Science for a Better Life
A Global Leader in Health & Nutrition

Investment Case
August 2022 / Bayer AG
Cautionary Statements Regarding Forward-Looking Information

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Bayer: A Global Leader in Health and Nutrition
Well Positioned to Create Value in Growing Markets using Science to Address Societal Megatrends

Bayer Group Sales

- €44.1bn FY 2021
- Leading Positions in Key Therapeutic Areas
- #3 OTC Player Consumer Health
- #1 in Sales and Profitability & R&D Crop Science

Market Size

- Crop Science: ~€100bn\(^1\)
- Pharmaceuticals: ~€1,000bn\(^2\)
- Consumer Health: ~€150bn\(^3\)

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\(^1\)Source: Company Estimates
\(^2\)Source: IQVIA MIDAS MAT Q3-20
\(^3\)Source: Nicholas Hall & Company DB6

/// Bayer AG /// Investment Case /// August 2022
Global Megatrends in Health & Nutrition
Attractive Macro Drivers of Our Strategy and Underpin the Need for Innovation

Megatrends through 2050

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

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

Pressure on Ecosystems
- -17% Harvest losses from climate change\(^3\)
- -20% Significant loss in arable land per capita\(^4\)
- Use natural resources more efficiently and responsibly

Societal Needs

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”

Leadership and Innovation Set the Course for Our Future Growth

**Crop Science Innovation Pipeline**

- **Annual R&D Investment:** €2.0bn
- **Key Mid-/Late-Stage Pipeline Opportunities:**
  - Short Stature Corn
  - Soybean Herbicide Trait Stack with Five-Tolerances
  - Fox Supra (Indiflin®)

**Pharmaceuticals Innovation Pipeline**

- **Annual R&D Investment:** €3.1bn
- **Key Mid-/Late-Stage Pipeline Opportunities:**
  - Finerenone
    - Non-diabetic CKD
    - Heart Failure
  - Factor XI(a) portfolio
    - Thrombo-embolic diseases
  - Elinzanetant (KaNDy NT-814)
    - Vasomotor symptoms during menopause

**Key Current Launch Products:**

- NUBEQA®
- Kerendia®
- Vitrakvi®
- Verquvo®

Note: Subject to regulatory approvals and pending registrations. Represents a subset of the pipeline.

1 In collaboration with Sumitomo
New Transformation Program with Gross Contributions of >€1.5bn
Expect Partial Reinvestment to Drive New Opportunities; Remainder to Drive Margin Expansion

Transformation Programs

- Bayer 2022 program successfully concluded
- We **accelerate our transformation** to become leaner and more agile
  - Divisions and Enabling Functions
  - Improving our go-to-market models
  - Strengthening our digital and data capabilities
  - Structural measures and optimization of external spend

Delivery

€2.6bn

- Gross contributions*  
  - Bayer 2022 synergy and efficiency program  
  - (announced in 2018)

> €1.5bn

- New transformation program

* Gross contributions will be partially reinvested to fuel growth and are included in our guidance for 2022-24
Note: One-time costs in same magnitude as for Bayer 2022 (1.7x the total contribution)
Focus on Cash Generation Now Embedded in Incentive Plans

Improvements Expected from Sales Growth, Working Capital & Divestments; Litigation Pay-outs and One-Time Costs for Transformation Mitigating Factors

**Improve Free Cash Flow**
- Optimize *working capital* focusing on overdue management, inventory and payables; prioritizing *CapEx*

**Adapt incentive scheme**
- Free Cash Flow integrated as a key performance metric in our *short-term incentive* plan for all managerial employees

**Capital Employed / Divestments**
- Optimization of *fixed asset* portfolio, for example sale of property
- *Sale of businesses / brands* below division level (e.g. ES professional)

**Litigation pay-outs & special items**
- Our Free Cash Flow is impacted by *litigation* pay-outs and cash-effective *one-time costs* for transformation

ES: Environmental Science
Disciplined Capital Allocation to Delever, Pay Dividends and Invest

Expect Net Debt to Return to €28-30bn by 2024

Capital allocation priorities

- **Deleveraging**
  - Rating target: A category

- **Dividends**
  - Pay-out range: 30-40% of cEPS

- **External growth investments**
  - Bolt-on M&A, Leaps

- **Free Cash Flow**
- **Divestment proceeds**

Net financial debt development

- 2021
- 2022e
- 2024e

<table>
<thead>
<tr>
<th>Year</th>
<th>Net financial debt</th>
<th>Leverage ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>2022e</td>
<td>33-34</td>
<td>3.4</td>
</tr>
<tr>
<td>2024e</td>
<td>28-30</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1. From non-strategic divestments below divisional level and sale of other fixed assets
2. Currency assumptions based on month-end Dec 2021 spot rates (1 EUR=) 1.13 USD, 6.31 BRL, 7.20 CNY, 130 JPY, 85.4 RUB
3. Currency assumptions based on month-end Dec 2020 spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 91.5 RUB

= Indicates corridor between high- and low case
Sustainability is Integral to Our Values, Strategy and Operations
We intend to create bold impact and generate sustainable business opportunities

Megatrends

Aging Population
Growing Population
Pressure on Ecosystems

Societal Needs

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

Impact

Our Vision: Health for all, hunger for none

Help more people thrive
Decrease ecological footprint

Sustainable Growth

Long-term business growth through sustainable innovation
Investment Thesis

Key Takeaways

1. We are a global leader in Health & Nutrition that addresses societal megatrends

2. We are well-positioned to shape disruption in the bio-revolution

3. We expect to translate innovation into profitable mid-term growth

4. We expect to improve our profitability by accelerating our transformation

5. We have disciplined capital allocation priorities: delever, pay dividends and invest

6. We have integrated sustainability in our business strategy and incentive systems
Science for a Better Life

Shaping the Future of Agriculture

Investment Case

August 2022 / Bayer AG
Shaping the Future of Agriculture

1. Market & Position
2. Strategy
3. Operational Performance
4. World-Class Innovation
5. Digital Transformation
6. New Standards in Sustainability
The Established Leader in Crop Science

Industry Leading Sales, Profitability and Unmatched Investment in R&D to Fund Future Growth

### Largest in Sales

<table>
<thead>
<tr>
<th></th>
<th>Total Sales $ (€bn), FY 2021</th>
</tr>
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<tbody>
<tr>
<td><strong>Syngenta</strong></td>
<td>11.2</td>
</tr>
<tr>
<td>+ Adama</td>
<td>9.0</td>
</tr>
<tr>
<td><strong>Corteva</strong></td>
<td>13.2</td>
</tr>
<tr>
<td><strong>BASF</strong></td>
<td>8.2</td>
</tr>
</tbody>
</table>

### Highest Profitability

<table>
<thead>
<tr>
<th></th>
<th>EBITDA $1 (€bn) / EBITDA $1 Margin (%), FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Syngenta</strong></td>
<td>4.7 23.2%</td>
</tr>
<tr>
<td>+ Adama</td>
<td></td>
</tr>
<tr>
<td><strong>Corteva</strong></td>
<td>3.2 17.5%</td>
</tr>
<tr>
<td><strong>BASF</strong></td>
<td>1.4 16.8%</td>
</tr>
</tbody>
</table>

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1 Company information; exchange rate: FY 2021: ~1.18 USD/EUR. EBITDA before special items. FY2021 sales Representing the legacy Syngenta results plus Adama of FY 2021

// Bayer AG /// Investment Case /// August 2022
Global #1 in Seed & Traits with Leading Crop Protection Portfolio

Product areas – Bayer Crop Science
€20.2bn
In %, based on sales 2021

- Vegetable Seeds: 3%
- Environmental Science: 7%
- Insecticides: 15%
- Soybean Seed & Traits: 26%
- Corn Seed & Traits: 11%
- Herbicides: 21%
- Other: 7%

Sales by Region – Bayer Crop Science
€20.2bn
In %, in 2021

- North America: 43%
- EMEA: 21%
- Asia / Pacific: 25%
- Latin America: 11%

Market Positions

- Corn S&T: #1
- Soybean S&T: #1
- Vegetable Seeds: #2
- Fungicides: #1
- Insecticides: #3

Product areas – Ag Input Market
~€100bn
In %, based on sales 2021

- Vegetable Seeds: 15%
- Insecticides: 14
- Soybean Seed & Traits: 15
- Fungicides: 27
- Corn Seed & Traits: 18
- Other: 15

Sales by Region – Ag Input Market
~€100bn
In %, in 2021

- North America: 22
- EMEA: 24
- Latin America: 26
- Asia / Pacific: 28

Key Products

Crop Protection:
- Digital:
- Environmental Science
- Vegetable Seeds
- Soybean Seed & Traits
- Insecticides
- Herbicides

Seed & Traits:
- Xpro
- FOX
- VELUM
- SmartSty
- De Ruiter
- Luma
- Orbia

1 Source: Company estimates. Market positions based on 2021 data, AG Input Market – not including ES
Vision / Health For All, Hunger For None

Purpose: Shaping agriculture for the benefit of farmers, consumers and the planet

Pillars:
- Operational Excellence
- World Class Innovation
- Digital Transformation
- New Standards in Sustainability

Strategy

Win by being more grower centric

Strategic Ambition

Perform: Grow above market and deliver strong returns

Transform: Achieve 100% digitally enabled sales by 2030
A Clear Plan to Accelerate Growth and Outperform the Market

1. Deliver growth in crop protection sales through new products, integrated offerings

2. Grow corn seed & traits with annual portfolio refresh and new insect traits

3. Upgrade the Americas to next-gen soybean trait technology

4. Implement new vegetable seeds strategy and launch new traits in cotton to drive growth

5. Achieved planned 2022 synergies in 2021; accelerate with new efficiency program until 2024
Driving Higher Value with Lowest Estimated Environmental Impact
Crop Protection Portfolio Relative to Sales and Treated Value

Bayer Crop Protection accounts for nearly 12% of the global treated area, yet less than 2% of the environmental impact

Preliminary impact assessment has been conducted by Technical University of Denmark (DTU) based on the PestLCI/USEtox® models. PestLCI secondary distributions currently out of scope. Impact assessment limited to current scientific consensus of USEtox®: aquatic organisms and the substances which can be characterized in USEtox®. Terrestrial and pollinator impact assessment is currently not included in USEtox®. CP application data mostly from third parties such as Kynetec/Kleffmann. In some countries based on Bayer estimates.
Herbicides: Focused on Unlocking Greater Flexibility

Herbicide sales in 2021: €5.3bn, Pipeline Peak Sales Potential of ~€3bn

Mateno Complete
- Pyroxasulfone
- Diflufenican
- Aclonifen \textit{NEW}
- Mateno Complete includes Aclonifen, a new herbicide mode of action for Australia
- Suitable for use in wheat and barley for hard-to-control grass and broadleaf weeds

\textit{PSP of \textgreater €50m Launched in Australia in 2022}

\textbf{New Herbicide Molecule}
- First new mode of action in post emergence weed control in 30 years
- Potential to build on \textit{#1 position} in global herbicides\textsuperscript{1}
- Allows use in various market segments, beyond traditional nonselective use
- Herbicide tolerance trait to be paired with this molecule currently in discovery

\textbf{Project is currently in Phase 3}

1 Internal estimates
Fungicides: New Innovations Drive our Growth Potential

Fungicide sales in 2021: €2.9bn, Pipeline Peak Sales Potential of ~€4bn

- Offers **unrivaled control** of Asian Soybean Rust
- Builds on **#1 position** in soybean fungicides\(^2\) in LATAM

### Fox Supra

- Adds next-gen technology **Indiflin\(^1\)** to Fox Xpro
- **High performing foliar fungicide from Bayer**
- Third MoA provides consistent control against Gray Leaf Spot, White Mold and Brown Spot
- Corn, soybeans

**PSP of >€400m**

*Pre-Launch in 2022; full scale launch in 2023*

![Fox Supra](image1)

### DELARO Complete

- **Prothioconazole**
- **Trifloxystrobin**
- **Fluopyram**

**3 MoA**

**PSP of >€100m**

*Launched in the U.S. in 2021*

![DELARO Complete](image2)

### Xivana

- **Powered by Fluoxapiprolin**
- New global horticulture fungicide with **best-in-class MoA**
- Delivers outstanding protection of grapes, potatoes and vegetables
- Higher, **longer-lasting efficacy** above established standards

**PSP of >€150m**

*Pre-Launch in 2022; full scale launch in 2023*

![Xivana](image3)

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1. In collaboration with Sumitomo; 2. Internal estimates; 3. BASF Orkestra Ultra

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![Typical use rates: potatoes, vegetables (g/ha)](image4)

- Metalaxyl
- Cyazofamid
- Mandipropamid

Use in soybeans in Frankenmuth, Michigan, 2019
Insecticides: New Launches Drive our Global Expansion

Insecticide sales in 2021: €1.4bn, Pipeline Peak Sales Potential of ~€2bn

- **Diamide insecticide** with active ingredient Tetraniliprole
- Expansion in Asia Pacific; recently launched in key markets like China and Vietnam and **now registered in 21 countries**
- Use in key crops; **corn, rice, potatoes, fruits & nuts and vegetables**

**Peak Sales Potential ~€300m**

- **Fast-acting and long-lasting control of all important caterpillars and selected beetles and sucking pests**

**Plenexos**

- **First ketoenol insecticide** expected to offer both **foliar and soil uses** against key sucking pests (aphids, white flies)
- **Spidoxamat** is suitable for application in arable and horticulture crops (soybeans, cotton, fruits and vegetables)
- First regulatory submissions in key markets in 2022, **approvals expected starting in 2024**

**Peak Sales Potential >€300m**

- **Untreated Control**
- **Tetraniliprole Vayego duo**

- **Plenexos**
- **Untreated Control**
- **Spidoxamat - Foliar**
## Leveraging the Power and Sustainability Derived from Microbes

### Business Opportunities
- **Reduction of environmental impact** of Crop Protection
- **Maximizing yield potential** of high value germplasm
- **Increasing nitrogen use efficiency**
- Use in **Tailored solutions** to leverage our full portfolio, combining biologicals, chemistry, germplasm and digital to deliver new grower value

### Vibrant Innovation Ecosystem
- **In-licensed/Commercial products**: >20
- **Pipeline Candidates**: >10
- **Ongoing collaborations and licensing partners**: >5
- **Assets under evaluation for new collaborations or in-licensing**: >30

### NEW
- Pursuing agreement with Gingko Bioworks to become multi-year microbial strategic partner

### Reaching >60m acres in row crops and high value horticulture and vegetables acres
Deployed >250 Corn Hybrids in 2021 to Expand Leading Position

Foundational to Expected Growth in Our >€5bn Global Annual Corn Seed & Traits Sales

Mid-Term Key Growth Drivers in Corn

Bayer branded hybrids capture #1 brand share position in the U.S. in 2021.

- **United States**
  - #1 Market Position
  - Market Size: ~93m acres
  - Germplasm Share: >55%

- **Argentina**
  - #1 Market Position
  - Market Size: ~20m acres
  - Germplasm Share: ~60%

- **Mexico**
  - #1 Market Position
  - Market Size: ~5m acres
  - Germplasm Share: >65%

- **Brazil**
  - #1 Market Position
  - Market Size: ~50m acres
  - Germplasm Share: ~30%

- **South Africa**
  - #1 Market Position
  - Market Size: ~6m acres
  - Germplasm Share: ~70%

- **Europe**
  - #2 Market Position
  - Market Size: ~60m acres
  - Germplasm Share: ~20%

Note: Size of market, market position and germplasm share measured as of 2021. Market size relates to planted hybrid acres.  
1 In hybrid corn market only; 2 EU27 + UK, Russia and Ukraine

Launching CRW3 as a part of VTPro4, SmartStax Pro and VT4Pro stacked offerings in the near-term, game-changing short-stature corn expected launch in the mid-term in the U.S. and Brazil.

NEW

COMING SOON:

2022e: ~100K acres

2021e: ~500K acres

Adds CRW3 and addl. mode of above-ground insect control to VT3Pro

2022e: ~100K acres

CRW3 is Industry’s Only RNAi-Based Insect Trait for Rootworm Control

2023/27 F

Short-Stature Corn

Industry-First
Provides increased plant stability and more precise use of inputs by enabling late-season applications
Upgrading the Americas to Next-Gen Soybean Trait Technology

Bayer Soybean Trait Offerings:

South America

LAUNCHED 2021/2022

~85m acres
Insect Resistance & Glyphosate Tolerance

2020/2021

2028F+1

3rd Gen. Insect Control

HT4 Industry’s First Five-Tolerance Soybean Trait Stack

Brazil Only
Adds Mode of Action for Insect Resistance & Dicamba Tolerance

+2.89 bu/acre

LAUNCHED
2021

~50m acres
Glyphosate & Dicamba Tolerance

2020:

LAUNCHED
2027 F

2021:

HT4 Industry’s First Five-Tolerance Soybean Trait Stack

2028F+1

2021:

2022:

~16m acres
>20m acres

Adds Glufosinate Tolerance to Roundup Ready 2 Xtend

2027 F

2021:

2027 F

~6m acres

2,4-D, HPPD tolerance to XtendFlex

~85m acres
2021/22: >800k acres
2022/23e: >6m acres

2022e: >20m acres

3rd Gen. Insect Control

HT4 Industry’s First Five-Tolerance Soybean Trait Stack

Brazil Only
Adds Mode of Action for Insect Resistance & Dicamba Tolerance

+2.89 bu/acre

1 Launch timing reflects Brazil
2 Currency and portfolio adjusted
3 Compared to similar varieties in checks across 500 locations in 2020/2021 crop year

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Multiple Traits in Late-Stage Development for Cotton Farmers

Leading Innovation for Cotton Growers Driving Growth in >€500m¹ Cotton S&T Business

1st generation

First-ever biotech trait for piercing and sucking insect control

5 herbicide tolerances

• Glyphosate
• Dicamba
• Glufosinate

4th generation

Season-long protection with multiple modes of action for key lepidopteran pests

Stewarded Commercial Launch in 2022 in the U.S.

ADVANCED to Phase 3

2x 5-way tank mix at V3 stage in U.S. 2020 field trial in Scott, MS

2019 Rocky Mount NCSU Results

¹2021 cotton seed & traits sales for Bayer Crop Science

ThyvOn™ Technology has received full approval for planting in the United States but, as of the date this material was published, is pending approval in certain export markets. Specific plans for commercialization depend upon regulatory approvals and other factors.
Industry Leading R&D Investment Powers Pipeline Potential

2021 Ag R&D Investment (€bn)

- Bayer Crop Science: 2.0
- Syngenta + Adama: 1.0
- Corteva: 1.0
- BASF Ag: 0.9

Top Talent:

- >7,100 R&D employees
- >100 Key Collaborations

Generating Next Generation Solutions:

- >500 Hybrids & Varieties Deployed
- 15 New Biotech Traits in Development
- >300 New Crop Protection Registrations
- 30-60 New Molecules in Field Trials Annually

2021 reported results, exchange rate: FY 2021: ~1.18 USD/EUR

1 Represents the legacy Syngenta results plus Adama
2 Includes permanent and temporary employees
3 2021

Bayer AG /// Investment Case /// August 2022
Pipeline with Up to €30bn Peak Sales Potential Delivering for Farmers

Eight Projects Advance, Eight New Formulations Launch and Hundreds of Seed Deployments in 2021

>500
New hybrids and varieties deployed across corn, cotton, soybeans and vegetables

>300
New crop protection registrations

8
New formulations launched

2
New actives advanced

5
New trait projects advanced across corn, soybeans and cotton

Soybean Seed Placement digital tool advances to Phase 2

Value of Up to €30bn in Cumulative Peak Sales Potential

~50% Incremental

Cumulative contribution of projects reaching PSP (in %)

By 2031
2032-35
2036+

~ 40%

Cumulative PSP by SBE

Other
Insecticides
Fungicides
Herbicides
Soy S&T
Corn S&T

1 Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. PSP = Peak sales potential. SBE = Strategic Business Entity
Three Generations of Soybean Herbicide Tolerance Traits

Technologies Provide Solutions to Address Farmers’ Needs, Herbicide Resistance Challenges

<table>
<thead>
<tr>
<th>3 herbicide tolerances</th>
<th>5 herbicide tolerances</th>
<th>6 herbicide tolerances</th>
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<tbody>
<tr>
<td><strong>Enlist E3 Soybeans</strong></td>
<td><strong>HT4 Fourth-Gen Phase 3</strong></td>
<td><strong>HT5 Fifth-Gen Phase 2</strong></td>
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<tr>
<td>June 29th, 2021</td>
<td>Expected 2027 launch</td>
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<tr>
<td><strong>XtendFlex Soybeans</strong></td>
<td><strong>Control</strong></td>
<td><strong>Control</strong></td>
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<tr>
<td>Storm Lake, Iowa</td>
<td>July 14th, 2021</td>
<td>July 14th, 2021</td>
</tr>
<tr>
<td><strong>HT4 Soybeans</strong></td>
<td><strong>HT4 Soybeans</strong></td>
<td><strong>HT5 Soybeans</strong></td>
</tr>
<tr>
<td>July 14th, 2021</td>
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<tr>
<td></td>
<td>HT4 Soybeans</td>
<td>HT5 Soybeans</td>
</tr>
</tbody>
</table>

- Glyphosate
- Dicamba
- Glufosinate
- HPPD (Mesotrione)
- 2,4-D
- PPO
- Glyphosate
- Dicamba
- Glufosinate
- HPPD (Mesotrione)
- 2,4-D
- PPO
Short-Stature Corn Offers Transformational Shift in Production
Phase 4 Breeding Approach Expected in U.S. Pilot in 2023; Biotech Approach in Phase 3

Key Features and Benefits of Short-Stature Corn

**Reduced Crop Loss**
- Production stability with improved standability in high winds and challenging weather conditions
- Annual yield losses due to stalk lodging in the U.S. range from 5% to 25%¹

**Precision of Crop Application**
- Improved in-season crop access due to reduced height
- Supports tailored solutions with precise in-season crop protection

**Increased Environmental Sustainability**
- Potential to optimize use of key nutrients like nitrogen, as well as reducing land and water requirements
- Shows promise in unlocking yield potential through increased opportunity to optimize crop inputs, planting densities, and field placement.

¹ Purdue University (http://www.extension.purdue.edu/ay/ay-262.html)

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**Anticipated Fit on >220m Acres and Incremental Peak Sales Potential of ~€1bn for NA**
The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: NA Smart Corn System Featuring Short Stature Corn

Win by being more grower centric

Discrete Solutions

Tailored Solutions

Crop System Solutions

SEEDS & TRAITS + CROP PROTECTION + DIGITAL

Field Level
Hybrid Seed Placement & Density

Short-Stature Corn Hybrids

Field and Zone Level Crop Protection Recommendations

Cover crops

Biological Solutions

SEEDS & TRAITS OR CROP PROTECTION OR DIGITAL

Performance Transparency Yield Analysis

Short-Stature Corn Hybrids

Field Level Hybrid Seed Placement & Density

Targeted Application Recommendations

2022 ➔ Inputs to Outcomes ➔ 2030

Increased Value from Digital Enhancements to Grow Share of Farm

1 Biotech approach in collaboration with BASF; 2 VT4PRO™ with RNAi Technology corn products are expected to be commercially available for the 2024 growing season
CoverCress: New Cash Cover Crop to Serve as Low-Carbon Renewable Feedstock for Growing Biodiesel Market

Bayer Acquires Majority Share (65%) in Sustainable Low-Carbon Oilseed Producer CoverCress Inc. (CCI)

Example: CoverCress seed fit in Bayer rotational corn/soy crop system

Unique Rotational Contract Offer & Agronomic System
Lowers Carbon with Higher Oil for Renewable Diesel and Creates Carbon Value for Farmer – 3 Crops in 2 Seasons

Smart Corn System  CoverCress System  HT4 Soy System

CoverCress:
• Low input rotational cash crop with ecosystem benefits of a cover crop and attractive economics of an oilseed crop
• Carbon sequestration and ecosystem services potential
• Developed through gene editing and advanced breeding tools; improved the oil profile, protein content and yield of field pennycress
• Niche market in U.S. Midwest initially; within draw area in proximity to crushing and refining facilities
• Expect to launch crush-ready CoverCress product mid-2020’s

The Need:
• Majority of aviation and industrial transportation sector emissions reductions to come from sustainable low carbon intensity biofuels, due to lack of electrification options
• Expect demand for 6bn gallons of Renewable Diesel/Sustainable Aviation Fuel by 2030

The Business Model:
• Closed Loop Production Contract: Farmers paid a premium to contract produce CoverCress; Bunge delivers premium valued oil to Chevron to convert to Renewable Diesel/Sustainable Aviation Fuel
• CoverCress receives payment from crusher (e.g. Bunge) for the crop delivered; owners share profits: Bayer 65%; Chevron and Bunge 35%
Climate FieldView Digital Tools Reach >200m Subscribed Acres in 23 Countries; Fueled by Grower and Field Trial Performance Data

**Climate Fieldview**

- **>200m** subscribed acres
- **#1** brand in digital ag¹
- Operates in **23** countries
- **Largest database** of grower and field trial seed performance data in industry
- >70 partners on platform

¹ according to Kynetec December 2021 FieldView Brand Tracker
Our Vision for Digital Agriculture

- Increase **yield** and improve **profitability**
- Glean insights from data to help **manage risk** and address **variability**
- Manage fields down to the square meter, to farm more efficiently and sustainably
- Seamlessly collect, visualize and analyze data to enable **more informed decisions**

Three Core Value Drivers

- **Franchise Value**
- **Downstream Value**
- **Platform Value**

Digital Farming Solutions Underpin and Enhance Our Ability to Bring Transformational Solutions to Agriculture
Digital Unlocks Scalable Climate-Smart Business Models

Carbon Markets Valued at >$200bn/year¹ and Growing with Consumers’ Demand for Sustainability

___ Carbon Initiative ___

~2,600 participating farmers in Brazil and the U.S. alone
10 countries covered
1.5m acres globally

- Long-term program providing annual incentives to Climate FieldView enrolled growers for verified and validated climate-smart practices like no-till and cover cropping
- Ranked #1 in the U.S., scoring very high in terms of grower trust²

___ Enables 3 Expected Downstream Revenue Opportunities ___

- Carbon Services
- Product sales
- Carbon assets

Project Carbonview, collaboration with Bushel, The Andersons, and built on Amazon Web Services cloud infrastructure, expected to track carbon emissions across ethanol chain
CHS Inc., largest Ag Coop in the U.S., agreed to be our carbon program provider, providing advice to growers moving to sustainable practices.


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2. Forward Group Research Carbon Credit Program Perceptions & Evaluation, July 2021
Enabling New Digital Platforms in Ag

Opens Access to Participate in Broader B2B AgTech Value Pools; Expanding into Digital Marketplaces

- JV between Bayer, Bravium, Yara and Itau; Bayer with ~60% stake
- Connects growers, input providers and grain traders to a network to expand their reach, secure financing, redeem rewards from Bayer’s Impulso loyalty program, purchase and sell inputs
- Established in 2019 in Brazil, later expanded to Argentina, Colombia and Mexico
- ~300 distributors with inputs such as pesticides, seeds and fertilizers
- >200,000 registered growers
- Covers ~75% of planted area

Combines Bayer’s ag expertise and leading digital farming platform with Microsoft’s cloud technology and unrivaled B2B solutions, to enhance digital infrastructure

Cloud-based set of digital tools and data science solutions for agriculture and adjacent industries

Seeking to create and commercialize off-the-shelf opportunities for other companies to enter and innovate directly in ag and other industries.

Solutions to address farming operations, sustainable sourcing, manufacturing and supply chain improvement, and ESG monitoring and measurement

1 Brazil-based marketing agency.
Innovative, Sustainable Solutions to Address Global Challenges

Global Challenges
- Growing Population
- Increasing Protein Demand
- Water Quality
- Soil Health
- Climate Change
- Sustainable Energy Sources

Our Goals
- 30% Reduction in Crop Protection impact on the environment
- Producing & Protecting Higher-Yielding Seeds
- Using Fewer Natural Resources
- Advancing a Carbon Smart Future For Ag

Our Priorities
- Next-generation biotech traits and crop protection to protect yield
- Novel small molecules and biological solutions with reduced environmental impact
- Short stature corn provides the opportunity to unlock additional yield potential by optimizing crop inputs
- Digital tools for carbon sequestration measurement, precise input application

Our Solutions
- High-yielding, disease-resistant seeds
- Next-generation herbicide-tolerant traits to support no-till/conservation tillage systems

In the Field Today

Solutions must serve growers large and small; Empowering 100m smallholders by 2030
Science for a Better Life

Pharmaceuticals: Driving Continued Long-term Growth

Investment Case

August 2022 / Bayer AG
Pharmaceuticals: Driving Continued Long-Term Growth

1. Market & Position
2. Strategy
3. Growth Drivers
4. Innovation
We are Operating in a Rapidly Changing but Attractive Market Environment Driven by Megatrends and the Bio Revolution

**Pharma Market**

**Market Size 2021e**

- **Japan**: 7%
- **China**: 12%
- **APAC**: 6%
- **EMEA**: 27%
- **Americas**: 48%

**Market CAGR 2021-25e**

- **4 - 5%**

**Market Dynamics**

**Opportunities**

- Aging and growing population megatrends
- Rising life expectancy and increased access to healthcare systems
- Accelerated digital transformation across the value chain
- Technological disruption by breakthrough science
- Shift from treatment to prevention and potential cure

**Challenges**

- Pressure on pricing
- Declining R&D productivity
- Increased pressure for value and real-world evidence

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1 Source: IQVIA Market Prognosis as of September 2021
Bayer Pharmaceuticals Holds Strong Positions in Areas of High Unmet Medical Needs, Generating Growth and Attractive Returns

Bayer Pharmaceuticals – Sales and EBITDA margin before special items 2011-2021

Sales

EBITDA margin before special items

Sales of top products

Sales by therapeutic area

1) as reported in the respective fiscal years

Sales of top products

Sales by therapeutic area

1. Market & Position
Strong Volume Expansion in FY 2021

Sales
- In million €, ∆% yoy
- Volume +9%
- Price -2%
- Currency -1%
- Portfolio +0%

Key Messages
- Solid topline growth after COVID-19 related restrictions in prior year
- Flagship products performed particularly well, contributing ~60% to higher sales:
  - Eylea™ +19%
  - Xarelto™ +6%
- Successful launch of Kerendia™ and continued rollout of Nubeqa™ and Verquvo™
- Lower earnings reflect continued investments into R&D and marketing of new products

EBITDA
- In million €, before special items
- +6% (+7% cpa)

Yoy growth rates in Key Messages cpa = currency and portfolio adjusted

Sales growth rates in Key Messages cpa = currency and portfolio adjusted
Our Strategy is Geared Towards Continued and Sustainable Long-term Growth, also Addressing Loss of Exclusivity of Major Products

| **Capture the value** of the current portfolio and **manage LoE** for Xarelto & Eylea |
| **Grow new potential blockbusters** |
| **Build digital health solutions** |
| **Capitalize on Cell & Gene therapy platform** |
| **Build an at scale player** in oncology in our areas of focus |
| **Evolve regional strategies in China and the US** to sustain future growth |
Over the Last Three Years we Successfully Launched Four New Drugs and Strengthened Pipeline and Technologies

Main Building Blocks of Post LoE Growth

Late-stage Pipeline in CV & WH

- **Verquvo (verigicaitetabets)**
  - PSP ~ €0.5bn
  - launched in 2021

- **Kerendia finerenone**
  - PSP ≥ €1.0bn
  - launched in 2021

- **Elinzanetant (KaNDy NT-814)**
  - PSP ≥ €1.0bn
  - potential launch in 2025

Oncology

- **NUBEQA (darolutamide)**
  - PSP ≥ €3bn
  - launched in 2019

- **VITRAKVI (larotrectinib)**
  - PSP > €0.75bn
  - launched in 2019

- **Pipeline**
  - eg. EGFRexon20 inhib., ATR inhib., TTCs

Cell & Gene Therapy Platform

- C&GT platform expected to deliver significant sales contributions from ~2025 onwards

External Innovation and BD&L

- >40 BD&L transactions signed since 2020
- Enhanced focus on external innovation to replenish pipeline

---

1 In collaboration with Merck & Co. Inc., Kenilworth, NJ, USA
2 In collaboration with Orion Corporation

PSP = Peak Sales Potential

// Bayer AG /// Investment Case /// August 2022
Capturing the Full Commercial Potential of Market Leading Therapies

New indications & label updates in 2021

- Pediatric VTE: approved in EU, Japan, Canada (EINSTEIN Jr) and the US (EINSTEIN Jr & UNIVERSE)
- Symptomatic peripheral artery disease (VOYAGER PAD): label update approved both in the EU & US

European Patent Office confirmed patent protection for once-daily treatment until 2026

Apr. 2024 → Jan. 2026
+ 21 months

2 Phase III studies with high-dose formulation (initiated 2020)

- PHOTON (DME)
- PULSAR (neov. AMD)

Goal: Prolongation of injection intervals

Guidance FY2022
Higher volumes to largely offset 12 months impact of VBP in China

Guidance FY2022
Mid-single digit growth

Growth Drivers
Capturing the Full Commercial Potential of Market Leading Therapies
Kerendia is a Game Changer for CKD and Type 2 Diabetes Patients

Next milestone in renal disease treatment, continuing our RAAS-centric treatment history

Largest clinical program with unparalleled data\(^1\)

Novel MOA intensifies RAAS inhibition (gold-standard for treatment)

Treatment continuity for HCPs with trust in RAASi for CV and kidney outcomes

Characteristics of CKD/T2D
// 160m patients globally
// Shortens life expectancy by 16y
// #1 cause for dialysis/transplants

Successful launch trajectory

- Full global rights including the US
- Broad early adoption following US launch in Q3 2021
- Updated ADA guidelines
- Approved in EU in Feb. 2022

Phase III trials in 2 additional indications (HfPEF, non-diabetic CKD) with results in 2024/25

\(^1\) 13,171 patients early in DKD progression

// Bayer AG // Investment Case // August 2022
Kerendia sets the stage for a long-term cardio-renal vision and targets to deliver blockbuster potential

Unmet Needs
- Need for RAASi intensification
- Need for earlier use in disease progression
- Need for disease modification and outcomes

Kidney Dedicated
- Establish Kerendia as the next gen RAASi for CKD/T2D

CardioRenal Disease Modifier
- Heart failure (HFpEF)
- Non-diabetic CKD

Phase III studies:
- FIDELIO-DKD
- FINEARTS-HF
- FiND-CKD

Dates indicate primary trial completion according to clinicaltrials.gov

/// Bayer AG /// Investment Case /// August 2022
We are Targeting to Significantly Expand our Presence in Selected Areas of Oncology where One Blockbuster can Build a Franchise

Key elements to achieve our growth aspiration

• Continue to build strong prostate cancer franchise with NUBEQA and Xofigo
• Realize >€3bn peak sales potential of NUBEQA
• Continue to execute launch of VITRAKVI
• Expand into IO-combo opportunities with Stivarga
• Accelerate early pipeline projects
• Seek external growth opportunities through BD&L
• Continue to invest in next generation disruptive technologies
Prostate Cancer is at #2 of the Most Common Cancer Types in Men Worldwide with Significant Unmet Medical Need

Estimated number of new cases in 2020, worldwide, males, all ages

- Lung: 1,435,943 (14.3%)
- Prostate: 1,414,259 (14.1%)
- Colorectum: 1,065,960 (10.6%)
- Oesophagus: 418,350 (4.2%)
- Bladder: 440,864 (4.4%)
- Liver: 632,320 (6.3%)
- Stomach: 719,523 (7.1%)
- Other cancers: 3,938,086 (39.1%)

Characteristics of Prostate Cancer:

- Usual onset: age >50 years
- Diagnostic method: PSA testing, tissue biopsy, medical imaging
- Prognosis: long-term survival in early-stage, significant higher morbidity in late-stage

Two Highly Consistent Phase 3 Studies Confirm Nubeqa’s Strong Clinical Profile in Prostate Cancer Treatment

<table>
<thead>
<tr>
<th>Study</th>
<th>Efficacy</th>
<th>Selected secondary endpoints</th>
<th>Tolerability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAMIS nmCRPC</td>
<td>Metastasis free survival</td>
<td>Overall survival 31% risk reduction (HR=0.69, p=0.003)</td>
<td>favourable tolerability profile</td>
</tr>
<tr>
<td></td>
<td>prolongation by 22.0 months,</td>
<td>Time to pain progression prolongation by 14.9 months, 35% risk reduction (HR=0.65, p&lt;0.001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59% risk reduction (HR=0.41, p&lt;0.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARASENS mHSPC</td>
<td>Overall survival 32.5% risk reduction (HR=0.675, p&lt;0.0001)</td>
<td>Time to castration resistant PC 64% risk reduction (HR=0.357, p&lt;0.0001)</td>
<td></td>
</tr>
</tbody>
</table>

- **ARASENS strengthens** the efficacy promise from ARAMIS
- **ARASENS confirms** the tolerability profile of ARAMIS

 Delivering strong survival benefit and favourable tolerability¹

¹ compared to control arm

**Darolutamide**

Potential to become foundational therapy in PC
We Are Committed to Make Nubeqa Available to a Broad Spectrum of Prostate Cancer Patients

Patient progression in prostate cancer

<table>
<thead>
<tr>
<th>(Neo-)Adjuvant early-stage</th>
<th>Nonmetastatic mid-stage</th>
<th>Metastatic late-stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>G7 Drug treated epidemiology estimates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>~145k</td>
<td>BCR(^4) ~85k</td>
<td>mHSPC(^2) ~75k</td>
</tr>
<tr>
<td>~145k</td>
<td>nmCRPC(^3) ~46k</td>
<td>mCRPC(^1) ~145k</td>
</tr>
</tbody>
</table>

Darolutamide (Nubeqa) Phase 3 study program:

<table>
<thead>
<tr>
<th>DaSL-HiCap 2028</th>
<th>Planned to be started in H2 2022</th>
<th>ARAMIS 2019</th>
<th>ARASENS 2022</th>
<th>ARANOTE (ARASEC) * 2025</th>
</tr>
</thead>
</table>

ARi’s\(^6\) moving into earlier segments

<table>
<thead>
<tr>
<th>1 Metastatic castration resistant prostate cancer</th>
<th>2 Metastatic hormone sensitive prostate cancer</th>
<th>3 Non-metastatic castration resistant prostate cancer</th>
<th>4 Biochemical relapse</th>
<th>5 G7: US, EU5, JP</th>
<th>6 Androgen receptor inhibitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Not label generating; supports ARANOTE submission</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(\text{ARASEC}^*\)
Nubeqa With the Chance to Become a Foundational Drug to Treat Prostate Cancer – Peak Sales Potential of >€3bn

### Efficacy
- Highly efficacious ARi\(^1\)
- Very consistent set of data from two Phase 3 studies
- First to show more than 30% risk reduction of death in nmCRPC and mHSPC

### Safety
- Well tolerated safety profile
- Limited potential for drug-interactions
- Early data indicate limited blood-brain barrier penetration

### Lifecycle Management
- Approved in nmCRPC in the US (2019), Europe + Japan (2020) and China (2021)
- Become agent of choice in prostate cancer
- Combination opportunities

---

\(^1\) Androgen receptor inhibitor
Our Innovation Engine is Delivering

1. Global R&D organization
2. Collaborations, in-licensing, M&A
   - Elinzanetant
3. Platform Companies
   - CGT
   - SMOL

- Committed and experienced new leadership team
- Advancing leading cell and gene therapy business
- World leading science added through new platforms
- Unlocking value for patients in the highest need areas
External Innovation to Accelerate Replenishment of Pipeline and Broaden Modalities
Selected High-Level Overview

Momentum Significantly Increased

>40 Transactions signed since 2020

- Deals covering the entire spectrum from equity investments (with LEAPS), over licensing agreements to acquisitions
- Active portfolio management taking internal assets outside (eg. Vincera Pharma)

Strategic Focus

- Venturing into new modalities (Cell & Gene Therapy)
- Broadening the Oncology pipeline (eg. Systems Oncology, Atara)
- Commercial partnerships in China (eg. Hua Medicine)
- Deals in the Digital Space (eg. R&D: Schroedinger, Exscientia, Recursion; Commercial: OneDrop)
- Continued augmentation of core therapeutic areas: (WHC: KaNDy Therapeutics)
- Strengthening the Cardiovascular pipeline (Curadev, Broad Institute)
Elinzanetant Addresses High Unmet Needs for Non-hormonal Treatment of Vasomotor Symptoms in Menopausal Women

Typical Vasomotor Symptoms During Menopause

- Sleep disturbance
- Hot flashes
- Night sweats

About 16m women in the U.S. and another 16m in Europe suffer from menopause symptoms

Elinzanetant

- A first-in-class, non-hormonal, once-daily, oral neurokinin-1,3 receptor antagonist
- Differentiated, double mode of action
- Well tolerated - no serious AEs related to treatment
- Efficacy data compare well with BSC

Reduction in moderate/severe VMS per day from baseline (Phase IIb results)

<table>
<thead>
<tr>
<th>Week 4</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
<td>Elinzanetant, 120 mg OD</td>
</tr>
<tr>
<td>-2.7</td>
<td>-4.7</td>
</tr>
<tr>
<td>-6.7 (P&lt;0.001)</td>
<td>-7.8 (P=0.009)</td>
</tr>
</tbody>
</table>

Phase III study started in 2021, data expected in H1 2023
Significant Progress Has Been Achieved in Anti-coagulation Therapy but Medical Need Still Exists

- Heparin and VKAs were the only anticoagulants available for most of the 20th century
- Guidelines now prefer New Oral Anticoagulants (NOACs) over VKAs for many indications
- NOACs are contraindicated in ESRD patients and in patients with mechanical heart valves
- Need remains for anticoagulants with a reduced bleeding risk especially in specific patient populations

Fredenburgh and Weitz, JTH 2020; DOI: 10.1111/jth.15128
Bayer Has a World Leading Factor XI(a) Portfolio – Next Class of Anticoagulation Drug Candidates with Disruptive Potential

- **Asset:** FXI-Antisense (IONIS-LICA)
  - Mode of Action: Antisense technology prevents FXI expression
  - Comprehensive Phase IIb Program: RE-THINc ESRD
    - Reduces thrombotic events in end-stage renal disease patients on hemodialysis
    - Data to be presented in 2022

- **Asset:** FXIa-Antibody (Osocimab)
  - Mode of Action: Antibody binds FXIa to block further interaction and activity
  - Comprehensive Phase IIb Program: CONVERT ESRD
    - Prevents thromboembolic events in ESRD patients on hemodialysis who are at risk for thromboembolic events
    - Data to be presented in 2022

- **Asset:** Oral FXIa Inhibitor
  - Mode of Action: Small molecule blocks activity of FXIa
  - Comprehensive Phase IIb Program: PACIFIC study program
    - Data to be presented at ACC on April 3, 2022
    - Data to be presented in 2022
Hereditary Factor XI Deficiency is Associated with Lower Risk for Cardiovascular and Venous Thromboembolic Events

- Subjects with hereditarily reduced levels of blood coagulation factor XI have a reduced risk of thrombotic disorders without suffering the risk of spontaneous bleeds.
- Factor XI inhibition could achieve greater anti-coagulation without increased bleeding risk.

Preis et al., Blood (2017); Georgi et al, Stroke (2019)
Advancing Leading CGT Platform with Strong Clinical Pipeline

Diverse tech platforms and capabilities
- AAV platform (AskBio and Bayer established)
- BlueRock’s iPSC
- CAR-T
- Gene-editing (+ Mammoth)

CDMO business with strong momentum

Industry leading CGT clinical pipeline
- 7 clinical projects
- >15 projects at pre-clinical stage

Example: Two-pronged approach to deliver transformative therapies to treat Parkinson’s

- Successful administration of first dose of DA011 to a Parkinson’s disease patient in open-label Phase 1 clinical study
- Ongoing recruitment and evaluation of patients in the US for AskBio’s Phase 1b clinical study to assess safety and preliminary efficacy

Photo: Dr. Viviane Tabar, Chair of the Department of Neurosurgery, Memorial Sloan Kettering Cancer Center

1 Pluripotent stem cell-derived dopaminergic neurons
### Pharmaceuticals – Overview Development Portfolio
(as of August 4th, 2022)

<table>
<thead>
<tr>
<th>Phase I (17)</th>
<th>Phase II (12)</th>
<th>Phase III (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elnusertib (ATR Inhibitor) (BAY 1895344)</td>
<td>Regorafenib (combi-Nivolumab) (BAY 734506)</td>
<td>Darolutamide (AR Inhibitor)</td>
</tr>
<tr>
<td>SLFN12 Complex-Inducer (BAY 2666605)</td>
<td>Regorafenib (combi-Pembrolizumab) (BAY 734506)</td>
<td></td>
</tr>
<tr>
<td>mEGFR Inhibitor (BAY 2920708)</td>
<td>Regorafenib (combi-Bevacizumab)</td>
<td></td>
</tr>
<tr>
<td>HER2-TTC (HER2-Targeted Thorium Conjugate) (BAY 2701439)</td>
<td>Hepatocellular Carcinoma (HCC)</td>
<td>Copanlisib (PI3K Inhibitor)</td>
</tr>
<tr>
<td>Bapotulimab (ILDR2 fb Antibody) (BAY 1905254)</td>
<td>Asundexian (FXa Inhibitor) (BAY 2433334)</td>
<td></td>
</tr>
<tr>
<td>AhR Inhibitor (BAY 3176803)</td>
<td>Stroke Prevention in Atrial Fibrillation (PACIFIC-AF)</td>
<td>Regorafenib (multi-Kinase Inhibitor)</td>
</tr>
<tr>
<td>Congestive Heart Failure Gene Therapy</td>
<td>2nd Stroke Prevention (PACIFIC-STROKE)</td>
<td>Finerenone (MR Antagonist)</td>
</tr>
<tr>
<td>sGC Activator 4 (BAY 3283142)</td>
<td>Major Adverse Cardiac Events Prevention (PACIFIC-AMI)</td>
<td></td>
</tr>
<tr>
<td>P2X4 Antagonist (BAY 2328065)</td>
<td>Fosomexin (FXa-LICA) (BAY 2976217)</td>
<td>Vericiguat (sGC Stimulator)</td>
</tr>
<tr>
<td>BDKRB1 Receptor Antagonist (BAY 2599210)</td>
<td>Thrombosis Prevention in ESRD (RE-THINC ESRD)</td>
<td></td>
</tr>
<tr>
<td>Pempcoogene Camaparvoce (FVIII Gene Therapy) (BAY 2599023)</td>
<td>Osicimab (anti-FXa Antibody) (BAY 1213790)</td>
<td>Elnizanetant (Neurokinn-1-3 Rec Antagonist)</td>
</tr>
<tr>
<td>Pompe Disease Gene Therapy</td>
<td>Thrombosis Prevention in ESRD (CONVERT ESRD)</td>
<td></td>
</tr>
<tr>
<td>Parkinson’s Disease Gene Therapy</td>
<td>Runcanglut (sGC Activator) (BAY 1637108)</td>
<td>Afibrolastat (MR Antagonist)</td>
</tr>
<tr>
<td>Parkinson’s Disease Cell Therapy</td>
<td>Chronic Kidney Disease (CKD) (CONCORD)</td>
<td></td>
</tr>
<tr>
<td>sGC Activator 3 (BAY 1211163)</td>
<td>Non-profl. Diabetic Retinopathy (NPDR) (NEIN-NPDR)</td>
<td></td>
</tr>
<tr>
<td>ADRA2C Antagonist (BAY 2925976)</td>
<td>Adrenomedullin Pegol (PEG-ADM) (BAY 1097781)</td>
<td>Vericiguat (sGC Stimulator)</td>
</tr>
<tr>
<td>Zabetosertib (IRA4I Inhibitor) (BAY 1834845)</td>
<td>Acute Resp. Distress Synd. (ARDS) (SEAL TRIAL)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BDKRB1 Receptor Antagonist (BAY 2599210)</td>
<td>Elnizanetant (Neurokinin-1,3 Rec Antagonist)</td>
</tr>
<tr>
<td></td>
<td>Neurpathic Pain (BRAD/NP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gadocuatrane (High Relaxivity Contrast Agent) (BAY 1747846)</td>
<td>Afibrolastat (MR Antagonist)</td>
</tr>
<tr>
<td></td>
<td>Magnetic Resonance Imaging (HRCA-PAT)</td>
<td></td>
</tr>
</tbody>
</table>

### Selection of major Pharma development portfolio projects in clinical Phase I to III

- **ONCOLOGY**
  - Darolutamide (AR Inhibitor)
  - Pembrolizumab (combi-Nivolumab)
  - Pembrolizumab (combi-Pembrolizumab)
  - Pembrolizumab (combi-Bevacizumab)

- **CARDIOVASCULAR DISEASES**
  - Regorafenib (combi-Nivolumab)
  - Regorafenib (combi-Pembrolizumab)
  - Elnizanetant (Neurokinin-1,3 Rec Antagonist)
  - Vericiguat (sGC Stimulator)

- **WOMEN’S HEALTH**
  - Asundexian (FXa-Inhibitor)
  - Osicimab (anti-FXa Antibody)
  - Fosomexin (FXa-LICA)
  - Osicimab (anti-FXa Antibody)
  - Osicimab (anti-FXa Antibody)

- **OTHERS**
  - Darolutamide (AR Inhibitor)
  - Pembrolizumab (combi-Nivolumab)
  - Pembrolizumab (combi-Pembrolizumab)
  - Pembrolizumab (combi-Bevacizumab)

* Trial conducted by Merck & Co.
** Trial conducted by Regeneron Pharmaceuticals
Science for a Better Life

Winning in
Consumer Health

Investment Case

August 2022 / Bayer AG
Winning in Consumer Health

1. Market & Position
2. Strategy
3. Sustainability
Consumer Health: A Leading Global OTC Player

**Sales development**

% yoy cpa

- 2019: 2.6%
- 2020: 5.2%
- 2021: 6.5%

**EBITDA margin development**

In %, before special items

- 2019: 20.9%
- 2020: 22.0%
- 2021: 22.5%

**Sales by region: €5.3bn**

In %, in 2021

- North America: 34%
- Latin America: 16%
- EMEA: 39%
- Asia / Pacific: 11%

**Sales by categories: €5.3bn**

In %, in 2021

- Pain & Cardio
- Allergy, Cough & Cold
- Digestive Health
- Nutritionals
- Dermatology

**Market positions by category**

- Pain & Cardio: Rank #3
- Allergy & Cold: Rank #5
- Cardiovascular: Rank #1
- Nutritionals: Rank #3
- Dermatology: Rank #3
- Digestive Health: Rank #4

**Key products**

- Pain & Cardio: CCSF
- Dermatology: Canesten, Claritin
- Digestive Health: MiraLAX, Iberogast
- Allergy & Cold: Claritin, Antihistamines

1 Source: Net Sales FY2021, TABS Market Share MAT Aug 2021
A Multifaceted Plan to Drive Further Growth

**Ambition**
- Grow ahead of the market and increase margins

**Where to Play**
- Winning & Balanced Portfolio

**How to Win**
- Growth focused Innovation (esp. in powerbrands)
- Modern Marketing & Sales (e.g. precision marketing)
- Optimized Cost & Cash (with focus on an agile organization)

**Our Accelerators**
- Digital Transformation
- Sustainability
Driving Disproportionate Growth in Attractive Segments and Markets

Strong positions in 7 out of Top 10 OTC markets

Accelerate growth in fast-growing and profitable markets

- USA
- CHINA
- India
- South-East Asia
Accelerating Growth from Innovation
Iconic Global and Local Brands Built over Decades

Note: xx = Year of brand launch
Modernizing Our Brand Building and Sales Capabilities

Brands with Purpose

From Mass to Precision Marketing

% Precision marketing¹

<table>
<thead>
<tr>
<th>Year</th>
<th>% Precision marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>25%</td>
</tr>
<tr>
<td>2021</td>
<td>58%</td>
</tr>
<tr>
<td>2024 - Ambition</td>
<td>80%</td>
</tr>
</tbody>
</table>

Accelerating E-commerce

% Net Sales²

<table>
<thead>
<tr>
<th>Year</th>
<th>% Net Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3%</td>
</tr>
<tr>
<td>2021</td>
<td>10%</td>
</tr>
<tr>
<td>2024 - Ambition</td>
<td>15%+</td>
</tr>
</tbody>
</table>

¹ Percentage of digital media which is data-driven precision marketing
² Percentage of net sales which is through e-commerce channels
Taking Bold Steps on Sustainability

2030 Goal
Expand access to everyday health for 100 million underserved consumers

Societal
Health Literacy
Partnerships & brand purpose activations for underserved

Accessible Products
Affordable formats, innovations, and go-to-market (GTM) models

Environmental
Carbon Neutral Production
CO2 reduction: Energy efficiency and renewable energy projects

Sustainable Products
Sustainable packaging

Vitamin Angels, Kirk Humanitarian
Accessible SKUs & relevant GTMs
Removal of ozone depleting liquids from HVAC plants
Baselining of environmental impact of packaging & finding alternatives
Science for a Better Life

Sustainability @Bayer

Investment Case

August 2022 / Bayer AG
Sustainability is Integral to Our Values, Strategy and Operations

We intend to create bold impact and generate sustainable business opportunities

Megatrends

Societal Needs

Impact

Sustainable Growth

Pharmaceuticals  Consumer Health  Crop Science

Aging Population  Growing Population  Pressure on Ecosystems

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

Our Vision: Health for all, hunger for none

Help more people thrive  Decrease ecological footprint

Long-term business growth through sustainable innovation
Sustainable Innovation as Foundation for Business Opportunities

Co-Shaping the Bio-Revolution
We are among the companies that help to shape the ongoing bio-revolution. Our extensive knowledge of human and plant science, supported by our expertise in regulatory processes and a global footprint ultimately bring innovations from labs to market.

Sustainable Solutions in Agriculture
We develop solutions with improved sustainability profiles: seeds/traits and related farming practices (e.g. short stature corn, direct seeded rice), crop protection products & irrigation systems (e.g. lower environmental impact), digital farming and precision agriculture, climate-smart practices.

Breakthrough Technologies in Pharmaceuticals
We foster innovation and portfolio extension in important therapeutic areas with an increasingly strong setup in the cell & gene sphere and the potential to meet undruggable targets.

Better Access to Health & High-Quality Nutrition
Our access targets bear chances of meaningful inclusive growth with recipients as potential future market participants while addressing global megatrends in health and nutrition.
Ambitious Measurable Targets for Sustainable Development

Our 2030 Targets are in line with UN SDGs and the Science Based Targets Initiative

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**Decrease ECOLOGICAL footprint**

- **Climate neutrality at own sites + reduced emissions in our supply chain**
  - 42% reduction target\(^1\) for Scope 1 & 2
  - 500m € CapEx for emission reduction
  - 50m-200m € OpEx for offsetting projects
  - 12.3% reduction target\(^2\) for Scope 3

- **Net Zero emission target until 2050** in line with Paris Agreement (Scope 1, 2 & 3)

**CS:** -30% greenhouse gas emissions produced by key crops in the main regions we serve and -30% environmental impact of crop protection

**CH:** Sustainable production and transition to circular options (reduce, recycle, reuse, replace)

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**Help more PEOPLE thrive**

- **Support 100m smallholder farmers** in LMIC\(^3\)
- **Provide 100m women** in LMIC\(^3\) with access to modern contraception
- **Expand access to self-care for 100m people** in underserved\(^4\) communities
- **Gender parity** at all leadership levels & targets for further diversity dimensions

**PH:** Increase the availability and affordability of our products in LMIC via equitable pricing and patient affordability programs, with the ambition of reaching an additional pool of 100m patients

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\(^1\) By 2029 from a 2019 base year is in line with limiting global warming to 1.5 °C

\(^2\) By 2029 from a 2019 base year is in line with limiting global warming to below 2 °C

\(^3\) LMIC: low and middle income countries - all countries included in the World Bank list as per 1 July 2019

\(^4\) Underserved: economically or medically

We Take Broad Climate Action Along the Value Chain

- **Reduce Emissions**
  - 42% less CO$_2$ in our own operations¹ by 2029
  - 12.3% less CO$_2$ in the value chain² by 2029
  - 30% less greenhouse gas emissions³ by 2030
  - Net Zero by 2050

- **Offset remaining emissions with increasing share of removals**
- **Generate certified digitally-enabled carbon assets⁴ with farmers**

**Carbon Reduction**

**Carbon Removal**

**Climate Resilience**

**Carbon Removal**

**Climate Resilience**

¹Scope 1+2 ²Scope 3 ³30% less in our farming customers’ in-field GHG emissions per kg of crop yield in the most emitting cropping systems in the regions we serve

We Are on Track in our Decarbonization Journey

<table>
<thead>
<tr>
<th>Scope 1&amp;2</th>
<th>Scope 3</th>
<th>On the Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>42% less CO₂ in our own operations by 2029 &amp; Net Zero by 2050</td>
<td>12.3% less CO₂ in the value chain by 2029</td>
<td>30% less greenhouse gas emissions by 2030</td>
</tr>
</tbody>
</table>

**• Reduced emissions by 11.5% or around 410,000 tons compared to 2020**  
- Reduction mostly due to increase of renewable energy share to approx. 25% of total purchased energy  
- Additionally, offsetting of 300,000 metric tons of greenhouse gas emissions¹

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2029</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions (metric tons)</td>
<td>3.76</td>
<td>3.58</td>
<td>3.17</td>
<td>2.15²</td>
</tr>
<tr>
<td>Reduction (%)</td>
<td>100%</td>
<td>-4.8%</td>
<td>-11.5%</td>
<td>-2.15%</td>
</tr>
</tbody>
</table>

**• Reduced emissions by 0.6% or 50,000 tons vs. prior year**  
- Collaboration with CDP Supply Chain Initiative, TfS and WBCSD to standardize calculation for product-related carbon footprint

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<th>2021</th>
<th>2029</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions (metric tons)</td>
<td>8.82</td>
<td>8.22</td>
<td>8.16</td>
<td>7.73³</td>
</tr>
<tr>
<td>Reduction (%)</td>
<td>100%</td>
<td>-7%</td>
<td>-0.6%</td>
<td>-2.73%</td>
</tr>
</tbody>
</table>

**• Continued efforts in Carbon Initiative: 17 months since launch in 2020, >2,600 growers enrolled in 10 different countries, >1.4M acres added & 500,000 tons of carbon sequestered in soil**  
- Innovative, profitable and tailored solutions through integrated environmental metrics in field trials  
- Active partner in advancing carbon neutrality in ag (e.g., EU Carbon+ Farming Coalition, Global Soil Health Program)

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¹Find our offsetting approach [here](https://www.bayer.com/en/sustainability/climate-protection). ²TfS: Together for Sustainability. ³WBCSD: World Business Council for Sustainable Development ⁴30% less in our farming customers’ in-field GHG emissions per kg of crop yield in the most emitting cropping systems in the regions we serve; baseline calculated based on 2020 data.
Support 100m Smallholder Farmers

Accessing smallholders improves lives and creates business opportunities

Challenges

- ~550 M Smallholder Farmers worldwide
- Lack of access to new technologies
- Limited access to knowledge
- Limited productivity of their crops
- Climate change
- Exposed to the markets, price volatility and fluctuations
- Hunger & malnutrition
- Additional challenges caused by Covid-19

Feed

>50% of population in developing countries

How to get there

- Commercial operations:
  Regional commercial strategies focused on smallholders’ needs
- Value-Chain-Partnerships:
  ‘Better Life Farming’ centers and integration into other value chain ecosystems
- Digital Solutions:
  Digital Incubator & Innovation Hub in APAC
- Portfolio Differentiation:
  Better & affordable crop protection products, tailored to local farmer needs
- License-to-Operate & Biotech Approvals:
  Large regulatory approval pipeline in Africa and APAC to enter new markets

Progress

Commercial Forecast & Initiatives

- 2019 (baseline)
- 2020
- 2021
- 2030

Progress in 2021:

// Strong business expansion in regions
// Key initiatives continued (e.g. partnerships, rapid Better-Life-Farming expansion, piloting of new digital ventures)

Numbers reflect people (millions)
Access for 100m Women to Family Planning

Catalyst for important societal and economic impact

Challenges

• >200 million women in developing regions who want to avoid pregnancy are not using safe and effective family planning methods, central to women’s empowerment

• Reducing poverty, protecting maternal and child health, driving economic development, and achieving sustainable development

• Gender inequality is still high, teenage pregnancy and maternal death are serious health concerns, especially in LMICs

• The need to provide reproductive supplies and services will further increase

• By 2030, an additional 130 million women in LMICs will have entered reproductive age

How to get there

• Additional supply capacity, most importantly for long-acting contraceptives: >400m€ investment into Costa Rica and Finland facilities

• Capacity building, e.g. cooperation with urban health project ‘The Challenge Initiative’ (TCI)

• Route to women in rural areas and humanitarian settings in cooperation with partners (e.g. UNFPA)

• Long-term: Innovation, e.g. non-hormonal contraceptive technologies

Progress

Bayer Products & Capacity Building

Progress in 2021:

// Two partnerships integrated: TCI & UNFPA Egypt
// Major funding cut by UK government to UNFPA’s supplies partnership

Numbers reflect women using modern contraception (millions)
Access to Self-Care for 100m People in Underserved Communities

Everyday health as the first and last line of care

Challenges

• Ageing population, a rise in lifestyle related diseases and a constantly increasing level of healthcare costs
• Expanding access to self-care solutions helps with early intervention and lowers healthcare costs for society
• Consumers are 4-6 times more likely to purchase, protect, champion or trust brands with a strong purpose

How to get there

• Appropriate Portfolio: adapting our science-based portfolio to design everyday health solutions with the underserved in mind, from formula to pricing
• Deeper Penetration: meeting low-income consumers where they shop to bridge the physical gap
• Self-Care Education initiatives form the basis for shaping behavioral change to empower consumers to manage their own health better
• Partnerships and Initiatives, e.g. the Nutrient Gap Initiative
• Activating our trusted OTC brands and end-to-end value chain
• Focus on high impact markets: US, LATAM, ASEAN, METAP

Progress

Access Driven Growth & Strategic Partnerships

Progress in 2021:
// Growth driven by partnership initiative
// 13 million additional people were already reached in India1

Numbers reflect people (millions)

1 We successfully integrated the consumer business in India, which was previously managed by a third party. India is reported separately and will be included in 2024.
Strong Governance Measures Accompany our Strategy

Our CEO is Chief Sustainability Officer

Established Governance Bodies
- Supervisory Board ESG Committee advises & monitors management, systematically assesses contribution to SDGs
- External Sustainability Council\(^1\) as institutionally anchored independent expert advisory

Sustainability Goals Part of Compensation
- Group-wide goals (access & scope 1-3 targets) have a 20% weighting in the long-term incentive
- Additional qualitative goals are reflected in the short-term incentives

Focus on Transparency\(^2\) Engagement and Reporting
- Group Positions\(^3\) published on important sustainability matters
- Science Collaboration Register launched
- Reporting in line with sustainability frameworks (SASB, TCFD)

Group-Wide Regulations as Mandatory Framework
- BASE\(^4\) principles guide our interactions with all stakeholders

Sustainability as Integral Part of Bayer Processes
- Gradual integration in processes of functions & divisions such as Strategic Planning (e.g. internal CO2 price of €100 per metric ton for CAPEX projects), Risk Management, Procurement, Research & Development and Human Resources

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\(^1\) https://www.bayer.com/en/sustainability/sustainability-council
\(^3\) https://www.bayer.com/en/sustainability/position-biodiversity
\(^4\) https://www.bayer.com/en/sustainability/base
Investment Thesis

Key Takeaways

1. We are a global leader in Health & Nutrition that addresses societal megatrends
2. We are well-positioned to shape disruption in the bio-revolution
3. We expect to translate innovation into profitable mid-term growth
4. We expect to improve our profitability by accelerating our transformation
5. We have disciplined capital allocation priorities: delever, pay dividends and invest
6. We have integrated sustainability in our business strategy and incentive systems