Bayer 2022: Delivering Value Creation

J.P. Morgan
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Milan

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Bayer AG
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.

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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”.

Disclaimer
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

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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.

// Bayer // J.P. Morgan Milan Investor Forum 2019
Next Phase to Deliver Value Creation

Transformation Completed

Next Phase Focused on …

1. Growth ahead of competition in Health and Nutrition
2. Consistent profitability enhancement
3. Strong free cash flow generation
4. Disciplined capital allocation
Global Megatrends in Health & Nutrition
Attractive Macro Drivers of Our Businesses

**Megatrends through 2050**

**Aging Population**
- People 60+ more than doubling\(^1\)
- >20% of total population\(^1\)

**Growing Population**
- +2.2bn people\(^1\)
- +50%
- more food and feed required to meet growing demand\(^2\)

**Pressure on Ecosystems**
- -17%
- Harvest losses from climate change\(^3\)
- -20%
- Significant loss in arable land per capita\(^4\)

**Societal Needs**
- Preserve and restore health
- Secure sufficient supply of quality food
- Use natural resources more efficiently and responsibly

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

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\(^1\) 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”

\(^\) Bayer J.P. Morgan Milan Investor Forum 2019
We Focus on Growth in Attractive Markets

<table>
<thead>
<tr>
<th>Bayer Group</th>
<th>Market</th>
<th>Bayer’s growth levers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size 2017</td>
<td>CAGR 2018-2022</td>
</tr>
<tr>
<td>Crop Science</td>
<td>~€90bn$^1$</td>
<td>~3%$^2$</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>~€870bn$^3$</td>
<td>4-5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Health</td>
<td>~€140bn$^4$</td>
<td>3-4%</td>
</tr>
<tr>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

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$^1$ 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 // J.P. Morgan Milan Investor Forum 2019
Bayer 2022 Synergy & Efficiency Programs

**Crop Science**
- Realization of Crop Science sales and cost synergies
  - $0.17bn (€0.47bn) sales synergies\(^1\)
  - $0.47bn (€0.9bn) cost synergies
- Adjustment of corporate platform
  - $0.4bn (€0.45bn) cost synergies

**Consumer Health**
- Comprehensive growth acceleration program
  - $0.4bn contribution

**Pharmaceuticals**
- Re-alignment of R&D activities towards external innovation / Hemophilia production footprint
  - $0.2bn contribution

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\(^1\) EBITDA before special items impact from sales synergies
\(^2\) Indicative Phasing: ~30% effective in 2020, ~70% in 2021 and 100% in 2022

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// Bayer // J.P. Morgan Milan Investor Forum 2019
Cash Flow Improvement Focusing on Capex and Working Capital Optimization

### Capex spend in €bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Intangibles</th>
<th>Fixed assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>2012</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>2014</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>2016</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>2018 PF</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

*in % of sales: 4.3%, 4.9%, 5.7%, 7.4%, 7.0%*

- **Focused CapEx below current levels ~ 5-6%**
- 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

### Working Capital in €bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Intangibles</th>
<th>Fixed assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>2012</td>
<td>10.1</td>
<td>10.1</td>
</tr>
<tr>
<td>2014</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2016</td>
<td>9.5</td>
<td>9.5</td>
</tr>
<tr>
<td>2018 PF</td>
<td>14.1</td>
<td>14.1</td>
</tr>
</tbody>
</table>

*in % of sales: 26%, 25%, 29%, 27%, 32%*

- **Working capital optimization ~ 32%**
- Annual contribution of ~0.5bn EUR by 2022
- Focus on optimization of inventory levels and receivables management

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

// Bayer // J.P. Morgan Milan Investor Forum 2019
### Group Targets - Value Creation from Strengthened Base

<table>
<thead>
<tr>
<th>€bn</th>
<th>2018¹</th>
<th>Guidance 2019²,³</th>
<th>Target 2022²,³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Group</td>
<td>39.6</td>
<td>~46</td>
<td>~52</td>
</tr>
<tr>
<td><strong>EBITDA before special items (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Group</td>
<td>9.5</td>
<td>~12.2 (~27%)</td>
<td>~16 (&gt;30%)</td>
</tr>
<tr>
<td>Crop Science</td>
<td>2.7</td>
<td>~25%</td>
<td>&gt;30%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>5.6</td>
<td>~34%</td>
<td>&gt;35%</td>
</tr>
<tr>
<td>Consumer Health</td>
<td>1.1</td>
<td>~21%</td>
<td>~24%</td>
</tr>
<tr>
<td><strong>Core EPS (€)</strong></td>
<td>5.94</td>
<td>~6.80</td>
<td>~10</td>
</tr>
<tr>
<td>FCF</td>
<td>~4.7</td>
<td>~3-4</td>
<td>~8</td>
</tr>
<tr>
<td>Net financial debt</td>
<td>~35.7</td>
<td>~36</td>
<td>~26-28</td>
</tr>
</tbody>
</table>

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

// Bayer // J.P. Morgan Milan Investor Forum 2019
We Have Clear Priorities for Capital Allocation
Focus on Shareholder Return, Innovation and Deleveraging

Disciplined capital allocation

- **Shareholder Return**
  - Growing dividends
  - Consider share buy backs with parts of divestment proceeds

- **Deleveraging**
  - Target range ~€26-28bn\(^1\) net financial debt by end 2022

- **Innovation & Acquisitions**
  - Investment in licensing opportunities
  - Potentially selective bolt-on acquisitions

\(^1\) Before M&A / Portfolio

1 Bayer // J.P. Morgan Milan Investor Forum 2019
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

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Q2 2019 & Outlook 2019
Bayer Operationally on Track

- 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“

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

- **Sales**
  - In million €, ∆% yoy, Fx & portfolio adj.
  - Q2’18: 1,413
  - Q2’19: 1,442
  - Volume: +0%  
  - Currency: +1%  
  - Price: +2%  
  - Portfolio: -1%

- **EBITDA**
  - In million €, ∆% yoy, before special items
  - Q2’18: 256
  - Q2’19: 270
  - EBITDA Margin before special items: 18.1% → 18.7%

- **Key Points**
  - 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

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

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

**Efficiency / Bayer 2022**
- Gross savings of ~€500m expected for 2019 across all programs
FY 2019 Guidance Confirmed, Yet Ambitious

<table>
<thead>
<tr>
<th></th>
<th>2018¹</th>
<th>Group Forecast 2019²</th>
<th>Δ 2018 – 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>€39.6bn</td>
<td>~€46bn</td>
<td>+~16%</td>
</tr>
<tr>
<td><strong>EBITDA</strong> (before special items)</td>
<td>€9.5bn</td>
<td>~€12.2bn</td>
<td>+~28%</td>
</tr>
<tr>
<td><strong>Core EPS</strong></td>
<td>€5.94</td>
<td>~€6.80</td>
<td>+~14%</td>
</tr>
<tr>
<td><strong>Free Cash Flow</strong></td>
<td>€4.7bn</td>
<td>~€3-4bn</td>
<td></td>
</tr>
</tbody>
</table>

Fx-sensitivity:

± 1% change of the € vs all other currencies =

⬆ ~€340m on Sales

&

⬆ ~€100m on EBITDA

(before special items and after hedging)

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

- Cardiovascular
- Women’s Health
- Hematology
- Ophthalmology
- Oncology
- Radiology
- Other

Emerging markets exposure

- Established Markets
- Emerging Markets

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

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

// Bayer // J.P. Morgan Milan Investor Forum 2019
Xarelto – Continued Growth of a Leading Anticoagulant

Sales in €bn

- 2014: 1.7
- 2015: 2.3
- 2016: 2.9
- 2017: 3.3
- 2018: 3.6

- 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: >€5.0bn
- 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

Bayer // J.P. Morgan Milan Investor Forum 2019
Pharma

Eylea – A Leader in Retinal Diseases

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

// Bayer J.P. Morgan Milan Investor Forum 2019
<table>
<thead>
<tr>
<th>Indication</th>
<th>Status</th>
<th>Commercial Potential</th>
<th>Clinical Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larotrectinib (Vitrakvi)</td>
<td>TRK-fusion Cancer</td>
<td>Launched in the US / in registration</td>
<td>PSP &gt;€750m</td>
</tr>
<tr>
<td>Darolutamide (Nubeqa)</td>
<td>Prostate Cancer</td>
<td>Launched in the US (nmCRPC)</td>
<td>PSP &gt;€1bn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phase III (mHSPC)</td>
<td></td>
</tr>
<tr>
<td>Copanlisib (Aliqopa)</td>
<td>Lymphoma</td>
<td>Launched in the US</td>
<td>PSP &gt;€0.5bn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phase III</td>
<td></td>
</tr>
<tr>
<td>Finerenone</td>
<td>Diabetic Kidney Disease</td>
<td></td>
<td>PSP &gt;€1bn</td>
</tr>
<tr>
<td>Vericiguat</td>
<td>Chronic Heart Failure</td>
<td></td>
<td>PSP ~€0.5bn</td>
</tr>
</tbody>
</table>

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

// Bayer // J.P. Morgan Milan Investor Forum 2019
Consumer Health
A Leading Player Globally…

Built up top leading position

- ASPIRIN introduced: 1899
- NA OTC business of Sterling: 1994
- OTC portfolio Sagmel & Topsun: 2008
- Merck Consumer Care: 2014

Strong positions in 7 out of Top 10 OTC markets

Top 10 OTC markets¹

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

¹ Bayer internal PARS database, 2018 OTC market size (value) ranking
Consumer Health
…with a Fast Growing Nutritionals Category

Sales development

<table>
<thead>
<tr>
<th>Year</th>
<th>Nutritionals</th>
<th>Remaining Business</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1.1</td>
<td>4.9</td>
<td>-3.2%</td>
</tr>
<tr>
<td>2016</td>
<td>1.1</td>
<td>5.0</td>
<td>+5.2%</td>
</tr>
<tr>
<td>2017</td>
<td>1.2</td>
<td>4.7</td>
<td>+3.3%</td>
</tr>
<tr>
<td>2018</td>
<td>1.1</td>
<td>4.3</td>
<td>+5.9%</td>
</tr>
</tbody>
</table>

Category focus¹

- Digestive Health: ~15%
- Allergy/Cough & Cold: ~22%
- Pain/Cardio: ~17%
- Dermatology: ~22%
- Nutritionals: ~23%

¹ Excluding Derma Rx, Sun Care, Footcare

€ bn; sales growth currency and portfolio adjusted
Consumer Health
Focused on Executing a Comprehensive Turnaround Plan

Focus on winning Portfolio
- Divest Rx Dermatology, Sun- and Footcare
- Accelerate core OTC range
- Selected bolt-on M&A

Accelerate growth-focused Innovation
- Drive consumer-centric innovation
- Un-lock local innovation
- Increase funding and external partnering

Modernize Marketing & Sales
- Accelerating e-commerce
- Moving from mass to precision marketing
- Stepping up marketing and sales execution

Build high-performing Product Supply
- Upgrade manufacturing network
- Lower the portfolio complexity

Optimizing our Resources
- Become leaner and more agile
- Lower cost base
Consumer Health
Our Strategic and Operational Roadmap
Acceleration of growth and profitability through 2022

2018
Setting the foundation

- Put in new leadership team
- Make portfolio choices
- Initiate stricter cost control
- Make necessary impairments

2019 / 2020
Driving rigorous change

- Execute portfolio choices
- Right-size cost base
- Recover product supply
- Regain momentum in APAC/EMEA
- Reset US cost base to strengthen margin

2021 / 2022
Acceleration phase

- Drive higher innovation level
- Accelerate US growth momentum
- Capitalize on portfolio choices
- Realize full benefit of efficiency program

Strategic focus

Growth
Stabilize growth
Return to growth
Guidance 2019: ~1%
Target 2022: 3-4%

Profitability
Stop margin erosion through strict cost controls
Improve margins
Guidance 2019: ~21%
Target 2022: ~24%

Guidance 2019:
- EBITDA margin based on EBITDA before special items

2022 targets at constant currencies, including portfolio measures
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)

<table>
<thead>
<tr>
<th>Company</th>
<th>Sales 2018 (€bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayer Crop Science</td>
<td>19.3</td>
</tr>
<tr>
<td>ChemChina Ag</td>
<td>14.4</td>
</tr>
<tr>
<td>Corteva</td>
<td>12.1</td>
</tr>
<tr>
<td>BASF Ag</td>
<td>7.6</td>
</tr>
</tbody>
</table>

2018 Ag R&D Investment (€bn)

<table>
<thead>
<tr>
<th>Company</th>
<th>R&amp;D Investment (€bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayer Crop Science</td>
<td>2.3</td>
</tr>
<tr>
<td>Corteva</td>
<td>1.2</td>
</tr>
<tr>
<td>ChemChina Ag</td>
<td>1.1</td>
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<tr>
<td>BASF Ag</td>
<td>0.8</td>
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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.

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Crop Science
Leading Position in All Major Categories
Crop Science Market\(^1\) 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

- **p = Farming Practices**
  - FieldView Yield Map
    - +75 bu/ac yield difference between red and green areas
  - 40 decisions made over a growing season

Opportunity from optimized yield equation

- **542 bu/ac vs. 175 bu/ac national average\(^1\)**
  - 2017 NCGA Corn Yield Contest winner

- **138 bu/ac vs. 49 bu/ac national average\(^1\)**
  - 2017 Monsanto Soybean Yield Contest winner

Our evolution to capture the opportunity

- Leading Products
- Product Combinations
- Digitally Informed Offerings
- Tailored Solutions

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\(^1\) 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

Best positioned to discover, combine and tailor solutions for growers
Crop Science
FieldView: The Leading Brand and Platform for Growers

Significant Opportunity to Expand Digital Ag Footprint

Global Paid Acres

#1 Platform in the Digital Ag space

<table>
<thead>
<tr>
<th>Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>5m</td>
<td>15m</td>
<td>&gt;35m</td>
<td>60m</td>
<td>90m</td>
</tr>
</tbody>
</table>

Growth Fueled by Platform Advantages

Most Established, scalable
digital farming infrastructure

#1 Brand in digital Ag space

Largest Database of grower and field trial seed performance data in the industry

New Business Models enabling share of value and risk

>35 Next-Gen Projects in the pipeline

Global distribution footprint established

~1bn Global Acre Opportunity for Corn, Soybean, Wheat

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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\(^3,4\)

\[\text{Pro-Forma Sales} \quad \€19.3bn\]

**Key Sales Growth Drivers**

1. Deliver annual germplasm refresh across the seeds portfolio to capture price and share gains
2. Continue penetration of Roundup Ready Xtend crop system; transition to XtendFlex soybeans with expected U.S.A. launch in 2020\(^2\)
3. Continue penetration of Intacta RR2 PRO soybeans; transition to Intacta 2 Xtend with expected launch in South America in 2021\(^2\)
4. Increase crop protection sales on the >400m acre seed & trait footprint; FieldView platform an enabler
5. Maximize sales synergies

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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

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## FY 2019 Guidance

<table>
<thead>
<tr>
<th></th>
<th>Sales 2018</th>
<th>EBITDA-margin 2018 (before special items)</th>
<th>Sales Growth 2019 (cpa$^2$)</th>
<th>EBITDA-margin 2019 (before special items)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crop Science</strong></td>
<td>€14.3bn$^1$</td>
<td>18.6%</td>
<td>~4%</td>
<td>~25%</td>
</tr>
<tr>
<td><strong>Pharma</strong></td>
<td>€16.7bn</td>
<td>33.4%</td>
<td>~4%</td>
<td>~34%</td>
</tr>
<tr>
<td><strong>Consumer Health</strong></td>
<td>€5.5bn</td>
<td>20.1%</td>
<td>~1%</td>
<td>~21%</td>
</tr>
<tr>
<td><strong>Animal Health</strong></td>
<td>€1.5bn</td>
<td>23.9%</td>
<td>~4%</td>
<td>~24%</td>
</tr>
</tbody>
</table>

$^1$ 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

- **Pharma** €16,746m +3%
  - Europe / Middle East / Africa: 39%
  - North America: 29%
  - Latin America: 15%
  - Asia / Pacific: 20%

- **Crop Science** €14,266m +6%
  - Europe / Middle East / Africa: 28%
  - North America: 27%
  - Latin America: 27%
  - Asia / Pacific: 21%

- **Consumer Health** €5,450m -1%
  - Europe / Middle East / Africa: 34%
  - North America: 34%
  - Latin America: 29%
  - Asia / Pacific: 29%

- **Animal Health** €1,501m +1%
  - Europe / Middle East / Africa: 13%
  - North America: 10%
  - Latin America: 10%
  - Asia / Pacific: 21%

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

// Bayer / J.P. Morgan Milan Investor Forum 2019
Bayer 2022: Delivering Value Creation

J.P. Morgan
Milan Investor Forum
September 26th, 2019
Milan

Oliver Luckenbach & Simone Moerchen
Bayer AG