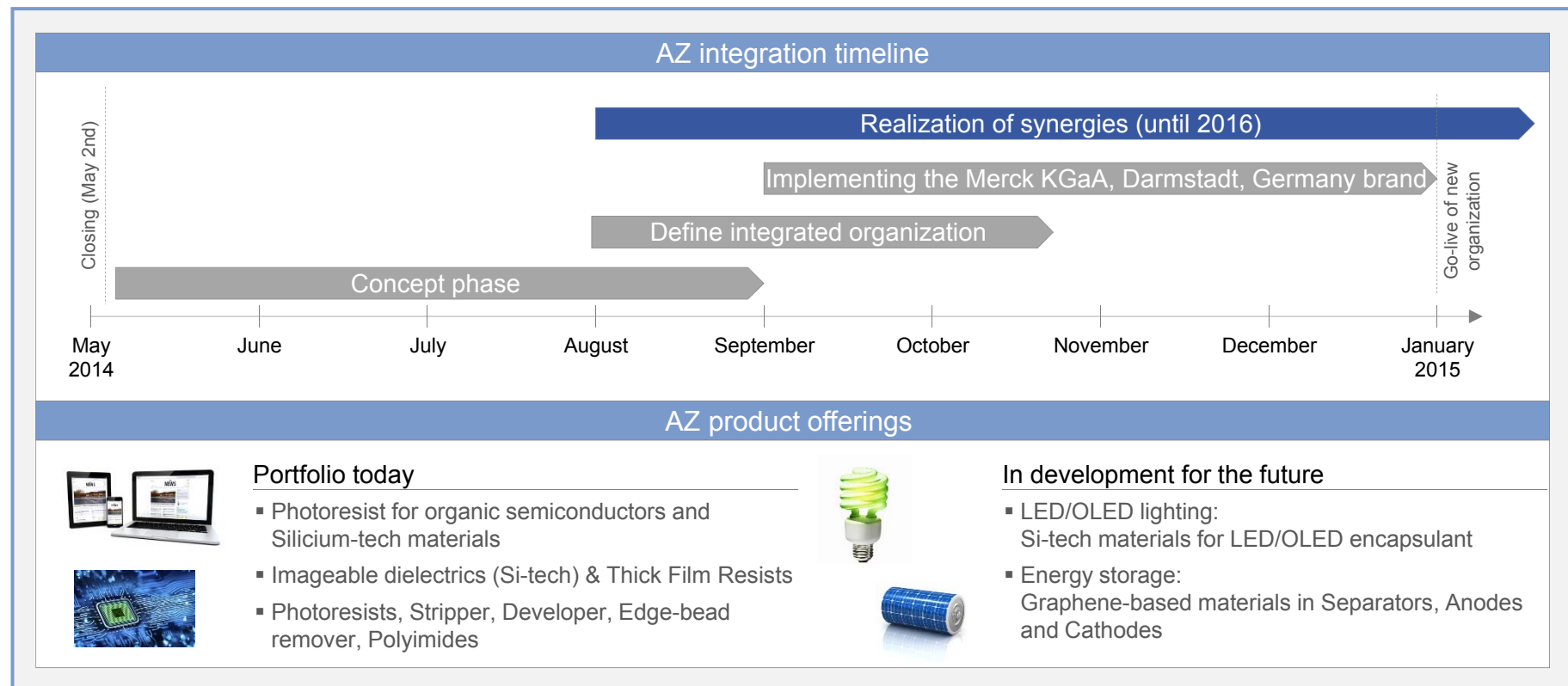
- Emerging Markets are a key driver for the branded products as well as for Biopharmaceuticals overall
- ~30% of sales in Emerging Markets
- ~50:50 breakdown between Latin America and Asia
- Emerging Markets account for >60% of organic growth 2011-2013<sup>2</sup>

Emerging Markets support existing business and serve as a platform for strategic growth initiatives

<sup>1</sup>Source: IMS MIDAS, 2012/2013 constant USD; <sup>2</sup>Source: Biopharmaceuticals  
 Note: Size of bubble = € bn sales in Emerging Markets (2013)

# AZ integration well on track

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# Transaction overview

PRICE	US\$ 140 per share, all-cash offer
PREMIUM	Premium of 37% to unaffected share price; 36% to one-month volume-weighted average price (VWAP)
CERTAINTY	Recommended by Sigma-Aldrich Board of Directors; No Merck KGaA, Darmstadt, Germany shareholder vote required
FINANCING	Bridge financing secured; Final structure: cash, bank loans and bonds; Strong combined cash flows for rapid deleveraging; solid investment grade rating will be maintained
TIMING	Subject to regulatory approvals; expected closing mid-year 2015

\*Closing share price as of September 19, 2014

# Sigma-Aldrich – A leading life science consumables supplier

Merck KGaA  
Darmstadt · Germany

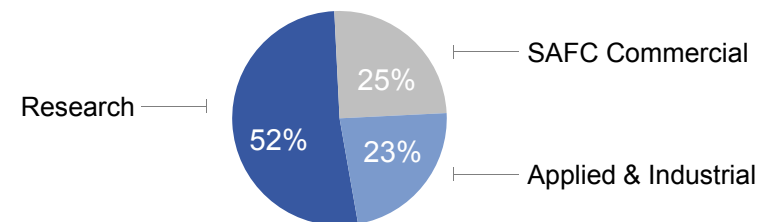
## Business

- Total revenues of \$2.7 billion in 2013
- ~9,000 employees including ~3,000 scientists and engineers
- Headquartered in St. Louis, MO
- Chemical and biochemical products, kits and services provider to laboratories and pharma production
- No. 1 eCommerce platform in the industry; ~1,600 sales people

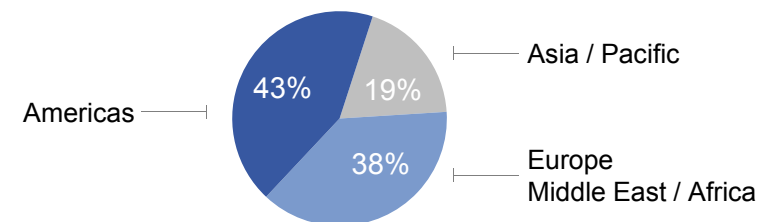
## Footprint

- Balanced regional exposure; strength in North America
- Operations in ~40 countries; products available in ~160 countries

Sales by division FY 2013\*



Sales by region FY 2013\*

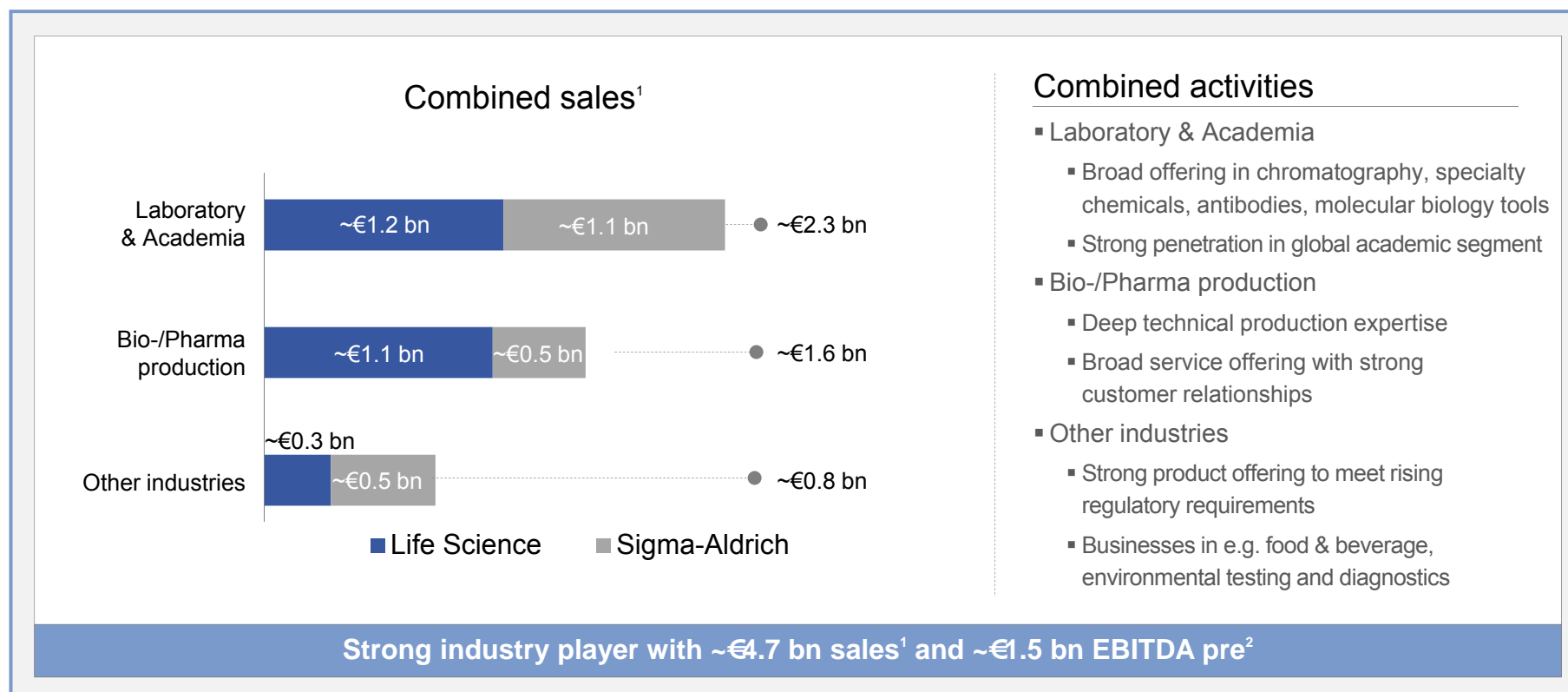


\*Company reports FY 2013



# Merck KGaA, Darmstadt, Germany and Sigma-Aldrich

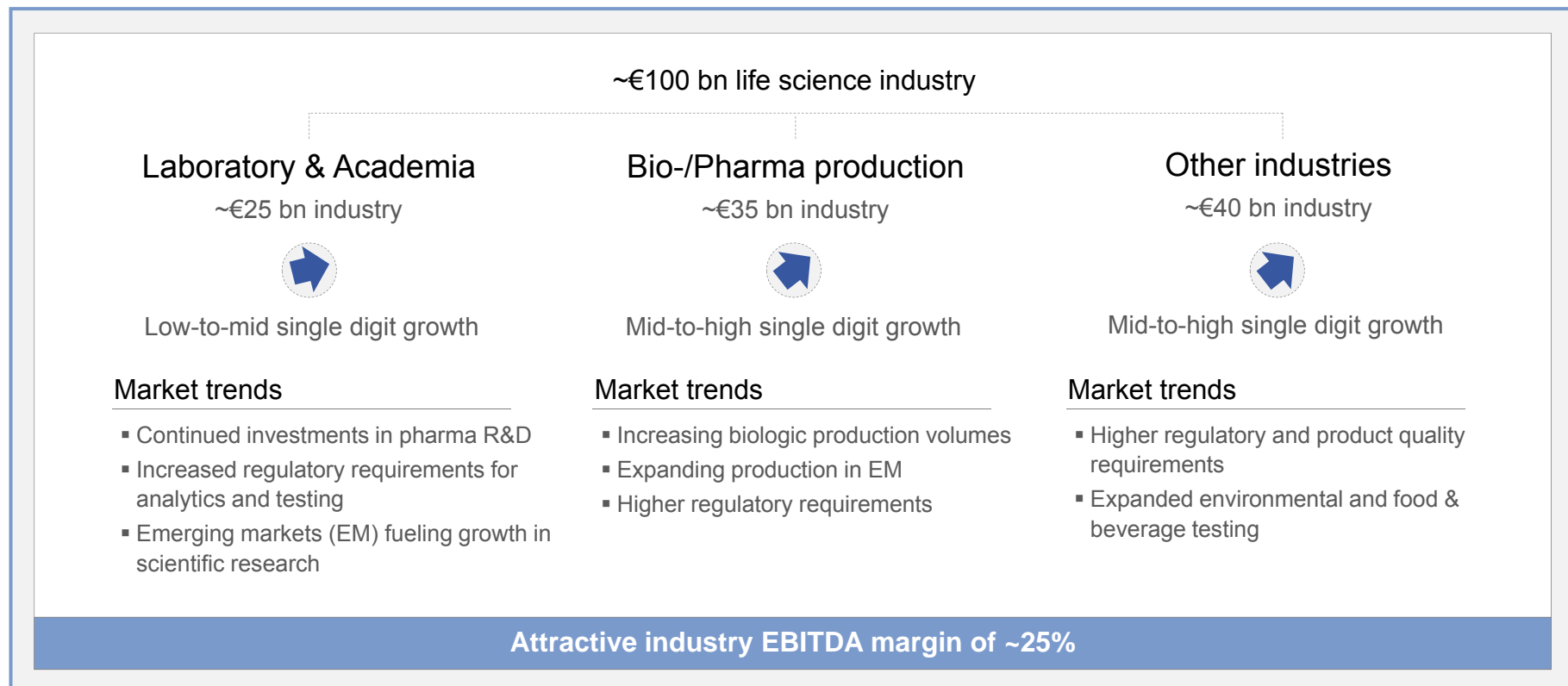
## – Presenting a leading life science industry player



<sup>1</sup>Pro-forma calculation based on published sales for FY 2013 for Life Science and Sigma-Aldrich (FX conversion: EUR/USD 1.30);

<sup>2</sup>Pro-forma calculation based on 100% expected synergies and published figures for FY 2013 for Life Science and Sigma-Aldrich (FX conversion: EUR/USD 1.30)

# Sigma-Aldrich and our company together serve the attractive €100bn life science industry



Source: Merck KGaA, Darmstadt, Germany

# Sigma-Aldrich – Business and transaction financials

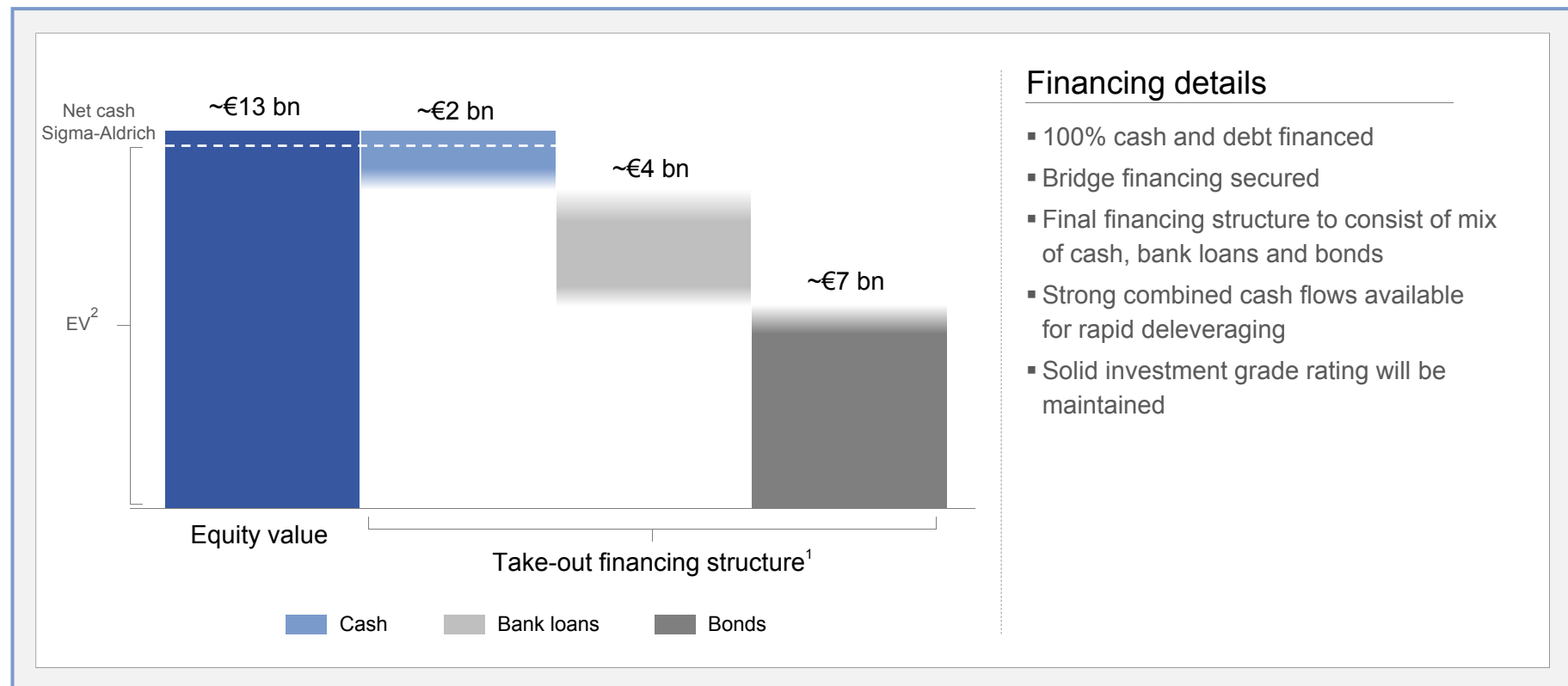
Merck KGaA  
Darmstadt · Germany

Overview of financial data <sup>1</sup>				Proposed transaction details <sup>2</sup>		
US\$ m	2012	2013	2014E <sup>4</sup>	<ul style="list-style-type: none"> <li>▪ Equity value ~US\$17 bn (€13.1 bn)</li> <li>▪ Enterprise value (EV) ~€12.7 bn including net cash ~€360 m</li> <li>▪ Financing through cash and debt; no equity</li> <li>▪ Assumed synergies: ~€260m</li> <li>▪ In line with core acquisition criteria                             <ul style="list-style-type: none"> <li>▪ Immediately accretive to EPS pre</li> <li>▪ Solid investment grade rating will be maintained</li> </ul> </li> </ul>		
Revenue	2,623	2,704	2,796			
% YoY at constant FX	+3%	+3%	n.a.			
EBITDA (adjusted)	809	821	852			
% of sales	31%	30%	30%			
D&A	136	138	132			
% of sales	5%	5%	5%			
Net financial debt (period end)	-41	-357	-466 <sup>5</sup>			
No. of shares (diluted, m)	122	121	n.a.			
				Implied forward transaction multiples <sup>3</sup>		
					2013	2014E <sup>4</sup>
EV/Sales					6.1x	5.9x
EV/EBITDA					20.1x	19.4x
EV/EBITDA pro-forma incl. synergies <sup>3</sup>					14.3x	13.9x

<sup>1</sup>Source: Company reports; <sup>2</sup>FX conversion: EUR/USD 1.30; <sup>3</sup>"Pro-forma" calculation based on 100% expected synergies;





<sup>4</sup>Median consensus estimates from latest broker reports; <sup>5</sup>Last reported as per H1 2014 report (June 30, 2014)

# Sigma-Aldrich acquisition – Financing secured



<sup>1</sup>Indicative only; <sup>2</sup>Enterprise value

## Sigma-Aldrich acquisition – Taking Life Science to the next level

-  Expanding position in the attractive life science industry, poised for sustainable growth
-  Enhancing value for customers via strengthened offering, reach, and operational excellence
-  Sigma-Aldrich and Life Science will be core earnings contributor to our company and generate sustainable and growing cash flow
-  Consistent with our core acquisition criteria and corporate transformation journey

## Indicative timeline of next steps

Announcement  
(Sept. 22, 2014)

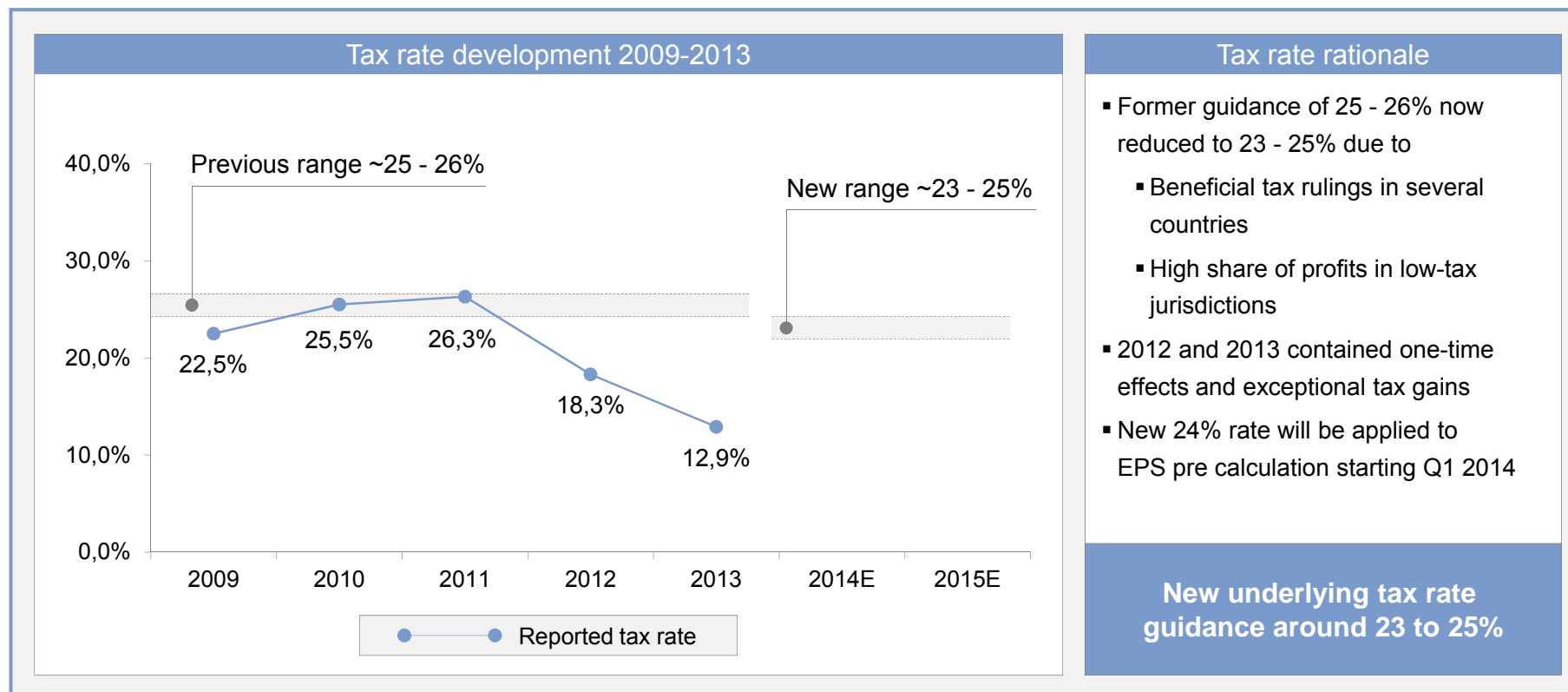


Closing  
(Expected mid-year 2015)

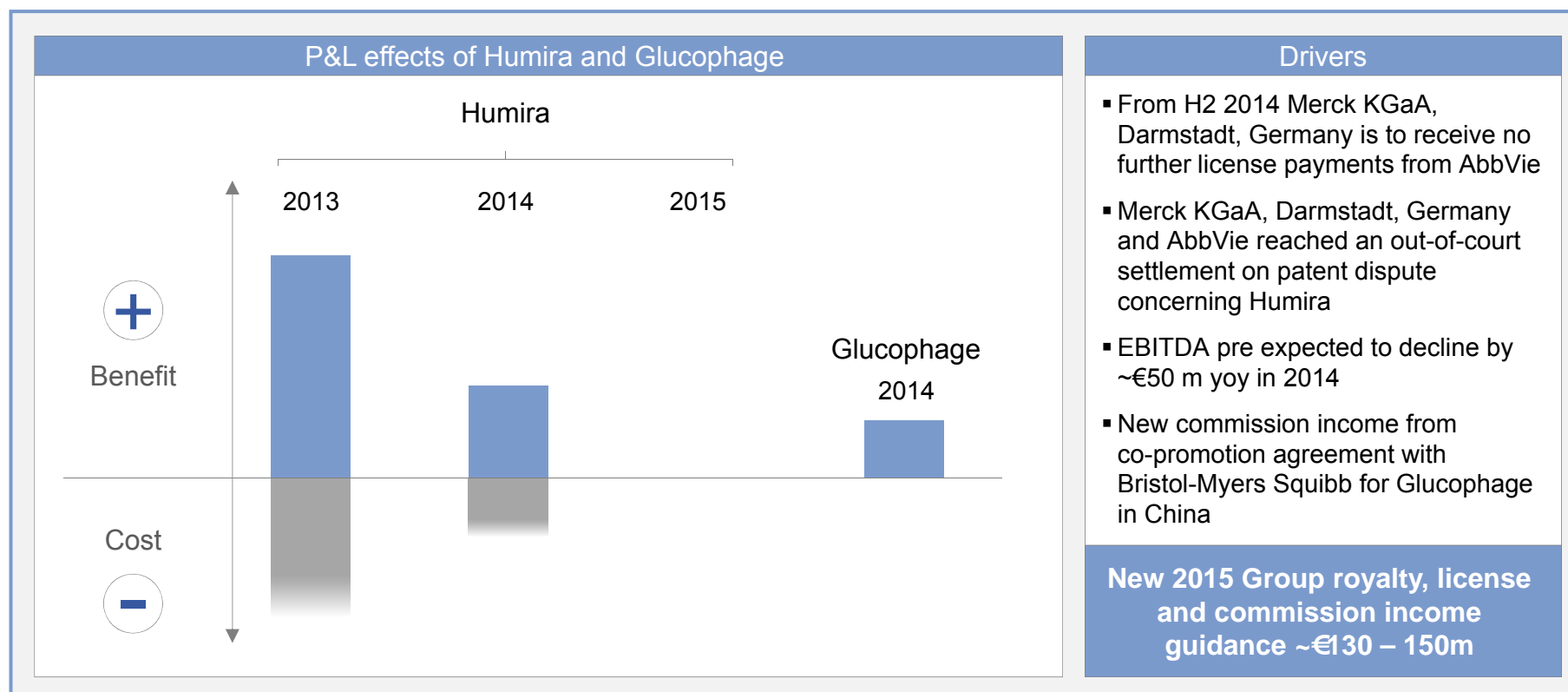
- Closing after:
  - Regulatory filings
  - Sigma-Aldrich shareholder approval at special meeting of shareholders
  - Fulfillment of other customary closing conditions



# Favorable tax rulings in several countries result in decrease in underlying tax rate



# Settlement on patent dispute with AbbVie, while BMS co-promotion will yield first results



Illustration



# Group 2014 industry outlook

Merck KGaA  
Darmstadt · Germany

## Biopharmaceuticals

- ▶ Growth will be driven by emerging markets, especially China and Brazil
- ▶ Mature markets will continue to be affected from austerity measures

## Consumer Health

- ▶ Industry growth of ~5% in Consumer Health end markets
- ▶ Emerging markets grow mid to high-single digit, European growth lower

## Performance Materials

- ▶ LC display market growth fueled by trend to larger displays
- ▶ World automotive market forecasted to grow low-single digit

## Life Science

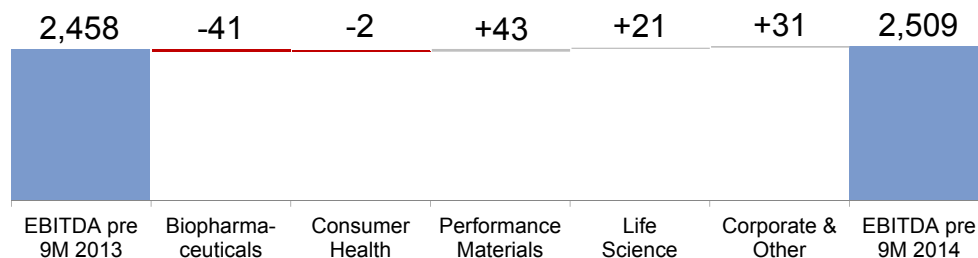
- ▶ Biotech R&D investments increase, benefiting Process Solutions
- ▶ Lab supply market grows 1-2%; austerity measures affect Bioscience



## All divisions post organic growth, currency headwinds soften

9M YoY sales	Organic	Currency	Portfolio	Total
Biopharmaceuticals	3.9%	-3.5%	0.0%	0.4%
Consumer Health	5.0%	-3.7%	0.0%	1.3%
Performance Materials	3.3%	-3.7%	18.3%	17.9%
Life Science	4.1%	-3.3%	-0.6%	0.1%
<b>The Group</b>	<b>3.9%</b>	<b>-3.5%</b>	<b>2.7%</b>	<b>3.1%</b>

9M YoY EBITDA pre contributors [€ m]



- Portfolio reflects the acquisition of AZ Electronic Materials
- Currency headwinds mainly driven by the U.S. dollar in H1

- Performance Materials includes AZ
- Life Science contributes with solid organic performance
- Biopharmaceuticals affected by loss of royalty income (Avonex, Enbrel, Humira)
- Corporate & Other includes higher hedging gains versus last year

Totals may not add up due to rounding

## 9M 2014: Stable financials amid royalty income reduction and currency headwinds

[€ m]	9M 2013	9M 2014	Δ	9M 2014
<b>Sales</b>	<b>8,064</b>	<b>8,315</b>	<b>3.1%</b>	<ul style="list-style-type: none"> <li>▪ Sales increase as organic growth and portfolio offset negative FX effects</li> <li>▪ EBITDA pre and EPS pre improve on solid organic performance and AZ despite loss of royalty income</li> <li>▪ Operating cash flow burdened by lower royalties and higher tax payments</li> <li>▪ Jump in working capital reflects consolidation of AZ</li> <li>▪ Increase in headcount includes employees from AZ</li> </ul>
<b>EBITDA pre</b>	<b>2,458</b>	<b>2,509</b>	<b>2.1%</b>	
<i>Margin (% of sales)</i>	<i>30.5%</i>	<i>30.2%</i>		
<b>EPS pre [€]</b>	<b>3.33</b>	<b>3.46</b>	<b>3.9%</b>	
<b>Operating cash flow</b>	<b>1,785</b>	<b>1,564</b>	<b>-12.4%</b>	
[€ m]	Dec 31, 2013	Sept. 30, 2014	Δ	
<b>Net financial debt</b>	<b>307</b>	<b>1,521</b>	<b>&gt;100%</b>	
<b>Working capital</b>	<b>2,132</b>	<b>2,554</b>	<b>19.8%</b>	
<b>Employees</b>	<b>38,154</b>	<b>39,355</b>	<b>3.1%</b>	
<b>Net financial debt increases on AZ acquisition</b>				

# Reported earnings contain AZ adjustments

[€ m]	Q3 2013	Q3 2014	Δ	Reported results
<b>EBIT</b>	<b>482</b>	<b>429</b>	<b>-11.0%</b>	<ul style="list-style-type: none"> <li>▪ EBIT down mainly due to royalty terminations and some remaining inventory adjustments from AZ</li> <li>▪ Financial result impacted by higher time value for LTIP*, mitigated by lower interest payments</li> <li>▪ Tax rate increases due to solely tax-relevant gain from Sigma-Aldrich acquisition-related FX hedging</li> </ul>
Financial result	-52	-57	10.4%	
<b>Profit before tax</b>	<b>430</b>	<b>372</b>	<b>-13.6%</b>	
Income tax	-87	-122	39.7%	
<i>Tax rate (%)</i>	<i>20.3%</i>	<i>32.9%</i>		
<b>Net income</b>	<b>340</b>	<b>249</b>	<b>-26.7%</b>	
<b>EPS (€)</b>	<b>0.78</b>	<b>0.57</b>	<b>-26.9%</b>	

\*Long Term Incentive Plan

## Reported figures impacted by lower royalties and acquisition effects

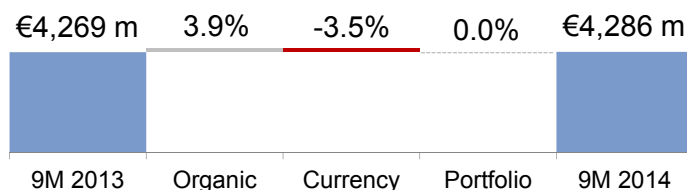
[€ m]	9M 2013	9M 2014	Δ	Reported results
<b>EBIT</b>	<b>1,347</b>	<b>1,338</b>	<b>-0.6%</b>	<ul style="list-style-type: none"> <li>▪ EBIT flat as organic growth and leaner cost structure are offset by lower royalties, one-time items &amp; FX</li> <li>▪ Financial result improves on lower interest payments due to bond repayment and CTA* funding</li> <li>▪ Tax rate impacted by Q3 solely tax-relevant gain from sale of Sigma financing derivatives</li> <li>▪ Reduction in net income and EPS driven by higher income tax</li> </ul>
Financial result	-159	-142	-10.6%	
<b>Profit before tax</b>	<b>1,188</b>	<b>1,196</b>	<b>0.7%</b>	
Income tax	-260	-313	20.5%	
<i>Tax rate (%)</i>	<i>21.9%</i>	<i>26.2%</i>		
<b>Net income</b>	<b>922</b>	<b>877</b>	<b>-4.8%</b>	
<b>EPS (€)</b>	<b>2.12</b>	<b>2.02</b>	<b>-4.7%</b>	

\* Contractual Trust Arrangement

## Biopharmaceuticals: Solid performance supported by all franchises amid royalty income reduction

[€ m]	9M 2013 *	9M 2014
<b>Sales</b>	<b>4,269</b>	<b>4,286</b>
Marketing and selling	-1,365	-1,322
Admin	-149	-164
R&D	-913	-1,020
<b>EBIT</b>	<b>677</b>	<b>712</b>
EBITDA	1,332	1,308
<b>EBITDA pre</b>	<b>1,380</b>	<b>1,339</b>
<i>Margin (% of sales)</i>	32.3%	31.2%

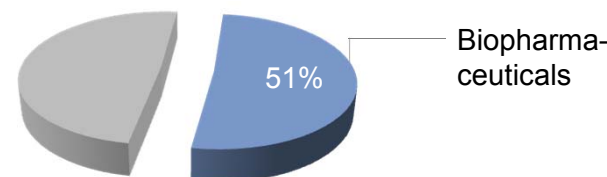
Sales bridge



Comments

- Organic growth partially offset by adverse currency effects
- Rebif organically stable, as U.S. pricing and Q1 wholesaler restocking overcompensate volume declines due to orals
- Solid Erbitux performance driven by growth in Emerging Markets and support from Japan, while Europe is flat
- Strong organic growth of fertility business as a result of good demand for entire portfolio especially from China
- Marketing and selling benefits from efficiency initiatives
- R&D reflects pipeline prioritization initiatives
- Lower profitability owing to royalty decline and FX

9M 2014 share of group sales

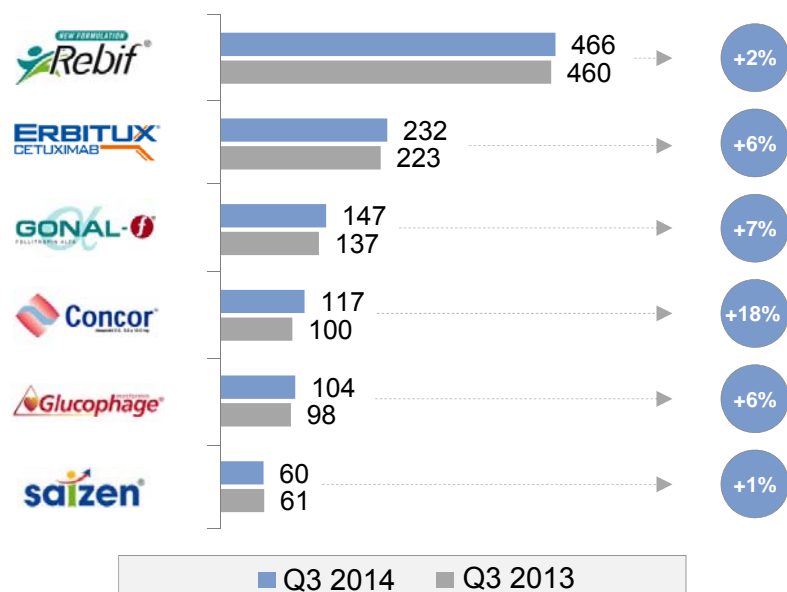


\*Restated for product reclassification of Neurobion and Floratil from Biopharmaceuticals to Consumer Health

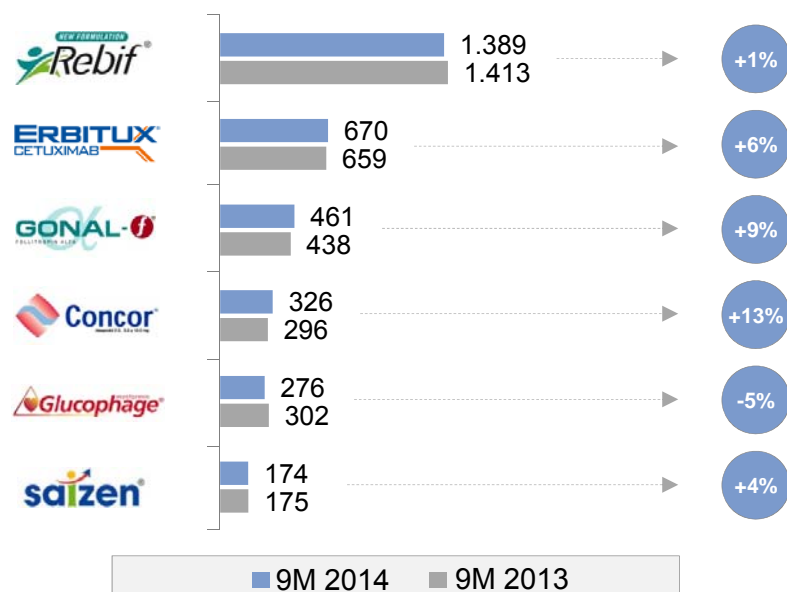
# Biopharmaceuticals organic growth by product

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Q3 2014 organic sales growth [%] by key product [€ m]



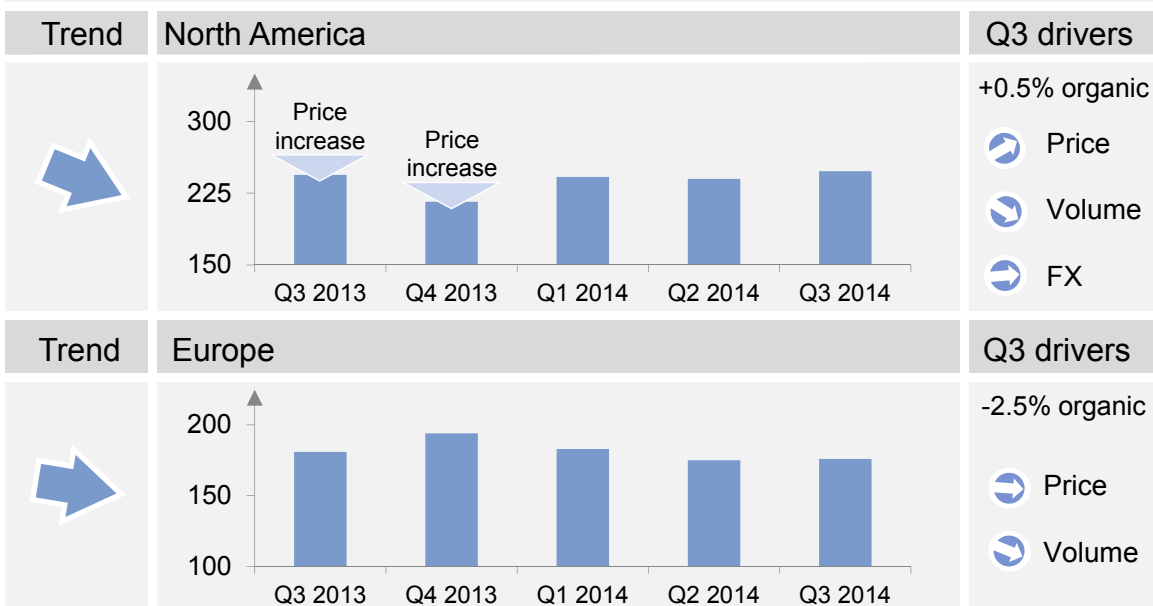
9M 2014 organic sales growth [%] by key product [€ m]



# Rebif – defending market leadership in Europe; competitive pressure in the U.S.



- Regional sales evolution [€ m]



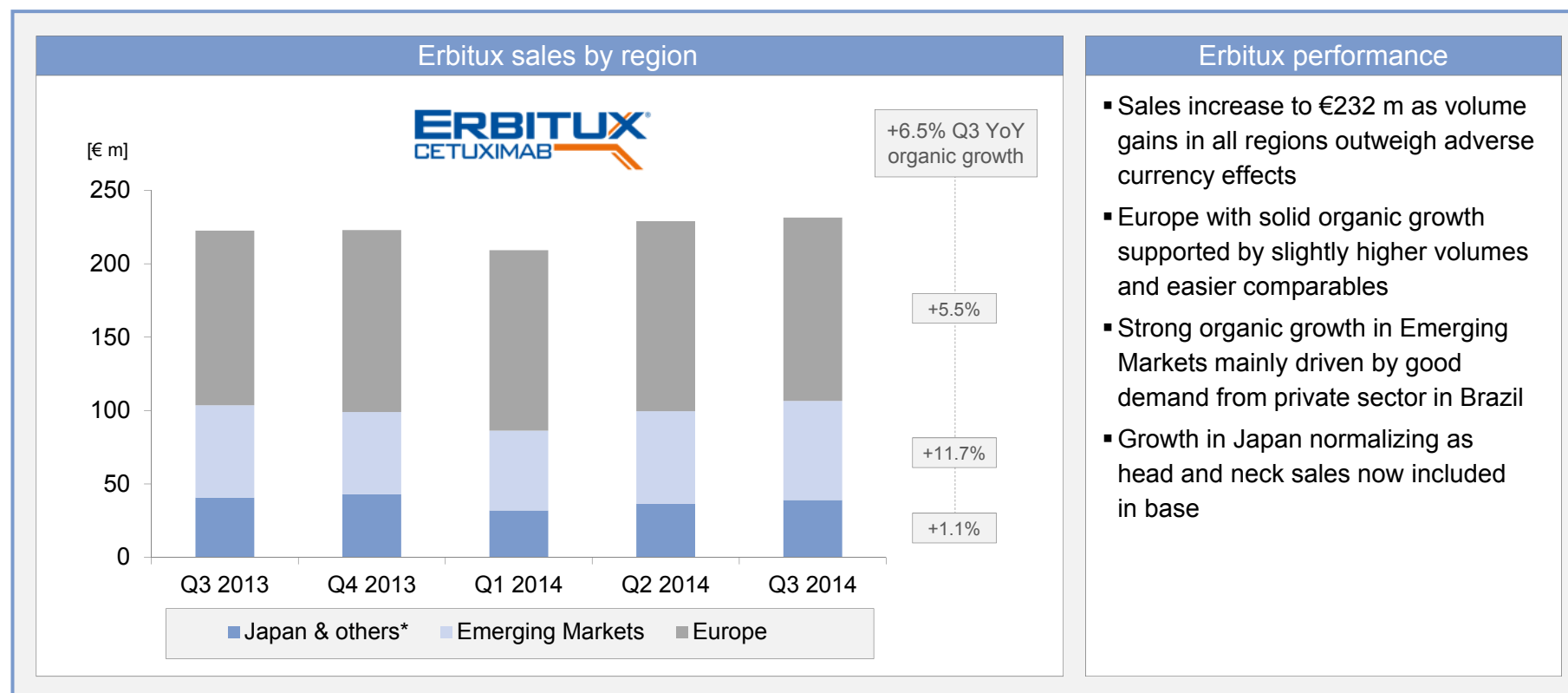
## Rebif performance

- Rebif sales increase to €466 m in Q3
- Organic growth of +1.7% is driven by U.S. pricing and tender business in Russia, offset by volume erosion
- Competition from orals main factor of U.S. and European volume decline
- October price increase will support future U.S. performance
- Despite competition, Rebif remains market-leading injectable on the European market



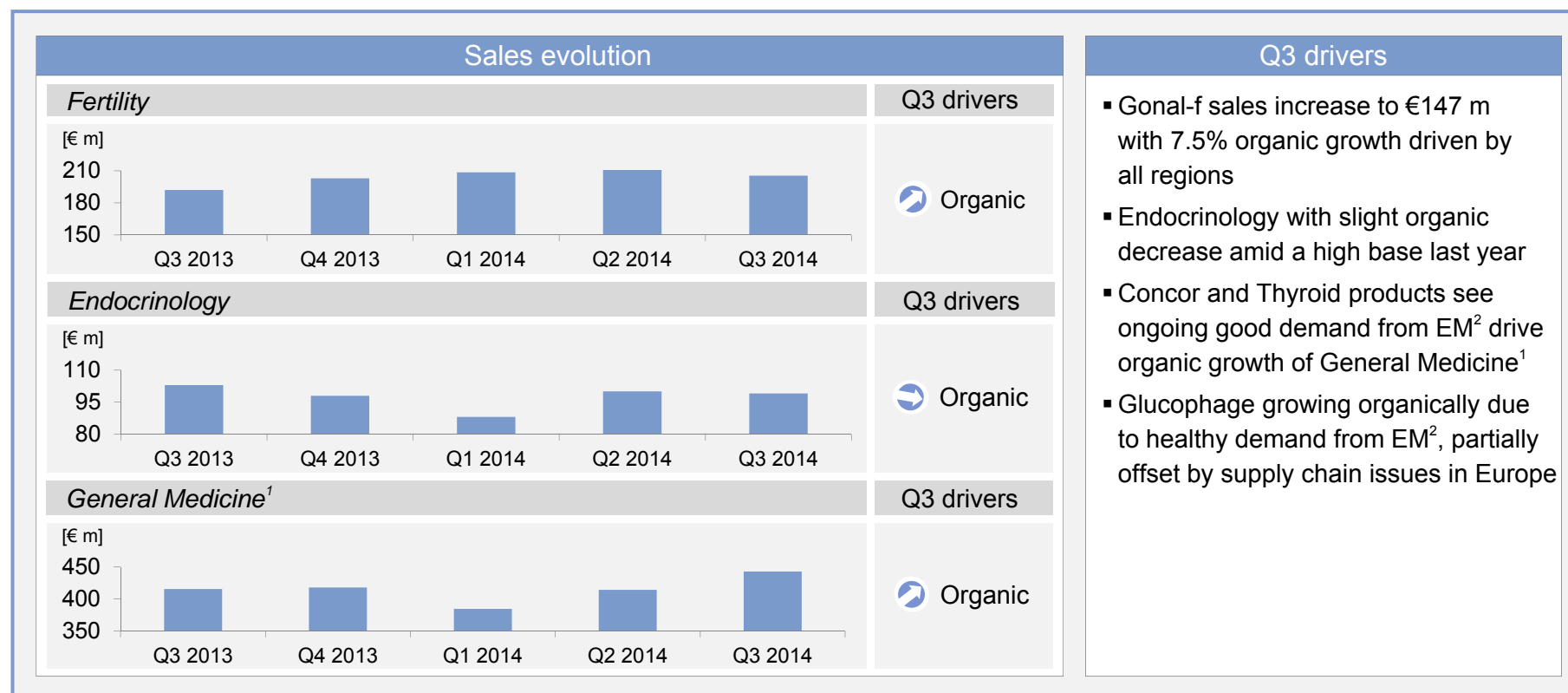
# Erbitux – strong in Emerging Markets

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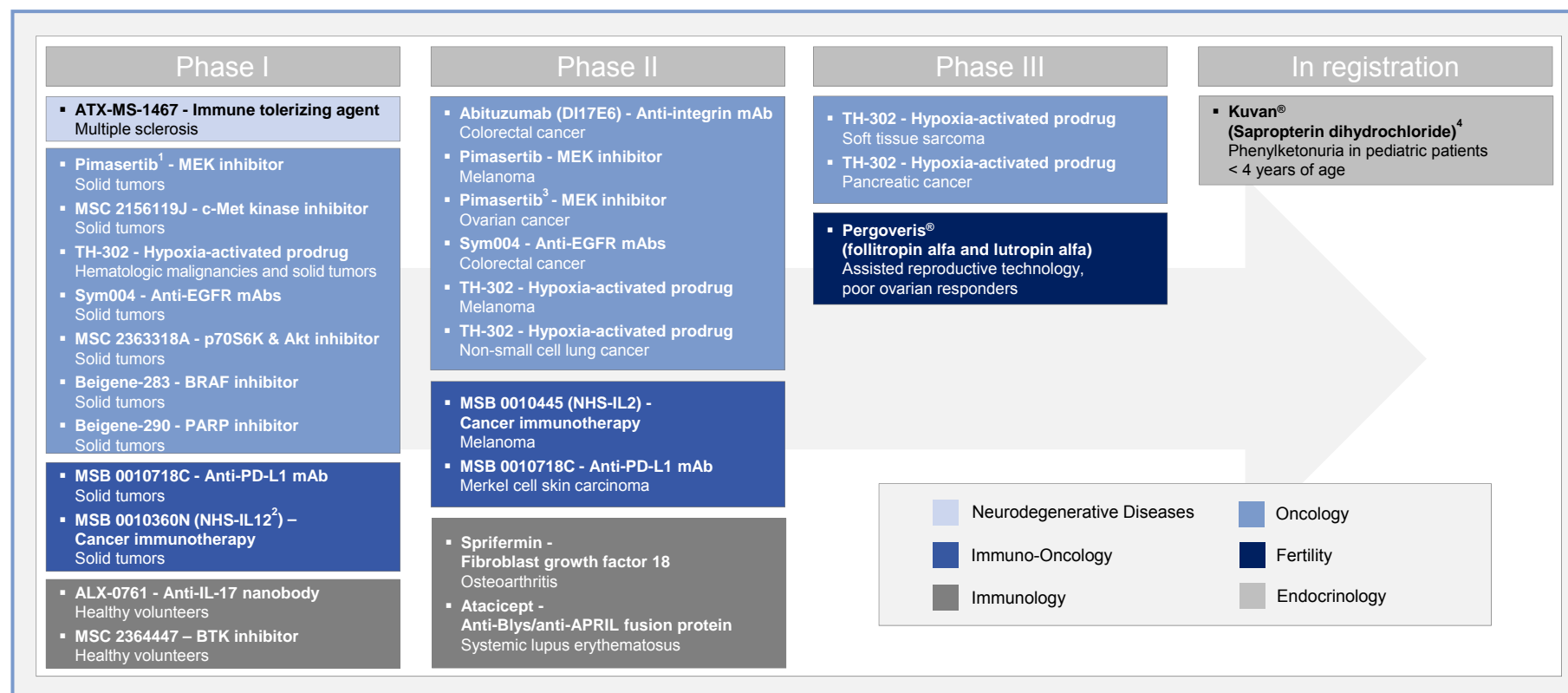
\*Australia/Oceania, Africa

# Strong growth in Fertility and General Medicine



<sup>1</sup>includes "Cardiometabolic Care & General Medicine and Others"; <sup>2</sup>Emerging Markets

# Biopharmaceuticals pipeline



Pipeline as of Oktober 31, 2014; <sup>1</sup>Combined with hDM2 inhibitor (SAR405838) from Sanofi, conducted under the responsibility of Sanofi;

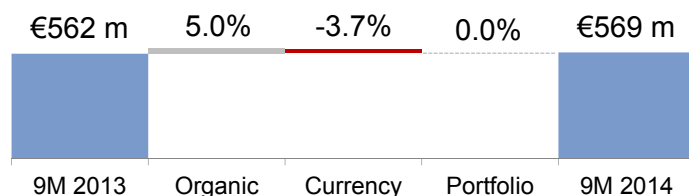
<sup>2</sup>Sponsored by the National Cancer Institute (USA); <sup>3</sup>Combined with PI3K/mTOR inhibitor (SAR245409) from Sanofi, conducted under the responsibility of Merck KGaA, Darmstadt, Germany;

<sup>4</sup>Post-approval request by the European Medicines Agency

# Consumer Health: Focus on strategic brands in Emerging Markets drives performance

[€ m]	9M 2013 *	9M 2014
<b>Sales</b>	<b>562</b>	<b>569</b>
Marketing and selling	-215	-217
Admin	-18	-20
R&D	-17	-15
<b>EBIT</b>	<b>126</b>	<b>116</b>
EBITDA	133	123
<b>EBITDA pre</b>	<b>133</b>	<b>131</b>
<i>Margin (% of sales)</i>	<i>23.7%</i>	<i>23.1%</i>

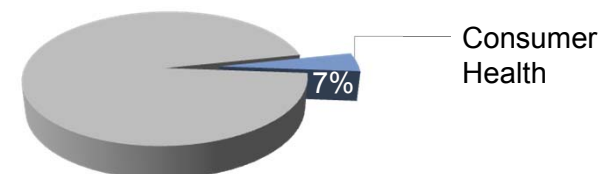
Sales bridge



Comments

- Slight increase in sales as good organic growth driven by Emerging Markets is almost offset by FX headwinds
- New strategic brands Neurobion and Floratil drive organic growth mainly from EM supported by consumer oriented marketing
- Europe solid, as demand for Femibion and some local brands is partially offset by soft demand for cough and cold products
- Marketing and selling slightly increasing, while shift in promotional spending towards strategic brands continues
- Slight decrease in profitability due to investments in marketing and selling as well as higher cost of sales

9M 2014 share of group sales

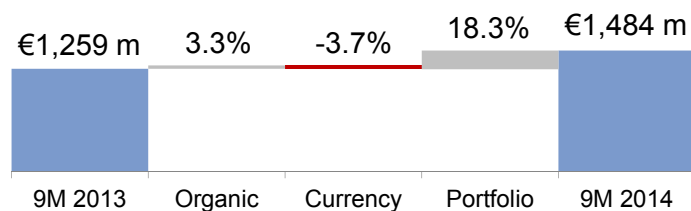


\*Restated for product reclassification of Neurobion and Floratil from Biopharmaceuticals to Consumer Health

# Performance Materials: Solid performance amid high comparables and currency headwinds

[€ m]	9M 2013	9M 2014
<b>Sales</b>	<b>1,259</b>	<b>1,484</b>
Marketing and selling	-117	-129
Admin	-22	-41
R&D	-107	-120
<b>EBIT</b>	<b>519</b>	<b>441</b>
EBITDA	611	574
<b>EBITDA pre</b>	<b>613</b>	<b>656</b>
<i>Margin (% of sales)</i>	<i>48.7%</i>	<i>44.2%</i>

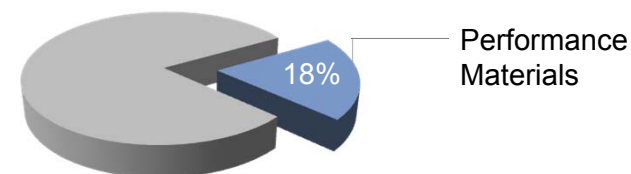
Sales bridge



Comments

- Sales increase as moderate organic growth and portfolio effects overcompensate for negative FX effects
- Liquid Crystals with moderate organic growth; last year supported by subsidy program for consumers in China until May 2013
- Liquid Crystals flagship technologies see ongoing good demand
- Pigments benefits from coating industry demand for Xirallic products
- Cost base reflects portfolio effects from AZ
- EBITDA pre increase contains organic growth and contribution from AZ; margin reflects inclusion of AZ

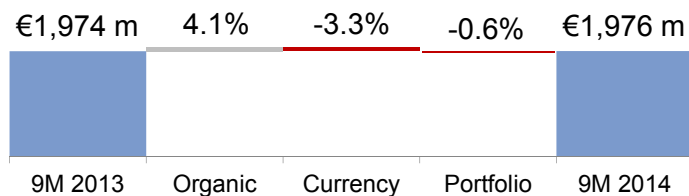
9M 2014 share of group sales



# Life Science: Growth in Process Solutions improves profitability

[€ m]	9M 2013	9M 2014
<b>Sales</b>	<b>1,974</b>	<b>1,976</b>
Marketing and selling	-629	-613
Admin	-75	-81
R&D	-121	-119
<b>EBIT</b>	<b>211</b>	<b>234</b>
EBITDA	444	464
<b>EBITDA pre</b>	<b>475</b>	<b>496</b>
<i>Margin (% of sales)</i>	<i>24.1%</i>	<i>25.1%</i>

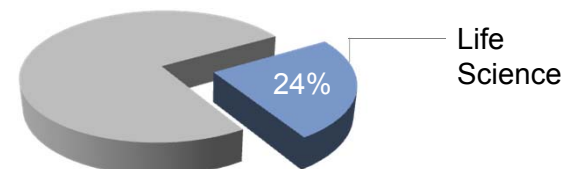
Sales bridge



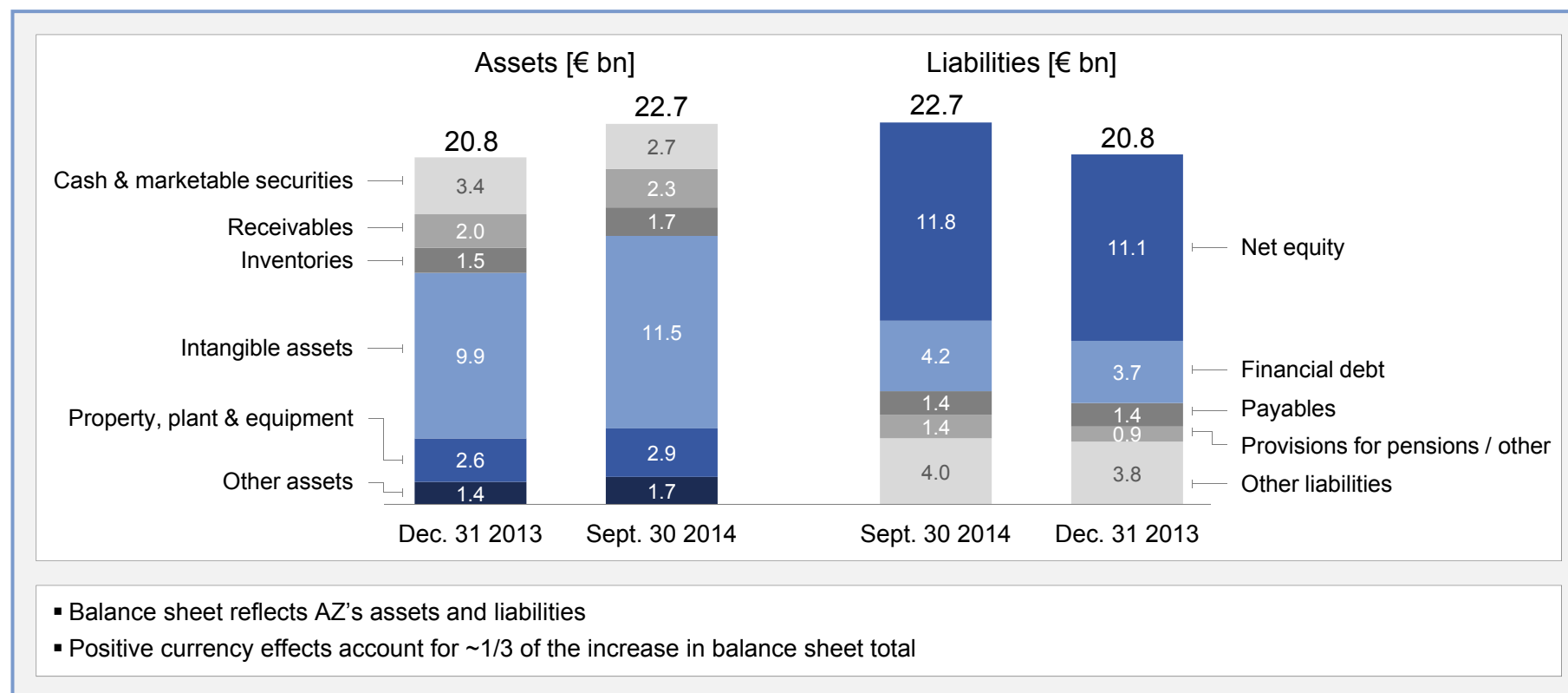
Comments

- Sales stable as organic growth is offset by FX mainly driven by U.S. dollar and Japanese yen as well as DDS\* divestiture
- Process Solutions growth driven by biopharma demand for filtration and single-use products mainly stemming from EM and Europe
- Bioscience organically flat, as solid demand for cell culture and analysis systems mitigates soft U.S. academia demand
- Demand for consumables and water purification solutions in Emerging Markets drives organic growth in Lab Solutions
- Profitability increases due to solid volumes and pricing as well as ongoing cost discipline in marketing and selling

9M 2014 share of group sales



# Balance sheet: Financial strength



Totals may not add up due to rounding

# Solid cash flow amid royalty income reduction

[€ m]	Q3 2013	Q3 2014	Δ	Cash flow drivers
<b>Profit after tax</b>	<b>343</b>	<b>250</b>	<b>-93</b>	<ul style="list-style-type: none"> <li>▪ Profit after tax decreases on lower royalty income and higher income tax</li> </ul>
D&A	315	353	38	<ul style="list-style-type: none"> <li>▪ D&amp;A reflects AZ impact</li> </ul>
Changes in provisions	32	89	57	<ul style="list-style-type: none"> <li>▪ Changes in provisions affected by release of litigation provision which is more than offset by build-up from pipeline terminations and LTIP<sup>2</sup></li> </ul>
Changes in other assets / liabilities	76	83	7	
Other operating activities	-8	-4	4	<ul style="list-style-type: none"> <li>▪ Factoring LY vs. increase in receivables this year as well as higher inventories drive changes in working capital</li> </ul>
Changes in working capital	69	-44	-114	
<b>Operating cash flow</b>	<b>827</b>	<b>726</b>	<b>-101</b>	<ul style="list-style-type: none"> <li>▪ Investing cash flow reflects investments in short-term financial assets</li> </ul>
<b>Investing cash flow</b>	<b>-20</b>	<b>-364</b>	<b>-344</b>	<ul style="list-style-type: none"> <li>▪ Capex rising after slow H1 2014</li> </ul>
thereof Capex <sup>1</sup>	-78	-128	-50	<ul style="list-style-type: none"> <li>▪ Financing cash flow delta reflects €750 m bond repayment last year</li> </ul>
<b>Financing cash flow</b>	<b>-745</b>	<b>90</b>	<b>835</b>	

<sup>1</sup>Only PPE, not including software; <sup>2</sup>Long Term Incentive Plan  
Totals may not add up due to rounding



# Underlying cash flow strength

[€ m]	9M 2013	9M 2014	Δ	Cash flow drivers
<b>Profit after tax</b>	<b>928</b>	<b>883</b>	<b>-45</b>	<ul style="list-style-type: none"> <li>▪ Profit after tax decreases on lower royalty income and higher income tax</li> <li>▪ Changes in provisions mainly impacted by release for litigation and build-up for pipeline terminations</li> <li>▪ Increase in changes in other assets and liabilities is mainly due to higher tax payments</li> <li>▪ Operating cash flow decreases on lower royalties &amp; higher tax payments</li> <li>▪ Investing &amp; financing cash flows reflect AZ and €750 m bond repayment in 2013</li> </ul>
D&A	997	980	-16	
Changes in provisions	35	0	-35	
Changes in other assets / liabilities	-56	-133	-77	
Other operating activities	-47	-8	39	
Changes in working capital	-72	-159	-87	
<b>Operating cash flow</b>	<b>1,785</b>	<b>1,564</b>	<b>-221</b>	
<b>Investing cash flow</b>	<b>-612</b>	<b>-497</b>	<b>114</b>	
thereof Capex*	-235	-270	-35	
<b>Financing cash flow</b>	<b>-966</b>	<b>-758</b>	<b>208</b>	

\*Only PPE, not including software  
Totals may not add up due to rounding

## One-time items in Q3 2014

One-time items in EBIT				
[€ m]	Q3 2013		Q3 2014	
	One-time items	thereof D&A	One-time items	thereof D&A
Biopharmaceuticals	36	15	13	0
Consumer Health	1	0	4	0
Performance Materials	-5	0	25	0
Life Science	12	0	11	0
Corporate & Other	4	0	26	4
<b>Total</b>	<b>49</b>	<b>15</b>	<b>79</b>	<b>4</b>

Totals may not add up due to rounding

# One-time items in 9M 2014

One-time items in EBIT				
[€ m]	9M 2013		9M 2014	
	One-time items	thereof D&A	One-time items	thereof D&A
Biopharmaceuticals	93	45	34	4
Consumer Health	0	0	8	0
Performance Materials	3	1	81	0
Life Science	31	0	32	0
Corporate & Other	34	0	42	4
<b>Total</b>	<b>161</b>	<b>46</b>	<b>198</b>	<b>8</b>

Totals may not add up due to rounding

# Financial calendar

Merck KGaA  
Darmstadt · Germany

Date	Event
March 03, 2015	Q4 2014 Earnings release
April 17, 2015	Annual General Meeting 2015
May 19, 2015	Q1 2015 Earnings release
August 06, 2015	Q2 2015 Earnings release
November 12, 2015	Q3 2015 Earnings release



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