

MERCK KGAA, DARMSTADT, GERMANY COMMERZBANK GERMAN INVESTMENT SEMINAR 2016

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Agenda

- Business overview
- **O2** Transforming the company
- **Healthcare Funding for success**
- Life Science Focusing on profitable growth
- Performance Materials Maintaining superior profitability
- **Executive Summary and Guidance**



Portfolio of three high-tech businesses



Leading in specialty pharma markets

- Life cycle management
- Biologics
- Emerging markets
- Over-the-counter medicine



Leading life science company

- Consumables & equipment for biotech research & production
- Tools and laboratory supply for the life science industry



Market leader in display materials

- Customer intimacy
- Innovation power
- Cost and technology leadership



Looking back: Our Ambition in 2007



Transform a mid-sized conglomerate into a world class technology leader



Create a truly global and modern company



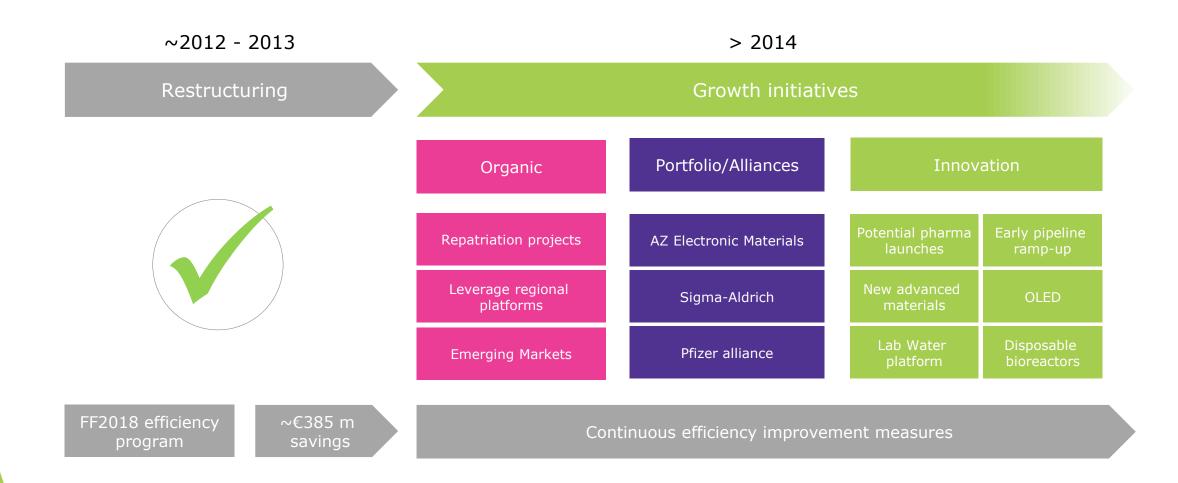
Secure sustainable profitable growth



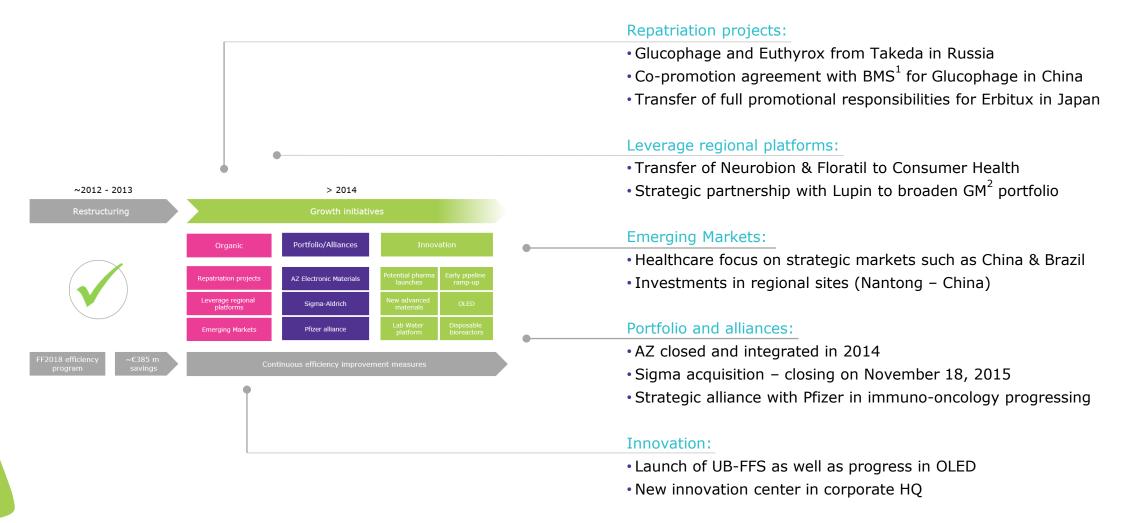
Generate value for our owners



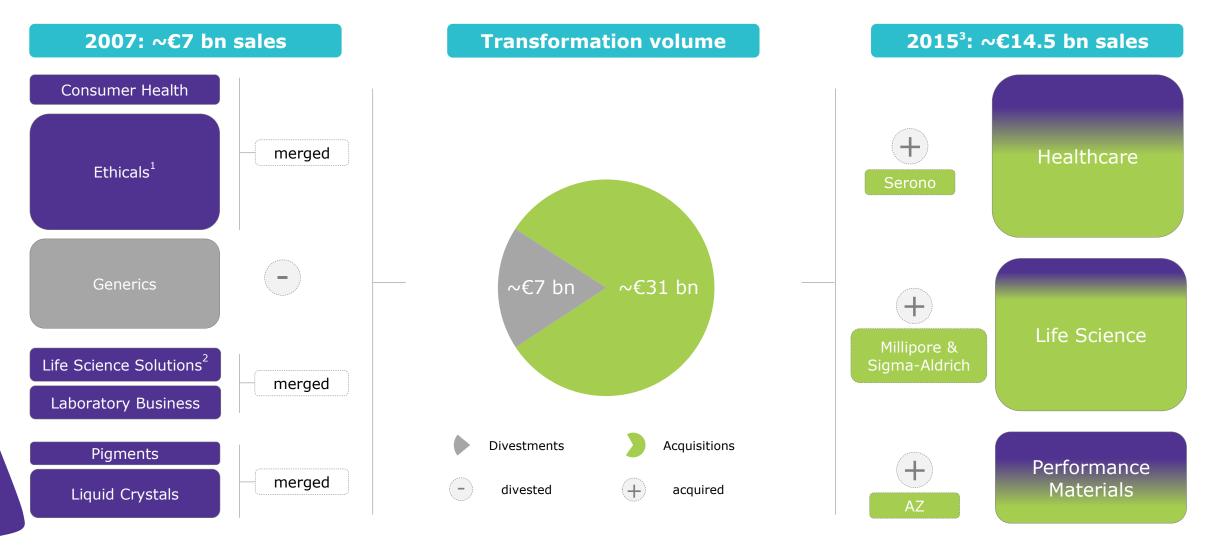
Strategic agenda 2018 – milestones achieved



Strategic agenda 2018 - milestones achieved



We have added scale and strengthened the attractiveness of its portfolio



We have created three business leaders



- Leading biotech company
- Global footprint
- Strong Emerging Markets presence
- Solid underlying business
- Promising pipeline assets







- Nr. 2 in the world market
- Broad and global product portfolio
- Leading eCommerce platform
- Best-in-class supply chain management



- World market leader
- Technology and innovation leader

Science Technology Innovation Specialties Quality Customer focus

North America and Emerging Markets have driven growth

Sales 2007

Initiatives

Sales 2015*



North America:

- Build presence through M&A
- Grow and defend Rebif
- Expand Fertility
- Grow Life Science

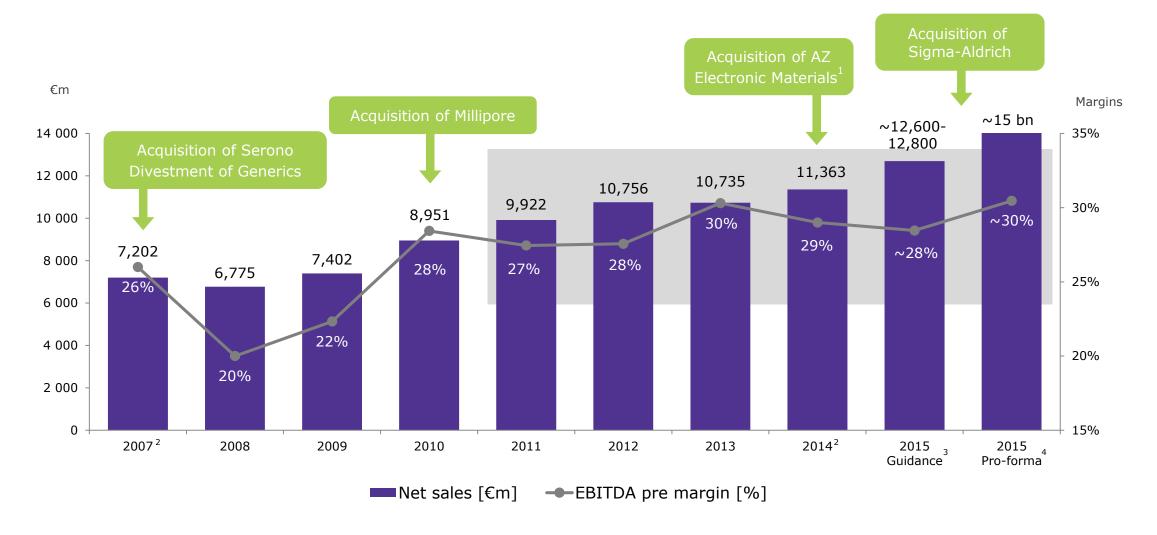


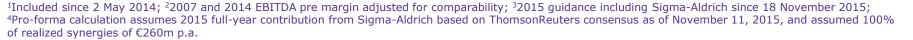


- Drive General Medicine and Consumer Health
- Leverage Life Science portfolio
- LC and OLED leadership



Profitability improved fundamentally

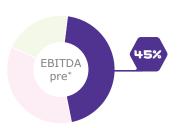




Each business sector has its specific priorities



Healthcare





Life Science





Performance Materials



Funding for success

- Invest in pharma pipeline
- Prepare for launches
- Maintain cost discipline

Focusing on profitable growth

- Sustain top-line momentum
- Drive underlying earnings
- Integrate Sigma and realize synergies

Maintaining superior profitability

- Build on resilient four-pillar platform
- Continuously innovate
- Protect margins with high value-added products







Healthcare is set to deliver on promising pipeline candidates

Deliver on organic growth

Focus on pipeline



Stable existing business to fuel slight organic growth



Solid pipeline of oncology, immuno-oncology and immunology molecules



Transformation of R&D operating model ongoing



Competitive R&D funding in our focus areas



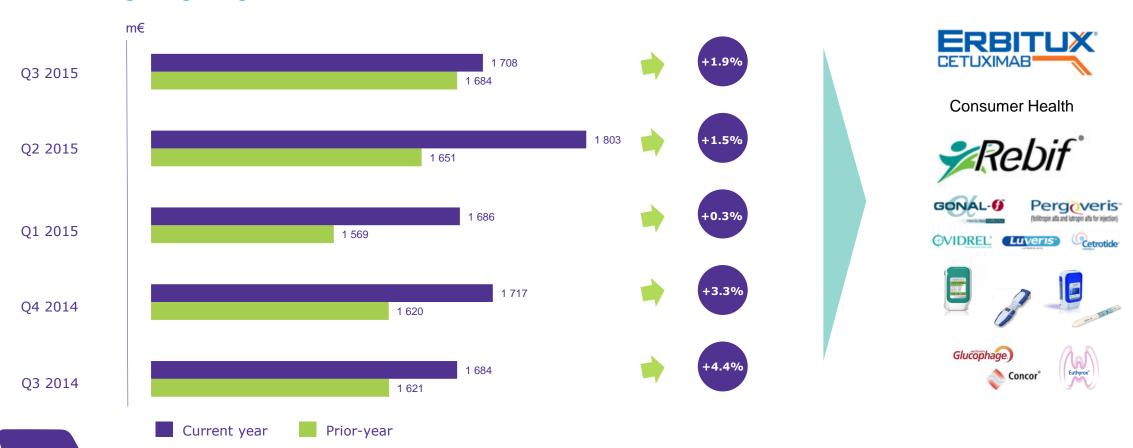
Cost discipline and efficient execution





Delivered organic sales growth, committed to future performance

Stable to slight organic growth

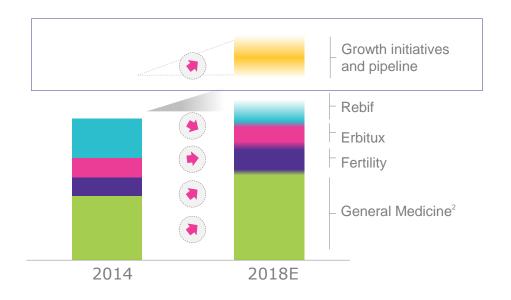






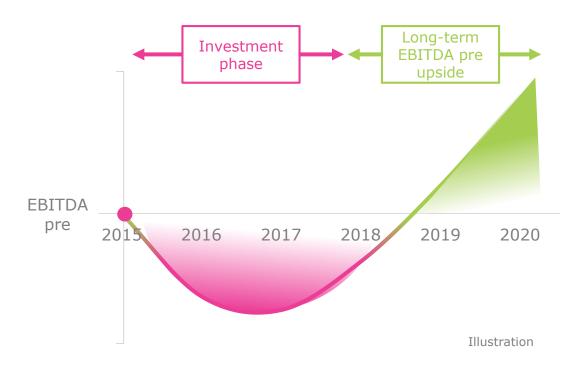
Pipeline opportunities will lead to rising investments

Stable to slightly growing sales until 2018 confirmed



¹Organic; ²including Consumer Health, Cardiometabolic Care, Endocrinology, General Medicine and Others

Should pipeline catalysts materialize, investments will lead to considerable payback as of 2018+





Rising investments until 2017 to accelerate sales and earnings growth as of 2018

Investments in future growth



- Immuno-Oncology: avelumab and ramp-up of earlier pipeline projects +€150-200m cost increase in 2016
- Oncology/Immunology, e.g. tepotinib, BTK inhibitor: mid to high double-digit €m cost increase in 2016
- Launch readiness to be ensured for avelumab and cladribine
- Costs for launch preparation in the mid to high double-digit €m range in 2016

- Cost discipline remains high on the agenda
- Stringent pipeline assessments continue
- Investments based on sound business cases and robust clinical data

Long-term growth investments partly mitigated by strict cost management

*For scenario that pipeline catalysts materialize



Combining forces for future growth







Strategic rationale

- Broad and complementary product fit in attractive segments
- Expanding global reach and scale
- Leveraging operational excellence to deliver superior value to customers

Integration

- New organizational structure designed (Applied, Research and Process Solutions)
- Top 2 management levels already appointed
- Focus on seamless integration for customers and the organization

Financials

- Confirming synergies of €260 m p.a., realized by the third full year after closing
- Sigma acquisition closed on Nov 18th consolidated for 43 days in 2015

We create sustainable value that is based on strong strategic levers



Wide, innovative portfolio

- A combined portfolio of +300,000 products
- Integrated offerings along the life science value chain
- Complete workflow solutions



Balanced Geographic Footprint

- Increased presence in North America
- Accelerating growth momentum in Asia
- Expanded geographic reach in 60+ countries



Industry-leading Capabilities

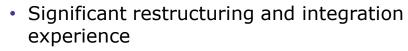
- Outstanding supply chain management (Ability to deal with complexity)
- Simple e-commerce platform (customer interface with global coverage)
- Expertise to manage regulatory barriers



Our capabilities are the foundation for future topline growth in Life Science

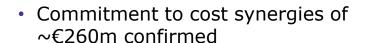
Execute on integration and leverage synergy potential

Integration



- Deep knowledge and understanding of the life science industry
- L1-L3 already appointed

Synergies



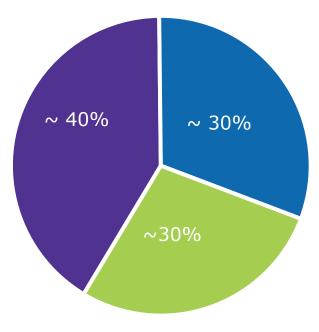
- Sources and timing of synergies clearly identified
- Delivery of synergies already starting in 2015



Integration process well set to maximize the capabilities of both worlds

Expected synergies identified and fully confirmed

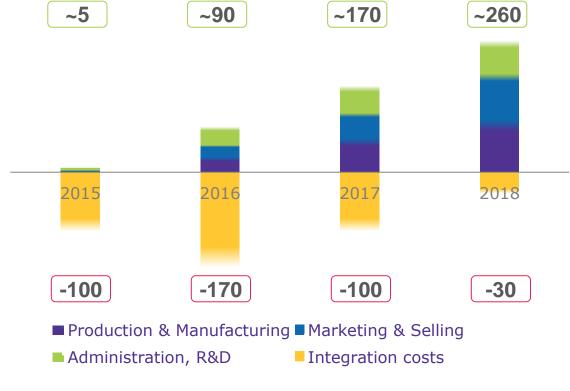
Sources of synergies (3rd full year 2018)



- Production & Manufacturing Marketing & Selling
- Administration, R&D

Three major areas for delivering the synergies

Timing of expected synergies and related costs [€m]

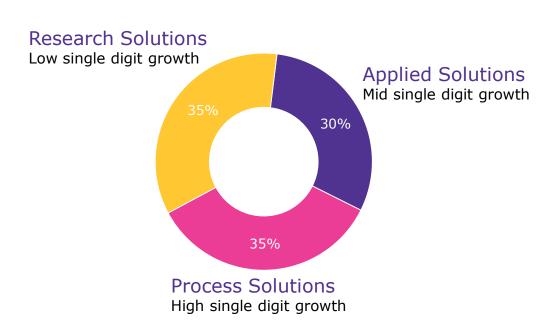




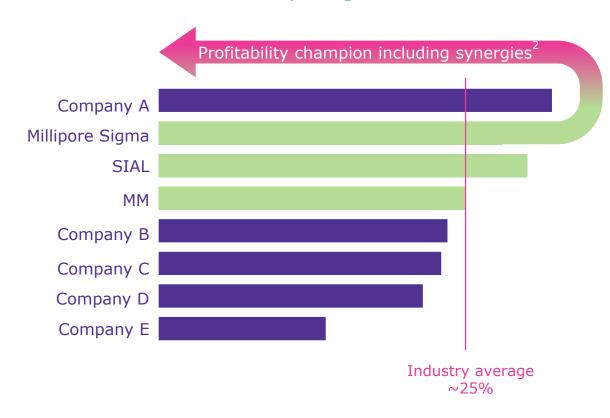
Fast synergy ramp-up to reach two thirds of target in 2017

We aim to be the profitability champion of the sector

New sales breakdown¹ and market growth



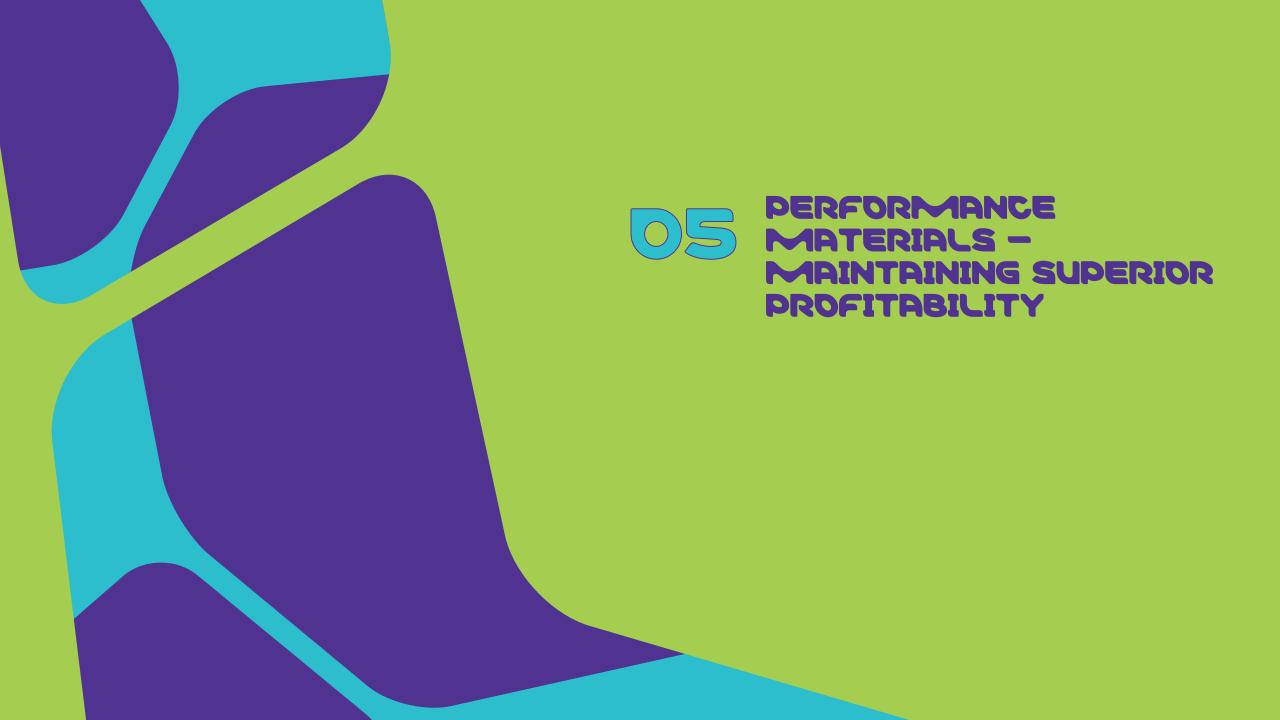
Above industry margin levels



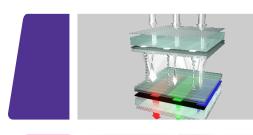


Life Science is well set for sustainable growth and profitability

¹Pro-forma calculation based on published sales for FY 2014 for Millipore and Sigma-Aldrich (FX conversion: EUR/USD 1.30); ²Pro-forma combination based on 2014 financials including 100% of targeted synergies



The four pillars are set for future profitable growth







Pigments and Functional Materials



Integrated Circuit Materials



Advanced Technologies

~55-65% of total sales,

- liquid crystals (LC) and photoresists for TVs, smartphones and tablet computers
- other display and non-display applications (e.g. LC Windows)

~15-20% of total sales,

- effect pigments and functional materials for coatings, plastics, printing and cosmetics
- functional materials for cosmetics and special applications

~15-20% of total sales,

- dielectrics, colloidal silica, lithography materials (photo resists), yield enhancers, edge-bead removers
- polyimide raw materials and printing materials

~5-10% of total sales,

 organic (OLED) and inorganic (LED) light emitting diodes and functional materials for electronics and energy solutions, especially OLED is providing first substantial sales

Innovation leadership is the backbone of future profitability and growth



Incremental product adjustments - only minor investments

pigments
ICM1
Advanced Tech.

New singles for PSVA technology
Meoxal luminous metal effect pigments
low defect CMP² slurries
Organic Photovoltaics



Fundamental research - more substantial investments needed

pigments
ICM1
Advanced Tech.

Smart windows, smart antennas, new modes Counterfeiting prevention applications Directed self-assembly (DSA) in lithography OLED printing technology

Sound platform to deliver high earnings

1

Four-pillar platform diversifies earnings stream

- Liquid Crystals remain key earnings contributor
- AZ expertise being leveraged to develop innovative value-added solutions for customers
- OLED turns into visible growth driver

Pigments continue to grow with high-end products

Continuous innovation as key profitability driver

- New products contribute high growth and profitability
- LC technology mode UB-FFS launched in 2014 is the most recent example

Balanced sales and consistently high earnings



We are the innovation leader





Diversification of portfolio and ongoing innovation support profitability

Long-term growth and margin drivers are intact

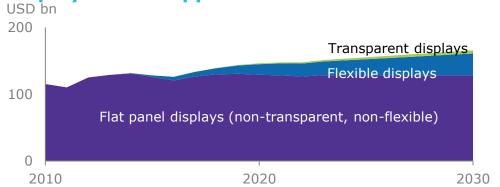
Macroeconomics and electronics remain buoyant

- Global consumer electronics market expected to grow above GDP
- Mobile data, Internet of Things, Big Data being key growth drivers for LC and IC
- Display market continues to grow

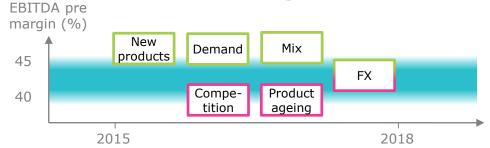
Margins protected by high value-added products

- High market share in liquid crystals expected to prevail
- Margins are a key priority and will not be compromised

Display market opportunities continue to evolve*



Sustainable mid-term margins





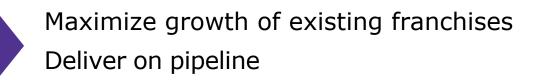






We are well set for profitable and sustainable growth







Focus on seamless integration and deliver cost synergies Leverage strategic capabilities for value creation



Drive innovation and technology leadership across all businesses Innovate in applications beyond displays

We have clear financial priorities for the next two years



Focus on cash flow and deleveraging



Ongoing cost discipline



Efficient capital allocation

- Strong cash flow will be used to drive down gearing to <2x net debt / EBITDA pre in 2018
- Larger acquisitions (>€500m) ruled out for the next two years
- Dividend policy reflects sustainable earnings trend
- Synergy generation is utmost priority
- Cost discipline continues in all business sectors
- Further efficiency gains from ongoing improvement and harmonization of processes and systems
- All our businesses have growth potential
- Decisions on growth investments are based on sound business cases and robust clinical data

Near-term financial priorities will secure our profitable growth path



Full-year 2015 guidance upgraded and updated for Sigma

Guidance for 2015, including Sigma-Aldrich for 43 days

Net sales: ~ €12.6 - 12.8 bn

thereof Sigma: ~ €300 m

EBITDA pre: ~ €3,580 - 3,650 m

thereof Sigma: ~ €80 - 95 m

EPS pre: ~ €4.80 – 4.95

thereof Sigma: ~ €0.10 - 0.15



Key moving parts for 2016 EBITDA pre

Supporting factors

 Sigma-Aldrich contribution will be sizeable including cost synergies of ~+€90m in the first full year



Burdening factors

 R&D costs in Healthcare ~+€250m YoY from progressing R&D pipeline projects (clinical data)

 Rebif/Pfizer end of co-promotion agreement in December 2015 (net effect ~+€250m)



Healthcare margins impacted by product mix effects

 Organic growth of net sales with all three business sectors contributing



 Kuvan divestment leads to lower recurring EBITDA pre (net effect mid-double digit €m YoY)



EBITDA pre in 2016 will reflect Sigma-Aldrich acquisition and investments in Healthcare pipeline



Appendix

- **Guidance Details**
- **Excursus: Integrated Circuit Materials**
- Sigma acquisition
- **Healthcare update**
- **S** Financial details



Group

2015 business sector guidance without Sigma-Aldrich







Net sales

Organically stable

EBITDA pre

~ €1.93 - 2.0 bn

Net sales

Solid organic growth

EBITDA pre

~ €0.76 - 0.78 bn

Net sales

Slight organic growth

EBITDA pre

~ €1.1 - 1.14 bn

Additional financial guidance 2015

Further financial details

Group royalty, license and commission income in 2015	~€300 m
Corporate & Other EBITDA pre	~ -€340 – -360 m
Underlying tax ratio	~23% to 25%
Capex on PPE	~€550 m
Hedging/USD assumption	2015 & 2016 hedge rate ~25-30% at EUR/USD ~1.19 to 1.24
2015 Ø EUR/USD assumption	~1.10 - 1.15

High cost base in strong currencies and hedging losses partially offset FX tailwinds





- Global presence
- ~40% of sales in Europe

Costs

- High Swiss franc cost base due to manufacturing sites
- R&D hub and notable sales force in U.S.

FX Impact



Sales

 Balanced regional sales split between EU, NA and RoW

Costs

- Extensive manufacturing and research footprint in the U.S.
- Global customer proximity requires broad-based sales force

FX Impact



Sales

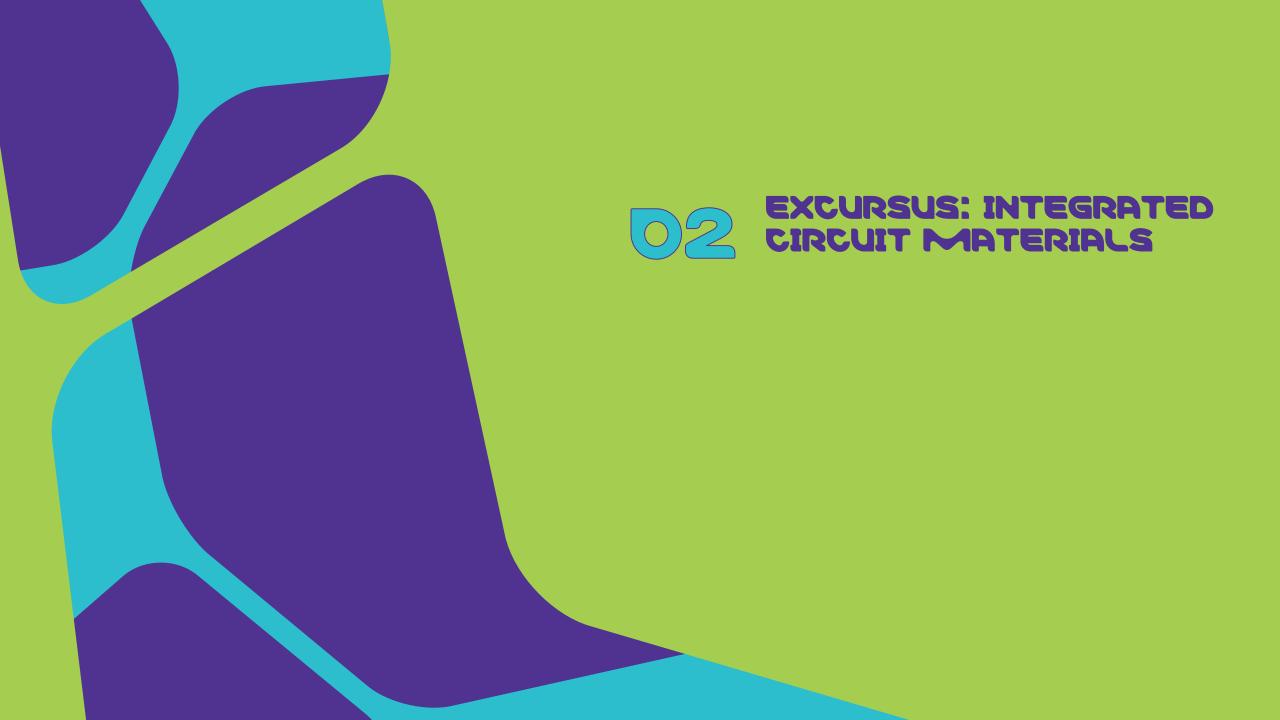
- ~80% of sales in Asia-Pacific
- Industry is USD-driven

Costs

- · Main production sites in Germany
- Several R&D and mixing facilities in Asia

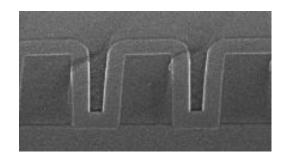
FX Impact





Integrated Circuit Materials – enabling solutions for the semiconductor market and adjacent industries

Dielectric Materials



 Spin-on silicon-based materials forming electrical insulation layers inside the microchips, displacing chemical vapor deposition (Spinfil®)

Lithography Materials



 Diverse portfolio of bespoke materials that improve resolution and performance and reduce costs in the IC lithography process

Silica Materials



 Colloidal silica used in chemical mechanical planarization (CMP), substrate polishing and industrial applications (Klebosol®)

IC Process Materials



 Removers, developers and other solvents as well as polyimide raw materials

We have a strong position and will benefit further from complex technological advances and underlying market trends

Market drivers and technological trends

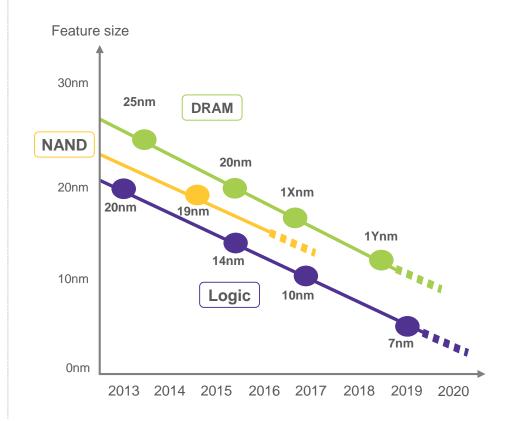
- Miniaturization: Devices are becoming smaller with better performance
 - Need for enabling materials to reduce size (Moore's law)
- Mobility: Everyone is continuously connected without direct power supply
 - > More chips needed for local energy production
 - ➤ Energy storage → smaller batteries with higher density
- Internet of Things: Everything is continuously connected
 - More gadgets and devices that include chips
 - Increasing amount of communication and sensor chips
- Big Data: Increasing need for intelligent data storage
 - > Switch from hard disk drives (HDD) to solid state drives (SSD)

Selected competitors

- Tokyo Ohka Kogyo
- Nissan Chemicals

- Dow Electronic Materials
- JSR

Feature sizes develop as predicted by Moore's law





Sigma Aldrich acquisition – A compelling transaction rationale

Strategic and operational fit

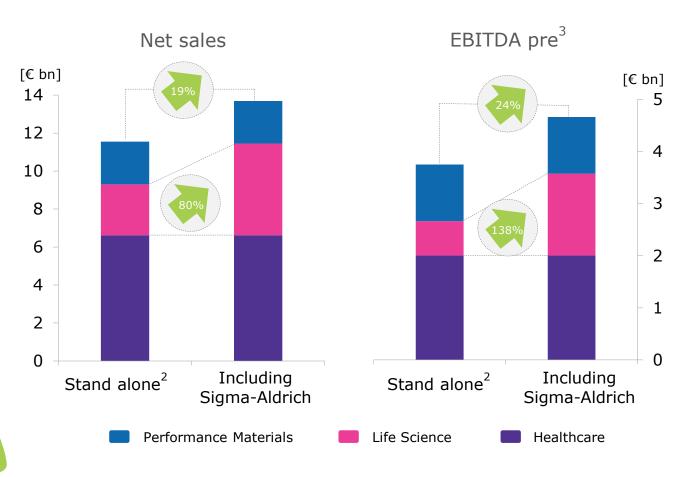
- Increasing scale expanding position in attractive life science industry
- Enhancing value for our customers
 - Broadens product range and ease of doing business for Laboratories & Academia
 - Complements Process Solutions product offering
- •Closing the gap in U.S. adequate presence in all geographies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

Sigma-Aldrich acquisition enhances Merck KGaA Darmstadt Germany's financial profile

Merck KGaA, Darmstadt, Germany – pro-forma 2014¹



Pro-forma financial impacts

- •Group sales¹ increase by ~19%
- •Group EBITDA pre³ rises by ~24% with margin⁴ expansion from ~30% to ~33%
- Synergies: ~€260m p.a. fully implemented in 3rd full year after closing
- Expected PPA impact:
 Mid triple-digit €m p.a.
- Immediately EPS pre accretive

Sigma-Aldrich – A leading life science consumables supplier

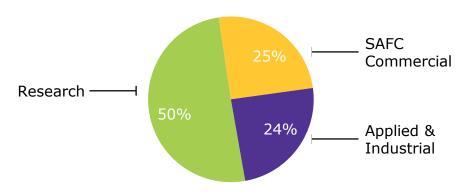
Business

- •Total revenues of \$2.8 billion in 2014
- •~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

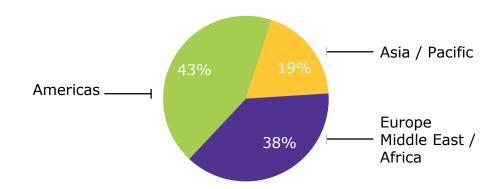
Footprint

- Balanced regional exposure; strength in North America
- •Operations in \sim 40 countries; products available in \sim 160 countries

Sales by division FY 2014*



Sales by region FY 2014





We serve the attractive €100bn life science industry

~€100 bn life science industry

Research Solutions

~€12 bn industry



Low single digit growth

Process Solutions

~€44 bn industry



High single digit growth

Applied Solutions

~€44 bn industry



Mid single digit growth

Market trends

- Academic/government, pharma and contract research
- Rising volume of experiments
- Capped by slow funding growth

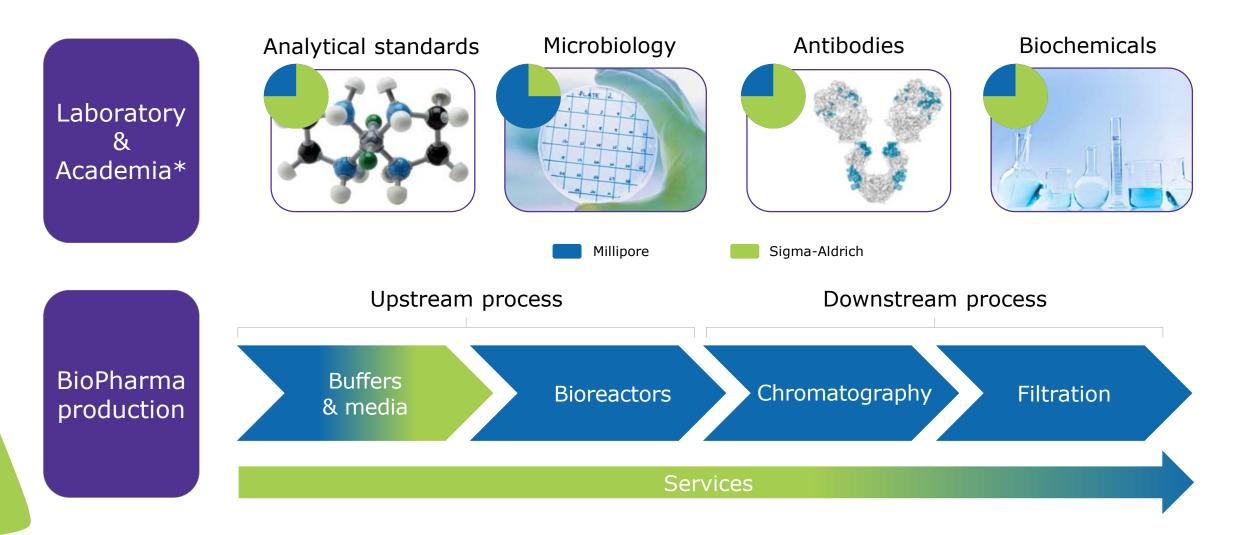
- Small molecule and biologics production
- High growth in biologics market
- Stable small molecule market

- Clinical testing, environmental, diagnostics, food and beverage
- Food safety, environmental testing requirements increasing
- Uptake of in-vitro diagnostics testing



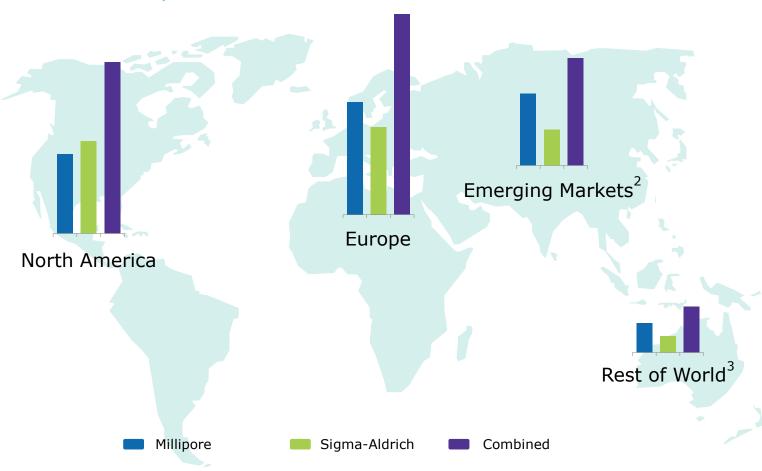
Attractive industry EBITDA margin of ~25%

Broad and complementary product fit in attractive segments



Expanding global reach and scale

Global sales¹ footprint of both businesses



Increased presence in North America

- Benefiting from a leading position in U.S. Laboratory sector
- Increased access to U.S. academia

Exposure to fast-growing Asia

- Accelerating growth momentum
- Opportunity to leverage eCommerce platform

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







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

Sigma-Aldrich – Business and transaction financials

Overview of financial data¹

US\$ m	2012	2013	2014
Revenue	2,623	2,704	2,785
% YoY at constant FX	+3%	+3%	+4%
EBITDA (adjusted)	809	821	847
% of sales	31%	30%	30%
D&A	136	138	132
% of sales	5%	5%	5%
Net financial debt (period end)	-41	-357	-513
No. of shares (diluted, m)	122	121	120

Proposed transaction details²

- •Equity value ~US\$17 bn (€13.1 bn)
- •Enterprise value (EV) ~€12.7 bn including net cash ~€360 m⁵
- Financing through cash and debt; no equity
- •Assumed synergies: ~€260m
- •In line with core acquisition criteria
 - Immediately accretive to EPS pre
 - Solid investment grade rating will be maintained

Implied forward transaction multiples³

	2013	2014
EV/Sales	6.1x	5.9x
EV/EBITDA	20.1x	19.4x
EV/EBITDA pro-forma incl. synergies ³	14.3x	13.9x

Support from meaningful synergies

Our experience





Source of synergies





Planned delivery



- Significant restructuring and integration experience
- Deep knowledge and understanding of the life science industry

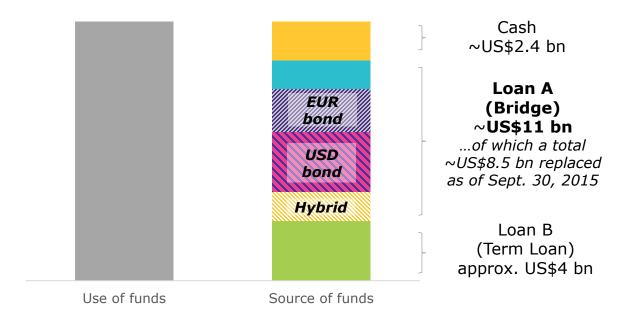
- Consolidate manufacturing footprint
- Increase conversion to eCommerce channels
- Optimize sales & marketing
- Streamline admin functions and infrastructure
- Save U.S. public company costs
- Optimize R&D portfolio

- •Synergies: ~€260 m, i.e. ~12% of Sigma-Aldrich sales
- Fully implemented in third full year after closing
- Expected integration costs: ~€400 m; spread over 2015-2018

Solid structure to finance Sigma-Aldrich transaction

Financing structure as of September 30, 2015

Total: US\$17.4 bn



Update on funding structure

- Acquisition 100% cash & debt financed
- The bridge has almost completely been replaced through various capital markets transactions
- Accomplished transactions:
 - Dec. 2014: ~US\$1.9 bn EUR-hybrid bond
 - March 2015: US\$4 bn USD bond
 - August 2015: ~US\$2.6 bn EUR bond
- Strong combined cash flows available for rapid deleveraging
- Strong investment grade rating maintained
- Expected financing costs well below 2%



Delivering on promises from Capital Markets Day in September 2014

Capital Markets Day 2014

Vision 2018

Enforce stability in existing businesses

Maximize existing franchises

Market positioning

Regions / emerging markets capabilities

Life-cycle management including

superior devices



Create sustained growth

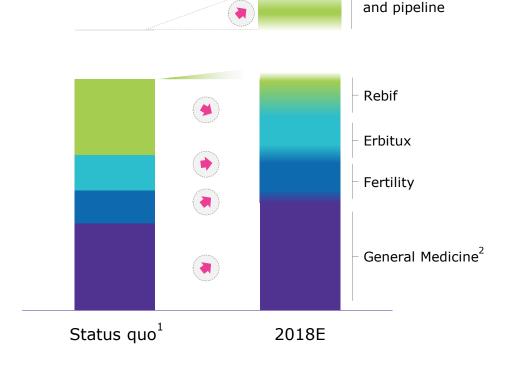
Generate new revenue streams

Deliver on R&D pipeline

Payor-centric devices strategy

Expand regional portfolio through

in-licensing



Growth initiatives

The road to maximizing Biopharma's 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



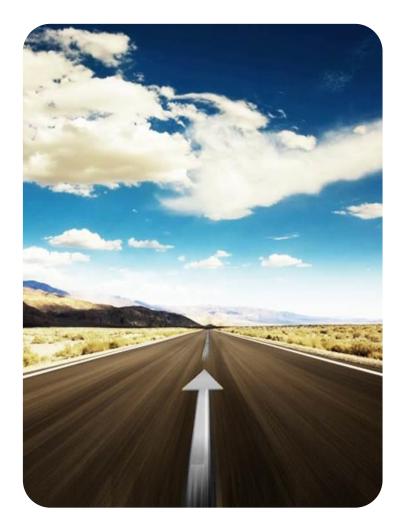
Build on No.1 position and ART¹ channel access with embryo diagnostics and other innovative technologies



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



Portfolio management: Differentiating across diverse business models

General Medicine portfolio



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



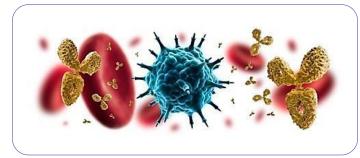
Biologicals portfolio



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







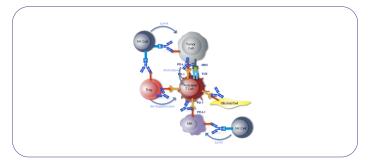
- High reward at high risk
- Innovation key success factor high R&D spend
- Promising pipeline projects



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

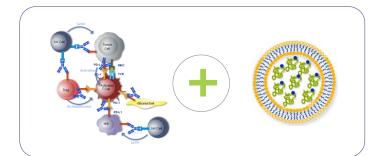
Collaboration with Pfizer – three strategic drivers

Leverage Anti PD-L 1 asset



- Combine our 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 Avelumab launch
- Additional income stream to drive R&D activities

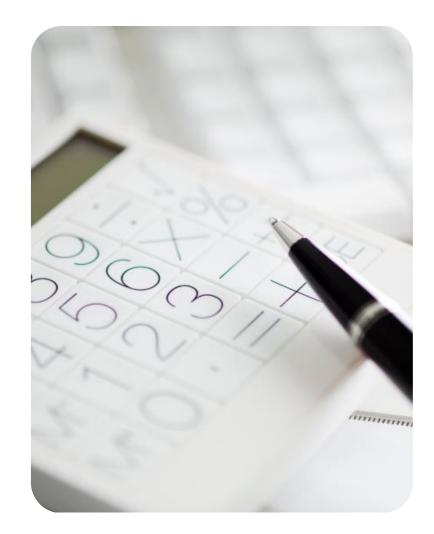






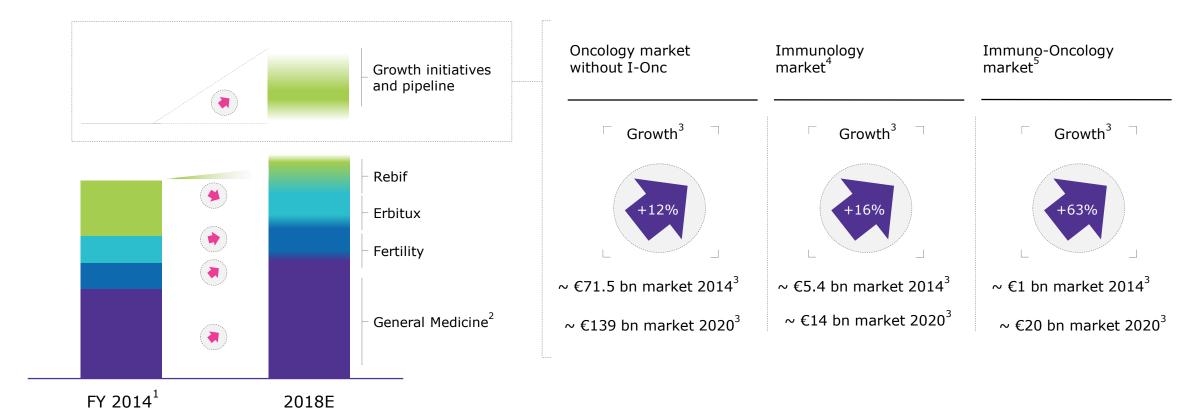
Financial implications of the deal with Pfizer

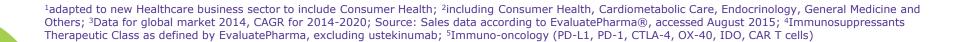
- \$850 m upfront cash payment, accrual to be released over several years
- ~50:50 R&D Cost split for drug development
- Milestone payments of up to \$2.0 bn based on filing/approval and commercialization of the compound across various indications & markets
- Co-commercialization of Xalkori 2015 reimbursement for ramping up infrastructure and capabilities; followed by profit sharing agreement
- Following regulatory approval, first potential sales of Anti PD-L1 compound



We are pursuing attractive growth opportunities with our pipeline

Healthcare investments focused on three attractive market segments

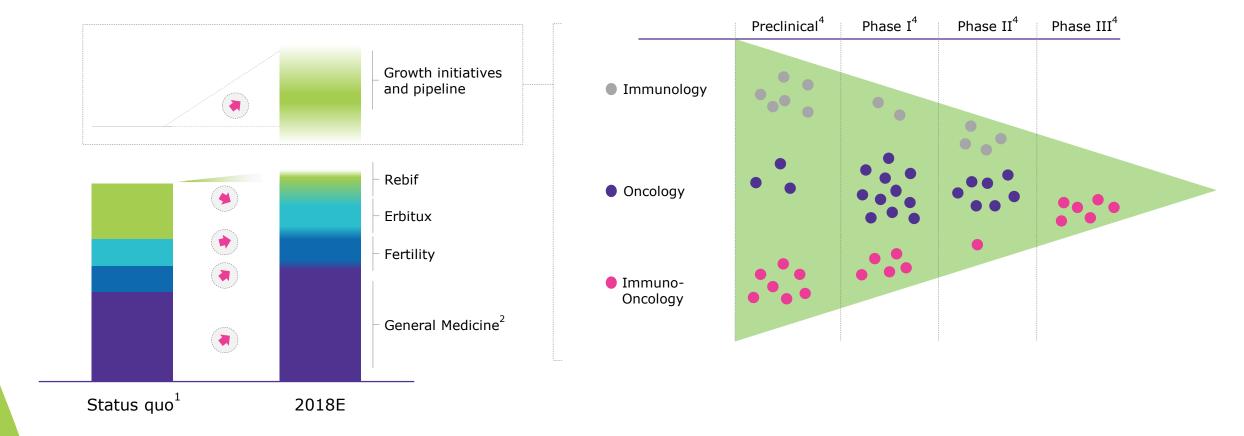






New revenue streams from pipeline projects and additional growth initiatives

Broad and Well structured pipeline

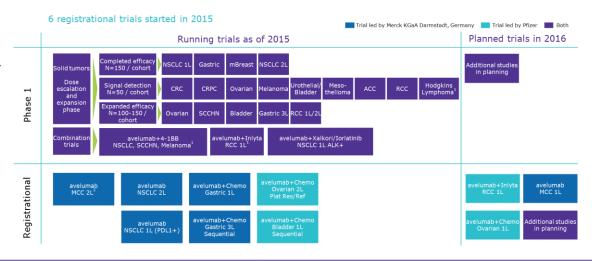


New revenue streams from pipeline expected from 2017/2018 onwards



demulgva

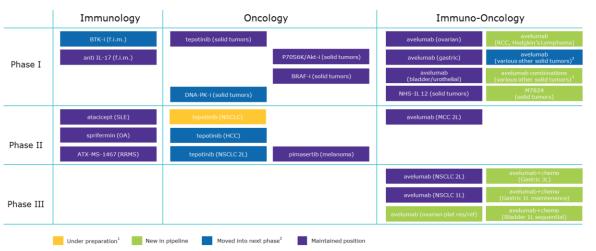
- 6 pivotal trials initiated in 2015 (NSCLC 1L/2L, ovarian platinum resistant/refractory, gastric 1L/3L, bladder 1L)
- Breakthrough therapy and Fast track designations (US) for mMCC received, Orphan Drug Designation (US and EU)
- Initiation of more than 20 clinical programs together with Pfizer across more than 15 tumor indications in 2015
- Collaboration with Syndax evaluating avelumab in combination with entinostat in ovarian cancer





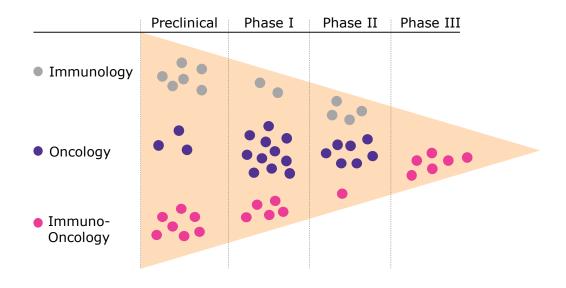
selected R&D projects

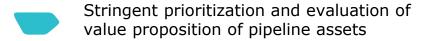
- Atacicept: study enrolment completed ahead of schedule, data readout Phase II in H2 2016
- BTK inhibitor: explore options for partnering
- M7824: Phase I dose escalation for our first in class bi-functional fusion-protein targeting PD-L1 and TGF-B
- Tepotinib: Phase II data in hepatocellular carcinoma expected in H2 2016
- Cladribine: EU filing expected in H1 2016, other geographies under review

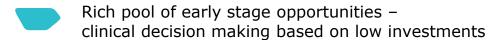


The prioritization of our pipeline projects ensures efficient capital allocation

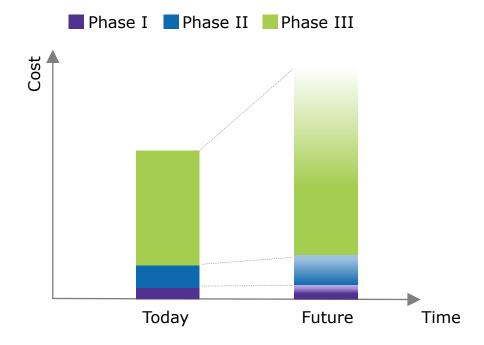
clinical development strategy

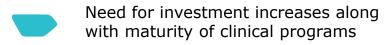


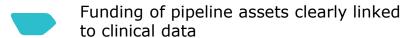


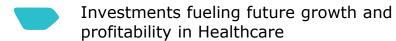












Several pipeline compounds have advanced and will add to long-term momentum

Avelumab

- Thought to block interaction of PD-L1 with known ligand PD-1
- May enable the activation of T-cells and the adaptive immune system
- Under investigation in more than 15 tumor types

Bi-functional immunotherapy – M7824

- Dual-acting fusion protein neutralizes two immuno-inhibitory pathways
- Expected to control tumor growth by restoring and enhancing innate and adaptive anti-tumor immune responses

NHS-IL12 - M9241

 Investigational cancer immunotherapy designed to target the DNA fragments released from the dead and dying (necrotic) cells found in the context of many solid tumors.



DNA-PK inhibitor - M3814

 Small molecule inhibitor of key enzyme in double strand break (DSB) repair pathway

Tepotinib/ C-Met Inhibitor

 Investigational small molecule inhibitor of the c-Met receptor tyrosine kinase

BTK inhibitor – M2951

 Selective inhibitor of bruton tyrosine kinase (BTK); important in the development of immune cells

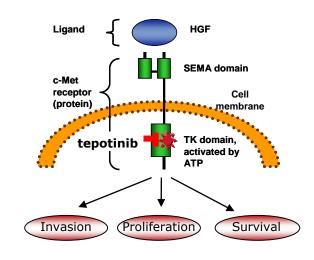
Tepotinib – leveraging biomarker science to achieve growth inhibition and regression of tumors

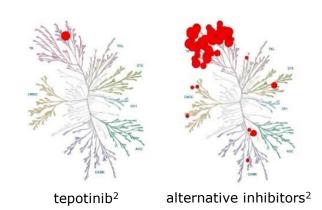
Potential mechanism

- c-Met receptor tyrosine kinase is thought to control key signaling pathway in cancer cells
- Pathway frequently deregulated in human cancer at ligand (HGF) and receptor (c-Met) levels
- In pre-clinical models, tepotinib as small molecule kinase inhibitor of c-Met causes growth inhibition and regression of tumors

Potential for differentiation

- Highly selective and potent kinase inhibitor only c-Met is completely inhibited at clinically relevant doses
- Biomarker-driven approach for patient selection: only c-Met positive will be enrolled into tepotinib trials
- c-Met amplification and c-Met and HGF (hepatocyte growth factor) overexpression preclinically validated as predictive biomarker





Highlights & milestones

- Initiated phase II enrollment in Asia for HCC and EGFR mutant NSCLC, and for HCC in Europe – H1 2015
- Preliminary data show encouraging signs of anti-tumor activity in c-Met positive patients in NSCLC and HCC^{3, 4}
- Phase I first-in-man trial: 76% of patients had no drug-related adverse events >Grade 1⁵

Timelines¹

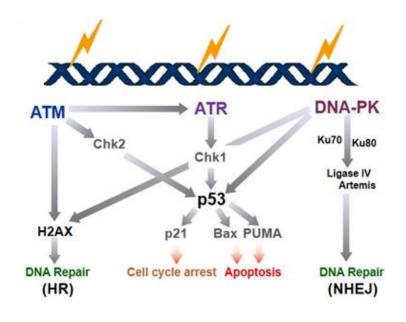
- Phase II: NSCLC 2L: final analysis expected for end of 2017
- Phase II: HCC 1L, HCC 2L: interim analysis in H2 2016, and final analysis expected for H2 2017
- 2nd NSCLC trial under preparation for Phase II



DNA-PK inhibitor – targeting **DNA** double strand break (**DSB**) repair for cancer therapy

Potential mechanism

- DNA-PK is a relevant enzyme in an important DSB repair pathway
- DNA-PK inhibitor M3814 is thought to delay DNA repair of DSB and may potentiate the antitumor effect of radiotherapy
- M3814 may also have activity as single agent in cancers with dysfunctional DNA repair pathways



Highlights & milestones

- 100% cure rate in a head & neck cancer model in combination with radiotherapy in a clinically relevant setting (5x2 Gy/week for 6 weeks)
- Combination with radiotherapy may open a broad range of applications
- First in man, Phase Ia monotherapy trial:
 3rd dose level completed without DLTs,
 4th dose level fully recruited
- Phase Ia dose escalation trial in combination with radiotherapy open for recruitment

Potential for differentiation

- Potential for First-in-Class orally administered selective DNA-PK inhibitor
- Potentially enhances the efficacy of many commonly used DNA damaging agents, such as radiotherapy and chemotherapies
- Strong preclinical proof-of-concept showing complete responses and/or increased progression-free survival in combination with radiotherapy in several xenograft models (SCCHN, NSCLC, CRC, PaCa)

Timelines*

- First patient cohort in radiotherapy combination trial (Phase I) to be recruited within next 1-2 quarters
- Phase Ib expansion cohorts: Solid tumors, CLL: First patient in H2 2016; Key data / statistics expected for H2 2017



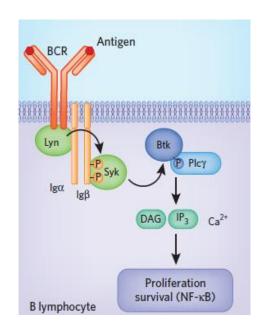
BTK inhibitor – selective inhibitor

Potential mechanism

- BTK is expressed by multiple cell types, including B lymphocytes and macrophages
- BTK may play an important role in B cell development, differentiation, activation, classswitching, proliferation, survival and cytokine release
- BTK-i is thought to suppress autoantibodyproducing cells in RA and SLE; preclinical research suggests this may be therapeutically useful in certain autoimmune diseases

Potential for differentiation

- Highly differentiated and selective inhibitor
- BTK inhibitor demonstrates promising kinase selectivity profile
- Good cellular assay target profile for B and T cell interactions
- Aim to achieve best in class through minimization of off-target effects



Highlights & milestones

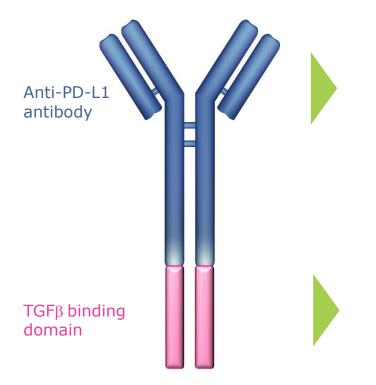
- BTK seems to prevent immune complexmediated signalling and production of inflammatory cytokine in macrophages and glycoprotein VI signalling in platelets
- High and differentiated efficacy in preclinical models
- Second differentiated BTK molecule (M7583) moving into oncology clinical development in 2016

Timelines¹

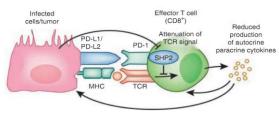
- Phase I (M2951), SAD/MAD/Food effect studies completed
- Phase Ib SLE start Oct 2015
- Phase IIa RA² start H1 2016

M7824 – First-in-class bi-functional fusion protein targeting PD-L1 and TGFβ

mechanism of action

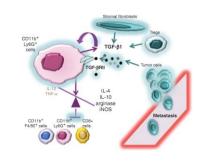


PD-1/PD-L1 immune checkpoint¹



- Is thought to bind to tumor expressed PD-L1 preventing its engagement to the immuno-inhibitory receptor PD-1 on activated T cells
- Has the potential to avert the shut down of T cell effector function





- "Traps" TGFβ produced by tumor cells, stromal cells, myeloid-derived suppressor cells and Tregs
- Is thought to block suppression of innate and adaptive anti-tumor immunity through $\mathsf{TGF}\beta$ removal



M7824 addresses two immuno-inhibitory pathways and has the potential to control tumor growth by restoring and enhancing anti-tumor immune responses

Preclinical data show superior efficacy of M7824 over single agent PD-L1 or TGFb blockade justifying rapid clinical development

potential for differentiation

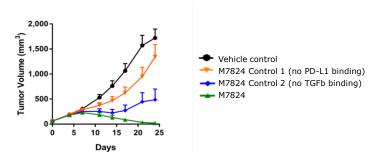
- Preclinical research indicates enhanced anti-tumor activity compared to PD-L1 or TGF β inhibition alone with complete responses seen in some in vivo models
- M7824 can induce anti-tumor immunity as shown in a tumor re-challenge setting in these models

Highlights & Milestones

- Moved from preclinical to First-in-Human within 11 months
- Second dose level of Phase I completed by January 2016*
- Expansion cohorts expected to start in H2 2016⁷

EXAMPLE: EMT-6 BREAST CANCER MODEL

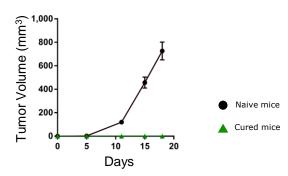




Survival

Days

Tumor re-challenge

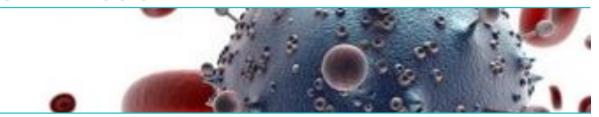




Bifunctional mode of action of M7824 should result in broader application compared to respective monofunctional agents

CAR-T – T-Cell therapies could be the next cornerstone of cancer immunotherapy

CAR-T - Intrexon



Potential for differentiation

- Possibility to improve safety profile of CAR-Ts through switch that could activate/modulate T-cell expression (Intrexon's proprietary RheoSwitch platform)
- · Opportunity to solid tumors
- Possible combination with avelumab or next-generation checkpoint inhibitors
- Current CAR-T treatments are unique to each patient; Intrexon therapy is engineered with potential to be infused back to universal, "off-the-shelf" treatment (i.e. allogeneic)

Potential mechanism

- Chimeric Antigen Receptor T-cell (CAR-T) therapy harnesses a patient's own immune system to direct it specifically against tumor cells
- CAR-T cells are genetically engineered to recognize a specific antigen expressed on tumor cells and trigger immunological attack

Highlights & milestones

- Considered as next cornerstone of cancer immunotherapy
- CAR-T cells have shown clinical response rate with up to 91% complete remission in certain hematological indications (ALL)
- Technology has potential to address limitations of 1st/2nd generation gene and cell-based therapy

Timelines¹

- 2016: Preclinical/clinical development to CAR-T cells safer based on existing design targeting hematological tumors
- 2017: Test next-gen CAR-T cells for efficacy in solid tumors

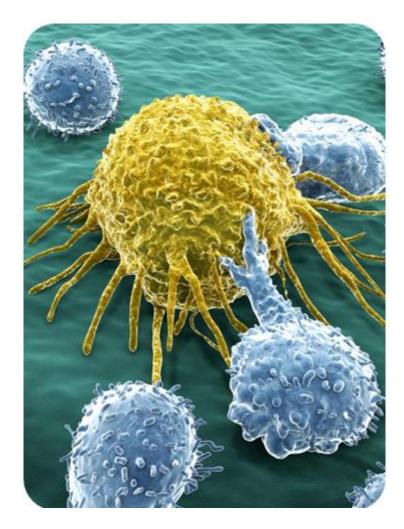
Avelumab – milestones and next steps

Key milestones so far

- 6 pivotal trials initiated in 2015 (NSCLC 1L/2L, ovarian platinum resistant/refractory, gastric 1L/3L, bladder 1L)
- Breakthrough therapy and Fast track designations (US) for mMCC received,
 Orphan Drug Designation (US and EU)
- Initiation of more than 20 clinical programs together with Pfizer across more than 15 tumor indications in 2015
- Collaboration with Syndax evaluating avelumab in combination with entinostat in ovarian cancer
- Promising clinical activity in several indications

Next steps

- Additional Phase III and combination studies to start in 2016
- Enrolment of >3,000 patients by 2016
- First potential commercial launch of avelumab in 2017; working toward at least one additional potential launch per year through 2022



Going forward, the differentiation strategy for the alliance is fueled by the potential for combination





- 2015 2016 **Future**
- Phase II 2L MCC BTD, ODD and
 Initiation of phase III 1L MCC FTD received
- Phase III 1L and 3L gastric cancer
- Phase III 1L and 2L NSCLC
- Phase I Hodgkins Lymphoma

- Further studies under preparation

Fast to market with monotherapy

CHEMOTHERAPY

- Phase III 1L Bladder maintenance
- Phase III Ovarian Plat res/ref
- Initiation of phase III 1L ovarian cancer
- Further phase III studies under preparation

NOVEL/NOVEL

- Phase I avelumab combined with 4-1BB in NSCLC, SCCHN and Melanoma
- Phase I 1L NSCLC ALK/ROS+
- Start of Syndax collaboration for a phase Ib/II in ovarian cancer
- Further exploratory and pivotal trials under preparation

Expansion with combinations **Next generation** combinations

Avelumab shows promising clinical activity in five indications supporting further clinical development



- Treatment with avelumab led to early and durable responses (ORR 14%) as a 2nd line treatment
- Longer median PFS and OS were observed for PDL1+ patients
- Phase III head-to-head trial of avelumab vs docetaxel in patients with recurrent NSCLC is underway

2 Ovarian

- Largest reported dataset² of patients with advanced ovarian cancer treated with anti-PD-(L)1
- Treatment with avelumab showed clinical activity (ORR 11%) in heavily pre-treated patients
- Phase III clinical development is planned

3 Gastric

- Largest reported dataset² of patients with advanced gastric cancer treated with anti-PD-(L)1
- Treatment with avelumab as a 2nd line treatment showed clinical activity (ORR 15%)
- Disease stabilization was also observed in a SwM (switch-maintenance therapy) group

Urothelial / Bladder

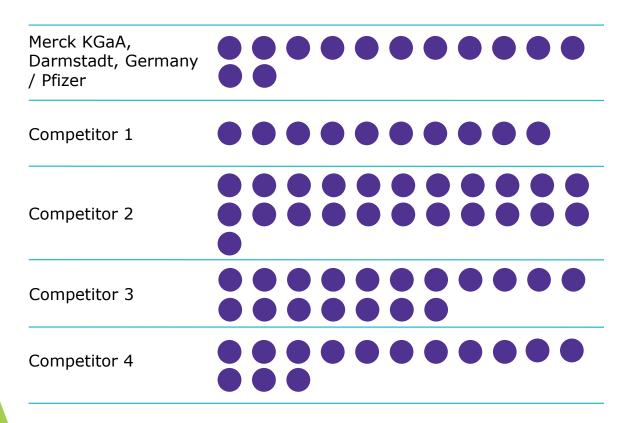
- Treatment with avelumab led to early and durable responses (ORR 19%)
- Biomarkers from tumor tissue and blood samples are under evaluation

5 Mesothelioma

- Treatment with avelumab in heavily pre-treated patients with advanced unresectable tumors led to:
- Partial responses in 3 patients (15.0%); all ongoing at time of analysis
- Disease control rate for patients 60.0% (partial response and stable disease)

Avelumab development program covers a broad range of tumor types

Total # of tumor types targeted with PDL1 compounds



- Avelumab is well represented and is currently investigated across more than 15 tumor types and lines of therapy
- It tackles a similar range as competitive products in the field of checkpoint inhibitors
- Significant progress made until 1 Oct. 2015 and expected to be made until the end of 2015 and into 2016:
 - Confident to start up to 6 registrational trials in 2015
 - Up to 25 trials until ASCO 2016 as single-agent and combination therapy

Avelumab – Differentiation strategy varies according to chosen target indication and market

Unsaturated and / or niche indications

Ambition: Smart leader

- Indications (Merkel cell) or markets (Asia for gastric)
- Quick to market strategy, e.g. BTD for MCC in November 2015
- Small, but less crowded markets and sales potential with notable impact for us
- Strategic strength of Healthcare in niche markets

Ambition: Smart follower

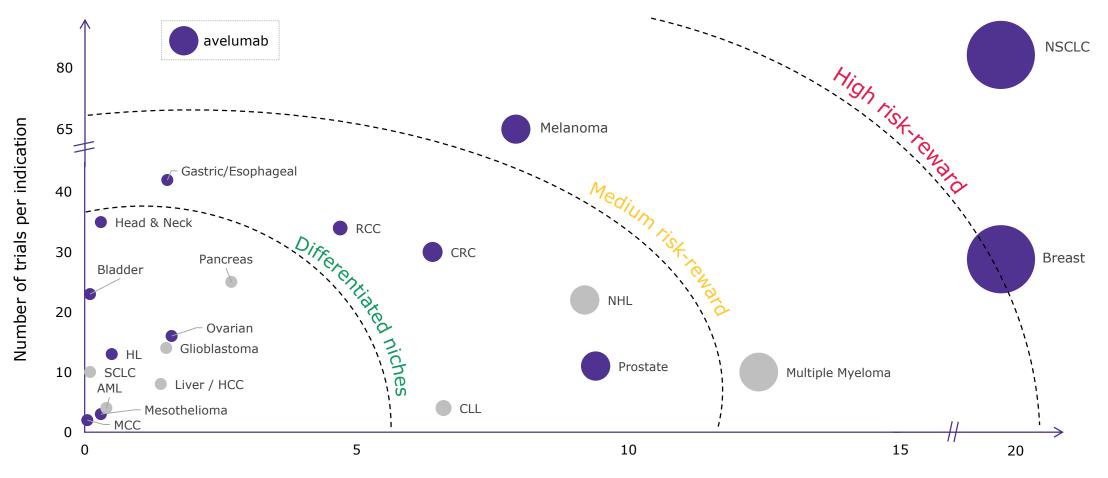
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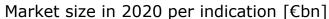
Saturated and / or major indications

- Indications such as NSCLC or Bladder
- Learn from experience of incumbents/early movers
- Potential for combinations given breadth of combined development pipelines, e.g. lung
- Differentiate in trial design and explore application of further biomarkers



Avelumab plays predominantly in attractive and differentiated niches







The alliance met its ambitious goal in 2015: the initiation of 6 pivotal trials

PMBITION Estimated patient enrolment: 550 Comparator: Pegylated liposomal doxorubicin Smart leader Ovarian Plat res/ref Estimated primary completion: H1 2018* Estimated patient enrolment: 668 Comparator: Best supportive care Smart follower Estimated primary completion: H1 2019* Bladder 1L maint Estimated patient enrolment: 629 Comparator: Physician's choice of chemotherapy/BSC Smart leader Gastric 1L maint. Estimated primary completion: H2 2018* Estimated patient enrolment: 330 • Comparator: Physician's choice of chemotherapy/BSC Smart leader Gastric 3L Estimated primary completion: H1 2018* Estimated patient enrolment: 420 Smart follower Comparator: Physician's choice of platinum containing chemotherapy **NSCLC 1L** • Estimated primary completion: H1 2018* Estimated patient enrolment: Comparator: docetaxel/chemotherapy Smart follower NSCLC 2L Estimated primary completion: H2 2021*

Healthcare pipeline

Phase I

Tepotinib c-Met kinase inhibitor

Solid tumors M2698

p70S6K & Akt inhibitor

Solid tumors

M3814

DNA-PK inhibitor

Solid tumors

Beigene-283 BRAF inhibitor

Solid tumors

Avelumab¹ Anti-PD-L1 mAb

Solid tumors

M9241 (NHS-IL12)²

Cancer immunotherapy

Solid tumors

M7824
Bifunctional immunotherapy

Solid tumors

M1095 (ALX-0761) Anti-IL-17 A/F nanobody

Psoriasis

M2951

BTK inhibitor

Healthy volunteers

Phase II

M2736 (ATX-MS-1467)
Immune tolerizing agent
Multiple sclerosis

Pimasertib MEK inhibitor

Melanoma

Tepotinib c-Met kinase inhibitor

Non-small cell lung cancer

Tepotinib

c-Met kinase inhibitor

Hepatocellular cancer

Avelumab¹
Anti-PD-L1 mAb
Merkel cell carcinoma

Sprifermin
Fibroblast growth factor 18
Osteoarthritis

Atacicept
Anti-Blys/anti-APRIL fusion protein
Systemic lupus erythematosus

Phase III

Avelumab¹ – Anti-PD-L1 mAb Non-small cell lung cancer 1L³

Avelumab¹ - Anti-PD-L1 mAb

Non-small cell lung cancer 2L⁴ **Avelumab¹ – Anti-PD-L1 mAb**

Gastric cancer 113

Avelumab1 - Anti-PD-L1 mAb

Gastric cancer 3L5

Avelumab1 - Anti-PD-L1 mAb

Bladder cancer 1L3

Avelumab1 - Anti-PD-L1 mAb

Ovarian cancer platinum resistant/refractory

Registration

Cladribine Tablets⁶ – Lymphocyte targeting agent

Relapsing-remitting multiple sclerosis

- Neurodegenerative Diseases
- Oncology
- Immunology
- Immuno-Oncology

Pipeline as of December 31st, 2015

Pipeline products are under clinical investigation and have not been proven to be safe and effective. There is no guarantee any product will be approved in the sought-after indication.

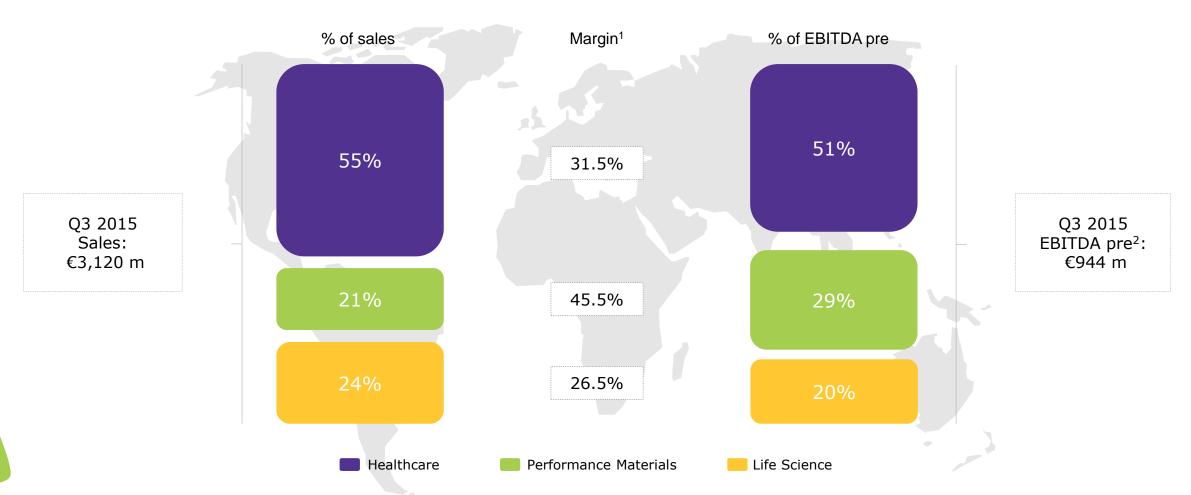
¹Avelumab is the proposed International Non-proprietary Name (INN) for the anti-PD-L1 monoclonal antibody (previously known as MSB 0010718C); ²Sponsored by the National Cancer Institute (USA); ³ First Line treatment; ⁴Second Line treatment; ⁵Third Line treatment

⁶As announced on September 11th, 2015 Merck KGaA Darmstadt, Germany is preparing a regulatory submission to the European Medicines Agency



Group

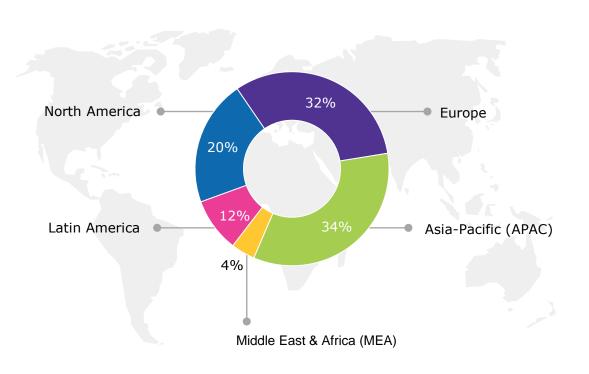
Strong businesses with attractive margins



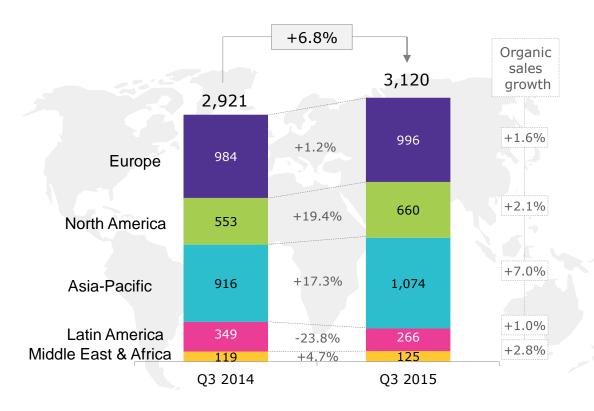
Group

All regions contribute to organic growth - strong growth momentum in China

Group Q3 2015 net sales by region



Regional development of Q3 2015 net sales [€ m]



Q3 2015 overview

Q3 2015 – key figures

[€m]	Q3 2014	Q3 2015	Δ
Net sales	2,921	3,120	6.8%
EBITDA pre Margin (in % of net sales)	857 29.3%	944 30.3%	10.2%
EPS pre	1.15	1.32	14.8%
Operating cash flow	726	872	20.1%

[€m]	Dec. 31, 2014	Sept. 30, 2015	Δ
Net debt	559	-1,304	n.m.
Working capital	2,356	2,614	10.9%
Employees	39,639	40,339	1.8%

Comments - Q3 2015

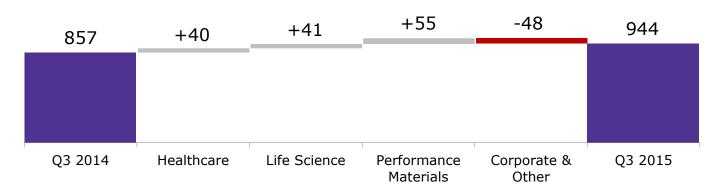
- •EBITDA pre increase driven by good organic performance, release of R&D termination provision and FX
- EPS pre and operating cash flow increase mainly due to higher EBITDA pre
- Net cash position reflects strong track record of deleveraging

Sales and EBITDA pre growth driven by all businesses

Q3 2015 YoY net sales

	Organic	Currency	Portfolio	Total
Healthcare	1.9%	-0.5%	0.0%	1.4%
Life Science	8.1%	6.8%	0.0%	14.9%
Performance Materials	2.2%	11.2%	0.0%	13.4%
Group	3.3%	3.5%	0.0%	6.8%

Q3 YoY EBITDA pre contributors [€ m]



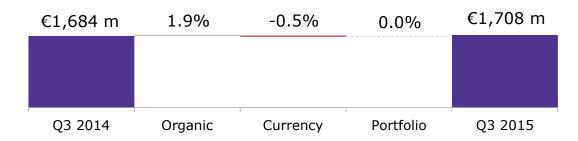
- Fertility and General Medicine more than offsetting Rebif decline
- Life Science benefits from strong performance of Process Solutions
- Performance Materials driven by FX tailwinds, LC and OLED volume growth
- Healthcare benefits from organic growth and release of R&D termination provision
- Life Science increase supported by strong organic performance
- Performance Materials reflects FX benefits and favorable LC product mix
- Hedging losses and branding initiative burden Corporate EBITDA pre

Healthcare: Slight sales growth driven by Fertility and General Medicine

Healthcare P&L

[€m]	Q3 2014	Q3 2015
Net sales	1,684	1,708
Marketing and selling	-625	-683
Administration	-62	-60
Research and development	-416	-322
EBIT	279	349
EBITDA	481	538
EBITDA pre	497	537
Margin (in % of net sales)	29.5%	31.5%

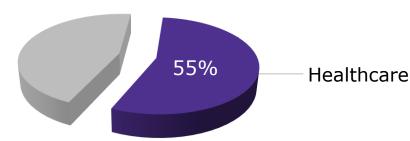
Net sales bridge



Comments

- Sales growth impacted by change of Venezuelan FX rate and softer Latin American currencies
- Rebif organically lower as volume decline mainly due to competition from orals is only partially offset by price increases in the U.S.
- Erbitux burdened by EU pricing and lower volumes in LatAm
- · Fertility with strong growth mainly driven by demand from China
- General Medicine remains largest contributor to organic growth
- LY's R&D impacted by terminations; provision release in 2015 (€31 m)
- EBITDA pre expansion reflects organic growth & release of provision

Q3 2015 share of group net sales



Life Science: All businesses contribute to strong organic performance

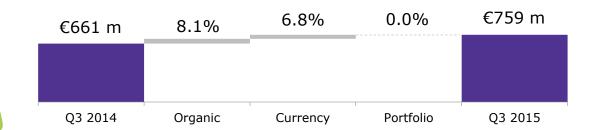
Life Science P&L

[€m]	Q3 2014	Q3 2015
Net sales	661	759
Marketing and selling	-209	-238
Administration	-26	-30
Research and development	-42	-45
EBIT	72	97
EBITDA	150	180
EBITDA pre	161	201
Margin (in % of net sales)	24.3%	26.5%

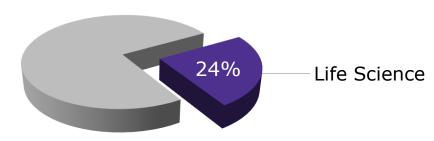
Comments

- Process Solutions remains main organic growth contributor driven by strong performance in single-use & virus filtration
- Solid organic growth in Lab Solutions led by U.S. and Europe especially in biomonitoring and lab water products
- Bioscience sees continued soft demand for reagents & antibodies offset by sound volumes of cell biology and cell culture systems
- Margin progression driven by organic performance, manufacturing efficiencies, favorable product mix and pricing

Net sales bridge



Q3 2015 share of group net sales



Performance Materials: All businesses yield profitable growth

Performance Materials P&L

[€m]	Q3 2014	Q3 2015
Net sales	576	653
Marketing and selling	-45	-54
Administration	-18	-16
Research and development	-46	-50
EBIT	152	233
EBITDA	218	292
EBITDA pre	243	298
Margin (in % of net sales)	42.2%	45.5%

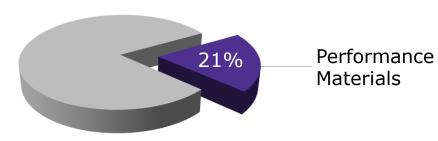
Comments

- Strong increase in sales reflecting FX tailwinds
- Further shift towards innovative liquid crystal technologies (esp. UB-FFS) supports volumes and profitability
- Display industry supply chain inventories remain at high level
- OLED and ICM* support growth with sound volume development
- Pigments slightly growing
- Profitability at high level mainly driven by FX and favorable product mix

Net sales bridge



Q3 2015 share of group net sales



9M 2015: Overview

9M 2015 – key figures

[€m]	9M 2014	9M 2015	Δ
Net sales	8,364	9,381	12.2%
EBITDA pre Margin (in % of net sales)	2,509 <i>30.0%</i>	2,696 28.7%	7.5%
EPS pre	3.46	3.74	8.1%
Operating cash flow	1,564	1,477	-5.6%
[€m]	Dec. 31, 2014	Sept. 30, 2015	Δ
Net debt	559	-1,304	n.m.
Working capital	2,356	2,614	10.9%
Employees	39,639	40,339	1.8%

9M 2015

- Sales increase mainly driven by FX,
 AZ and organic performance
- EBITDA pre increases, while margin softens due to royalty loss and Rebif decline
- Operating cash flow burdened by higher tax and interest payments
- Net cash position driven by operating cash flow and cash-in from realization of Sigma FX hedging instrument
- Working capital increase mainly attributable to organic growth and FX

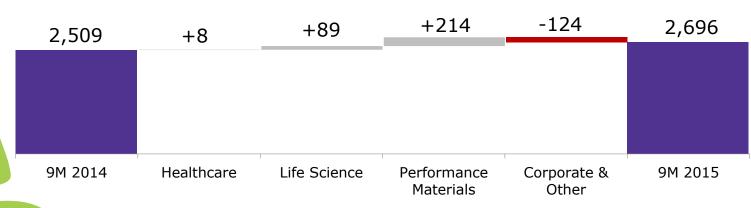
Growth driven by FX, AZ and organic performance of all segments

9M 2015 YoY net sales

	Organic	Currency	Portfolio	Total
Healthcare	1.2%	4.7%	0.0%	6.0%
Life Science	5.9%	9.3%	-0.3%	14.9%
Performance Materials	1.2%	14.1%	13.7%	28.9%
Group	2.3%	7.5%	2.4%	12.2%

- Rebif and Erbitux declines more than offset by other franchises driving organic growth of Healthcare
- Life Science benefits from positive market trends (esp. biopharma)
- Performance Materials driven by FX tailwinds, AZ and volume growth

9M YoY EBITDA pre contributors [€ m]



- Healthcare affected by Humira royalty loss and Rebif decline
- Increase in Life Science driven by good organic growth and positive mix
- Performance Materials contains FX benefits, AZ and positive product mix
- Corporate EBITDA pre reflects hedging losses

Q3 2015 – good quarter with strong earnings growth

Q3 2015 – reported results

[€m]	Q3 2014	Q3 2015	Δ
EBIT	429	564	31.4%
Financial result	-57	-81	42.3%
Profit before tax	372	482	29.8%
Income tax	-122	-117	-4.4%
Tax ratio [in %]	32.9%	24.2%	
Net income	249	364	46.3%
EPS [€]	0.57	0.84	47.4%

Comments - Q3 2015

- Strong EBIT increase reflects EBITDA pre progression; last year with higher D&A and exceptionals
- Financial result includes higher interest expenses from Sigma financing
- •Tax ratio last year contained taxable gain from Sigma FX hedging

9M 2015 – solid reported figures

9M 2015 YoY – reported results

[€m]	9M 2014	9M 2015	Δ
EBIT	1,338	1,545	15.5%
Financial result	-142	-223	56.7%
Profit before tax	1,196	1,322	10.6%
Income tax	-313	-326	4.0%
Tax ratio (%)	26.2%	24.6%	
Net income	877	989	12.7%
EPS (€)	2.02	2.27	12.4%

Reported results

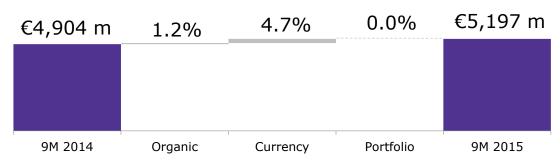
- •EBIT reflects increased EBITDA pre and higher exceptionals last year
- Financial result impacted by higher interest expenses for Sigma financing (hybrid, USD and EUR bonds)
- •Tax ratio in line with guidance range of 23-25%

Healthcare: Stability in base business and investments in future growth

9M 2015 YoY net sales

[€m]	9M 2014	9M 2015
Net sales	4,904	5,197
Marketing and selling	-1,894	-2,073
Administration	-184	-195
Research and development	-1,035	-1,027
EBIT	828	884
EBITDA	1,431	1,448
EBITDA pre	1,470	1,478
Margin (in % of net sales)	30.0%	28.4%

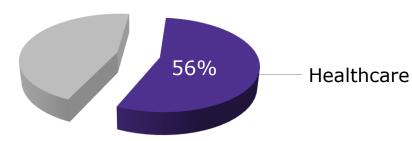
Net sales bridge



Comments

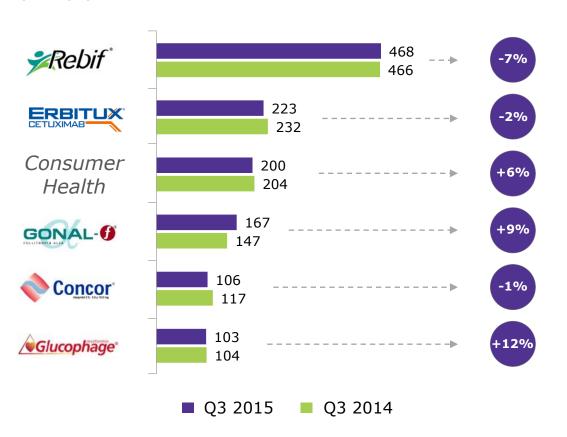
- Rebif decline due to competition partially mitigated by U.S. pricing
- Erbitux soft, as mandatory price cuts in Europe & lower private sector sales in Brazil outweigh volume increase in China
- General Medicine and Fertility remain key growth drivers
- Consumer Health with strong organic growth as new marketing approach fuels demand - especially for Neurobion in Latin America
- Investments in growth markets and FX drive higher M&S spending
- Steady ramp-up of avelumab program and other focus programs as well as promising earlier-stage pipeline candidates
- Lower profitability reflects investments and unfavorable product mix

9M 2015 share of group net sales

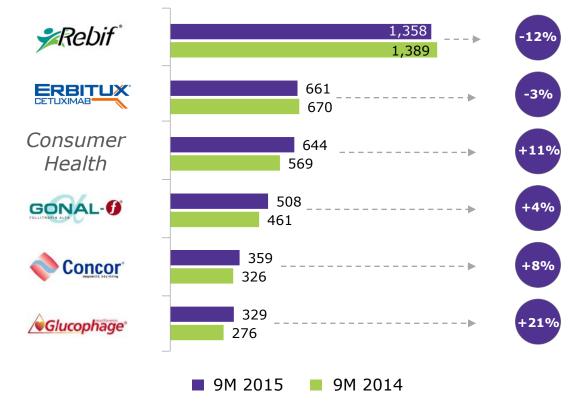


Healthcare organic growth by franchise/product

Q3 2015 organic sales growth [%] by key products [€ m]

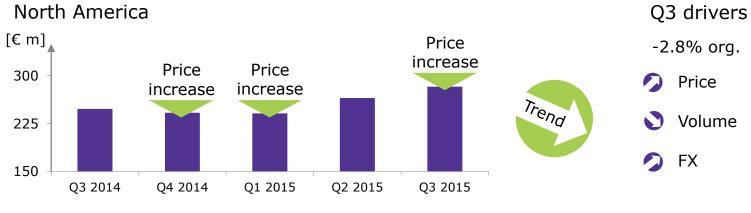


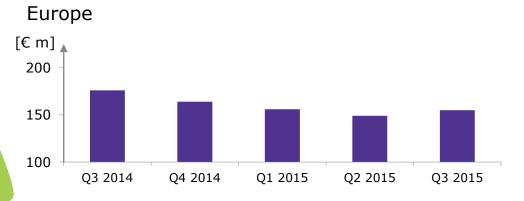
9M 2015 organic sales growth [%] by key products [€ m]



Rebif: Defending the franchise – competitive pressure in the U.S. and Europe

Rebif sales evolution







- -2.8% org.
- Price
- Volume

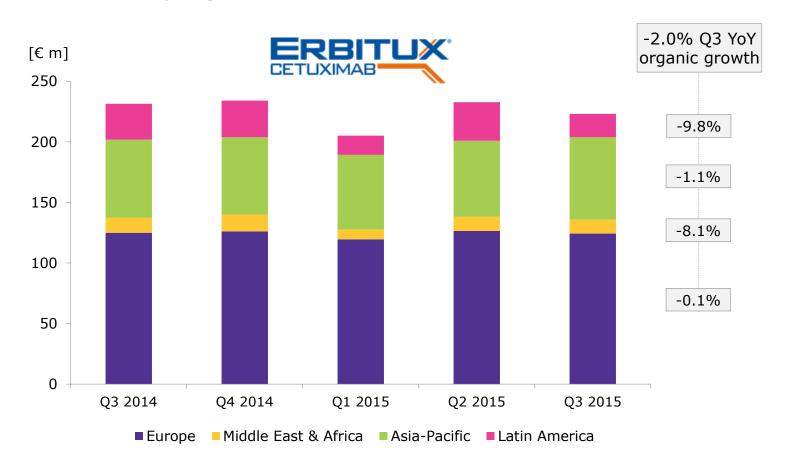
- Q3 drivers
- -9.5% org.
- Price
- Volume

Reported results

- •Rebif sales of €468 m in Q3 2015 benefit from FX tailwinds (USD)
- Organic decline of -7.0% due to lower volumes mitigated by U.S. pricing
- •U.S. and European volume decline mainly due to competition from orals
- •U.S. price increase in September supports performance

Erbitux: A challenging market environment

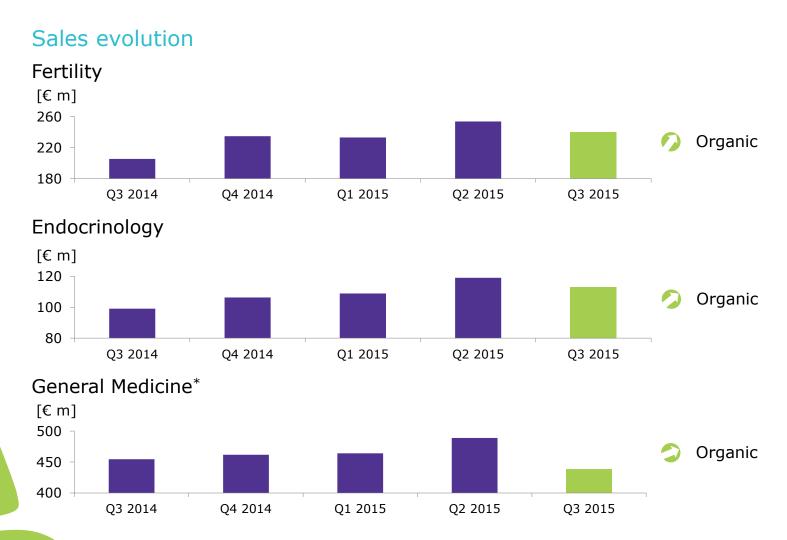
Erbitux sales by region



Erbitux performance

- •Sales decrease to €223m due to negative pricing and FX
- •Europe impacted by mandatory price cuts in various countries and increasing competition
- Latin America burdened by decline in private sector sales in Brazil
- •APAC organically lower due to channel destocking outweighing strong volume growth in China

Strong growth in Fertility, General Medicine and Endocrinology



Q3 drivers

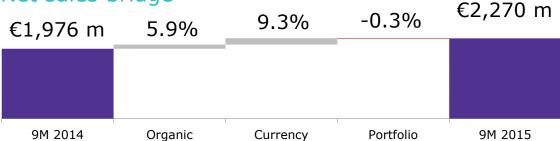
- Organic growth of Fertility driven by all major regions, especially China
- Endocrinology with strong growth across all regions and products;
 Saizen with market share gains in EU
- General Medicine sales affected by FX, organic performance remains good
- Thyroid products post sound volume development in Asia and Europe
- Glucophage shows ongoing strong growth, benefiting from Russia repatriation and supply issues LY

Life Science: Good organic performance fueled by ongoing demand for Process Solutions products

9M 2015 YoY net sales

	9M 2014	9M 2015
Net sales	1,976	2,270
Marketing and selling	-625	-715
Administration	-81	-88
Research and development	-119	-139
EBIT	234	266
EBITDA	464	514
EBITDA pre	496	585
Margin (in % of net sales)	25.1%	<i>25.8%</i>

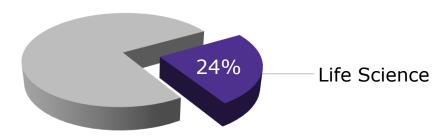
Net sales bridge



Comments

- Process Solutions drives divisional growth mainly due to strong demand from biopharma for single-use and purification products
- Lab Solutions with moderate organic growth especially in lab water consumables and biomonitoring
- Bioscience slightly positive as good development of protein detection systems offsets softness for reagents and antibodies
- Ongoing investments in R&D several product launches in 2015
- EBITDA pre benefits from FX tailwinds and organic growth, partially offset by investments in marketing and selling

9M 2015 share of group net sales

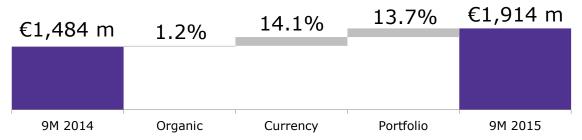


Performance Materials: Healthy trends & strong FX tailwinds drive growth

9M 2015 YoY net sales

	9M 2014	9M 2015
Net sales	1,484	1,914
Marketing and selling	-130	-154
Administration	-41	-48
Research and development	-122	-145
EBIT	441	685
EBITDA	574	864
EBITDA pre	656	870
Margin (in % of net sales)	44.2%	45.4%

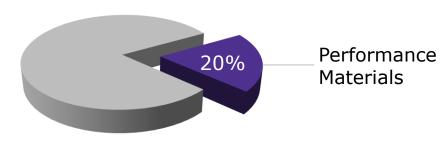
Net sales bridge



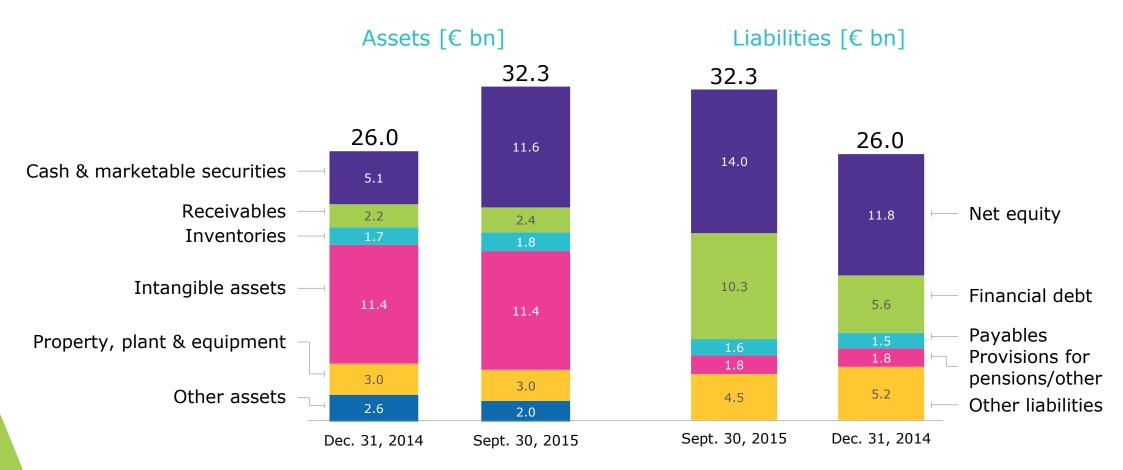
Comments

- Strong sales mainly reflect portfolio effect and FX tailwinds
- · Liquid crystals volume trend remains largest contributor to growth
- Shift towards flagship technologies like PS-VA and UB-FFS amid shrinking TN-TFT market benefits product mix
- Pigments flat growth in attractive focus markets is offset by volume decline in less profitable areas
- Integrated Circuit Materials supports organic performance with sound volume development especially in dielectric materials
- Increase in EBITDA pre driven by FX, AZ and positive product mix

9M 2015 share of group net sales



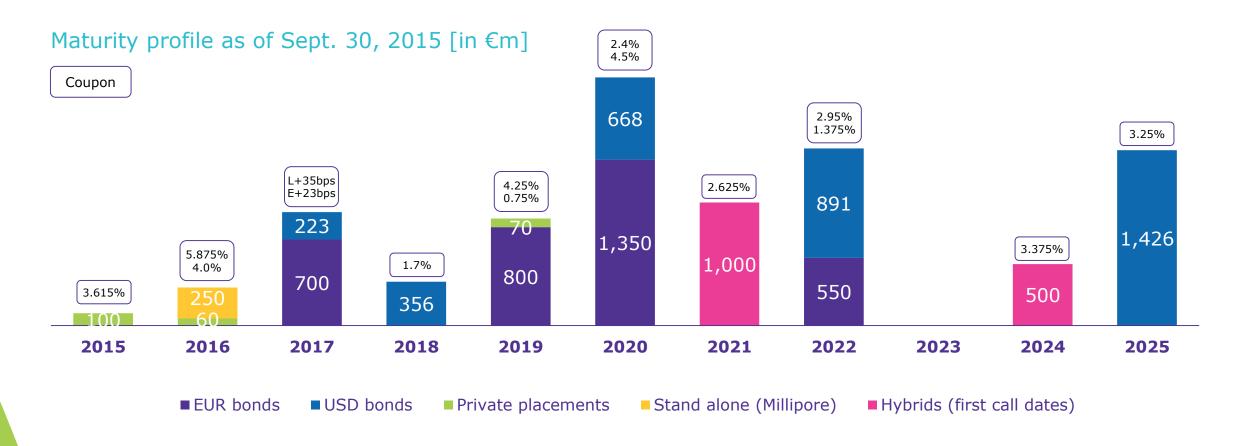
Balance sheet reflects Sigma financing measures



[•] Issuance of USD & EUR bonds impacts cash and debt

[•] FX development accounts for ~€1 bn total balance sheet increase (~€700 m in equity)

Well-balanced maturity profile reflects Sigma-Aldrich related capital markets transactions





Strong operating cash flow reflecting cash generating nature of businesses

Q3 2015 – cash flow statement

[€m]	Q3 2014	Q3 2015	Δ
Profit after tax	250	366	116
D&A	353	337	-16
Changes in provisions	89	11	-78
Changes in other assets/liabilities	s 115	153	38
Other operating activities	-4	12	16
Changes in working capital	-77	-7	70
Operating cash flow	726	872	146
Investing cash flow	-364	418	782
thereof Capex on PPE	-128	-130	-2
Financing cash flow	90	2,217	2,127

Cash flow drivers

- Last year's D&A included amortization for discontinued R&D project
- •In 2014 provision built-up for R&D terminations, partial release in 2015
- Investing cash flow includes proceeds from Sigma FX hedging, payment of Intrexon upfront & cash management
- •€2.1 bn eurobond issuance in August drives financing cash flow

Operating cash flow burdened by tax payment for Pfizer upfront

9M 2015 - cash flow statement

[€m]	9M 2014	9M 2015	Δ
Profit after tax	883	997	114
D&A	980	1,006	26
Changes in provisions	0	32	32
Changes in other assets/liabilities	-67	-348	-281
Other operating activities	-8	-6	2
Changes in working capital	-224	-204	20
Operating cash flow	1,564	1,477	-87
Investing cash flow	-497	2,670	3,167
thereof Capex*	-270	-297	-27
Financing cash flow	-758	4,331	5,089

Cash flow drivers

- D&A increase due to AZ
- Changes in provisions reflect higher pension & litigation provisions
- Higher tax and interest payments main drivers of changes in other assets/liabilities
- Investing cash flow contains cash-in from Sigma hedging instrument as well as sale of financial assets
- Financing cash flow impacted by Sigma financing and repayment of eurobond;
 LY reflects part of purchase of AZ

Exceptionals in Q3 2015

Exceptionals in EBIT

[€m]	Q3 2014		Q3 20)15
	Exceptionals	thereof D&A	Exceptionals	thereof D&A
Healthcare	17	0	-1	0
Life Science	11	0	21	0
Performance Materials	25	0	5	0
Corporate & Other	26	4	18	0
Total	79	4	44	0

Exceptionals in 9M 2015

Exceptionals in EBIT

[€m]	9M 2014		9M 2015	
	Exceptionals	thereof D&A	Exceptionals	thereof D&A
Healthcare	43	4	32	2
Life Science	32	0	71	0
Performance Materials	81	0	6	0
Corporate & Other	42	4	39	0
Total	198	8	148	2

Financial calendar

Date	Event
March 8, 2016	Q4 2015 Earnings release
April 29, 2016	Annual General Meeting
May 19, 2016	Q1 2016 Earnings release



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