



Bayer 2022: Delivering Value Creation



**Société Générale
European Angle Conference
September 5th, 2019
Brussels**

**Oliver Luckenbach & Judith Nestmann
Bayer AG**





Disclaimer

Cautionary Statements Regarding Forward-Looking Information

This presentation contains forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts and events, but rather reflects Bayer's current beliefs, expectations and assumptions regarding the future. This applies, in particular, to statements in this presentation on revenue growth, including product introductions and peak sales potential, synergies, especially in relation to the acquisition and integration of Monsanto Company, portfolio adjustments, cost reduction, financial targets and earnings, cash flow generation, deleveraging and other similar statements relating to future performance, including with respect to the markets in which Bayer is active.

Although the forward-looking statements contained in this presentation are based upon what Bayer's management believes are reasonable assumptions, they necessarily involve known and unknown risks and uncertainties that could cause actual results and future events to differ materially from those anticipated in such statements. Forward-looking statements are not guarantees of future performance and undue reliance should not be placed on them. Bayer undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws.

For more information on factors that could cause actual results and future events to differ from those anticipated in forward looking statements, please refer to the factors discussed in Bayer's public reports which are available on the Bayer website at <https://www.investor.bayer.com/en/reports/annual-reports/overview/>, including in the Annual Report 2018 under the caption "Report on Future Perspectives and on Opportunities and Risks".



We are a Global Leader in Health & Nutrition

Well-Positioned Across Our Businesses



~€45bn 2018 Pro-forma Sales¹

Crop Science

~€19bn / ~43% of Group
#1 Position

Growing ahead of competition over last five years on average
Best-in-class profitability through the cycle

- // Leading portfolio of seed & traits, crop protection and digital farming
- // World-class R&D platform with best talent and technology in the industry
- // Positioned to shape the future of agriculture: development of tailored solutions to address farmers' individual needs and challenges

Pharmaceuticals

~€17bn / ~38% of Group
#2 Position in Cardiovascular

One of the fastest growing Pharma businesses over the past five years
Xarelto and Eylea among the world's leading Pharma brands

- // Innovative medicines in areas of high unmet medical need
- // Therapeutic focus areas: Cardiology, Oncology, Gynecology, Hematology and Ophthalmology
- // Strong position in emerging markets
- // Leading in Radiology and Women's Health

Consumer Health

~€5bn / ~12% of Group
#2 Position

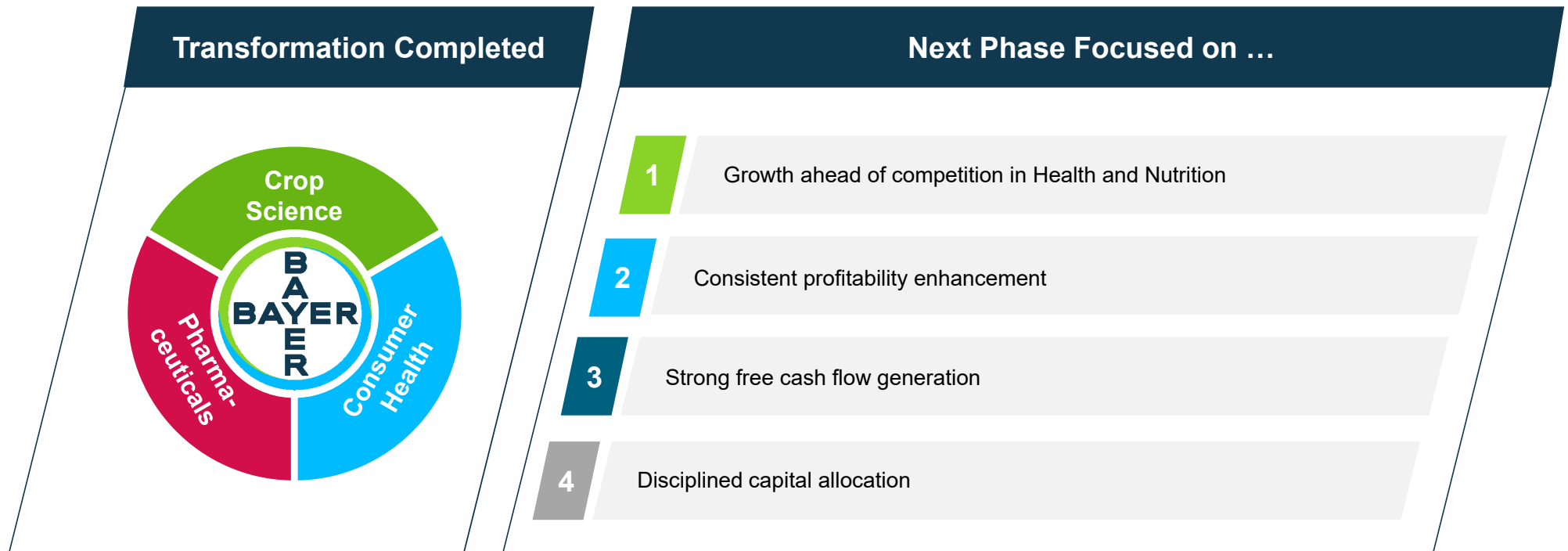
Leading Positions in 7 of the Top 10 OTC Markets

- // Focus categories: Allergy & Cold, Cough, Sinus and Flu; Nutritionals; Dermatology; Pain and Cardio; Digestive Health
- // Concentrated portfolio of 16 mega-brands with annual sales of >€100m

¹ The unaudited Pro-forma data are presented as if both the acquisition of Monsanto and the associated divestments had taken place as of January 1, 2018. Sales of Monsanto are presented in periods as per the Bayer fiscal year. One-time effects of business operations, the accounting for discontinued operations and the recognition and measurement of sales from certain business transactions have been adjusted in line with our accounting. Due to this simplified procedure, they explicitly do not reflect sales according to IFRS or IDW RH HFA 1.004, meaning they have not been audited.



Next Phase to Deliver Value Creation





Global Megatrends in Health & Nutrition

Attractive Macro Drivers of Our Businesses

Megatrends through 2050

Societal Needs

Our Mission

Aging Population



People 60+ more than doubling¹

>20% of total population¹

Preserve and restore health

Growing Population

+2.2bn people¹



+50% more food and feed required to meet growing demand²

Secure sufficient supply of quality food

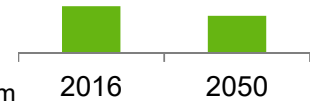
Pressure on Ecosystems



-17%

Harvest losses from climate change³

-20%



Significant loss in arable land per capita⁴

Use natural resources more efficiently and responsibly

We leverage science to address these societal needs – with the ultimate goal to improve people’s lives



Science For A Better Life

¹ UNDESA 2017 (United Nations Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision)







² FAO 2017, (FAO Global Perspective Studies)

³ Nelson et. al. (2014); FAO 2016 “Climate change and food security”

⁴ FAOSTAT (accessed Oct 30, 2018) for 1961-2016 data on land, FAO 2012 for 2030 and 2050 data on land, and UNDEDA 2017: World Population Prospects for world population data



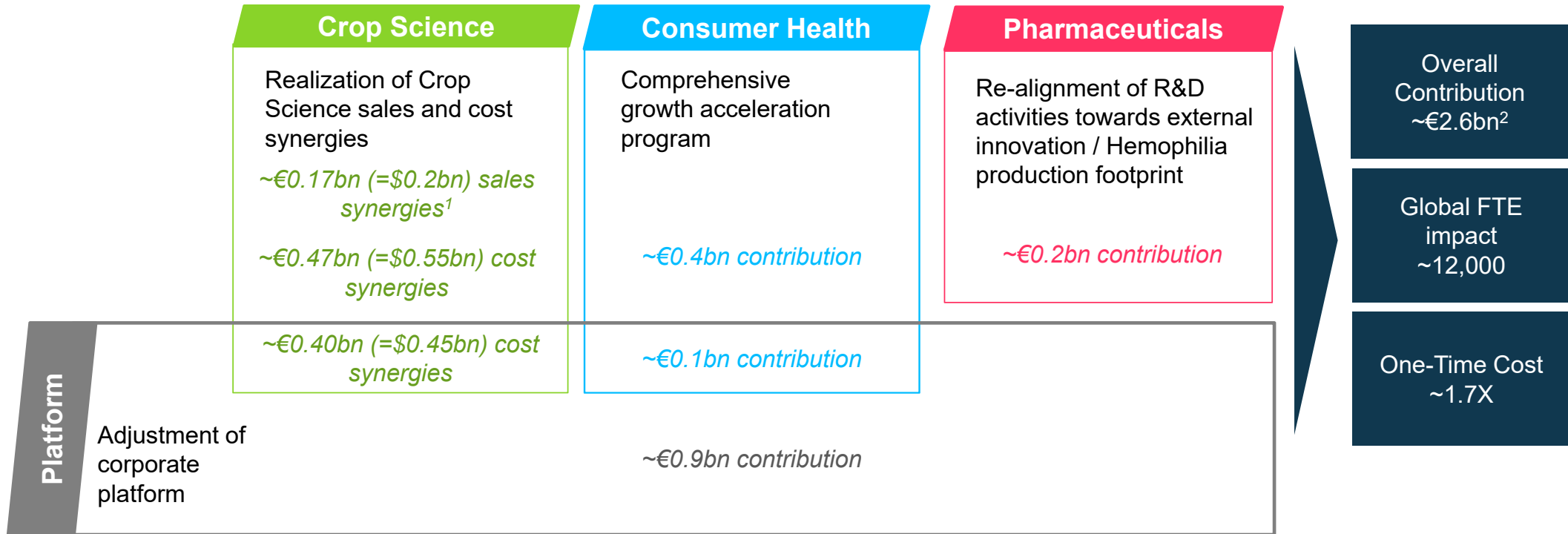
We Focus on Growth in Attractive Markets

	Market		Bayer's growth levers
	Size 2017	CAGR 2018-2022	
Bayer Group			<ul style="list-style-type: none"> // Using our leading positions in Agriculture, Pharmaceuticals and Self-care to address societal needs and benefit from global megatrends // Drive innovation
Crop Science	 <p>~€90bn¹</p>	 <p>~3%²</p>	<ul style="list-style-type: none"> // Leading portfolio of seed & traits, crop protection and digital farming // World-class R&D platform with best talent and technology in the industry // Positioned to shape the future of agriculture: Development of tailored solutions to address farmers' individual needs and challenges
Pharmaceuticals	 <p>~€870bn³</p>	 <p>4-5%</p>	<ul style="list-style-type: none"> // Innovative medicines in areas of high unmet medical need // Therapeutic focus areas: Cardiology, Oncology, Gynecology, Hematology and Ophthalmology // Leverage external innovation and partnering as well as pipeline and potential of current products
Consumer Health	 <p>~€140bn⁴</p>	 <p>3-4%</p>	<ul style="list-style-type: none"> // Branded self-care solutions that help transform people's daily health // Focus on five core categories

¹ Pro-forma calculations Bayer, Bayer CS market model; ² excluding potential cyclical recovery of the Crop Science market; ³ IQVIA ; ⁴ Market model in-market sales OTC medicines, data from IQVIA, Nicholas Hall



Bayer 2022 Synergy & Efficiency Programs



¹ EBITDA before special items impact from sales synergies

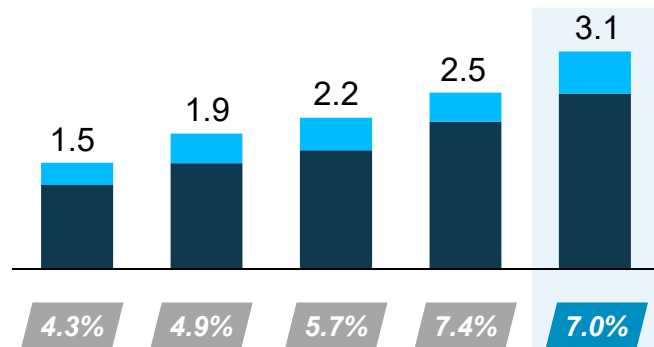
² Indicative Phasing: ~30% effective in 2020, ~70% in 2021 and 100% in 2022



Cash Flow Improvement Focusing on Capex and Working Capital Optimization



Capex spend
in €bn



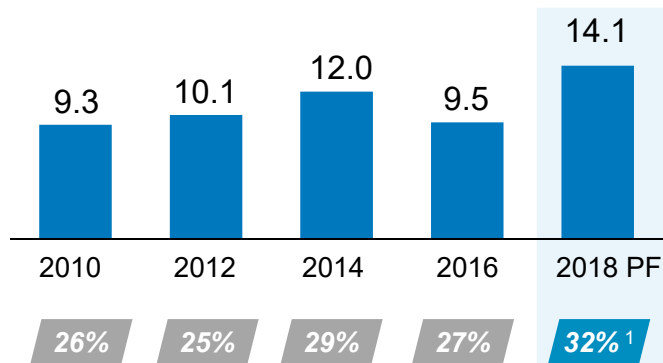
- // Annual contribution of ~0.5bn EUR by 2022
- // Past and current levels impacted by single large-scale investments in fixed assets
- // Licensing will continue to be an element to drive growth

Focused CapEx below current levels → ~ 5-6%

Intangibles Fixed assets



Working Capital
in €bn



- // Annual contribution of ~0.5bn EUR by 2022
- // Focus on optimization of inventory levels and receivables management

Working capital optimization → ~ 32%

¹ Crop Science 48%, Pharmaceuticals 24%, Consumer Health 24%



Group Targets - Value Creation from Strengthened Base

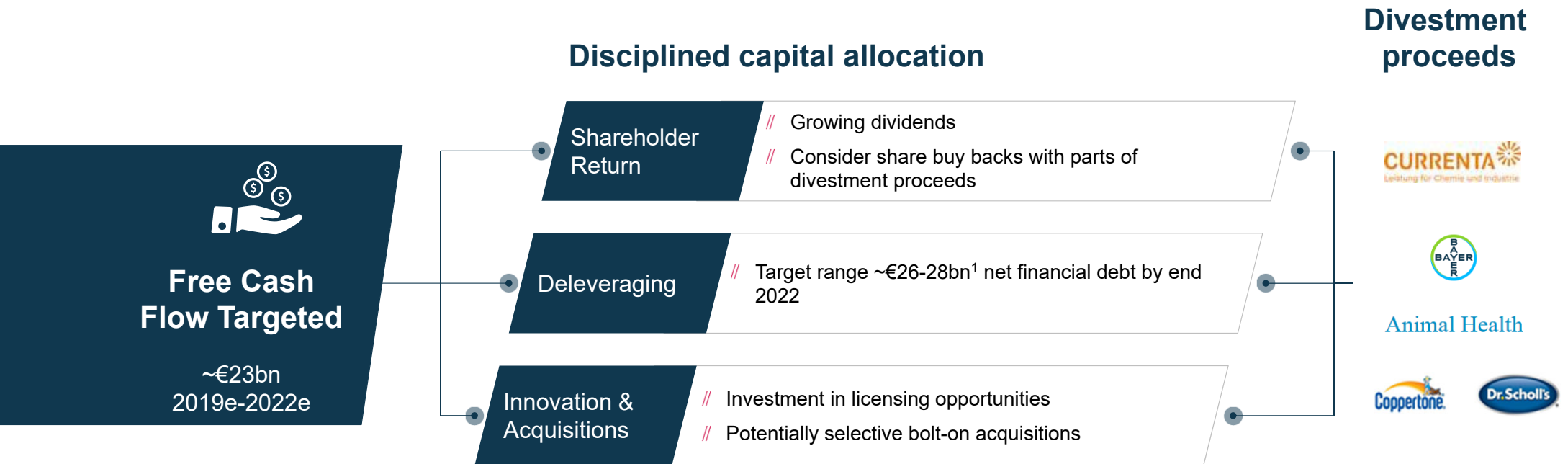
€bn		2018 ¹	Guidance 2019 ^{2,3}	Target 2022 ^{2,3}
Sales	Total Group	39.6	~46	~52
	EBITDA before special items (%)	9.5	~12.2 (~27%)	~16 (>30%)
	Crop Science	2.7	~25%	>30%
	Pharmaceuticals	5.6	~34%	>35%
	Consumer Health	1.1	~21%	~24%
Core EPS (€)		5.94	~6.80	~10
FCF		~4.7	~3-4	~8
Net financial debt		~35.7	~36	~26-28

¹ as reported ² at constant currencies ³ not including portfolio measures



We Have Clear Priorities for Capital Allocation

Focus on Shareholder Return, Innovation and Deleveraging



¹ Before M&A / Portfolio



We Will Create Significant Value Through 2022 and Beyond

Focus on Execution and Driving Sustained Profitable Growth...

1

We have completed Bayer's portfolio transformation into a global leader in Health & Nutrition

2

The next phase is focused on driving value creation through (i) growth ahead of competition enabled by innovation and portfolio measures (ii) profitability enhancement through Bayer 2022 synergy and efficiency programs and (iii) strong cash generation

3

We target Sales, Core EPS and FCF CAGR* until 2022 of 4%, 10% and 18%, respectively

4

Strong FCF along with proceeds from divestments enable (i) growing dividends, (ii) quick deleveraging of our balance sheet and (iii) selective bolt-ons and in-licensing transactions

2018e PF used for Sales and Core EPS; 2018e used for FCF



Q2 2019 & Outlook 2019





Bayer Operationally on Track

€11,485m

Sales

€2,927m

EBITDA

Before special items

€1.62

Core EPS

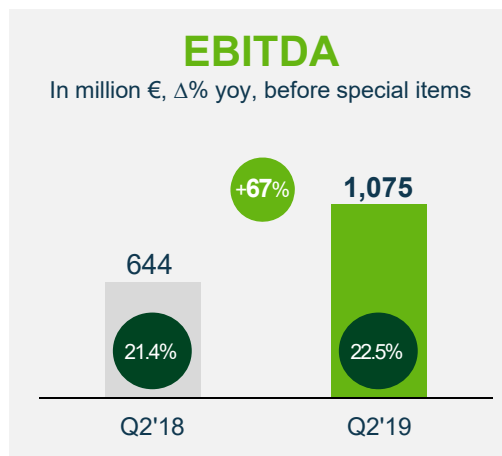
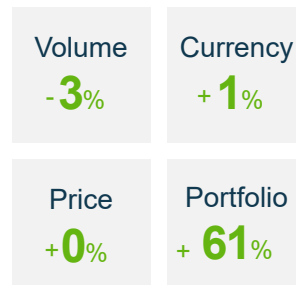
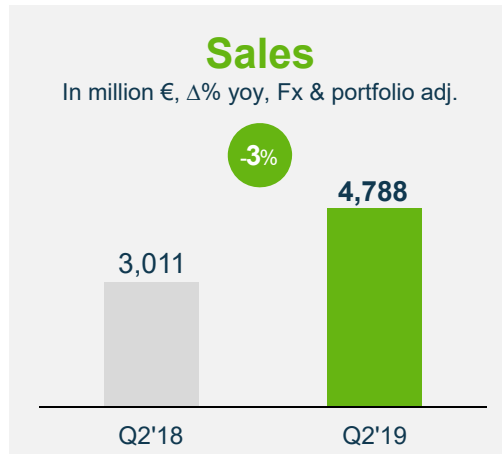
€751m

Free Cash Flow

- Sales increased by 21% to €11.5bn (+1% cpa)
- EBITDA before special items improved by 25% to €2.9bn
→ Margin up 70 bps to 25.5%
- Core EPS plus 6% to €1.62
- Free Cash Flow impacted by timing of closing in PY and reflects seasonality of acquired business



Crop Science: Solid Performance in a Very Challenging Environment



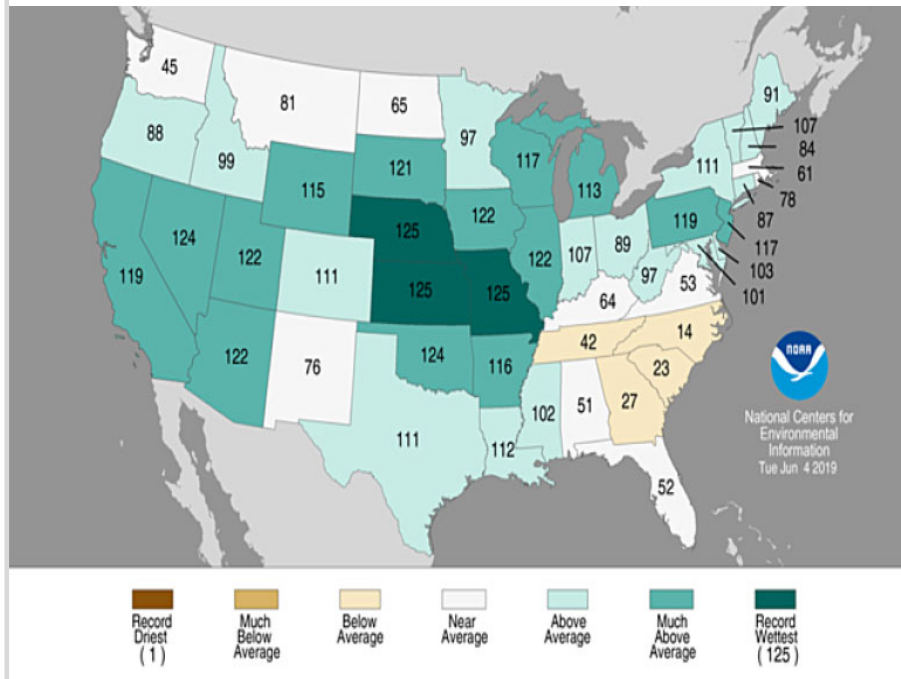
- -3% cpa sales reduction driven by adverse business conditions in North America
- Good growth across insecticides and vegetable seeds
- Pro-forma sales (-10% cpa) primarily impacted by extreme weather conditions in the US
- On track to deliver more than €200m in cost synergies in 2019



2019 U.S. Planting Heavily Impacted by Flooding

Corn Acres Expected to be Down 2-3% and Soybean Acres to Decline Between 7% and 10% vs Last Year

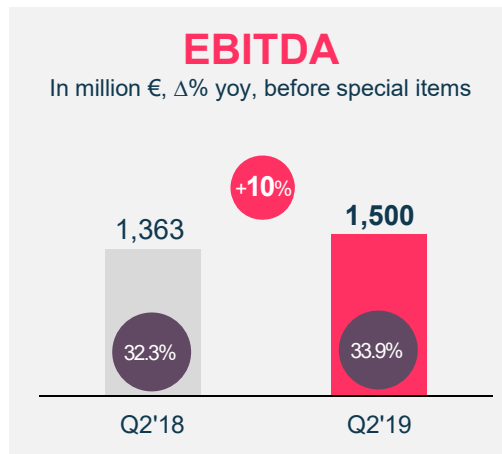
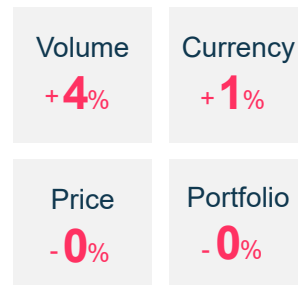
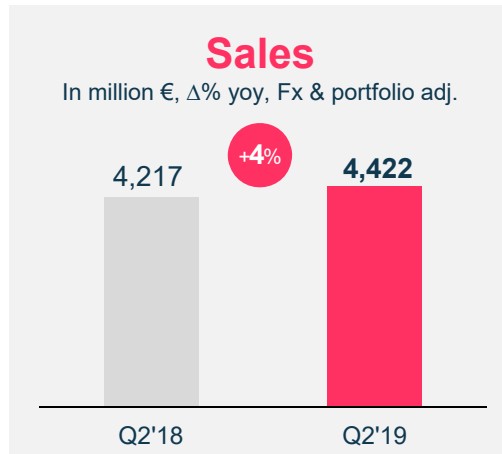
May 2019 - Precipitation in many U.S. states
„much above average“ or „record wettest“



Source: USDA Weekly Weather and Crop Bulletin, June 11, 2019; USDA Crop Progress, April 3, 1995 - June 17, 2019; USDA WASDE World Agricultural Supply and Demand Estimates, June 11, 2019; FSA Crop Acreage Data Reported to FSA, 2007 – 2019



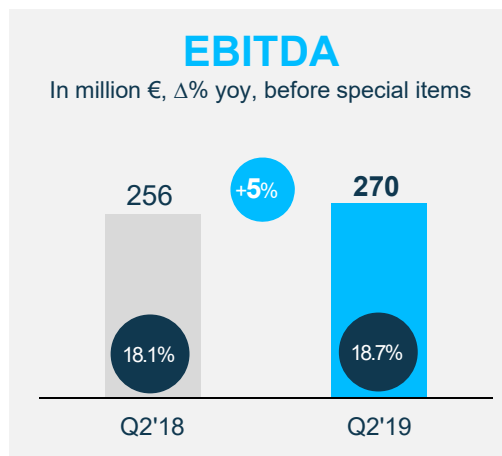
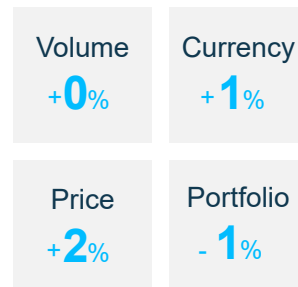
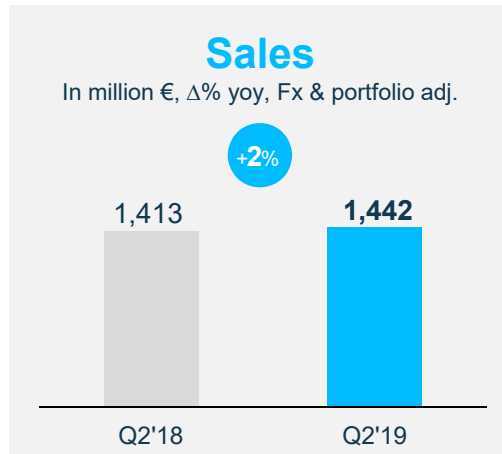
Pharmaceuticals Driven by Xarelto, Eylea and China



- Xarelto up 12%, Eylea grew by 11%
- Continued strong performance in China overcompensates weaker US business
- FDA granted priority review for darolutamide
- New data for larotrectinib demonstrate benefit in TRK fusion cancer patients with brain tumors
- Investment in stem cell based cancer therapy through Century Therapeutics
- EBITDA before special items increase driven by higher volume, reduced COGS and lower R&D spend



Consumer Health Returning to Top- and Bottom Line Growth



- EMEA, Asia/Pacific and Latin America with positive development
- North America bottoming out, double-digit growth in allergy and cold
- Increase in EBITDA before special items driven by positive pricing and execution of performance improvement measures
- On track to deliver on FY targets



Business Drivers to be Considered for H2 2019

Crop Science

- Corn and soybean commodity prices up which may lead to positive volume impact in H2
- Market growth in H2 expected to be strong in Latin America and Asia Pacific; expect mid-single-digit percentage sales growth (cpa) for our business
- On track to deliver cost synergies of more than €200m in 2019

Consumer Health

- Execution of turnaround plan to strengthen top-line growth and profitability in H2

Pharmaceuticals

- Xarelto, Eylea and China expected to keep on growing
- Launch of Darolutamide in the US

Efficiency / Bayer 2022

- Gross savings of ~€500m expected for 2019 across all programs



FY 2019 Guidance Confirmed, Yet Ambitious

	2018 ¹	Group Forecast 2019 ² (at constant currencies)	Δ 2018 – 2019	Fx-sensitivity: ± 1% change of the € vs all other currencies = ₣ ~€340m on Sales & ₣ ~€100m on EBITDA (before special items and after hedging)
Sales	€39.6bn	~€46bn	+~16% (thereof +~12% portfolio)	
EBITDA (before special items)	€9.5bn	~€12.2bn	+~28%	
Core EPS	€5.94	~€6.80	+~14%	
Free Cash Flow	€4.7bn	~€3-4bn		

¹ Monsanto included since June 7 and assets divested to BASF included until August 2018, ² not including portfolio divestitures



Focus Areas

1 *Target Delivery*

- Deliver on operational targets

2 *Crop Science*

- Integration of acquired business to shape the future of agriculture

3 *Pharmaceuticals*

- Further strengthening of pipeline and intensify external sourcing

4 *Consumer Health*

- Drive performance improvement

5 *Efficiency / Bayer 2022*

- Execute efficiency improvement program and realize synergies

6 *Portfolio Measures*

- Execution of announced portfolio measures for sharpened business focus



Appendix

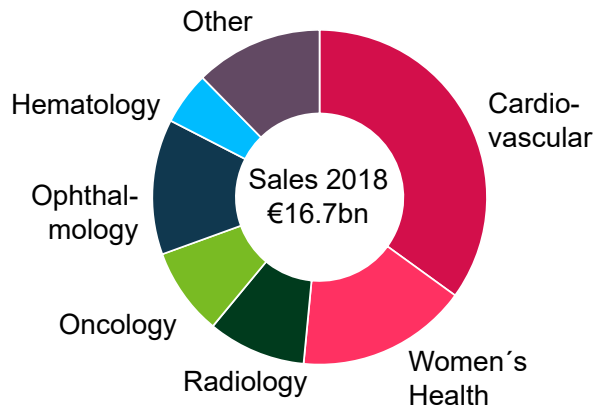




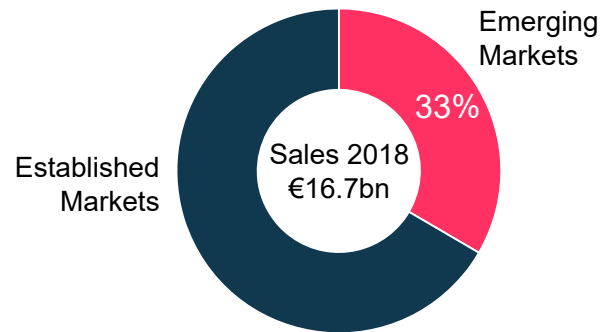
Pharma

Innovative Medicines in Areas of High Unmet Medical Need

Therapeutic area focus



Emerging markets exposure



Leading positions in important therapeutic areas

- // Retinal Diseases
- // Women's Health
- // Radiology
- // Cardiovascular
- // Hematology

Leading Brands



Emerging markets include Latin America, Asia (w/o Japan, Australia, New Zealand), Africa and Middle East incl. Turkey, Eastern Europe

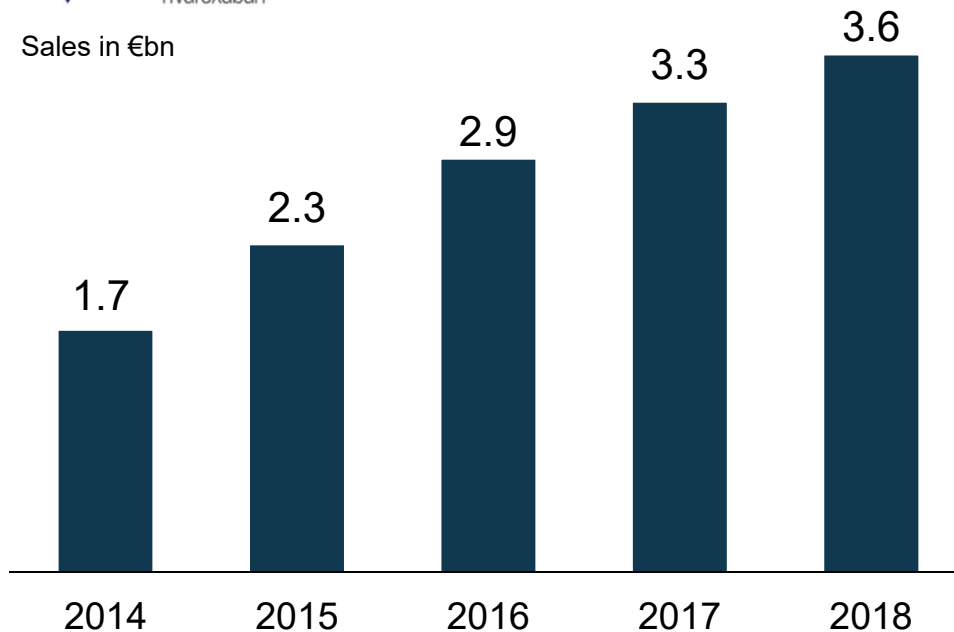


Pharma

Xarelto – Continued Growth of a Leading Anticoagulant



Sales in €bn



- // Most broadly indicated anticoagulant for use in venous and arterial thromboembolic conditions
- // A leading pharma brand with global sales of €5.2bn in 2018 incl. sales at Johnson & Johnson
- // New CAD/PAD indication launching in EU and the US
- // Peak sales potential: >€5.0bn¹
- // Further growth driven by:
 - // Under-served patient populations
 - // Demographics
 - // Shift from warfarin
 - // New indications targeting patients currently not treated with anticoagulants

CAD: Coronary artery disease; PAD: Peripheral artery disease
¹ Ex-US sales plus royalty from J&J as reported by Bayer

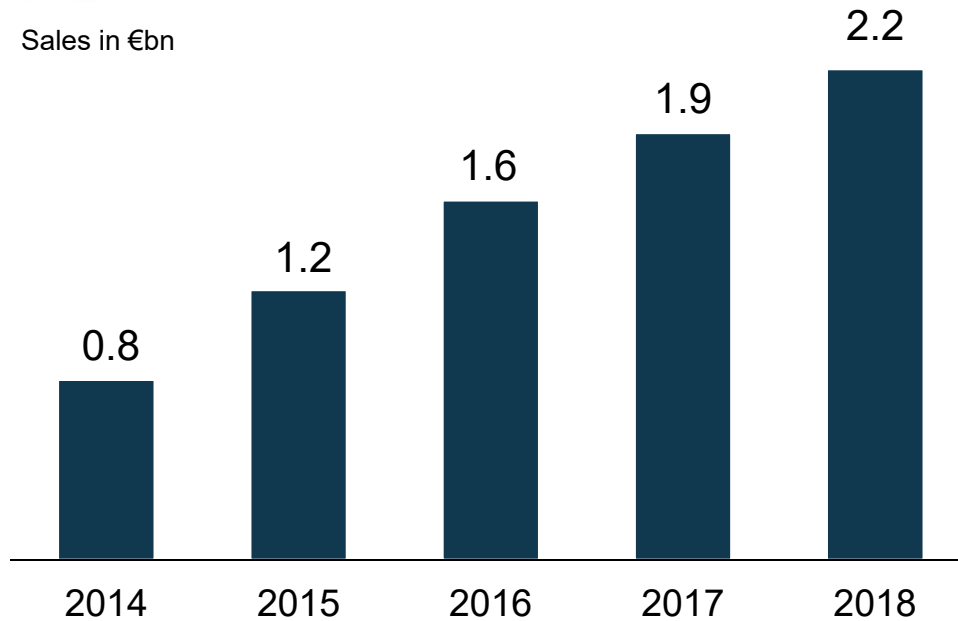


Pharma

Eylea – A Leader in Retinal Diseases



Sales in €bn



- // A leader in retinal diseases with global brand sales of €5.6bn in 2018 incl. sales at Regeneron¹
- // Approved for the treatment of 5 retinal diseases: wAMD, DME, BRVO, CRVO, mCNV
- // Treat and extend dosing regimen with injection intervals of up to 12 weeks or more for wAMD
- // Peak sales potential: >€2.5bn²
- // Further growth driven by:
 - // Continued generation of real-life experience in wAMD across key markets and treatment-naïve patient share gains
 - // Market expansion in DME

¹ Marketed by Bayer ex-US only; ² As reported by Bayer
wAMD: Wet age related macular degeneration; DME: Diabetic macular edema; BRVO: Branch retinal vein occlusion; CRVO: Central retinal vein occlusion, mCNV: Myopic choroidal neovascularization



Pharma

Late-stage Pipeline with Progress in Oncology

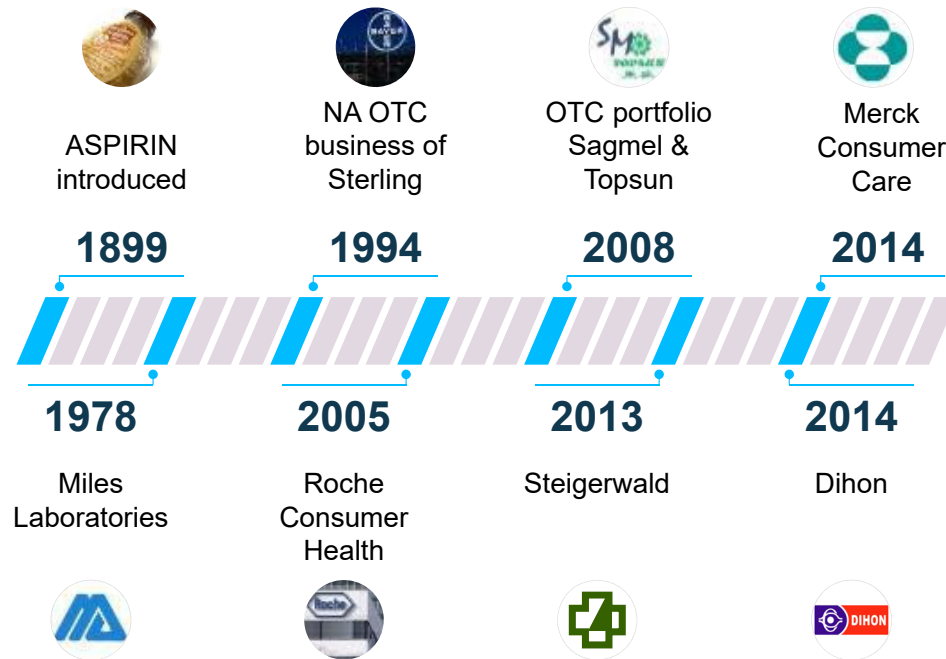
	Larotrectinib (Vitrakvi)	Darolutamide (Nubeqa)	Copanlisib (Aliqopa)	Finerenone	Vericiguat
Indication	// TRK-fusion Cancer	// Prostate Cancer	// Lymphoma	// Diabetic Kidney Disease	// Chronic Heart Failure
Status	// Launched in the US / in registration	// Launched in the US (nmCRPC) // Phase III (mHSPC)	// Launched in the US // Phase III	// Phase III	// Phase III (HF _r EF) // Phase II (HF _p EF)
Commercial Potential	// PSP >€750m	// PSP ≥€1bn	// PSP ≥€0.5bn	// PSP ≥€1bn	// PSP ~€0.5bn
Clinical Completion	// Clinical program ongoing	// Completed (ARAMIS, nmCRPC) // Aug 2022e (ARASENS, mHSPC)	// May 2020e (CHRONOS-3) // Sep 2021e (CHRONOS-4)	// Apr 2020e (FIDELIO-DKD) // June 2021e (FIGARO-DKD)	// Jan 2020e (VICTORIA, HF _r EF) // Dec 2019e (VITALY, HF _p EF)

NTRK: Neurotrophic receptor tyrosine kinase; nmCRPC: Non-metastatic castration resistant prostate cancer; mHSPC: Metastatic hormone sensitive prostate cancer; HF_rEF: Heart failure with reduced ejection fraction; HF_pEF: Heart failure with preserved ejection fraction; PSP: Peak sales potential

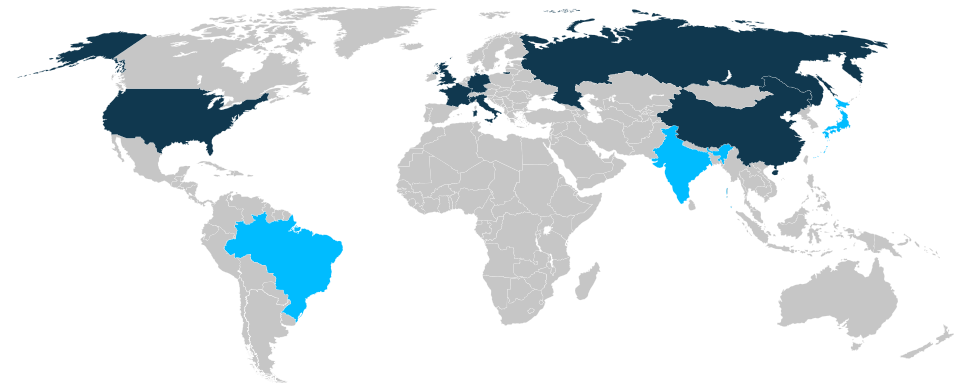


Consumer Health A Leading Player Globally...

Built up top leading position



Strong positions in 7 out of Top 10 OTC markets



Top 10 OTC markets¹

1. USA	6. Russia
2. Germany	7. Italy
3. Japan	8. Brazil
4. France	9. UK
5. China	10. India

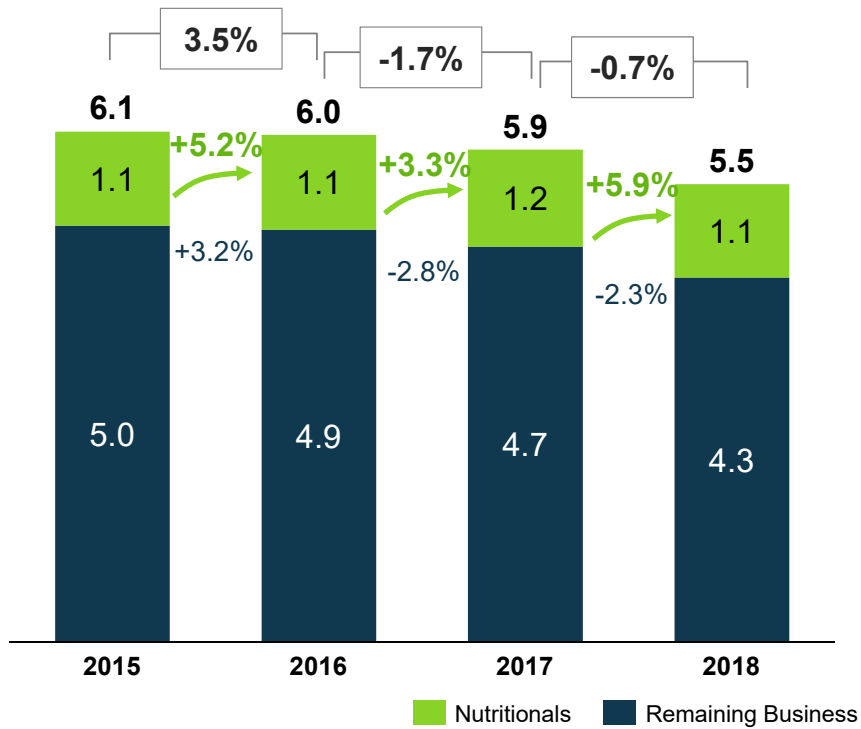
Top 5 position
 Position outside of Top 5



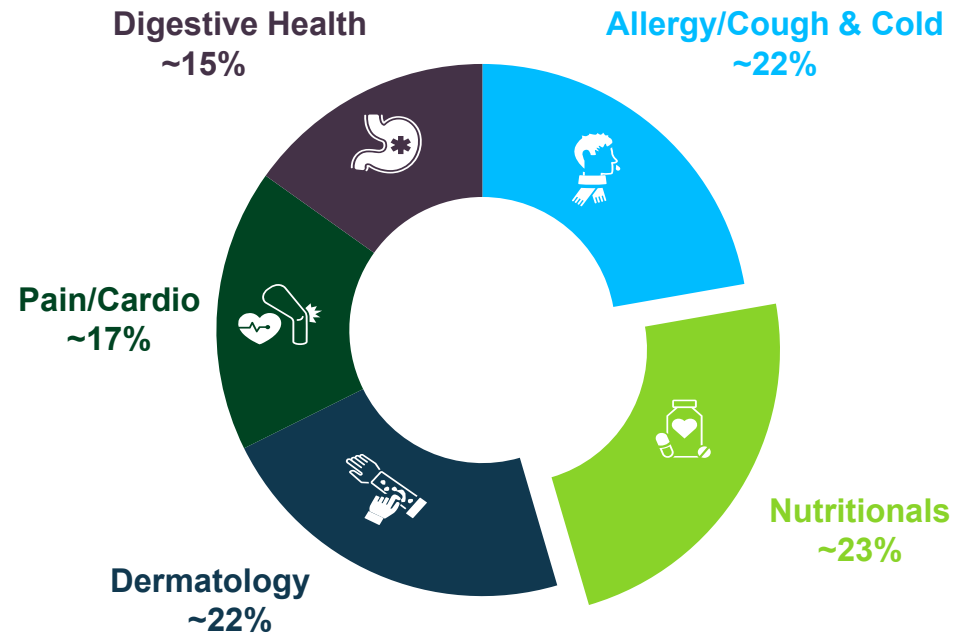
Consumer Health ...with a Fast Growing Nutritionals Category

Sales development

€ bn; sales growth currency and portfolio adjusted



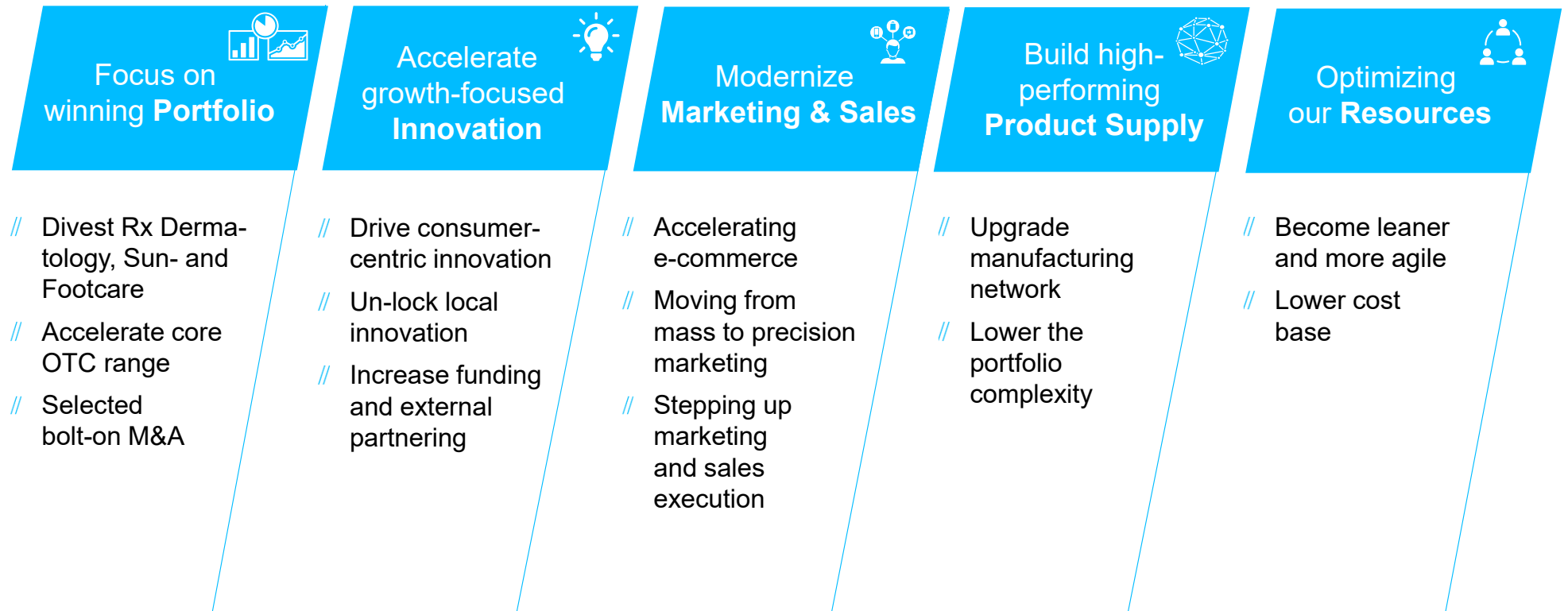
Category focus¹





Consumer Health

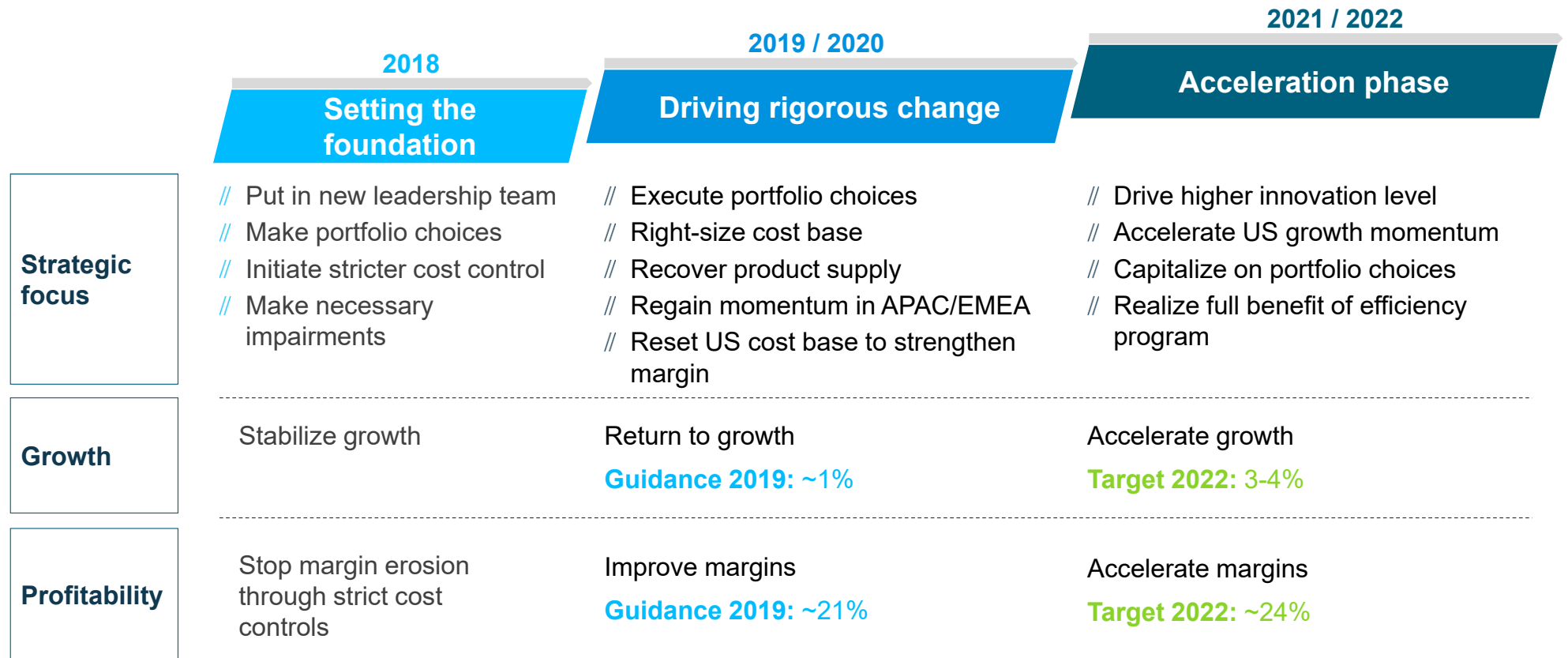
Focused on Executing a Comprehensive Turnaround Plan





Consumer Health Our Strategic and Operational Roadmap

Acceleration of growth and profitability through 2022





Crop Science

Shaping Agriculture to Benefit Farmers, Consumers and Our Planet

As the Industry Leader Uniquely Positioned to Create Value and Pioneer Tailored Solutions

Our Mission



Deliver world-class innovation



Pioneer the digital transformation



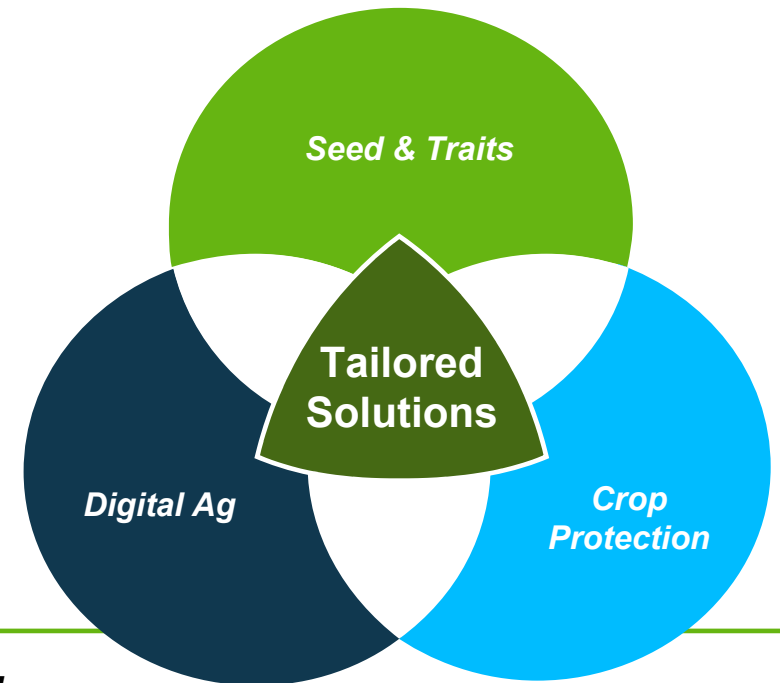
Set new standards of sustainability



Deliver on operational commitments



Tailored solutions are key to sustainably managing resources and improving productivity to feed a growing global population



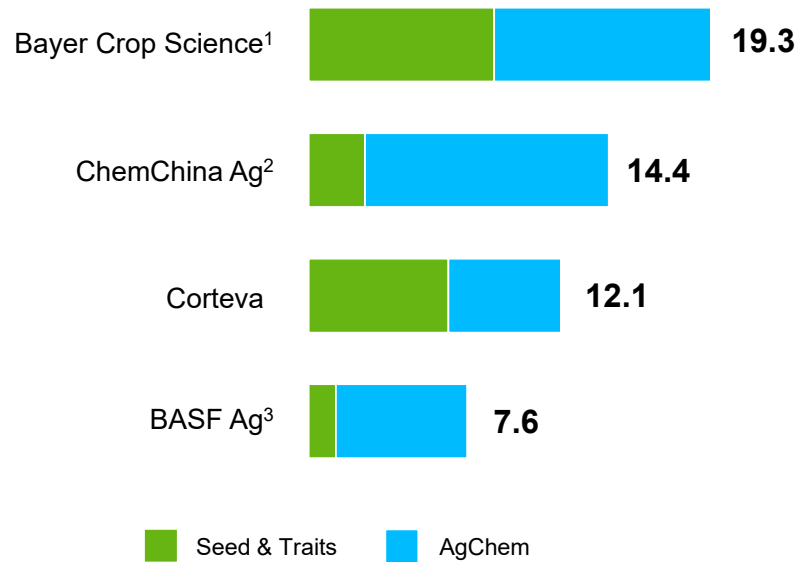


Crop Science

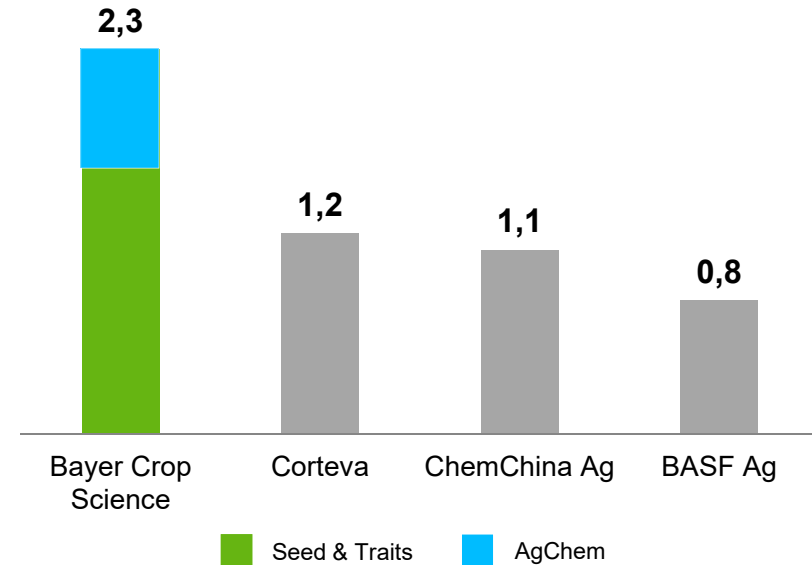
The Established Leader in Crop Science

Industry Leading Sales and Unmatched Investment in R&D

Sales 2018 (€bn)



2018 Ag R&D Investment (€bn)¹



¹ The unaudited Pro-forma data are presented as if both the acquisition of Monsanto and the associated divestments had taken place as of January 1, 2018. Sales of Monsanto are presented in periods as per the Bayer fiscal year. One-time effects of business operations, the accounting for discontinued operations and the recognition and measurement of sales from certain business transactions have been adjusted in line with our accounting.

² Excludes non-agro business sales of ADAMA (nutritional supplements, aromatic products, industrial products)

³ Includes BASF Ag Sales 2018 as reported plus €1.4bn (€2.027m sales FY 2018 excluding €586m sales from Jan '18 until cut-off in Aug '18) reported sales in 2018 from Bayer businesses sold to BASF. Split between Seed and CP businesses based on internal estimates.

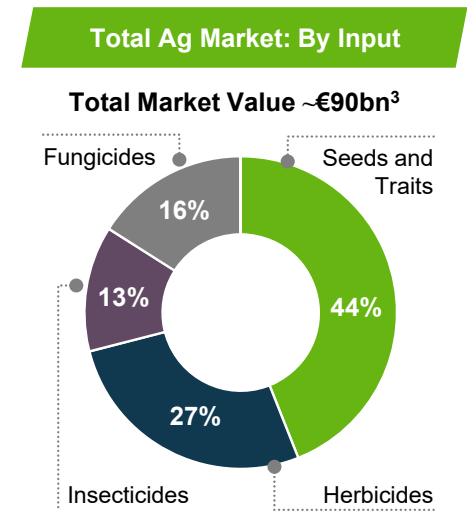
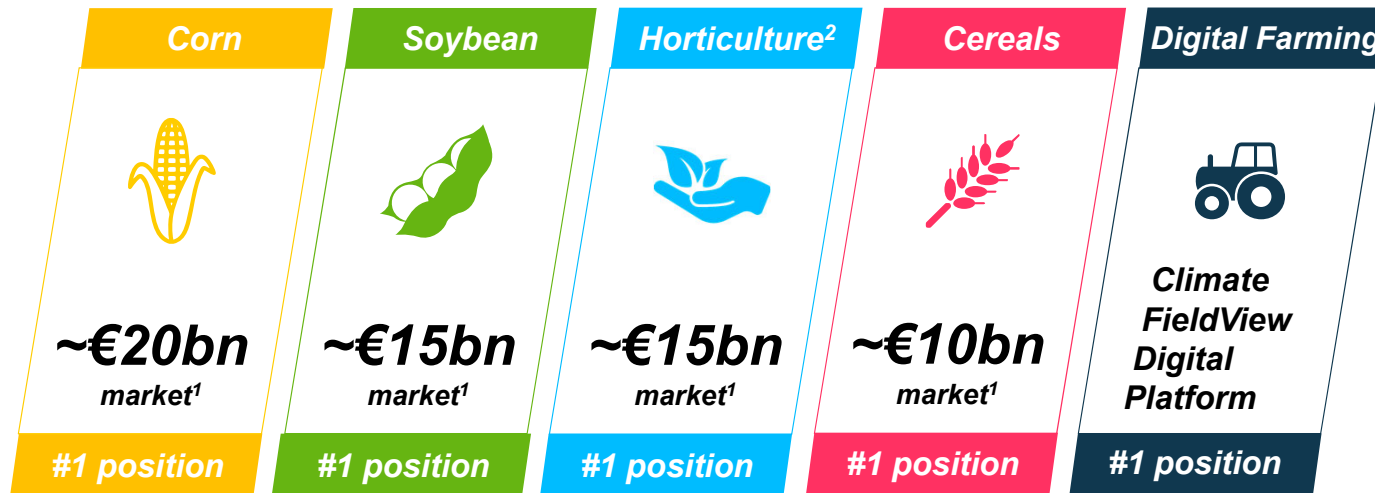
⁴ Exchange rate: FY 2018: ~1.18 USD/EUR

⁵ Competitor Pro forma R&D cost split not available



Crop Science Leading Position in All Major Categories

Crop Science Market¹ Currently Valued at ~€90bn



¹ Includes seeds, traits, crop protection chemistries and environmental science; does not include fertilizer

² Includes fruits, vegetables, flowers and nuts

³ Total market of ~€90bn includes €5bn of Environmental Science; actual pie charts exclude that amount, as not relevant in these views (Source: Bayer Crop Science market model)

Note: Reflecting Crop Science portfolio after divestments. Market sizes rounded to nearest €5bn. Source: Pro-forma calculations Bayer; Bayer Crop Science market model



Crop Science

Opportunity for Digital Transformation and Tailored Solutions

Precise Resource Use and Innovation Required to Address Demand Growth, Field Variability and Increased Pressure on Ecosystems to Generate Sustainable Yield Improvements

$$\text{Yield} = f(g, e, p)$$

g = Genetics

Inherent yield potential in the seed



e = Environment

Climate and variability in soil types



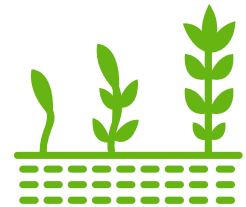
FieldView Yield Map



+75 bu/ac yield difference between red and green areas

p = Farming Practices

40 decisions made over a growing season



Opportunity from optimized yield equation

542 bu/ac vs. 175 bu/ac national average¹



2017 NCGA Corn Yield Contest winner

138 bu/ac vs. 49 bu/ac national average¹



2017 Monsanto Soybean Yield Contest winner

Our evolution to capture the opportunity



Leading Products



Product Combinations



Digitally Informed Offerings



Tailored Solutions

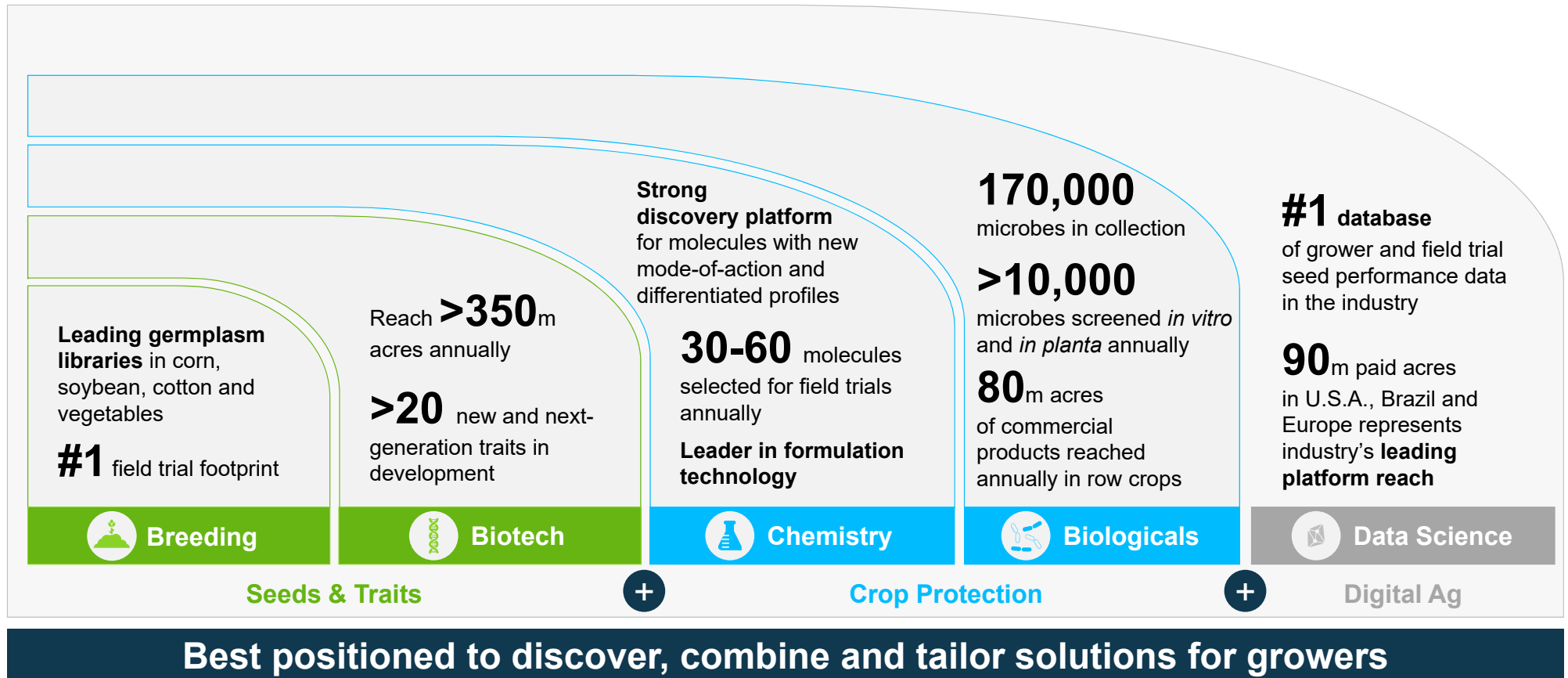
¹ USDA crop production summary report. Results not typical.



Crop Science

Next Growth Opportunity: Convergence of Leading R&D Platforms

Continued Investment in Data Science and New Technologies are Driving Future Opportunity



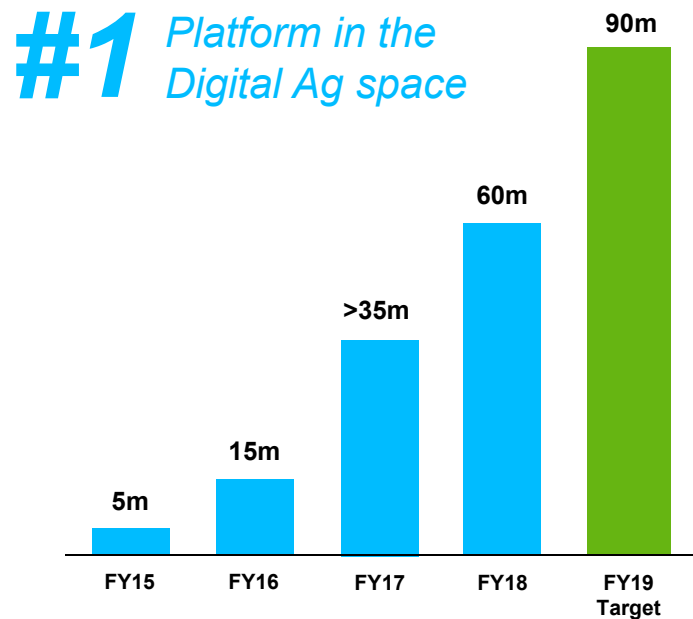


Crop Science

FieldView: The Leading Brand and Platform for Growers

Significant Opportunity to Expand Digital Ag Footprint

Global Paid Acres¹



Growth Fueled by Platform Advantages

Most Established, scalable

digital farming infrastructure

>60 Partners

on the FieldView Platform

#1 Brand

in digital Ag space²

New Business Models

enabling share of value and risk

Largest Database

of grower and field trial seed performance data in the industry

>35 Next-Gen Projects

in the pipeline

Global

distribution footprint established

~1bn Global Acre

Opportunity for Corn, Soybean, Wheat³

¹ Internal estimates

² 2018 Brand Health Monitor

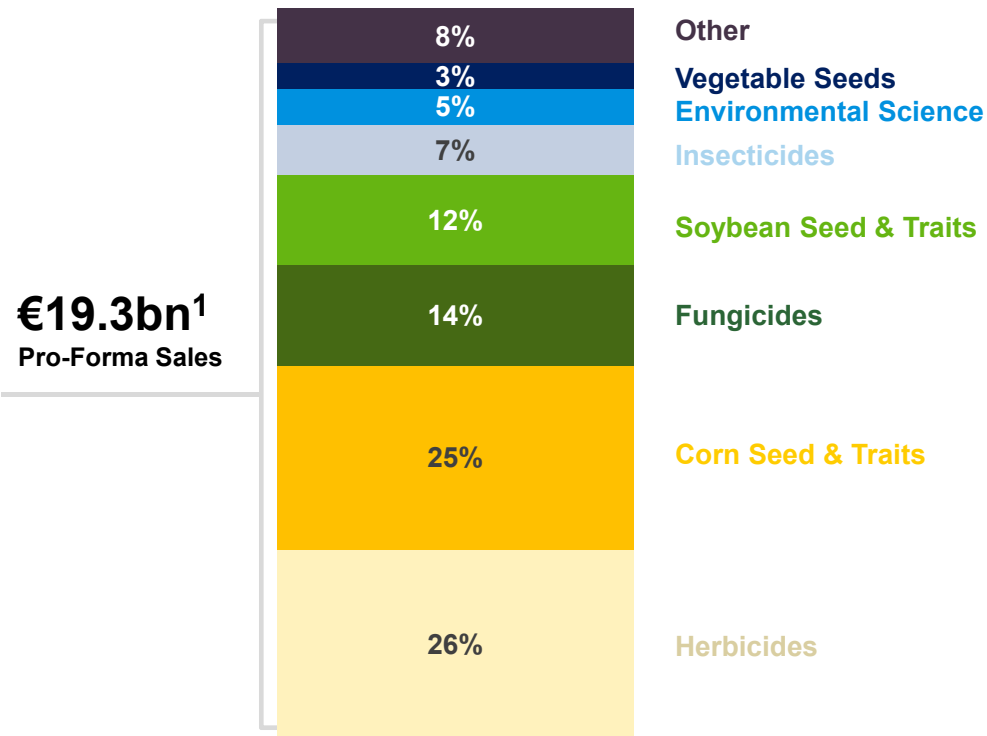
³ Harvested acres – USDA FAS 2018-10-11, ex China



Crop Science

Leadership and Innovation Drive Above Market Sales Growth Target

Target Above Market Sales Growth from 2018 to 2022 and >30% EBITDA Margin by 2022^{3,4}



Key Sales Growth Drivers

- // Deliver annual germplasm refresh across the seeds portfolio to capture price and share gains
- // Continue penetration of Roundup Ready Xtend crop system; transition to XtendFlex soybeans with expected U.S.A. launch in 2020²
- // Continue penetration of Intacta RR2 PRO soybeans; transition to Intacta 2 Xtend with expected launch in South America in 2021²
- // Increase crop protection sales on the >400m acre seed & trait footprint; FieldView platform an enabler
- // Maximize sales synergies

¹ The unaudited Pro-forma data are presented as if both the acquisition of Monsanto and the associated divestments had taken place as of January 1, 2018. Sales of Monsanto are presented in periods as per the Bayer fiscal year. One-time effects of business operations, the accounting for discontinued operations and the recognition and measurement of sales from certain business transactions have been adjusted in line with our accounting. Due to this simplified procedure, they explicitly do not reflect sales according to IFRS or IDW RH HFA 1.004, meaning they have not been audited. Amounts as per the 2018 annual report.

² Pending regulatory approvals

³ EBITDA margin based on EBITDA before special items

⁴ 2022 targets at constant currencies, not including portfolio measures



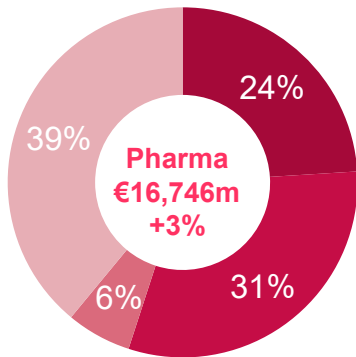
FY 2019 Guidance

	Sales 2018	EBITDA-margin 2018 (before special items)	Sales Growth 2019 (cpa ²)	EBITDA-margin 2019 (before special items)
	(at constant currencies)			
Crop Science	€14.3bn ¹	18.6%	~4%	~25%
Pharma	€16.7bn	33.4%	~4%	~34%
Consumer Health	€5.5bn	20.1%	~1%	~21%
Animal Health	€1.5bn	23.9%	~4%	~24%

¹ Monsanto included since June 7 and assets divested to BASF included until August 2018; ² currency and portfolio adjusted

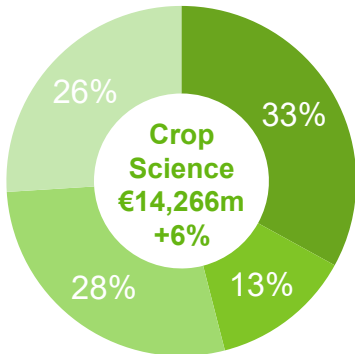
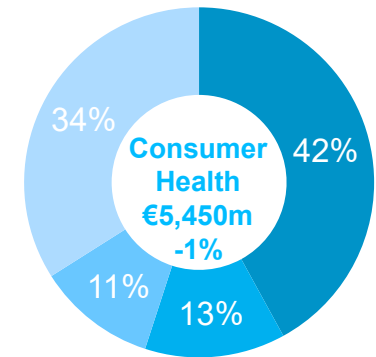


Group FY 2018 – Sales Breakdown by Region



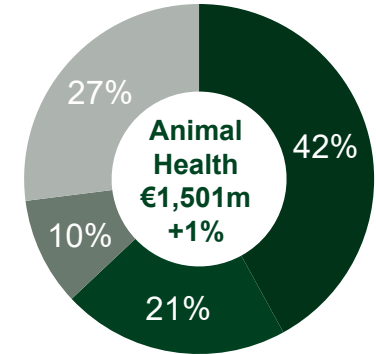
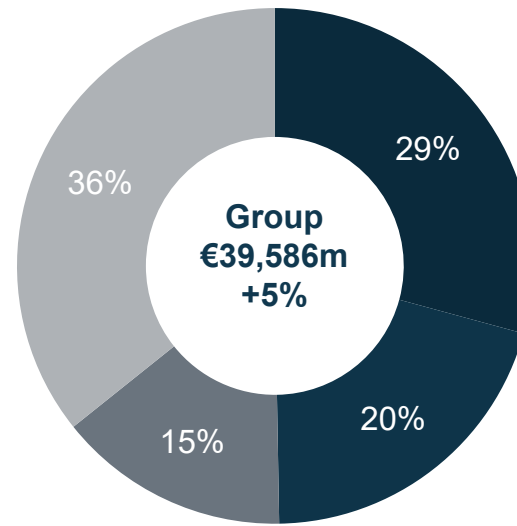
Europe / Middle East / Africa

North America



Latin America

Asia / Pacific



in € million; Δ% yoy, Fx & portfolio adj.



Bayer 2022: Delivering Value Creation



**Société Générale
European Angle Conference
September 5th, 2019
Brussels**

**Oliver Luckenbach & Judith Nestmann
Bayer AG**

