



A LEADER IN LIFE SCIENCE

Merck KGaA, Darmstadt, Germany

UBS Global Healthcare Conference, New York

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This quarterly presentation contains certain financial indicators such as EBITDA pre exceptionals, net financial debt and earnings per share pre exceptionals, which are not defined by International Financial Reporting Standards (IFRS). These financial indicators should not be taken into account in order to assess the performance of Merck KGaA, Darmstadt, Germany in isolation or used as an alternative to the financial indicators presented in the consolidated financial statements and determined in accordance with IFRS. The figures presented in this quarterly statement have been rounded. This may lead to individual values not adding up to the totals presented.



Agenda

01 Business introduction

02 Strategic review Life Science





01

BUSINESS INTRODUCTION



Portfolio of three high-tech businesses



Leading in specialty pharma markets

- Biologics and small-molecules
- Research focus: Oncology, Immunology & Immuno-Oncology
- Over-the-counter medicine



Leading life science company

- Tools and services for biotech research & production
- Tools and laboratory supply for the academic research and industrial testing

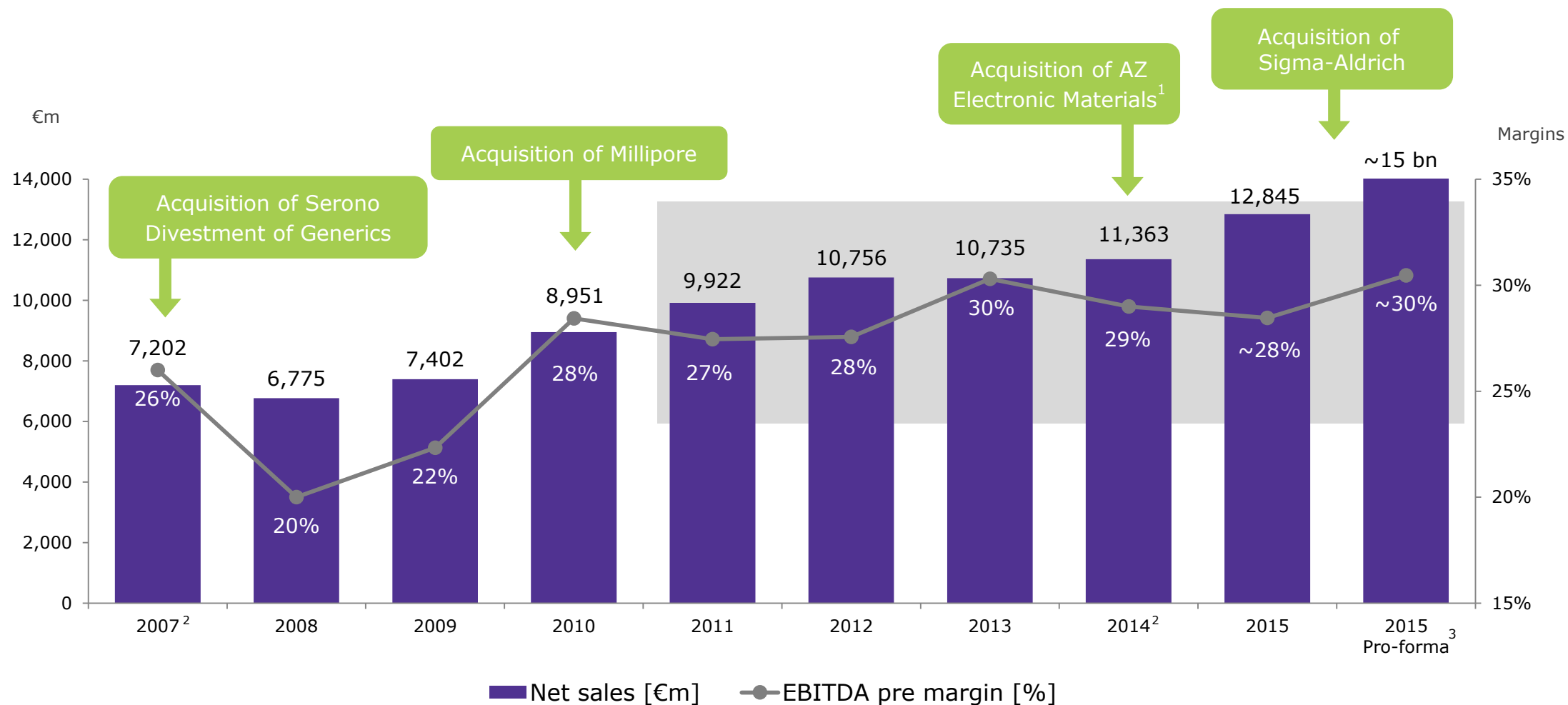


Market leader in display materials

- Innovative display materials
- Effect pigments and functional materials
- High-tech materials for electronics



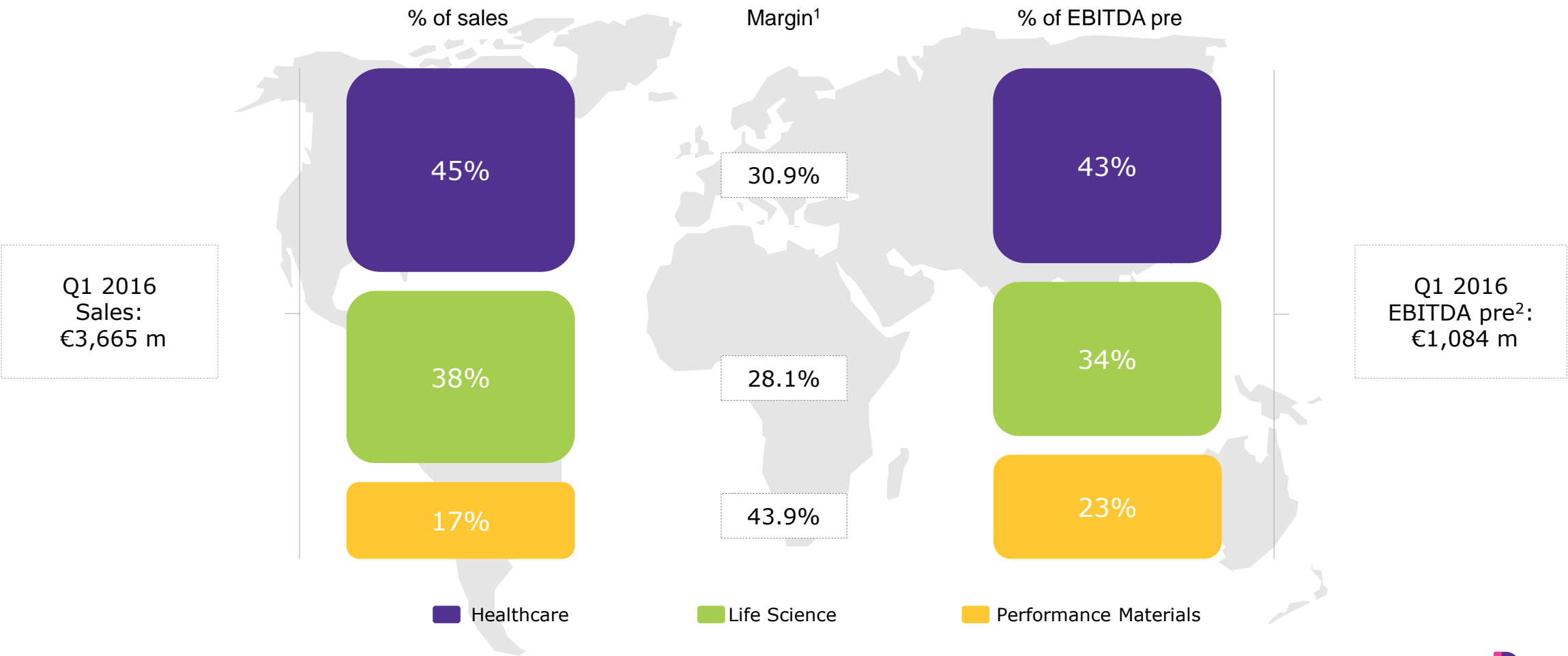
A decade of transformation



¹Included since 2 May 2014; ²2007 and 2014 EBITDA pre margin adjusted for comparability; ³Pro-forma calculation assumes 2015 full-year contribution from Sigma-Aldrich based on ThomsonReuters consensus as of November 11, 2015, and assumed 100% of realized synergies of €260m p.a.



Strong businesses with attractive margins

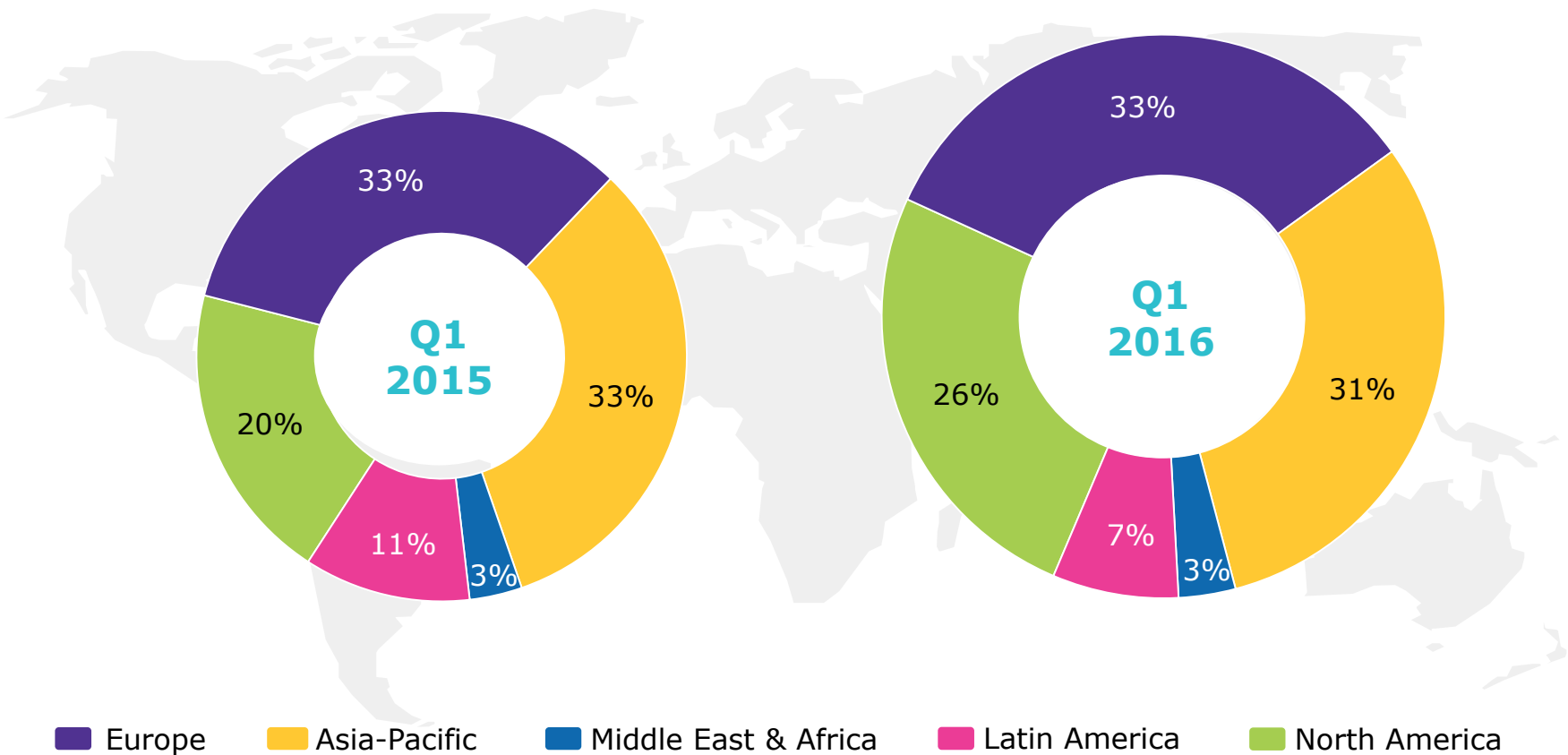


¹EBITDA pre margin in % of net sales; ²Including Corporate/Others (-€91 m)



Balanced geographic footprint

Group Q1 2015 and Q1 2016 net sales by region [in %]



Focus for 2016



Maximize growth of existing franchises
Deliver on pipeline



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



Full-year 2016 guidance

Group guidance for 2016, including Sigma-Aldrich

▶ **Net sales:** ~ €14.8 – 15.0 bn ◀

▶ **EBITDA pre:** ~ €4,100 – 4,300 m ◀

▶ **EPS pre:** ~ €5.65 – 6.00 ◀





02

STRATEGIC REVIEW LIFE SCIENCE



MilliporeSigma: Serving customers across Life Science

RESEARCH



- Academic and government institutions
- Biopharma R&D
- Industry R&D

PROCESS



- Pharmaceutical companies
- Small biotech
- Contract manufacturing organizations

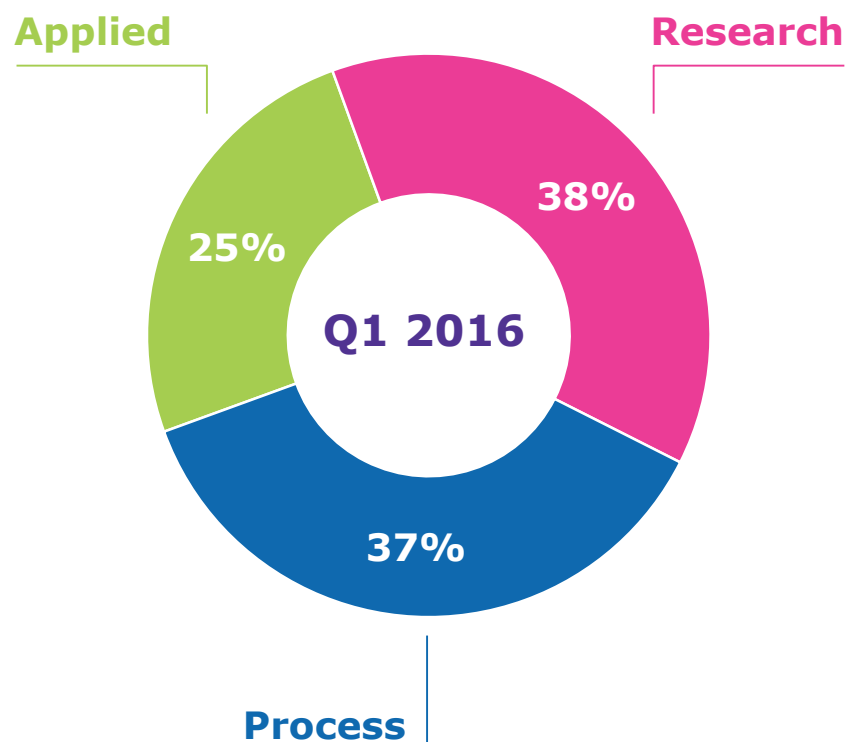
APPLIED



- Diagnostic manufacturers
- Clinical testing labs
- Food & Beverage manufacturers

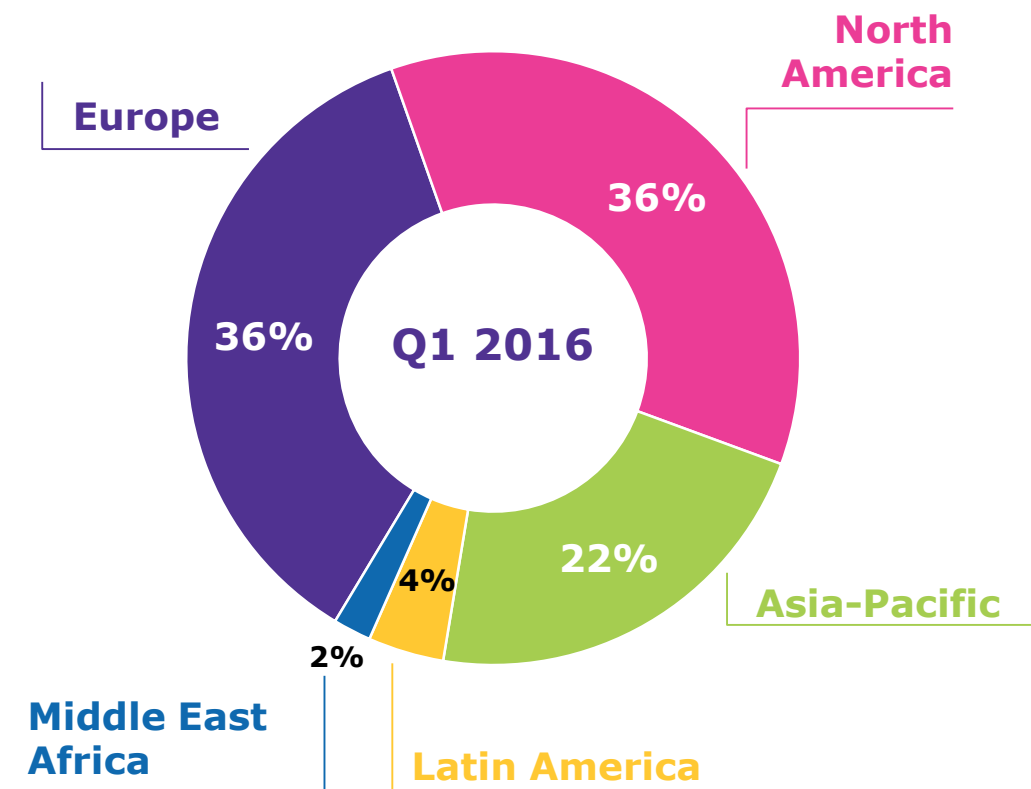
A balanced portfolio and geographic presence

Sales by business unit



FY 2015
pro-forma*
sales:
€5.3 bn

Sales by region



Life Science is an attractive market

RESEARCH

~€42 bn

Low single digit



- Growth in volume of experiments
- Mild growth in academic funding
- Investment in industry R&D

PROCESS

~€38 bn

High single digit



- Drug volume growth
 - from biologics
 - from emerging modalities
- Continued shift to single-use

APPLIED

~€45 bn

Mid single digit



- Volume growth from
 - Population growth
 - Increased testing needs

Success driven by portfolio breadth and differentiation, a customer-centric approach and world-class capabilities

RESEARCH

Broad, relevant and innovative portfolio

Simple customer interface

Ability to manage complexity across organization (e.g., reliability of supply)

PROCESS

Developed market:
Deep expertise in each unit operation

Emerging market:
Broad portfolio

Demonstrated quality & regulatory leadership

APPLIED

Customized workflows for specific applications

Ability to manage complexity across organization (e.g., reliability of supply)

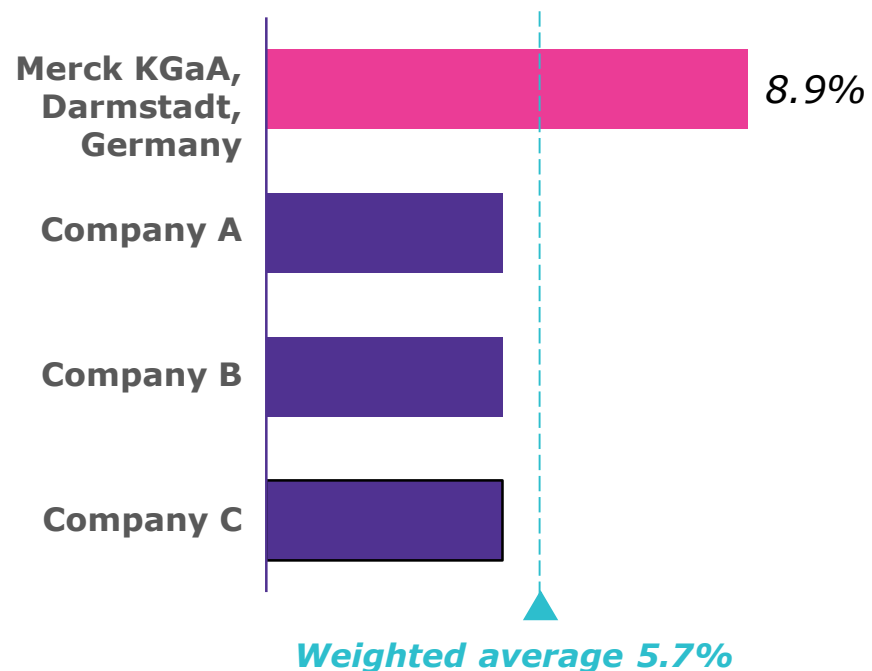
Demonstrated quality & regulatory leadership



Continued momentum and outperformance of peers in Q1 2016

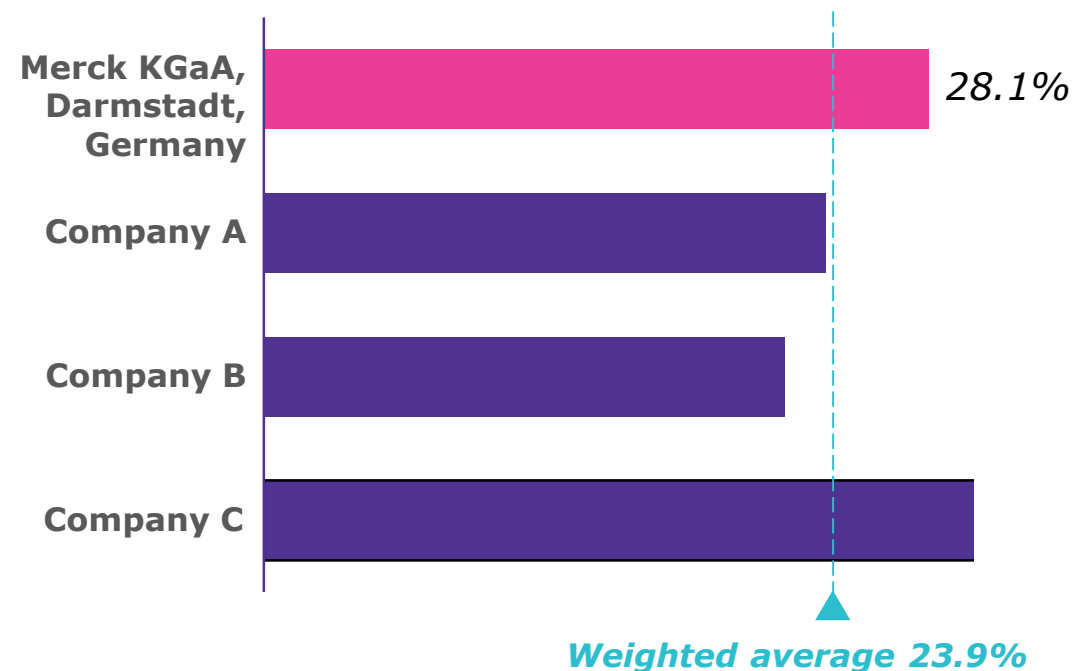
Organic growth Q1 2016

(%)



EBITDA pre Q1 2016

(% net sales)



Integration on track

Value

- On track to deliver cost synergy while maintaining sales momentum

Organization

- Organization placement complete
- Ongoing engagement with employees

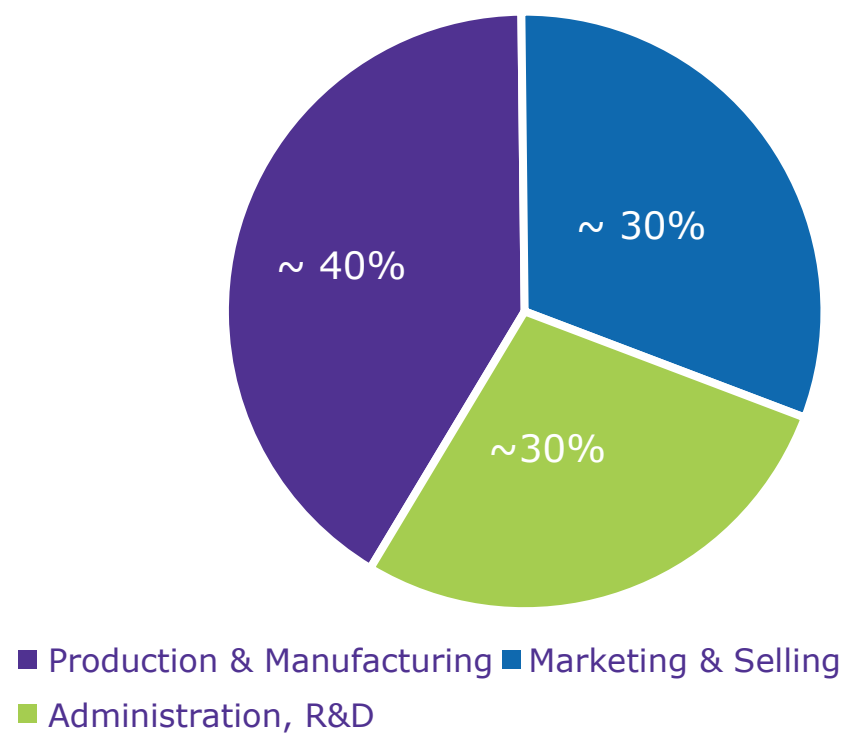
Processes

- **Integrate operations**, e.g. Branding, ERP systems
- **Establish operational excellence**



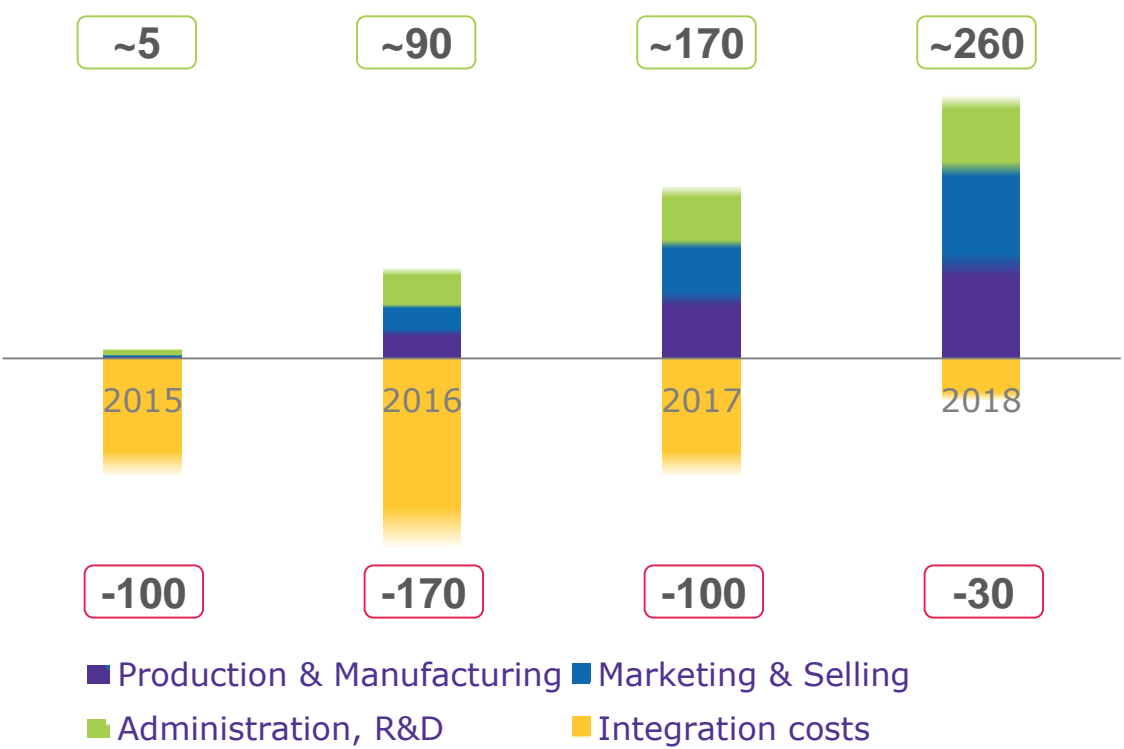
Expected synergies identified and fully confirmed

Sources of synergies (3rd full year 2018)



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



Three levers for value creation



Broad, innovative portfolio

- **Over 300,000 products**
- **End-to-end in biologics manufacturing**
- **Short- and long-term innovation**, e.g. antibodies and bioreactors



Balanced geographic footprint

- **Over 60 countries**
- Leader in **North America**, and critical mass in **emerging markets**, e.g. Latin America, APAC
- **Global manufacturing and distribution footprint**



Industry-leading capabilities

- World-class **ecommerce platform**
- Deep **technical expertise**
- **Focus on quality and service**



Process Solutions

Our end-to-end portfolio for manufacturing mAbs



MAKE

Produce antibodies



PURIFY

Remove cell debris, virus, etc.



FORMULATE

Final drug product



EX-CELL®
Advanced™
CHO Fed-batch
Medium
**Cell culture media
to enhance cell
growth**



2000L CellReady
bioreactor
**Tank for
cultivating cells**



Clarisolve®
clarification
filters
**Removing cell
debris**



FlexReady®
chromatography
Purifying mAbs



Viresolve® Pro
solution
**Removing viruses
from protein
solutions**



Pellicon®
cassette filters
**Washing and
removing cells,
lipids, particles**



Opticap® capsules
Sterile filtration

Provantage®

BioReliance®

EMPROVE®

cGMP SOLUTIONS & SERVICES



#1 website in research life science industry

Industry leading e-commerce platform and supply chain capability



SEARCH



Hundreds of thousands of products at your fingertips



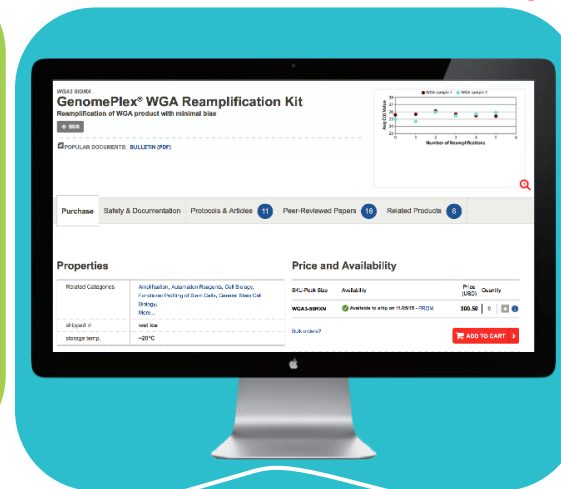
CONTENT



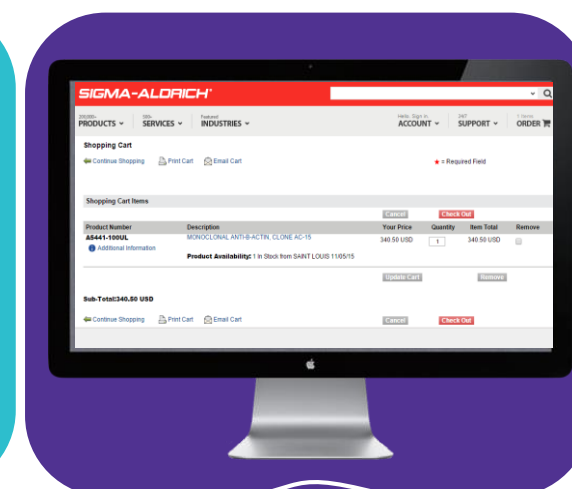
Online leader in scientific content: articles, protocols and peer reviewed papers



ORDER



Real-time pricing and availability



Convenient and simple customer interface: no more than 2 clicks from shopping cart



Executive summary: Life Science

**Attractive
Market**

**Solid growth drivers for a ~125bn€
market growing at mid-single digit**

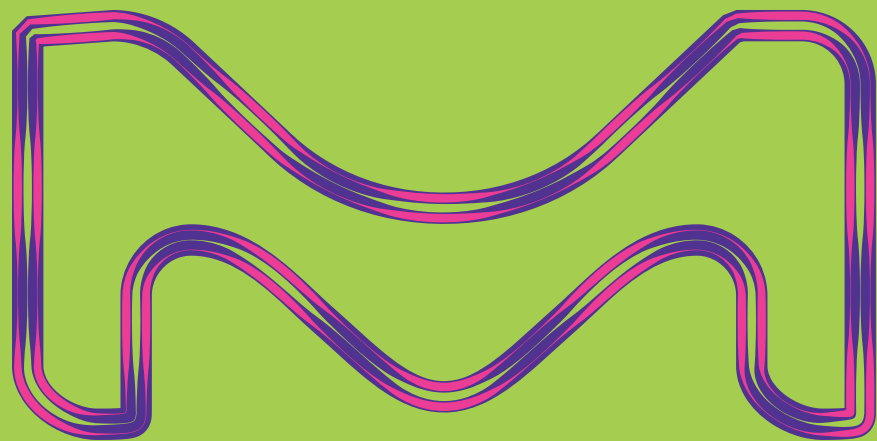
**strong
performance**

**Strong momentum,
growing at least with market**

integration

**Progress on value delivery, organization
setup, and process integration**





Appendix

- 01** **Guidance Details**
- 02** **Sigma acquisition**
- 03** **Healthcare update**
- 04** **Financial details**





01

GUIDANCE DETAILS



2016 business sector guidance



Healthcare

Net sales

- Slight organic growth
- Organic Rebif decline
- Other franchises growing

EBITDA pre

~ €1,800 – 1,900m



Life Science

Net sales

- Mid single-digit organic growth
- Main driver Process Solutions
- High double-digit contribution from Sigma

EBITDA pre

~ €1,620 – 1,670m



Performance Materials

Net sales

- Organically about stable
- Including moderate destocking in liquid crystals
- Growing demand in all businesses

EBITDA pre

~ €1,100 – 1,150m

Additional financial guidance 2016

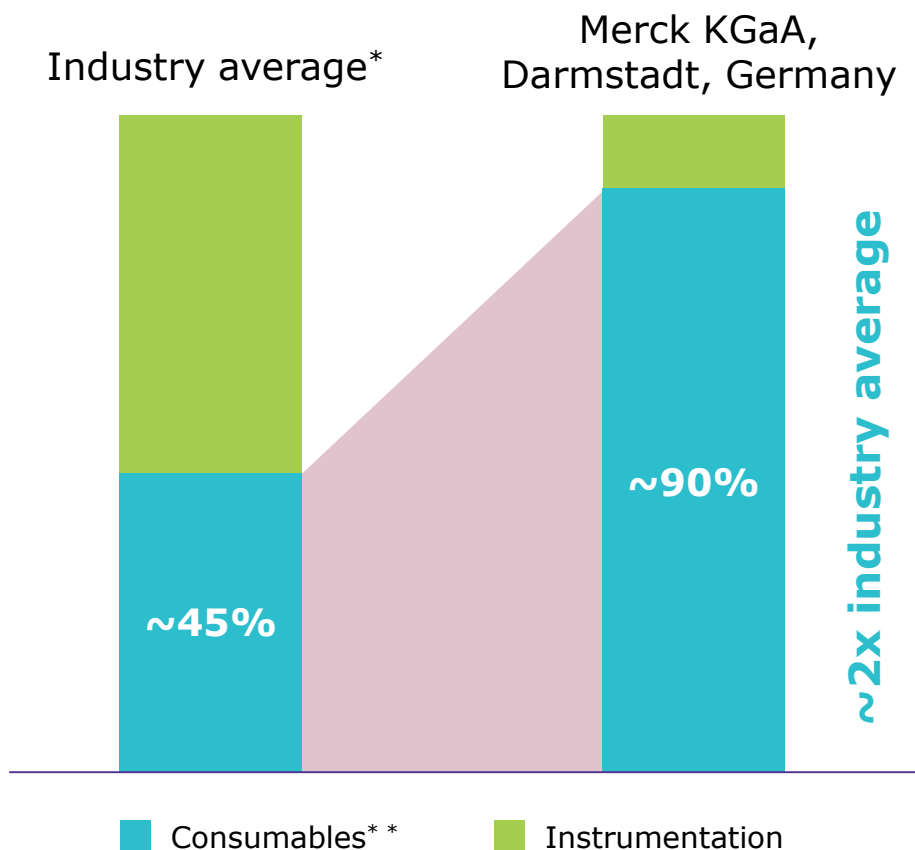
Further financial details

Corporate & Other EBITDA pre	~ -€370 – -400 m
Interest result	~ -€270 – -300 m
Intangibles amortization from Sigma PPA	~ €250 – 300 m p.a.
Underlying tax rate	~23% to 25%
Capex on PPE	~€750 – 800 m
Hedging/USD assumption	2016 & 2017 hedge rate ~40-45% at EUR/USD ~1.10 to 1.15
2016 Ø EUR/USD assumption	~1.07 – 1.12



High exposure to consumables makes us unique compared to industry

Consumables exposure



Pros and cons

- + Consumables paid out of operating versus capex budgets
- + Products are often not discretionary and must be used to conduct research or manufacture drugs
- Risk of getting locked out by equipment manufacturer





02

SIGMA 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

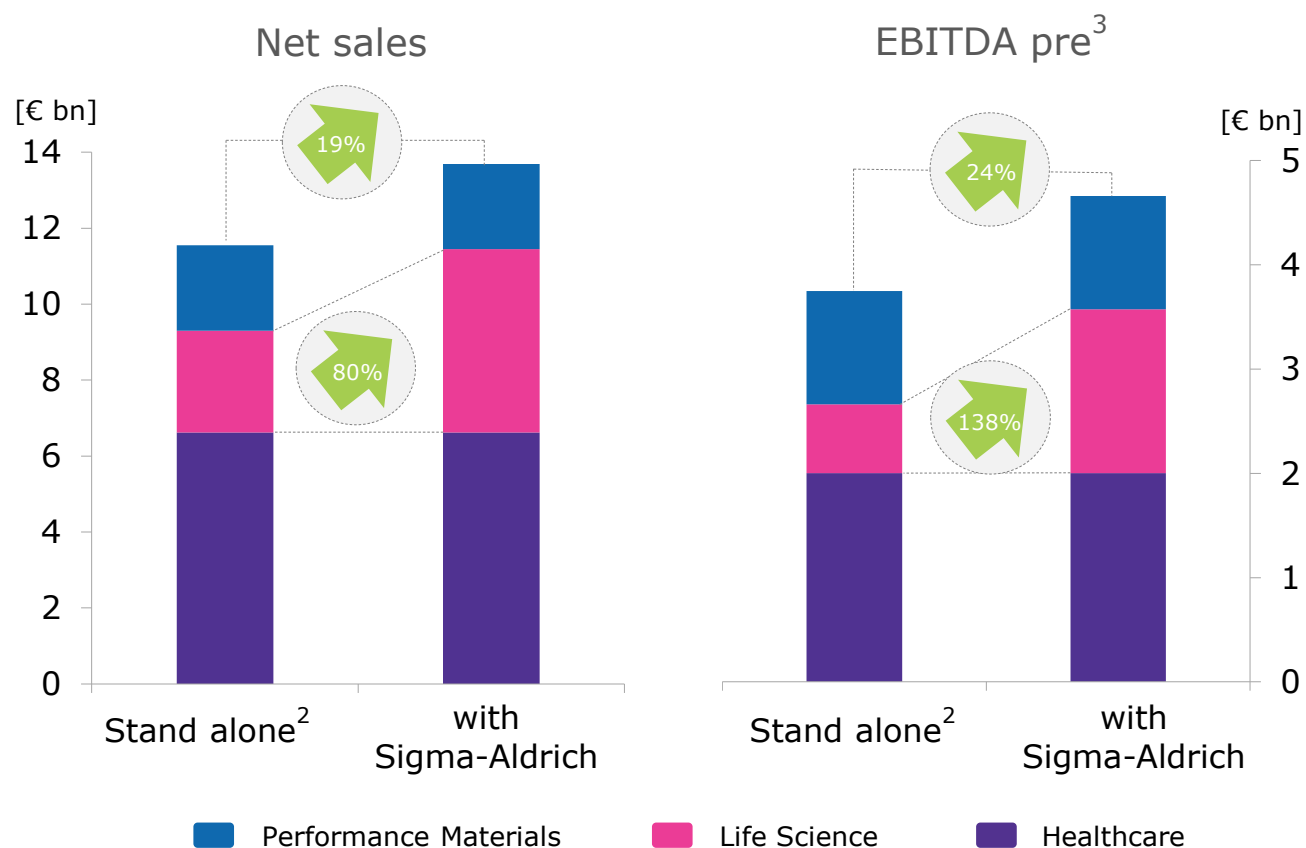
Financial fit

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



Sigma-Aldrich acquisition enhances our financial profile

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

¹Pro-forma calculation based on published sales for FY 2014 for Merck KGaA, Darmstadt, Germany (including pro-forma AZ Electronic Materials) and Sigma-Aldrich;

²Pro-forma calculation based on published sales for FY 2014 for Merck KGaA, Darmstadt, Germany (including pro-forma AZ Electronic Materials); ³Pro-forma calculation based on 100% expected synergies; excluding Corporate & Other; ⁴Including Corporate & Other



Sigma-Aldrich – A leading life science consumables supplier

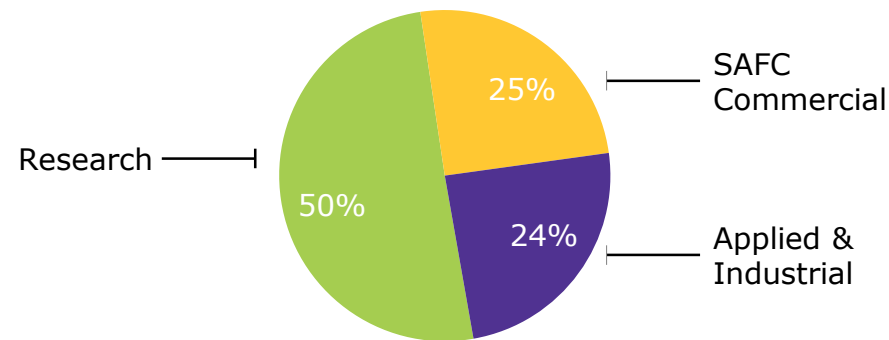
Business

- 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

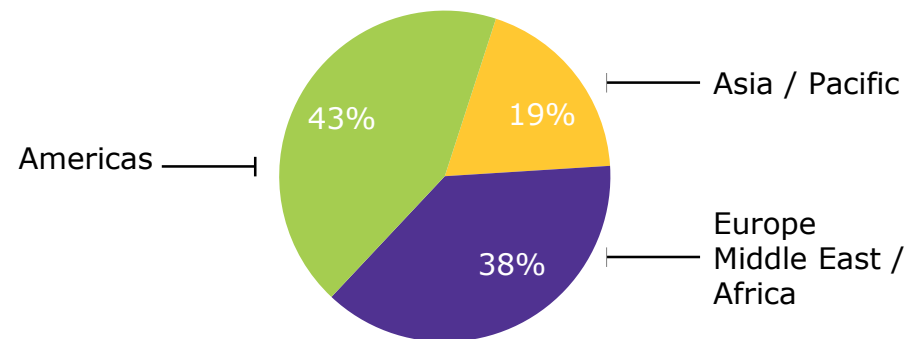
Footprint

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

Sales by division FY 2014*



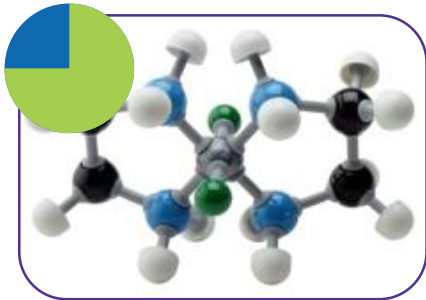
Sales by region FY 2014*



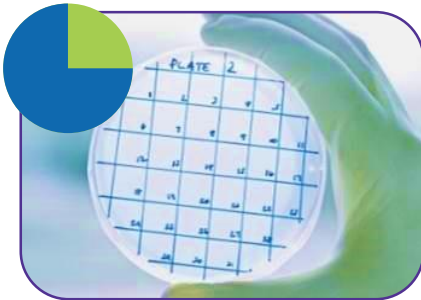
Broad and complementary product fit in attractive segments

Laboratory & Academia*

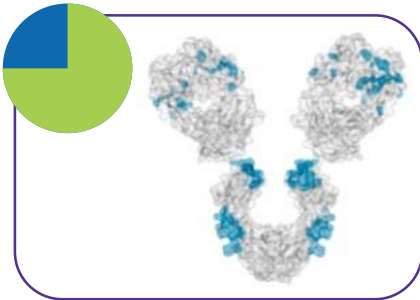
Analytical standards



Microbiology



Antibodies



Biochemicals

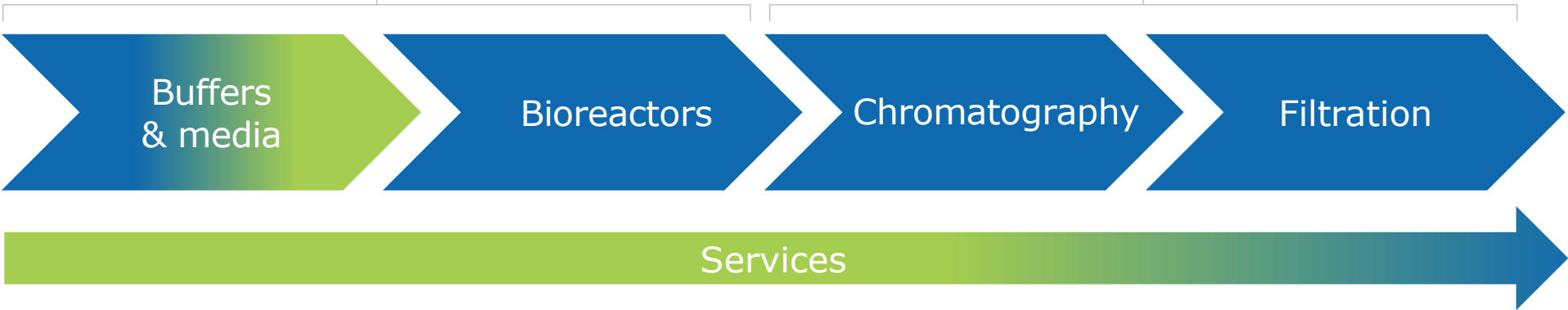


Merck KGaA, Darmstadt, Germany Sigma-Aldrich

BioPharma production

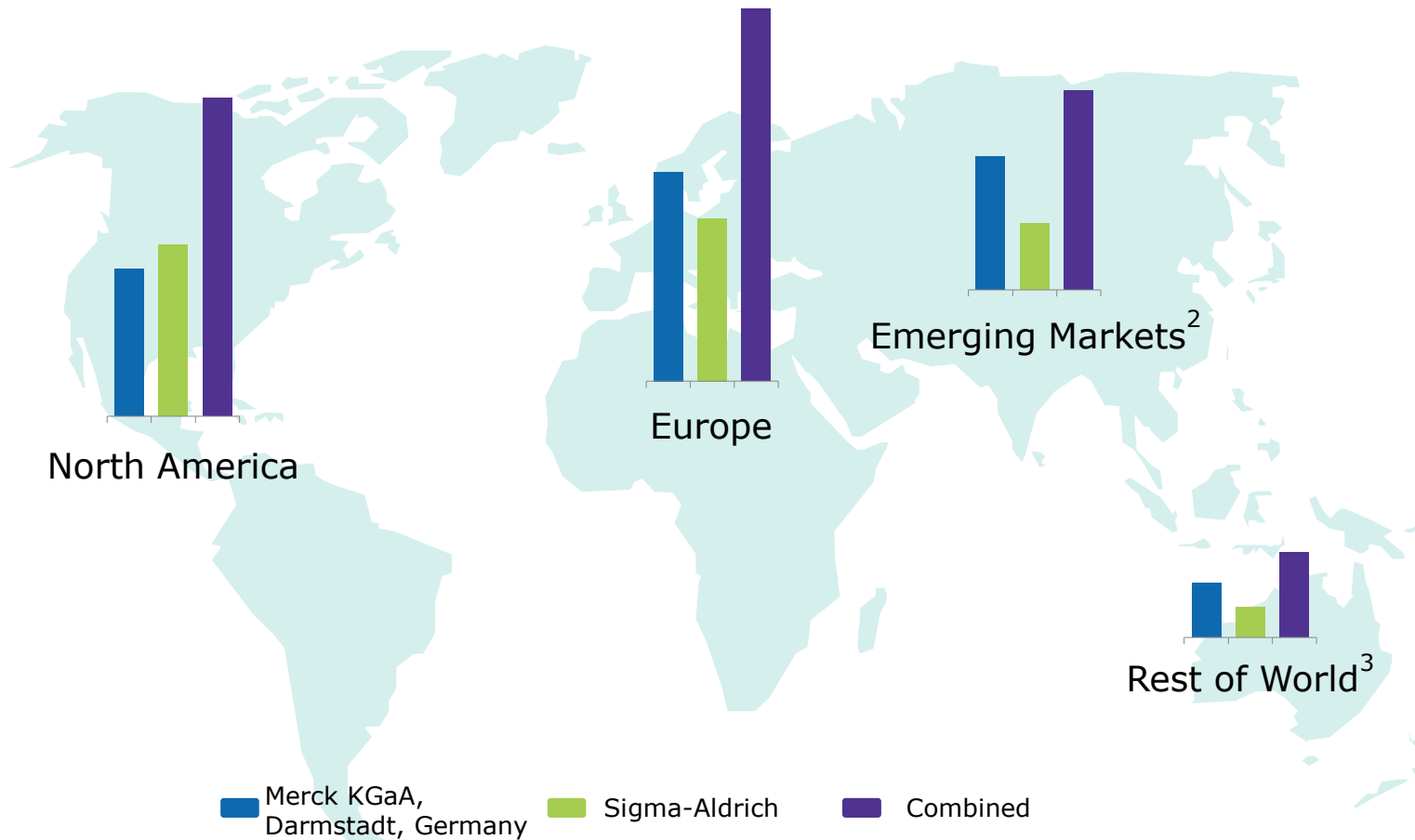
Upstream process

Downstream process



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



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

Sigma-Aldrich – Business and transaction financials

Overview of financial data¹

US\$ m	2012	2013	2014 ⁴
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

¹Source: Company reports; ²FX conversion: EUR/USD 1.30; ³"Pro-forma" calculation based on 100% expected synergies; ⁴FY 2014 results; ⁵at time of announcement (Sept. 2014)



Support from meaningful synergies

Our experience



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

Source of synergies



- 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

Planned delivery



- 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





03

HEALTHCARE – FUNDING FOR SUCCESS



Healthcare

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



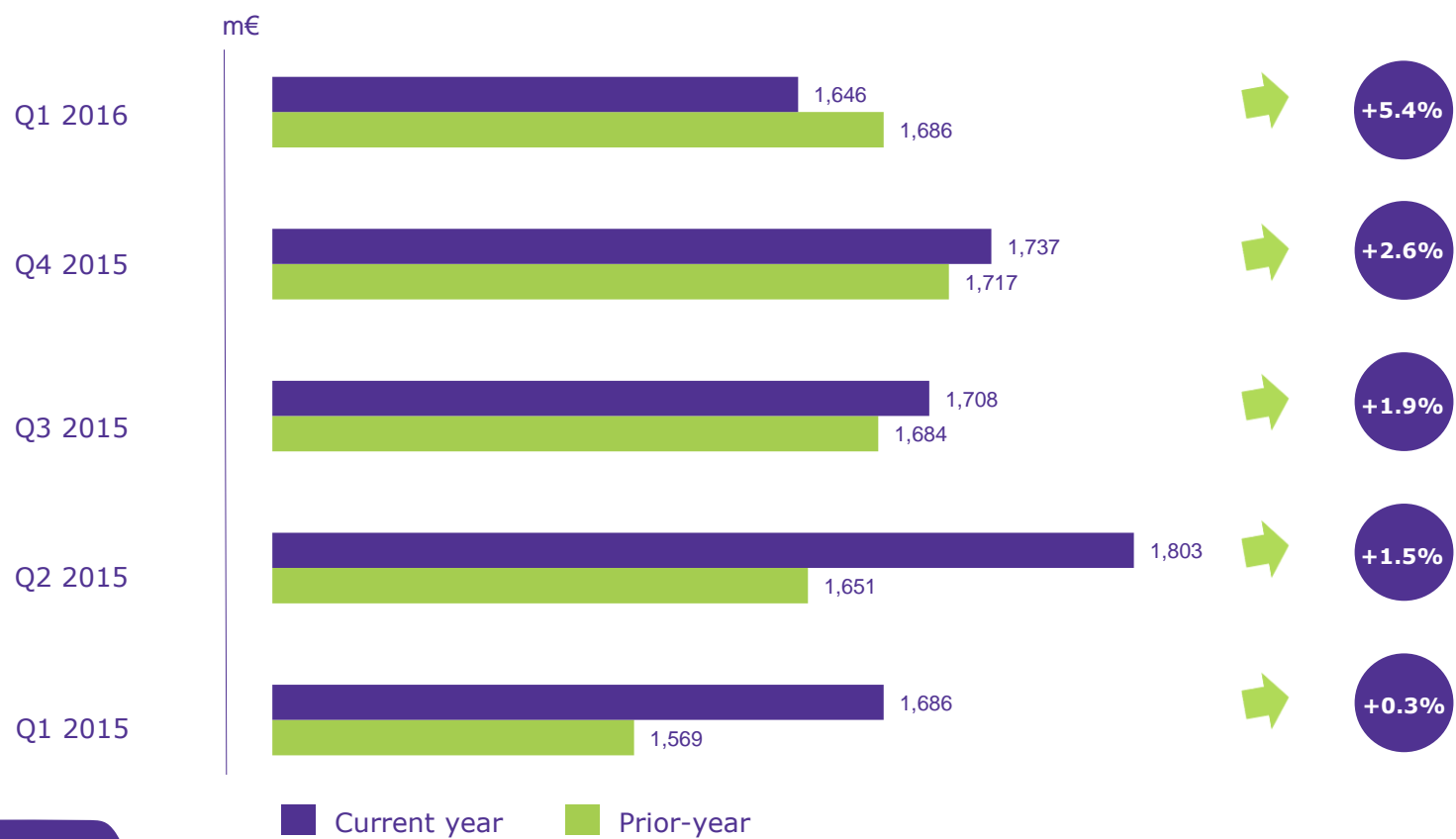
Cost discipline and efficient execution



Healthcare

Delivered organic sales growth, committed to future performance

Stable to slight organic growth



ERBITUX®
CETUXIMAB

Consumer Health

Rebif®

GONAL-f®

Pergoveris®
(hollitropin alfa and lutropin alfa for injection)

VIDREL®

Luveris®

Cetrotide®



Glucophage®

Concor®

Euthyrox®

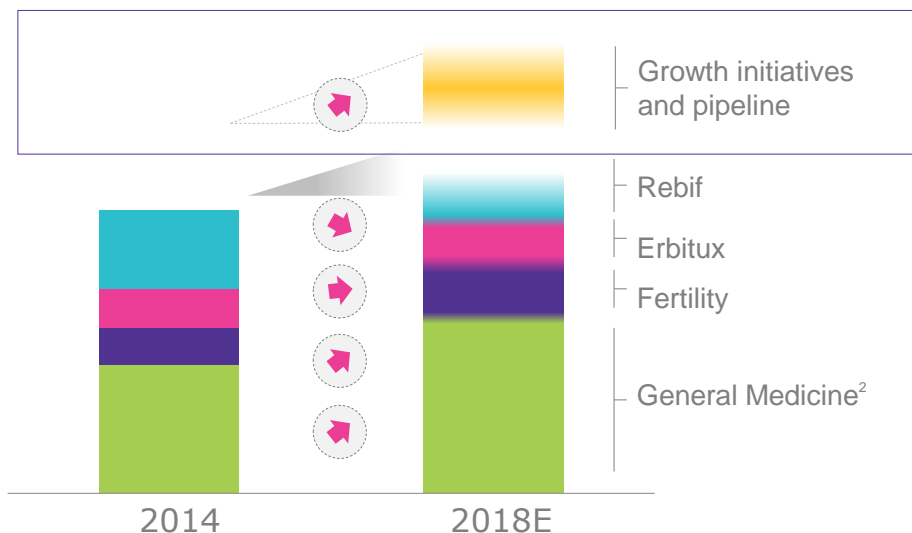
Defending the existing product portfolio is a key strength of Healthcare



Healthcare

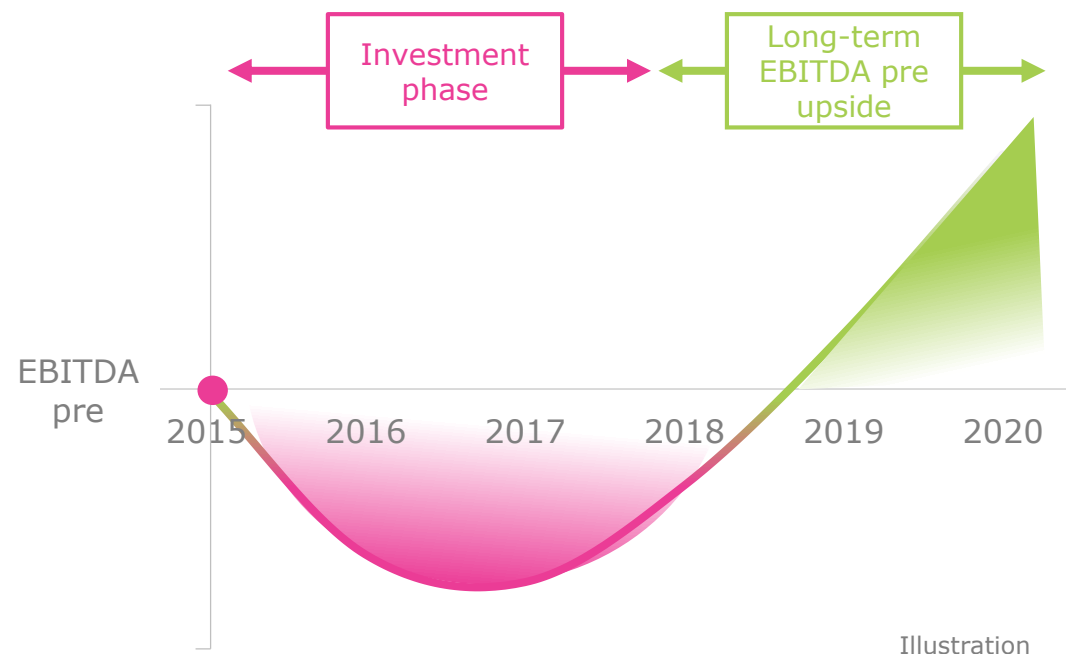
Pipeline opportunities will lead to rising investments

Stable to slightly growing¹ 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+



Illustration

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



Healthcare

Investments in future growth

R&D*

- 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

Marketing & Selling*

- 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**

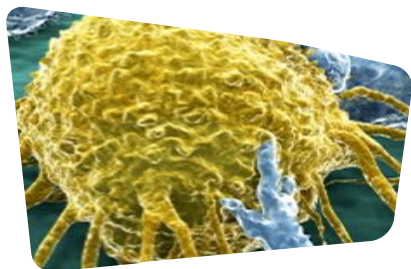
Long-term growth investments partly mitigated by strict cost management

*For scenario that pipeline catalysts materialize

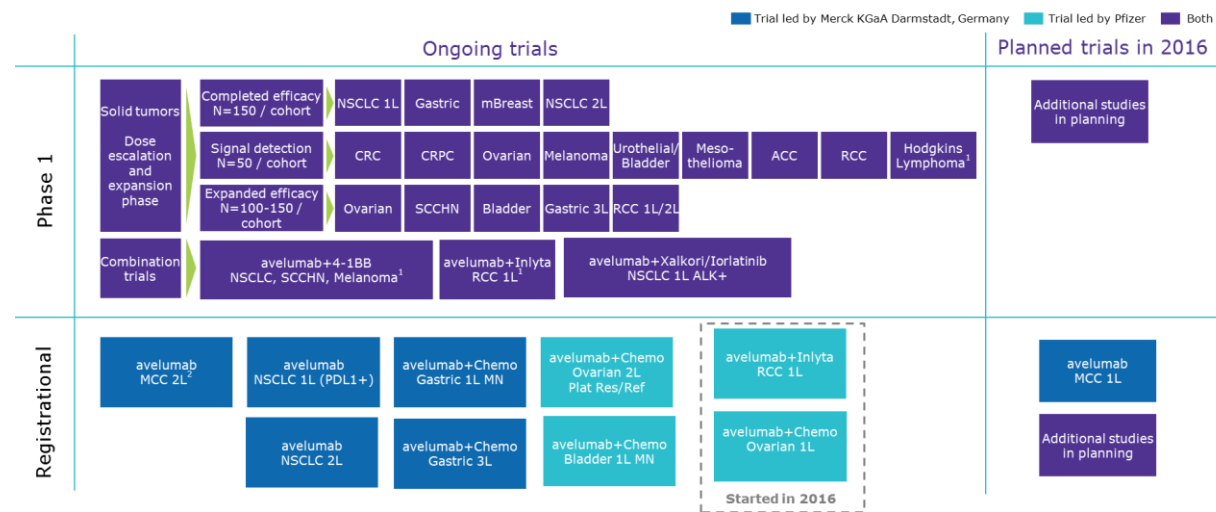


New revenue streams from pipeline expected from 2017/2018 onwards

avelumab

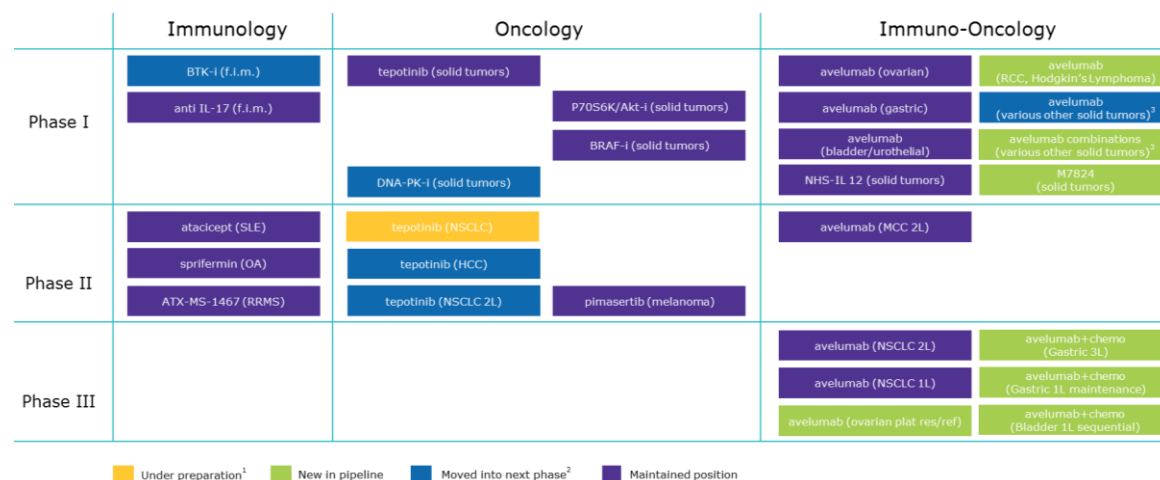


- 6 pivotal trials initiated in 2015 (NSCLC 1L/2L, ovarian platinum resistant/refractory, gastric 1L/3L, bladder 1L)
- Breakthrough therapy and Fast track designations (US) for mMCC received, Orphan Drug Designation (US and EU)
- Initiation of more than 20 clinical programs together with Pfizer across 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-β
- Tepotinib**: Phase II data in hepatocellular carcinoma expected in H2 2016
- Cladribine**: EU filing expected in H1 2016, other geographies under review



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



2015

- Phase II 2L MCC BTD, ODD and FTD received
- Phase III 1L and 3L gastric cancer
- Phase III 1L and 2L NSCLC
- Phase I Hodgkins Lymphoma

CHEMOTHERAPY

- Phase III 1L Bladder maintenance
- Phase III Ovarian Plat res/ref

NOVEL/NOVEL

- Phase I avelumab combined with 4-1BB in NSCLC, SCCHN and Melanoma
- Phase I 1L NSCLC ALK/ROS+

2016

- Initiation of phase III 1L MCC
- Further studies under preparation

- Initiation of phase III 1L ovarian cancer
- Further phase III studies under preparation

- Start of Syndax collaboration for a phase Ib/II in ovarian cancer
- Further exploratory and pivotal trials under preparation

Future

Fast to market with monotherapy

Expansion with combinations
Next generation combinations



ASCO: We look forward to presenting the results from our avelumab trials at the upcoming scientific meeting in further detail*

1

MCC (2L+)

- Largest trial of a PD(L)1 agent in Merkel cell carcinoma as of today
- Clinical activity with durable responses in high unmet-need patient population (previously treated with chemotherapy)

2

NSCLC (1L)

- Single-agent avelumab showed clinical activity
- Higher trend in PD-L1+ patients suggested
- Phase 3 trial is underway (JAVELIN LUNG 100)

3

Ovarian

- Single-agent avelumab showed clinical activity in heavily pre-treated patients
- Largest reported dataset of patients with advanced ovarian cancer treated with anti-PD-L1 as of today
- Phase 3 trials are underway (JAVELIN OVARIAN 100 and 200)

4

Gastric (1L MN & 2L)

- Treatment with avelumab as a 1st line maintenance and 2nd line treatment showed clinical activity
- Largest reported dataset of patients with advanced gastric cancer treated with anti-PD-L1 as of today
- Disease control rate was also observed in a SwM (switch-maintenance therapy) group

5

Urothelial / Bladder

- Treatment with avelumab showed clinical activity
- Phase 3 trial is underway (JAVELIN BLADDER 100)

6

Mesothelioma

- Largest reported dataset of patients with advanced unresectable tumors treated with anti-PD-(L)1 as of today
- Treatment with avelumab showed clinical activity in pre-treated patients

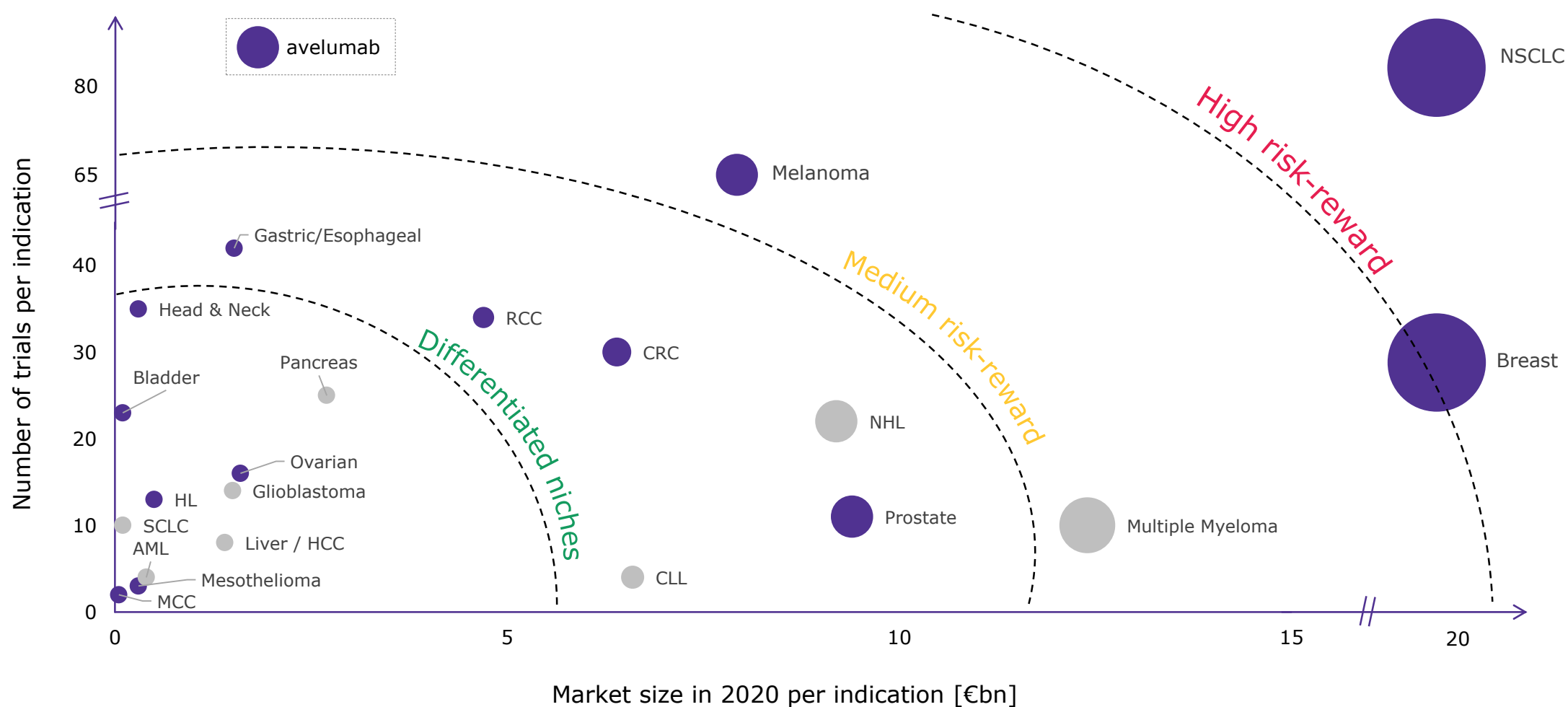
7

mACC

- First study to date of an anti-PD-(L)1 agent in this rare tumor type (advanced adrenocortical carcinoma)
- Treatment with avelumab showed clinical activity in pre-treated patients















Avelumab plays predominantly in attractive and differentiated niches



Sources: Trialtrave and Cortellis as of September 2015, Boston Consulting Group, Evaluate Pharma forecast 2020
 Acronyms: SCLC = Small Cell Lung Cancer; HL = Hodgkins Lymphoma; NHL = Non Hodgkins Lymphoma; AML = Acute Myeloid Leukaemia



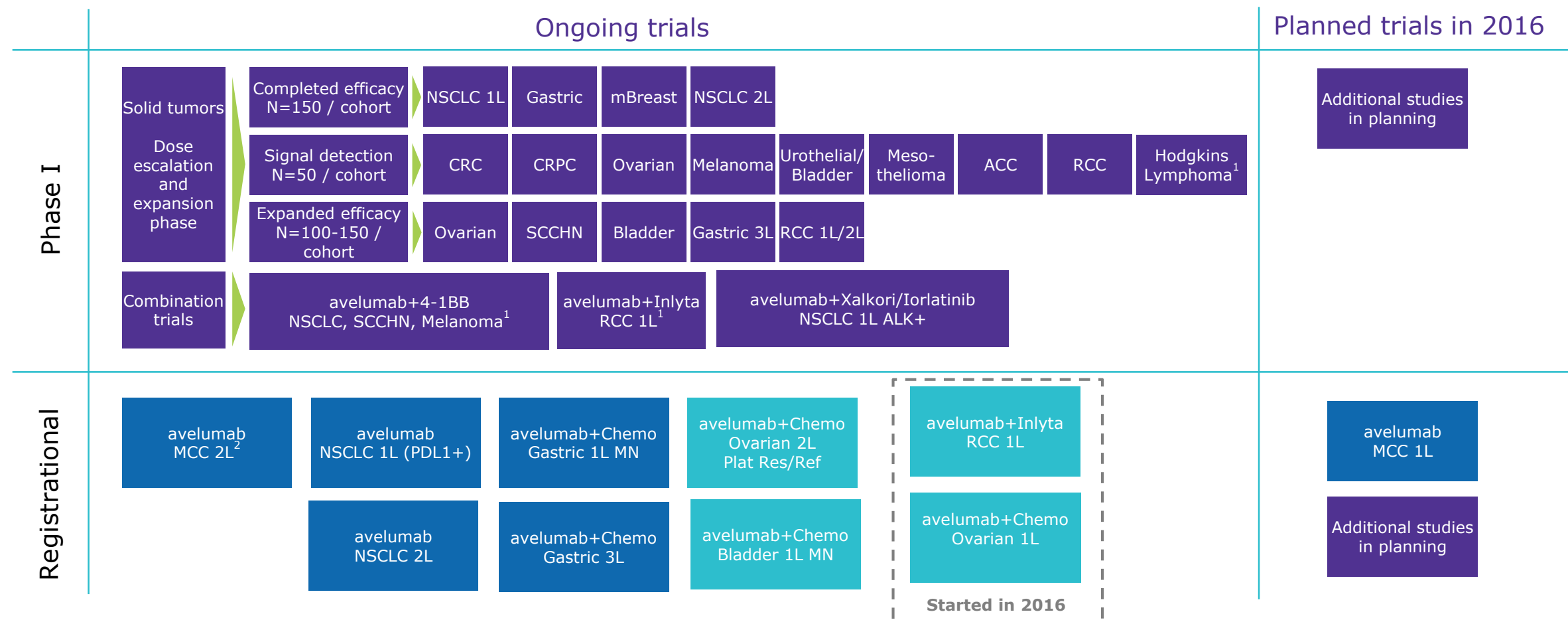
The alliance met its ambitious goal in 2015: the initiation of 6 pivotal trials

AMBITION			
1 Ovarian Plat res/ref		<ul style="list-style-type: none">• Estimated patient enrolment: 550• Comparator: Pegylated liposomal doxorubicin• Estimated primary completion: H1 2018*	 Smart leader
2 Bladder 1L maint.		<ul style="list-style-type: none">• Estimated patient enrolment: 668• Comparator: Best supportive care• Estimated primary completion: H1 2019*	 Smart follower
3 Gastric 1L maint.		<ul style="list-style-type: none">• Estimated patient enrolment: 629• Comparator: Physician's choice of chemotherapy/BSC• Estimated primary completion: H2 2018*	 Smart leader
4 Gastric 3L		<ul style="list-style-type: none">• Estimated patient enrolment: 330• Comparator: Physician's choice of chemotherapy/BSC• Estimated primary completion: H1 2018*	 Smart leader
5 NSCLC 1L		<ul style="list-style-type: none">• Estimated patient enrolment: 420• Comparator: Physician's choice of platinum containing chemotherapy• Estimated primary completion: H1 2018*	 Smart follower
6 NSCLC 2L		<ul style="list-style-type: none">• Estimated patient enrolment: 650• Comparator: docetaxel/chemotherapy• Estimated primary completion: H2 2021*	 Smart follower



Avelumab: JAVELIN clinical development program initiated as of Oct 2015 and continuously expanded to further indications in 2016

■ Trial led by Merck KGaA Darmstadt, Germany ■ Trial led by Pfizer ■ Both



Acronyms: CRC = colorectal cancer; CRPC = Castrate Resistant Prostrate Cancer; ACC = Adrenocortical Cancer; SCCHN = Squamous Cell Carcinoma of the Head and Neck; RCC = Renal Cell Carcinoma; Avelumab is an investigational agent. Avelumab is the proposed non-proprietary name for the anti-PD-L1 monoclonal antibody (MSB0010718C); ¹Trials currently initiating; ²Phase II trial



Clinical 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
Systemic lupus erythematosus

Phase II

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

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 1L³
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
Avelumab¹ – Anti-PD-L1 mAb
Renal cell carcinoma 1L³

MSB11022
Proposed biosimilar of Adalimumab
Chronic plaque psoriasis

Registration

Cladribine Tablets⁶ –
Lymphocyte targeting agent
Relapsing-remitting multiple sclerosis

- Neurodegenerative Diseases
- Oncology
- Immunology
- Immuno-Oncology
- Biosimilars

Pipeline as of May 19, 2016

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); ³1st line treatment; ⁴2nd line treatment; ⁵3rd line treatment

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



Newsflow: Upcoming pipeline catalysts

avelumab	▶ Data readout Phase II MCC	▶ H1 2016
CLADRIBINE	▶ Expected EMA filing	▶ H1 2016
sprifermin	▶ Data readout Phase II	▶ H2 2016
Atacicept	▶ Data readout Phase II	▶ H2 2016
M7824 (PD-L1 – TGF-beta)	▶ Dose escalation outcome	▶ H2 2016
tepotinib	▶ Data readout Phase II	▶ H1 2017





04

FINANCIAL OVERVIEW



Q1 2016: Overview

Key figures

[€m]	Q1 2015	Q1 2016	Δ
Net sales	3,041	3,665	20.5%
EBITDA pre	853	1,084	27.0%
Margin (in % of net sales)	28.0%	29.6%	
EPS pre	1.12	1.54	37.5%
Operating cash flow	279	352	26.5%

[€m]	Dec. 31, 2015	March 31, 2016	Δ
Net financial debt	12,654	12,072	-4.6%
Working capital	3,448	3,726	8.0%
Employees	49,613	50,262	1.3%

Comments

- EBITDA pre & margin increase driven by Sigma, end of Rebif commission expenses and organic performance
- Strong EPS pre growth due to higher EBITDA pre; LY financial result burdened by LTIP* charges
- Operating cash flow reflects strong business performance; LY impacted by one-time tax payment
- Net financial debt reduction driven by cash-in for Kuvan & operating cash flow
- Working capital reflects increase in business activity

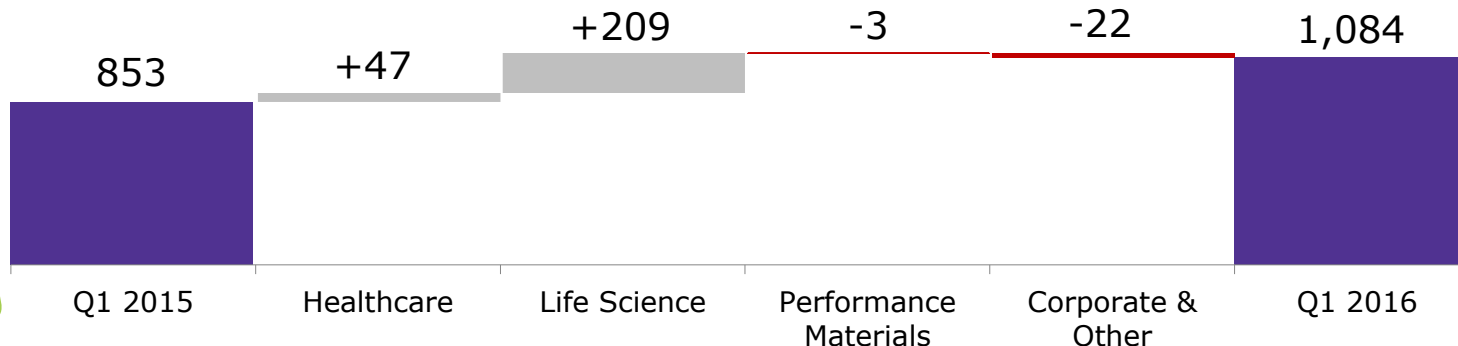


Life Science and Healthcare drive increase in EBITDA pre

Q1 2016 YoY net sales

	Organic	Currency	Portfolio	Total
Healthcare	5.4%	-6.8%	-1.0%	-2.4%
Life Science	8.9%	-1.3%	81.6%	89.3%
Performance Materials	-2.4%	0.5%	2.7%	0.9%
Group	4.7%	-4.0%	19.8%	20.5%

Q1 YoY EBITDA pre contributors [€ m]



*General Medicine and CardioMetabolic Care
Totals may not add up due to rounding

- Healthcare growth reflects strong Fertility, GM* and CH as well as Xalkori commissions
- Strong organic growth in Life Science driven by Process Solutions
- Slight organic decline in Performance Materials confirms expected destocking in display supply chain
- Portfolio reflects Sigma and Kuvan
- HC benefits from solid organic growth, Rebif commission savings and R&D phasing
- Life Science driven by Sigma, strong organic growth and positive product mix
- Performance Materials slightly lower due to product mix
- Corporate EBITDA pre contains hedging and investments in corporate initiatives

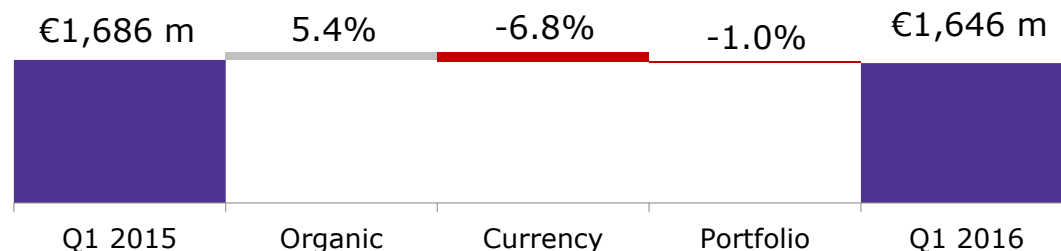


Healthcare: Good organic sales growth amid ramp-up in R&D investments

Healthcare P&L

[€m]	Q1 2015	Q1 2016
Net sales	1,686	1,646
Marketing and selling	-660	-613
Administration	-66	-71
Research and development	-348	-378
EBIT	268	641
EBITDA	449	829
EBITDA pre	461	508
Margin (in % of net sales)	27.3%	30.9%

Net sales bridge

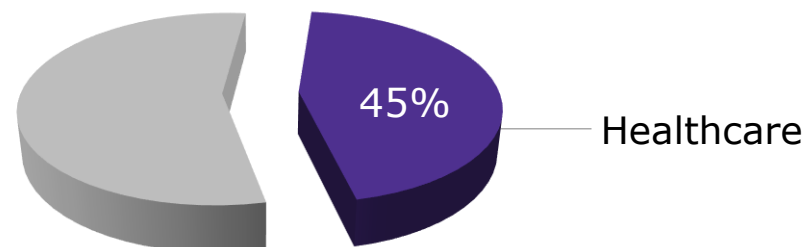


*Productive Development Partnership
Totals may not add up due to rounding

Comments

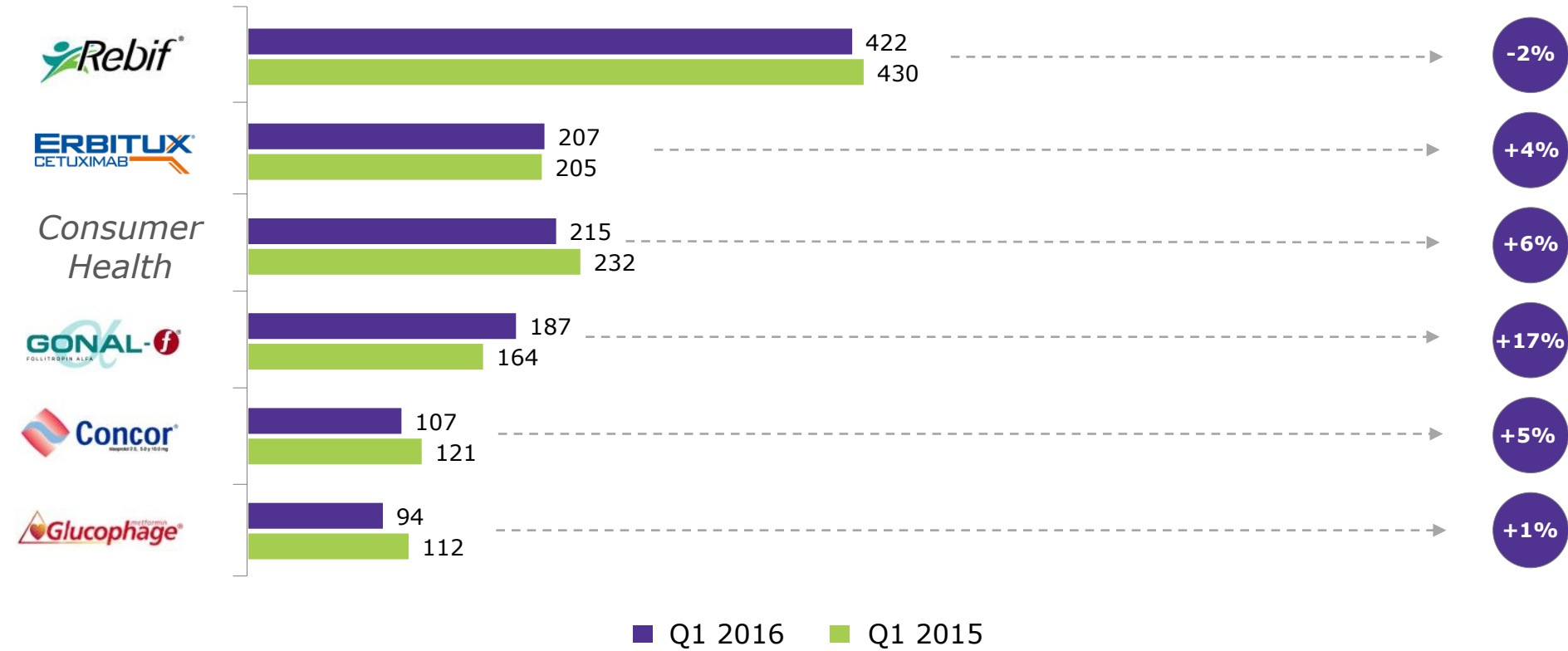
- Organic growth driven by strong Fertility, GM, CH and Xalkori
- Rebif still impacted by ramp-up of orals in Europe, while U.S. pricing and first contribution from PDP* in Brazil support performance
- Erbitux shows moderate organic growth benefiting from pick-up in Brazil, but also low comparables; EU remains competitive
- Marketing & selling reflect end of commission expenses for Rebif (U.S.) partially offset by reinvestments in sales force & launch preparations
- R&D spend starts to increase as avelumab Phase III trials progress
- EBIT reflects Kuvan disposal gain of €324 m
- Profitability improves mainly due to good organic growth, ceased Rebif commission expenses amid phased R&D cost ramp-up

Q1 2016 share of group net sales



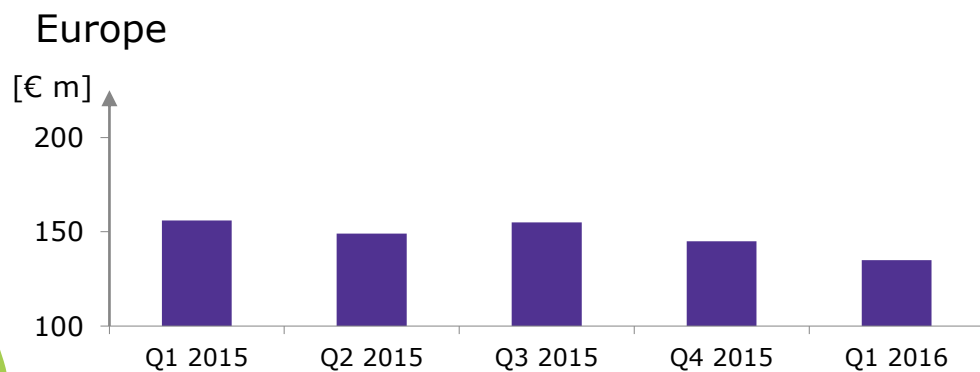
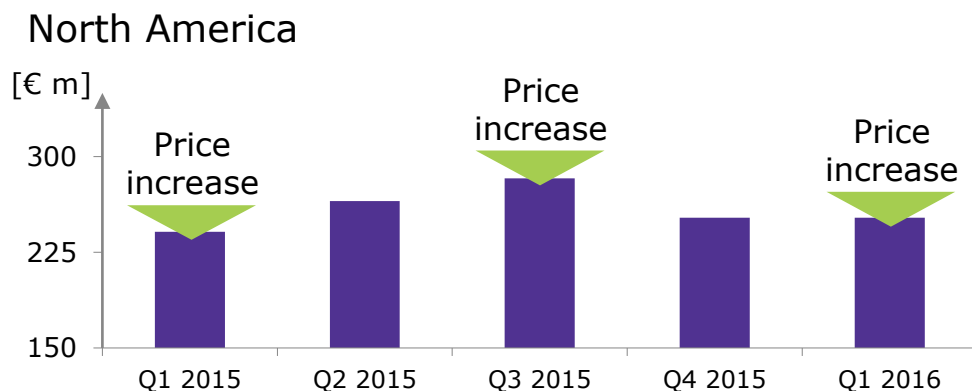
Healthcare organic growth by franchise/product

Q1 2016 organic sales growth [%] by key franchise/products [€ m]



Rebif: Relief in the U.S. – competitive ramp-up in Europe ongoing

Rebif sales evolution



Q1 drivers
1.6% org.

- Price
- Volume
- FX

Q1 drivers
-13.1% org.

- Price
- Volume

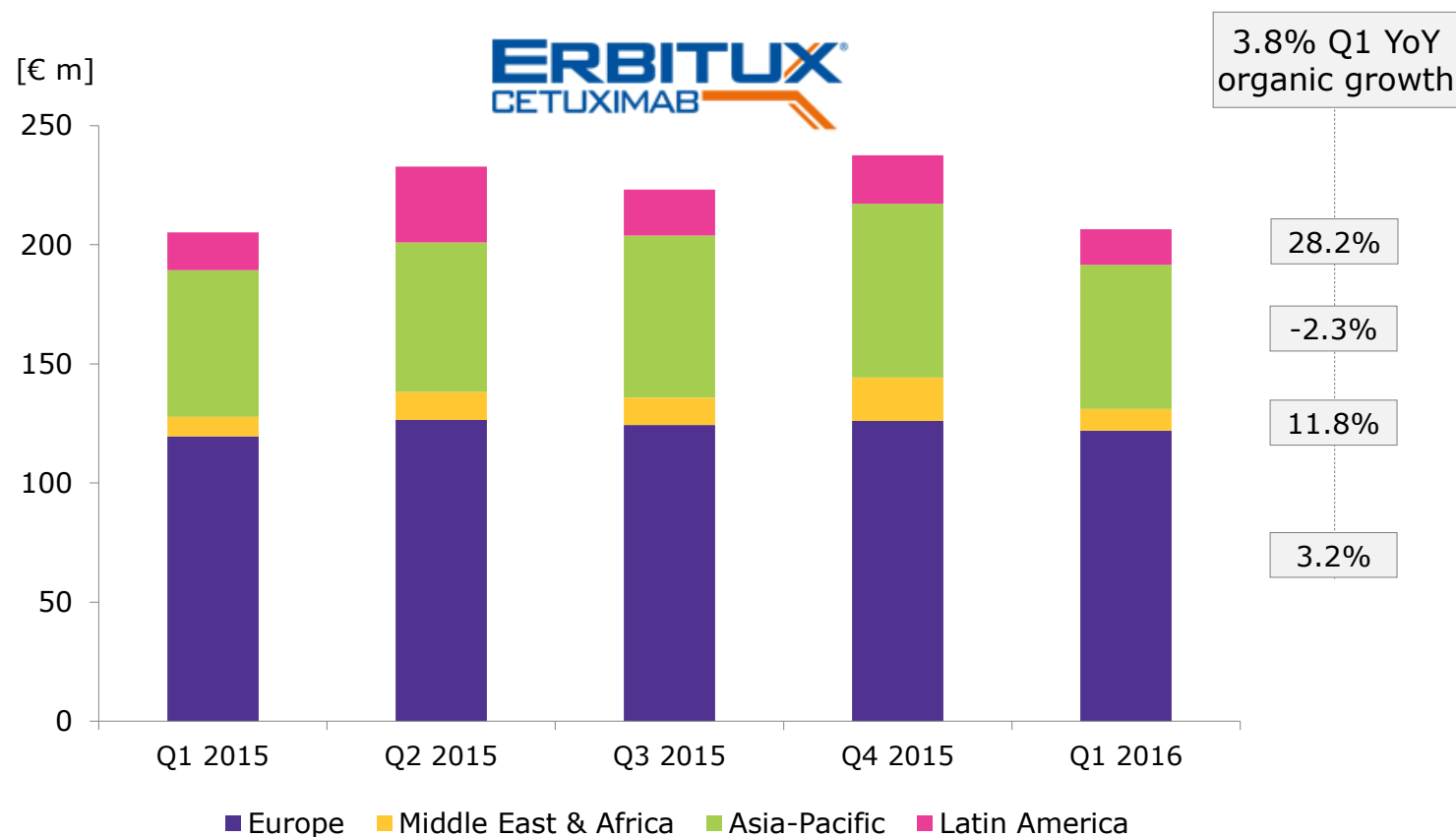
Rebif performance

- Rebif sales of €422 m in Q1 2016 reflect organic decline of -1.5% and negative FX effects from LatAm
- Market shares within interferons stable due to high retention rates and known long-term track record
- U.S. price increases and market share stabilization outweigh decline of interferon class
- Phased market entry of orals in Europe causes ongoing volume decline
- Initiation of Productive Development Partnership (PDP) in Brazil supports Rebif growth



Erbitux: A challenging market environment

Erbitux sales by region



Erbitux performance

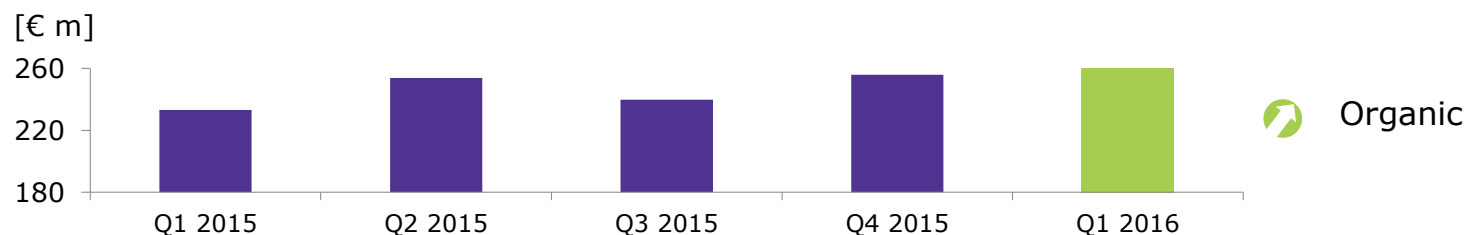
- Sales increase to €207 m due to solid volume development, but low base last year
- Europe impacted by mandatory price cuts & increasing competition offset by uptake in Russia
- Latin America shows strong growth esp. in Brazil after weak 2015
- APAC mainly reflects reduction of patient population due to label change in Japan (April 2015)



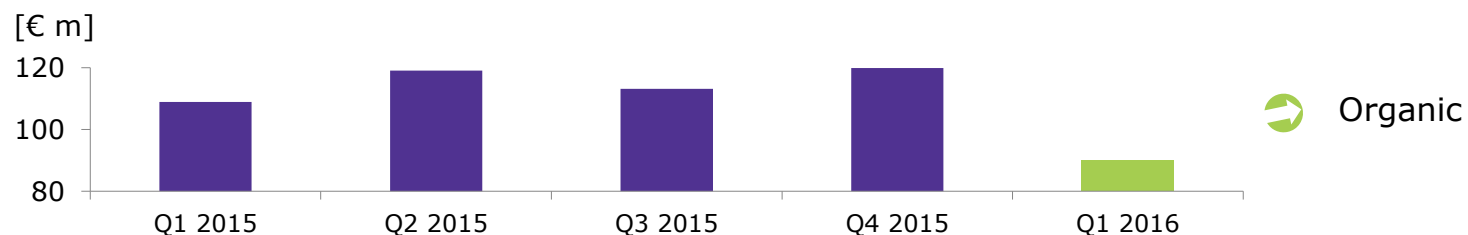
Strong organic growth in Fertility, General Medicine and Endocrinology

Sales evolution

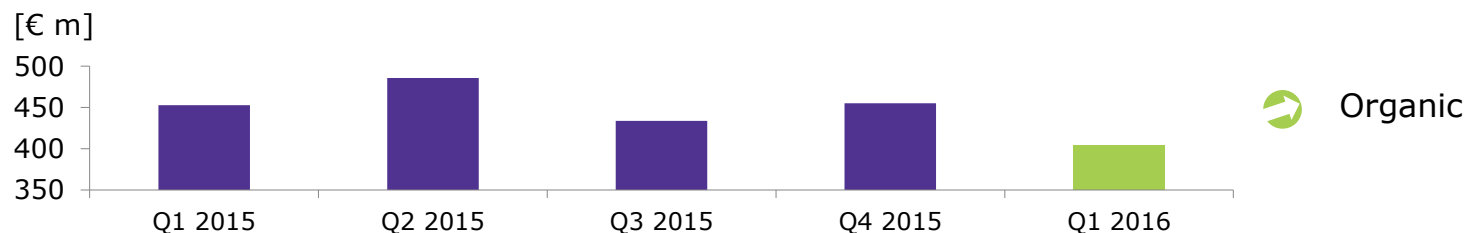
Fertility



Endocrinology



General Medicine*



Q1 drivers

- Record quarter for Fertility (17% org.) driven by favorable competitive situation in U.S. and strong China
- Sales drop in Endocrinology reflects Kuvan divestment; remaining portfolio (Saizen, Serostim) growing organically
- General Medicine sales burdened by FX headwinds from LatAM, organic performance sustainably healthy
- Euthyrox posts strong growth driven by ongoing demand from China
- Glucophage benefits from successful repatriation in Russia; very strong comparables last year

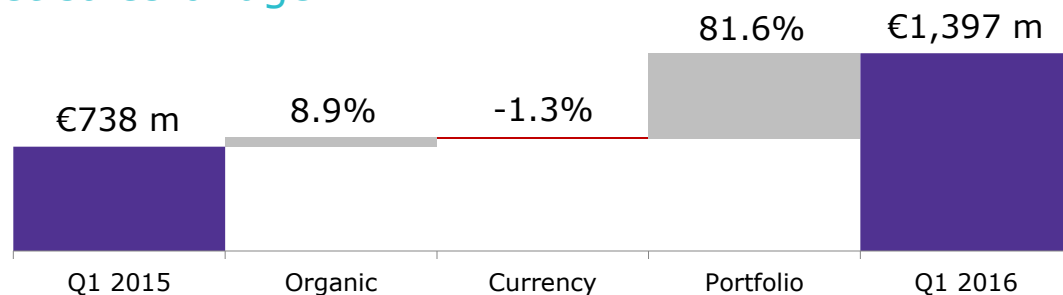


Life Science: A strong start to 2016

Life Science P&L

[€m]	Q1 2015	Q1 2016
Net sales	738	1,397
Marketing and selling	-233	-421
Administration	-31	-63
Research and development	-45	-62
EBIT	83	105
EBITDA	164	284
EBITDA pre	184	393
Margin (in % of net sales)	25.0%	28.1%

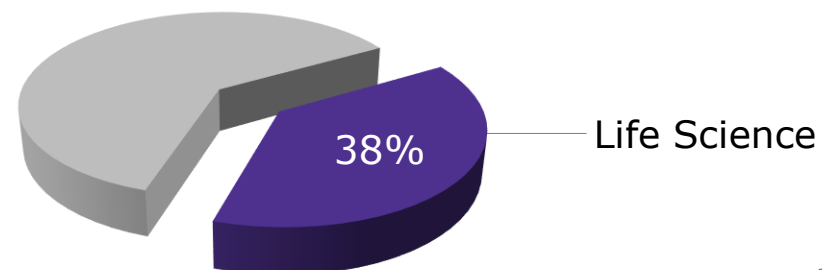
Net sales bridge



Comments

- Very strong growth of Process Solutions driven by increasing production of large molecules across global and regional accounts
- Applied Solutions shows moderate organic growth, driven by bio-monitoring products for pharma & demand for analytical testing
- Research Solutions benefits from increased research on biologics as well as solid demand for high-value chemicals
- Absolute costs higher due to Sigma, but improve in relation to sales
- Profitability reflects Sigma, favorable product mix and synergies

Q1 2016 share of group net sales

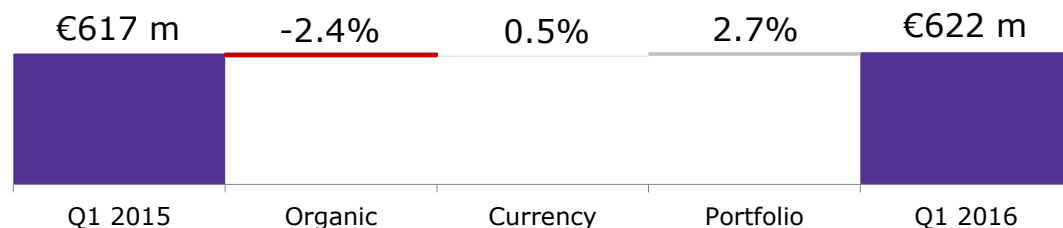


Performance Materials: Healthy profitability amid destocking of display industry inventories

Performance Materials P&L

[€m]	Q1 2015	Q1 2016
Net sales	617	622
Marketing and selling	-46	-58
Administration	-18	-16
Research and development	-47	-48
EBIT	214	207
EBITDA	273	267
EBITDA pre	277	273
Margin (in % of net sales)	44.8%	43.9%

Net sales bridge

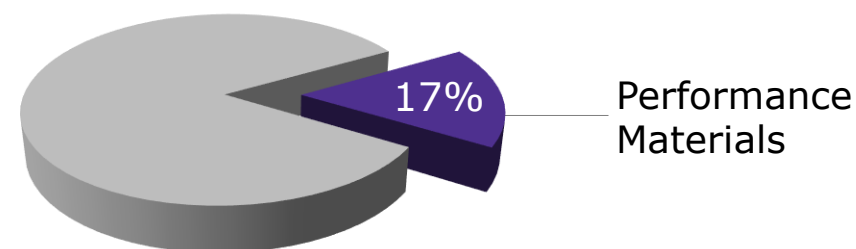


*Active pharmaceutical ingredient
Totals may not add up due to rounding

Comments

- Organic growth of OLED, ICM, and Pigments mitigates LC softness
- Liquid Crystals impacted by indicated inventory correction in supply chain
- OLED continues to grow on industry capacity expansion & investments
- Integrated Circuit Materials (ICM) show solid growth mainly driven by dielectric materials for chip production
- Pigments & Functionals post moderate growth esp. due to cosmetic API*
- Marketing & selling reflect contribution from Sigma's SAFC Hitech and sales force IT initiative
- Healthy profitability reflects leading market position with highly differentiated products, despite destocking and negative mix effects

Q1 2016 share of group net sales



Reported figures reflect solid business performance and Kuvan divestment

Reported results

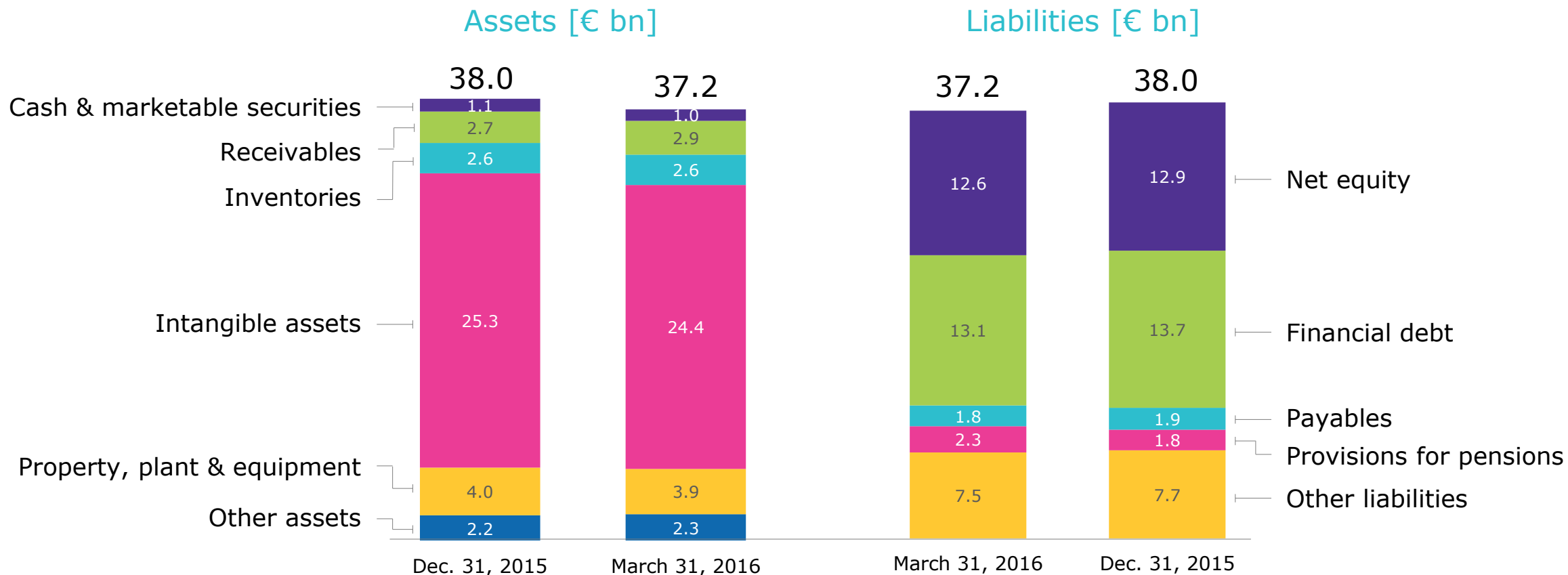
[€m]	Q1 2015	Q1 2016	Δ
EBIT	480	849	76.8%
Financial result	-101	-68	-32.1%
Profit before tax	379	780	>100%
Income tax	-94	-187	99.2%
<i>Tax rate (%)</i>	24.8%	24.0%	
Net income	282	591	>100%
EPS (€)	0.65	1.36	>100%

Comments

- EBIT reflects increased EBITDA pre and Kuvan disposal gain amid integration costs and D&A from Sigma
- Financial result contains Sigma financing interest expenses; last year adversely affected by LTIP
- Tax rate within guidance range of ~23-25%



Balance sheet – deleveraging initiated after Sigma acquisition

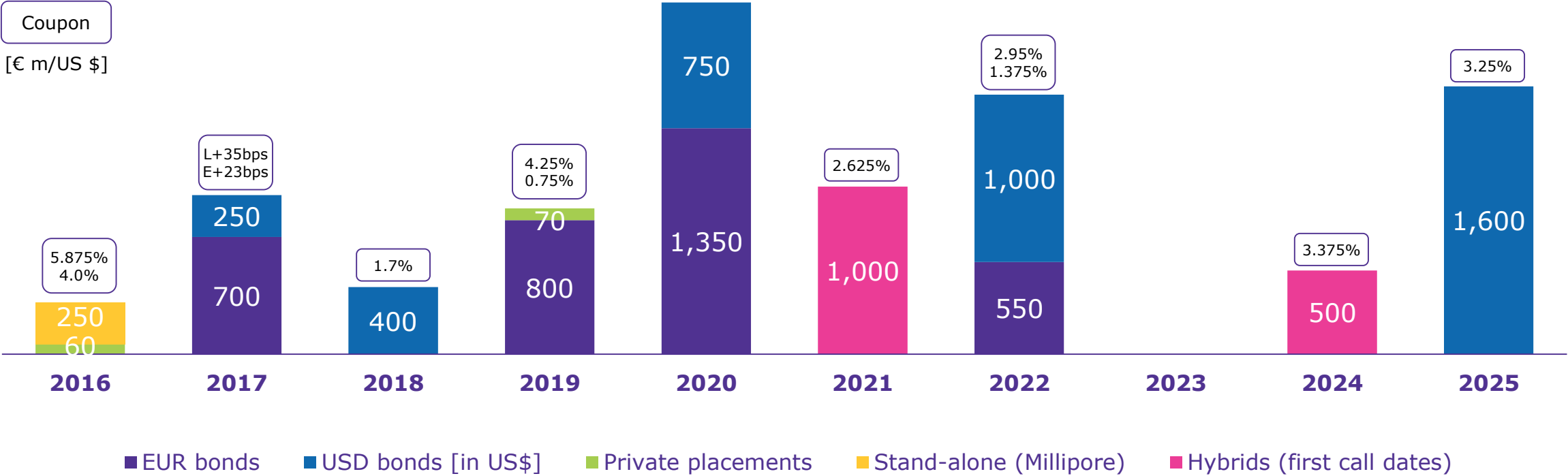


- Total assets decline by 2.2%, equity ratio remains at 33.8%
- Reduction of intangible assets reflects D&A (€0.3 bn) and FX (€0.6 bn)
- FX development accounts for ~€0.6 bn total equity decrease
- Net financial debt reduced by €0.6 bn
- Decline of interest rates increases pension provisions



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

Maturity profile as of March 31, 2016



Financing structure enables flexible and swift deleveraging



Healthy operating cash flow enables first deleveraging measures

Q1 2016 – cash flow statement

[€m]	Q1 2015	Q1 2016	Δ
Profit after tax	285	593	308
D&A	325	433	108
Changes in provisions	90	21	-69
Changes in other assets/liabilities	-231	-34	197
Other operating activities	-20	-394	-374
Changes in working capital	-172	-266	-94
Operating cash flow	279	352	73
Investing cash flow	392	284	-108
thereof Capex on PPE	-75	-160	-85
Financing cash flow	2,288	-572	-2,860

Cash flow drivers

- Profit after tax includes gain from Kuvan divestment, which is neutralized in other operating activities
- D&A increases due to Sigma
- Tax payment (Pfizer upfront) burdened changes in other assets/liabilities LY
- Changes in working capital reflect lower payables (Pfizer-Rebif) and higher R&D receivables from Pfizer (avelumab)
- Investing cash flow contains increased Capex and Kuvan divestment; LY with sale of financial assets
- Financing cash flow reflects first re-payments of Sigma-related bank loans; LY contains USD bond issuance



Exceptionals in Q1 2016

Exceptionals in EBIT

[€m]	Q1 2015		Q1 2016	
	Exceptionals	thereof D&A	Exceptionals	thereof D&A
Healthcare	12	0	-321	0
Life Science	20	0	109	0
Performance Materials	4	0	6	0
Corporate & Other	12	0	7	0
Total	48	0	-198	0



Financial calendar

Date	Event
June 20, 2016	R&D Update Call
August 4, 2016	Q2 2016 Earnings release
November 15, 2016	Q3 2016 Earnings release



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