

Science for a Better Life

A Global Leader in Health & Nutrition

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Investment Case February 2023 / Bayer AG







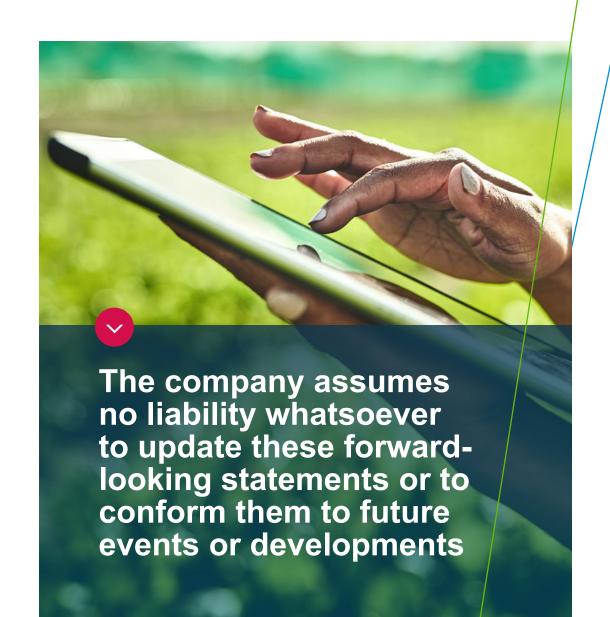
Cautionary Statements Regarding Forward-Looking Information



This presentation may contain forward-looking statements based on current assumptions and forecasts made by Bayer management

Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website

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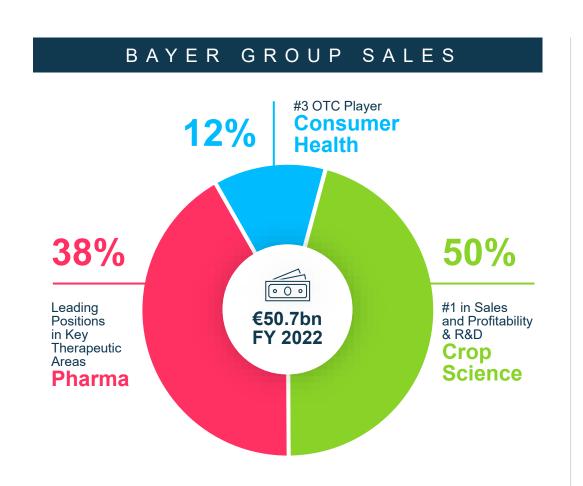
Sustainability



Bayer: A Global Leader in Health and Nutrition



Well Positioned to Create Value in Growing Markets using Science to Address Societal Megatrends







¹Source: Company Estimates

²Source: IQVIA Market Prognosis as of September 2022

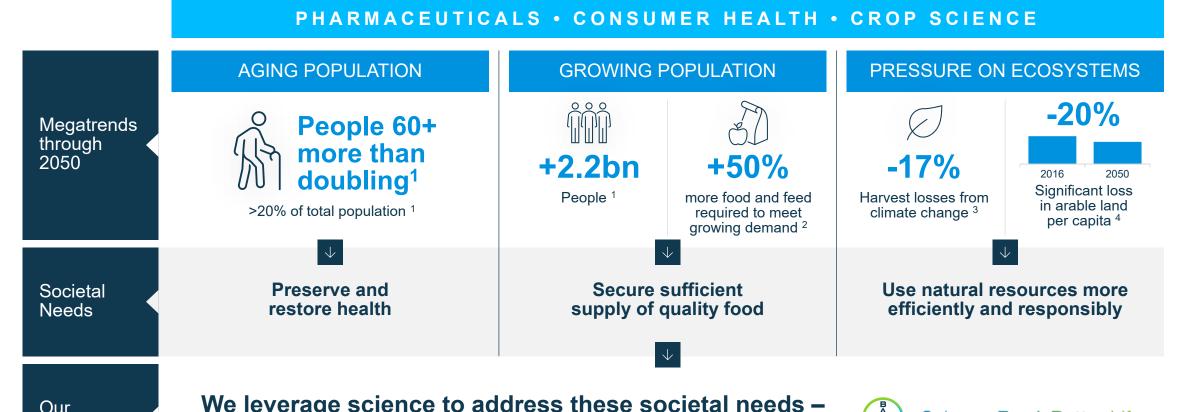
³Source: Nicholas Hall



Global Megatrends in Health & Nutrition



Attractive Macro Drivers of Our Strategy and Underpin the Need for Innovation



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



Mission

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

² FAO 2017, (FAO Global Perspective Studies)

³ Nelson et. al. (2014): FAO 2016 "Climate change and food security"

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

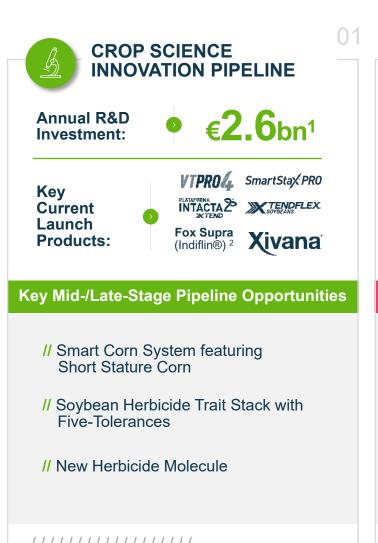


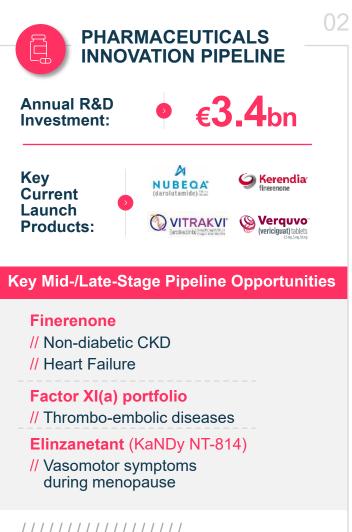
Leadership and Innovation



Set the Course for Our Future Growth







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

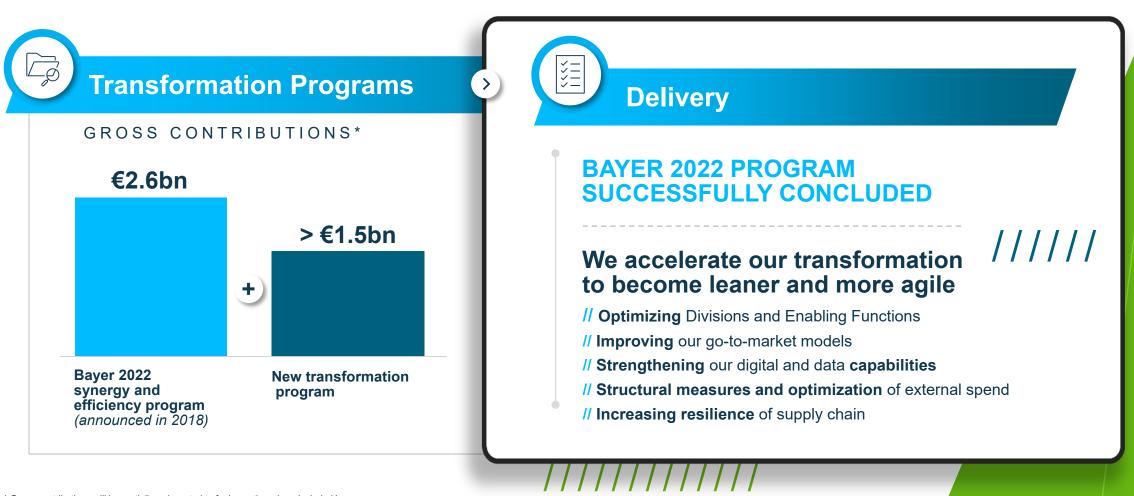
¹Bayer R&D expenses exclude special items ² In collaboration with Sumitomo



New Transformation Program with Gross Contributions of > €1.5bn



Expect Partial Reinvestment to Drive New Opportunities; Remainder to Drive Margin Expansion



^{*} Gross contributions will be partially re-invested 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 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

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Our Free Cash Flow is impacted by litigation pay-outs and cash-effective one-time costs for transformation

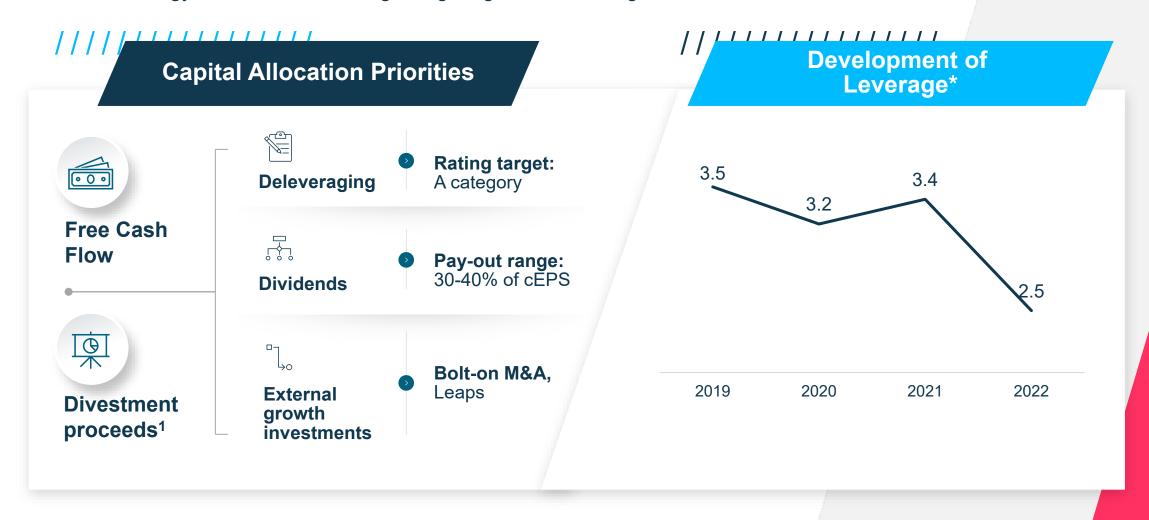




Disciplined Capital Allocation to Delever, Pay Dividends and Invest



Financial strategy directed towards regaining long-term "A" rating



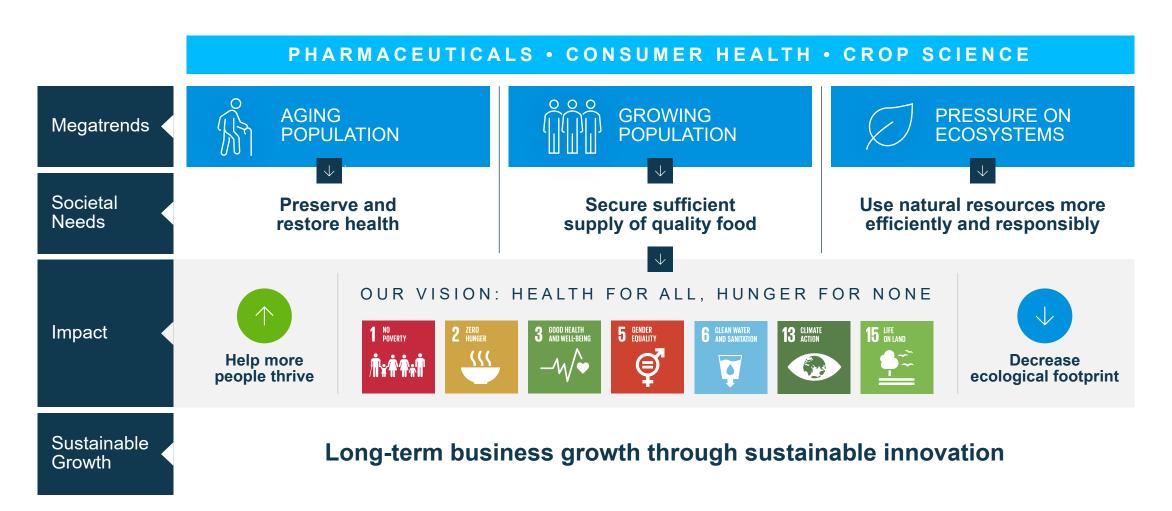
^{* (}Net Financial Debt + Pensions – 50% of Hybrid Volume) / reported EBITDA before special items



Sustainability is Integral to Our Values, Strategy and **Operations**



We intend to create bold impact and generate sustainable business opportunities





Investment Thesis

Key Takeaways

- 01
- We are a global leader in Health & Nutrition that addresses societal megatrends
- 02
- We are well-positioned to shape disruption in the bio-revolution
- 03
- We expect to translate innovation into profitable mid-term growth
- 04
- We expect to improve our profitability by accelerating our transformation
- 05
- We have disciplined capital allocation priorities: delever, pay dividends and invest
- 06
- We have integrated sustainability in our business strategy and incentive systems



Science for a Better Life

Shaping the Future of Agriculture

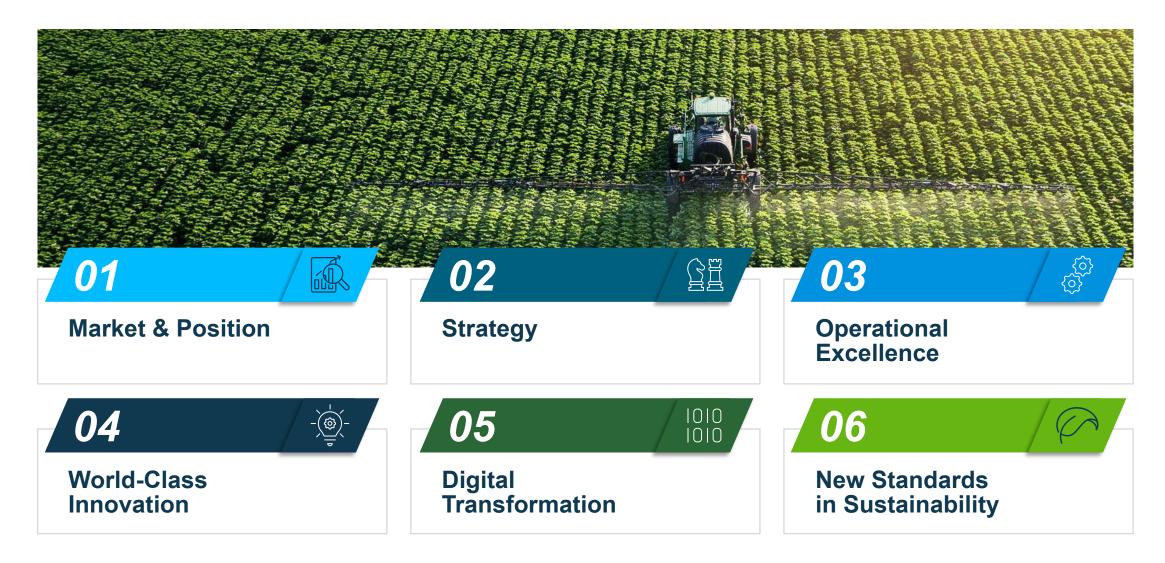
01 || Investment Case

Investment Case February 2023 / Bayer AG





Shaping the Future of Agriculture



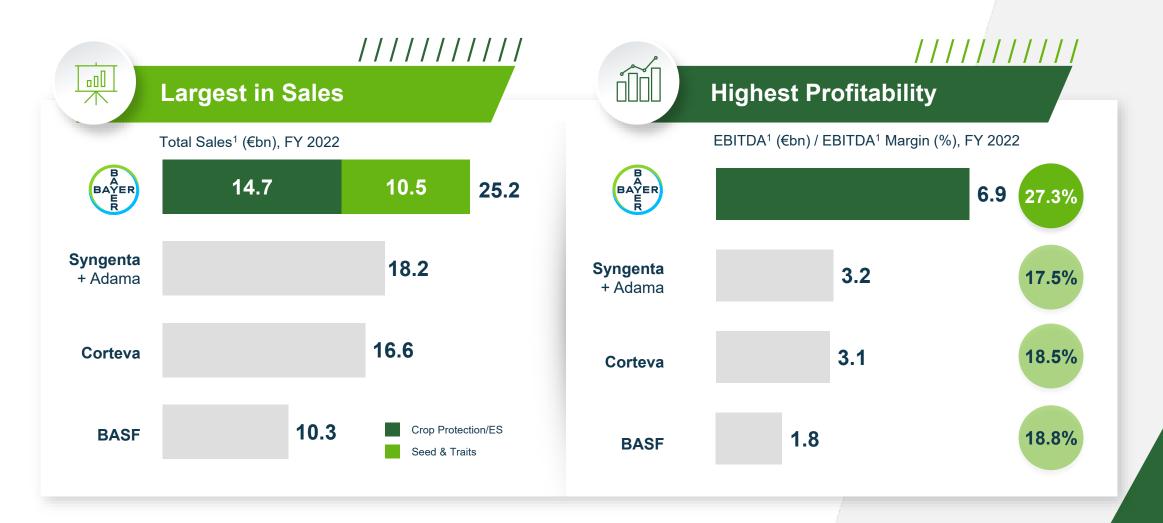


The Established Leader in Crop Science



Market & Position

Industry leading profitability underpinned by ~€2.6bn in annual seed & trait licensing revenue



¹ Company information; exchange rate: FY 2022 ~1.05 USD/EUR. EBITDA before special items; Representing the legacy Syngenta results plus Adama of FY 2021

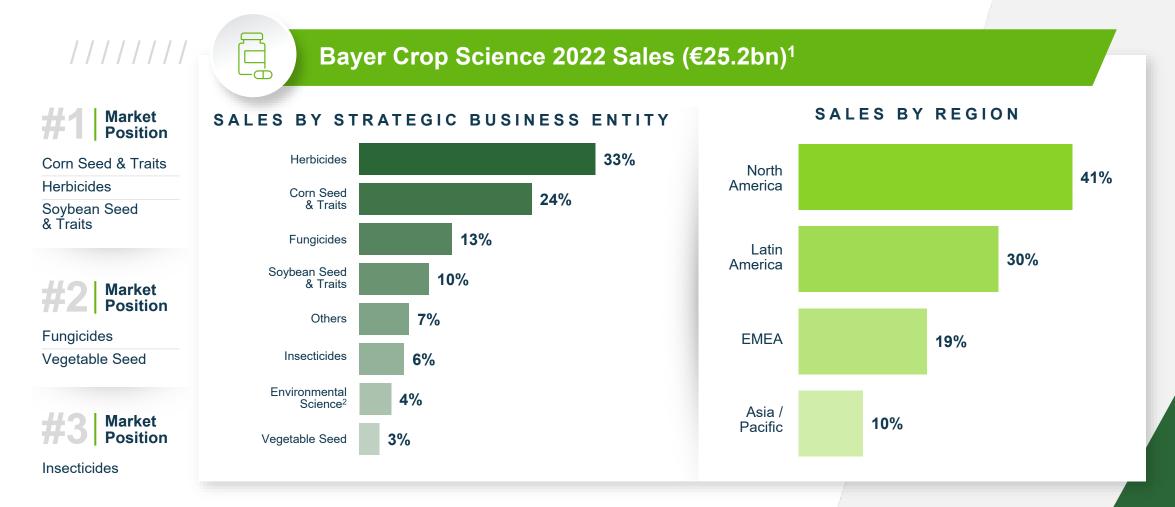


Growers Worldwide Recognize the Value We Deliver



)1 Market & Position

#1 in Seed & Traits with Leading Crop Protection Portfolio in €100bn Global Ag Input Market



Note: Market Position determined annually, as of Q1-2022

¹ Company information; exchange rate: FY 2022: ~1.05 USD/EUR.

² Environmental Science Divestiture - October 2022



Vision / Health for All, Hunger for None



02 Strategy



Win by being more grower centric

Purpose:

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

Pillars:

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

Strategic Ambition

Perform:

Grow above market and deliver strong returns

Transform:

Achieve 100% digitally enabled sales by 2030



A Clear Operational Plan to Create New Value and Outperform the Market in the Mid-term



03 Operational Excellence

- 01
- Deliver growth in **crop protection** sales through **new products**, **integrated offerings** and effective management of **glyphosate-based herbicide dynamics**
- 02

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

03

Upgrade the Americas to next-gen soybean trait technology

04

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

05

Execute on **efficiency program** to reinvest in new opportunities and drive margin expansion



Advancing Sustainable Crop Protection

Launched Two New Actives, 10 New Formulations and >250 Registrations in 2022 to Bolster >€13bn in Annual Sales in Crop Protection



)3 Operational Excellence

Industry Leading Crop Protection Development

> >15 new Als launched in the past 15 years; 9 advancing, including 2 launches, in 2022



- Includes next-gen technology
 Indiflin®¹, with Prothioconazole
- Offers unrivaled control of Asian Soybean Rust
- Builds on #1 position in soybean fungicides² in LATAM

PSP of >€400m Pre-launched in 2022 in Brazil & Paraguay

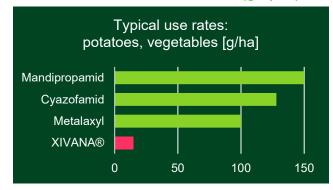


¹ In collaboration with Sumitomo; ² Internal estimates

Xivana

- Powered by Fluoxapiprolin
- New global horticulture fungicide with best-inclass MoA; delivers outstanding protection of grapes, potatoes and vegetables
- Higher, longer-lasting efficacy above established standards

PSP of >€150m Launched in 2022 in Australia (grapes)



Advances in Formulation Technology



Leadership in formulation technology enables lower volumes with equivalent or better efficacy; dronespecific formulations for safety and precision



- Pre-emergence selective corn herbicide
- Launched in 2022
- Contains 3 Als:
 Thiencarbazone,
 Flufenacet and
 Isoxaflutole to provide overlapping residual control of key broadleaf weeds and grasses

Mateno[®] Complete

- Includes Aclonifen, a new herbicide mode of action for Australia
- Launched in 2022
- Suitable for use in wheat and barley for hard-to-control grass and broadleaf weeds



Building on the #1 Trusted Brand and Strong Portfolio of Biological Solutions to Meet Growing Market Needs



03 Operational Excellence

The power of nature. Empowered by science.	SeedGrowth				Foliar & Soil applied				
	Corn Yield	Soy Yield	Nematicide	Fungicide	Other	Insecticide	Fungicide	Soilborn Disease/Pest	Crop Performance Enhancers
In-licensed / Commercial Products	B IO R ISE ¹	TagTeam ^{®3} Optimize ^{®3}	Poncho [®] Votivo ^{®2}	Integral® Pro ²	TagTeam ^{®3} JumpStart ^{®3}	FLIPPER VYNYTY W Xentari wo AEGUIEM Cadecis	SSNATA	BioAct	Bay folan PAmbition Ambition

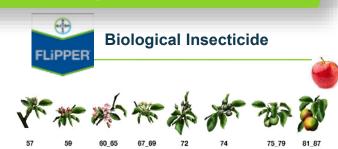
Leading Position

- Bayer is the **#1 Trusted Brand** in Biologicals by Growers⁴
- Reaching >60m acres in row crop, high value horticulture & vegetable acres
- Delivering ~€200m in annual sales in 2022
- Market to grow to nearly €25bn by 2028⁵

Select Key Product Offerings



 Soil Activ Launched in the U.S., Australia and Chile propelling brand to >€150m peak net sales



 Consistent broad-spectrum activity across multiple fruit and vegetable crops and pests

¹ Also sold under Acceleron® and Torque®3 brand names; ² 3rd party product from BASF, ³ In-licensed from Novozymes; ⁴ 75-100 growers polled in each of seven countries (Europe, Brazil, US) for potato, tomato and grapes, Bayer Market Research 2020; ⁵ Source: DataM Intelligence, 2021: Global Agriculture Biologics Market; Market Size, Share and Forecast; Market Outlook, Opportunity and Data Analysis 2021-2028



#1 Position in Global Corn Seed & Traits

CROPSCIENCE

Operational Excellence

Expect to Widen the Gap with Corn S&T Pipeline with €11bn of Peak Sales Potential¹



	Bayer 20	022 Corn Se	ed Share	³
		Seed Share &	Position ⁴	Trait Share ⁵
	U.S.	>55%	#1	~85%
	Brazil	~30%	#1	~30%
(8)	Argentina	~50%	#1	~50%
	Mexico	>70%4	#1	NA
****	Europe	~20%	#2	NA
	South Africa	~70%	#1	~60%

Key Seed Brands					
DETAIR	▲ CORN STATES				
LEWIS	Channel.				
Kruger	AGROESTE				
GOLD COUNTI SEED* Fortigies	Jung Hower seed				
sementes agroceres	Fontanelle				

Key Corn Traits in Bayer Pipeline - Underpinned by Annual Launch of >250 New Hybrids Globally







Short-stature corn hybrids



Short-Stature Corn - Biotech Trait

4th Gen Lepidoptera Trait

4th Gen Coleoptera Protection Trait

HT5 Corn

5th Gen Lepidoptera Trait

2022 2023 2024 2027 2030

¹ Expect ~50% of peak sales potential to be incremental and expect ~80% of the projects to reach peak by 2037; 2 Source: Bayer and Corteva as reported in FY 2022, exchange rate FY2022: ~1.05 USD/EUR, Syngenta based on AgbioInvestor estimates for FY 2021, exchange rate FY2021: ~1.18 USD/EUR; ³ Internal estimates; market position, seed (germplasm) share and trait share measured as of 2022 for U.S. and Europe and as of 21/22 season for Brazil, Argentina, Mexico and South Africa; ⁴ Includes the sum of branded plus licensed seed share in the respective countries/region; ⁵ Represents the percentage of corn acres planted in the country that contain at least one Bayer biotech trait



Rollout of Most Advanced Corn Rootworm **Control Trait Continues**

CRW3: Industry's Only RNAi-Based Corn Rootworm Trait



03 Operational Excellence



LAUNCHED / / / / / **BRAZIL/ ARGENTINA 20/21**

VTPRO4

2021/2022: >4m acres



- Most advanced technology for control of insects in Brazil corn
- Two modes below-ground insect control, including CRW3, plus two modes above-ground insect control and glyphosate tolerance

LAUNCHED U.S. 2022 SmartStax PRO

Corteva Orome product (P1366Q)

2022: ~100k acres 2023e: >1m acres



- SmartStax PRO with RNAi Technology had lower root injury scores 97.4% of the time
- **Orome Products: 0.97** nodes of root injury
- SmartStax PRO: 0.28 nodes of root injury
- For each root node damaged by CRW larvae, a yield loss of ~15% can be expected.³ Root injury score of **0.97 nodes** in a 200 bu/acre yield environment could result in 29 bu/acre yield loss
- ~30m acres infested with CRW in the U.S.

¹VT4PRO with RNAi Technology corn products are expected to be commercially available for the 2024 growing season; ² Head-to-head comparisons across 40 locations with corn rootworm pressure in the U.S.in 2021;

³ Tinsley, N.A., Estes, R.E. and Gray, M.E. 2012. Validation of a nested error component model to estimate damage caused by corn rootworm larvae. Journal of Applied Entomology. DOI:10.1111/j.1439-0418.2012.01776.x.



Global Soybean Seed & Trait Sales Leader

CROPSCIENCE

03 Operational Excellence

Upgrading the Americas with Recent XtendFlex and Intacta 2 Xtend Trait Launches







Key Soybean Traits in Bayer Pipeline – Underpinned by Annual Launch of ~150 New Varieties in the Americas



¹ Source: Bayer and Corteva as reported; Syngenta based on AgbioInvestor estimates for FY'21 - exchange rate FY2021: ~1.18 USD/EUR; FY'2022: ~1.05 USD/EUR; ² Internal estimates; market position and seed (germplasm) share measured as of 2022 for U.S and as of 21/22 season for Brazil; ³ Includes the sum of branded plus licensed seed share in the respective countries/region; ⁴ Represents the percentage of soybean acres planted in the country that contain at least one Bayer biotech trait.



Bayer Maintains #1 Leadership Position with XtendFlex Technology and XtendiMax Herbicide Performance



03 Operational Excellence

Upgrade to >20m XtendFlex Acres in North America in 2022



In North America soybean performance¹



Only technology that includes **14-days residual activity**; Controls significantly more weeds than the Enlist system²

~45m acres in Bayer's soybean technology in 2022; retained leading position in 2022



- Provides tolerance to dicamba and glyphosate
- Recommended Herbicide Pairings:







- Proven performance, high-yield potential, strong agronomics
- Broadly licensed across the industry



- Adds glufosinate tolerance to the proven performance of Roundup Ready 2 Xtend Technology to provide additional flexibility to manage tough-to-control weeds
- Recommended Herbicide Pairings:





Glufosinate

- Reached >20m acres in the U.S. in 2022
- 2.9+bu/acre advantage vs. Enlist™ Weed Control System in herbicide system trials³

¹ Bayer internal estimates; ² Based on EPA labels of the chemistries; ³ Soybean Crop Trials (184 locations with 20 in 2019 (Roundup Ready® 2 Xtend), 67 in 2020 (Roundup Ready® 2 Xtend), 67 in 2021 (XtendFlex® Soybeans) and 40 in 2022 (XtendFlex® Soybeans) reporting data located with 22-IA, 24-IL, 23-IN, 11-KS, 1-KY, 7-MI, 30-MN, 10-MO, 1-MS, 5-ND, 17-NE, 15-OH, 1-OK, 11-SD, 4-PA and 2-WI,). Significant at P ≤ 0.10 LSD at 0.6 Bu/A as of 12/13/2022. Roundup Ready® Xtend Crop data = XtendFlex® soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E³® soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides.



Next-Gen Intacta Traits to Expand Leading Soybean Franchise in Brazil



03 Operational Excellence

Intacta 2 Xtend Launched; IP3 Currently in Phase 3, IP4 Advanced to Phase 2

INTACTA RR2 PR0*



- Excellent control of soybean loopers, velvetbean caterpillar and axil borer
- Glyphosate tolerance provides proven weed control and enables conservation tillage
- Licensed to seed producers with >90% share of market in Brazil
- On ~85m acres in Brazil in 2021/22



- Industry-first with three proteins for insect control and resistance management, plus adds dicamba tolerance for tough-to-control weeds
- LAUNCHED on >800k acres in Brazil in 2021/22 season. Targeting ~6m acres for the 2022/23 season
- Performance advantage of 2.89 bu/acre

03 & 04 Next-Gen Insect Protection

Velvetbean Caterpillar Infested







- Delivering multiple modes-of-action for insect control
- to Phase 2; focused on Brazil

Boone, Iowa, June 2021





New Cotton Trait Offerings Key to Growth in "Other" SBE; Vegetables on Path to Regain #1 Position



Operational Excellence

Leading Seed & Trait Innovation for Cotton Growers

• Driving growth in >€600m¹ cotton S&T business



First-ever biotech trait for piercing and sucking insect control

- 2023 Commercialization in United States
- **HT4 Cotton**

Five modes of Herbicide Tolerance Glyphosate, Glufosinate, HPPD, PPO, Dicamba

Phase 3

Bollgard 4 Cotton

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

Phase 3

Driving Vegetable Seed Profitability and Growth Solid path to regain #1 Position

- Expect above market growth across all four customer segments: protected, smallholder, open field and processing
- R&D investments launched 90 new varieties
- Portfolio well positioned to deliver on expanding markets in EMEA and APAC
- Focus on value creation by driving customer, operations & innovation excellence
- Partner across the value chain to deliver products for sustainability & consumer value



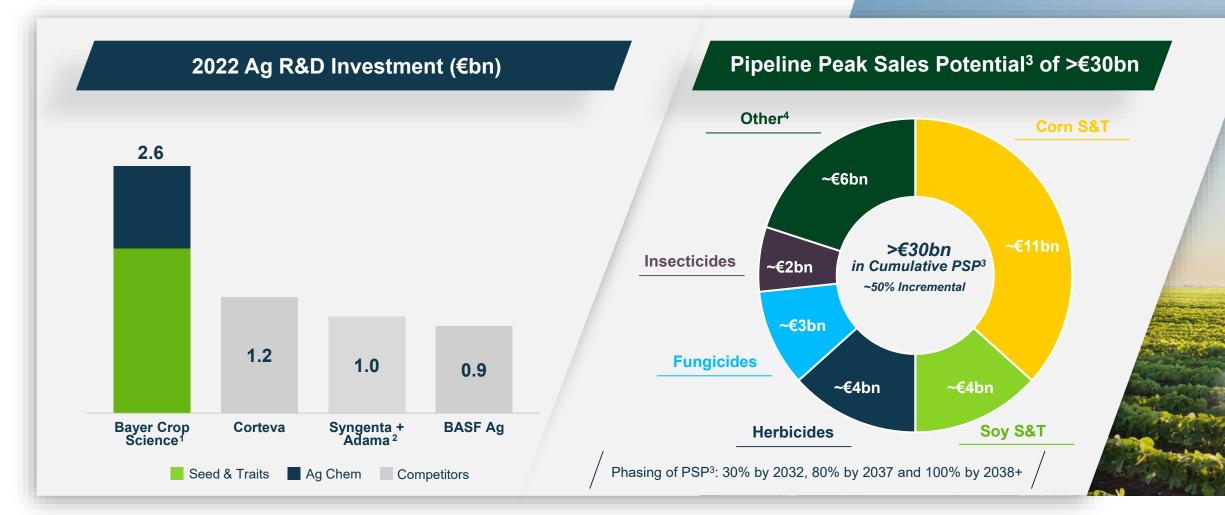




Crop Science: R&D Investment Powers Pipeline with >€30bn Peak Sales Potential



04 World-Class Innovation



2022 reported results, exchange rate: FY 2022: ~1.05 USD/EUR and FY 2021: ~1.18USD/EUR; ¹ Bayer R&D expenses exclude special items; ² Represents the legacy Syngenta results plus Adama for FY'21; ³ 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. Note that products are excluded from the pipeline PSP typically the year following launch; SBE = Strategic Business Entity; PSP = Peak sales potential; ⁴ "Other" category includes seeds and traits, such as cotton, canola, wheat, OSR, rice, vegetable seeds and sugarbeets, plus carbon and digital Models



Unmatched Breadth and Depth of Five Core R&D Platforms Key to Innovation



04 World-Class Innovation

Convergence of Leading R&D Platforms to Unlock Next Layer of Value Creation in Agriculture

SEEDS	& TRAITS	CROP PR	DIGITAL FARMING		
Breeding	Biotech	Č Chemistry	Biologicals	Data Science	
Leading germplasm libraries paired with advanced breeding and data science technology application	 Leading protein optimization technology with extensive protein libraries First-ever biotech trait for piercing and sucking insect 	> Strong discovery platform for molecules with new modes-of-action and differentiated profiles	Open Innovation Model to deliver innovative and sustainable solutions to growers	> #1 database of grower and field trial seed performance data in the industry	
>3,500 unique field-testing locations	>65 traits approved in more than 25 years – reaching ~300m acres annually	100% novel Mode of Action in early discovery	>40 assets under evaluation for new collaborations or in-licensing	>115bn data points of product performance under real-world farmer management practices >220m subscribed acres across 23 countries	
>500 deployments in 2022: >250 in corn ~150 in soybeans >90 in vegetables >10 in cotton		30-60 molecules selected for field trials per year	>1,300 trials in 46 countries in 2022		
	~3bn datapoints generated by Precision Genomics team to deliver biotech traits and accelerate	Expect ~90-100 new formulations to launch in the next decade	2 Multi-year strategic partnerships with Ginkgo Bioworks and Kimitec		
	genetic gain 12 next-gen. traits in development	Launched 15 new actives in past 15 years	>60m acres in row crops, plus additional high value horticulture and vegetables acres		



Scale and Leading Technology Drives New Seed Development



04 World-Class Innovation



Enhancing the Breeding Process with Scalable Analytics, Automation and Improvements in Testing

Germplasm Product Development Process (8 - 10 years)



Population Selection

Population simulation and selection for desired agronomic characteristics and attributes

Competitive Advantage

Industry-leading global germplasm libraries across crops and markets

Decades for field and genomic data combined with industries leading data science platform

Early Development

Advanced genomic selection, first year of field testing, and early demonstration of Product Concept In-Crop

Competitive Advantage

Ability to rapidly sample and genetically evaluate millions of seeds

Advanced Product Design facilities that enable multiple cycles of planting per year

Intermediate Development

Large-Scale Field Testing, Trait Integration, disease screening advanced selection analytics, early COGS assessment

Competitive Advantage

Industry leading Trait Integration programs stack traits into elite germplasm

Largest global field-testing footprint diversifies geographic data insights

Advanced Development

Traited Testing, Early Tailored Solutions data generation, and preparation of digital data package for Climate models

Competitive Advantage

Fully automated seed distribution centers prescriptively sample diverse growing environment

Traited Testing evaluates products as they would be experienced by the growers

Pre-Launch

Broad product testing by R&D and Marget Development, Seed Bulk-Up, System Testing and Pre-Marketing

Competitive Advantage

Most advanced and distributed network of field testing in the industry

Evaluation of agronomic systems for product deployment & customer recommendations



Annual Germplasm Upgrade Drives Sales Growth and Attracts Partners



04 World-Class Innovation

High-Performing Seeds in Corn, Soybeans, Cotton and Vegetables Generating ~€10bn in Annual S&T Sales



- Deployed >250 new hybrids globally in 2022; offer >1,500 hybrids globally1
- >> >7 bu/acre U.S. yield advantage with leading hybrids in like-for-like trait package hybrid comparisons²





- > Deployed ~150 new varieties in 2022; offer >850 varieties in North America
- > For the past four years when using the Roundup Ready **XtendCrop Technology**, farmers see a 2.9 bu/acre advantage³ vs. Enlist™ Weed Control System in herbicide system trials

COTTON



- Deployed >10 varieties in 2022; offer **>30 Deltapine** varieties in the U.S.
- U.S. lint/acre vield advantage with leading varieties: 2022 was ~70 lbs./ac advantage for Deltapine vs. top-planted competitor varieties

VEGETABLES



- > Deployed >90 varieties in 2022; sell over **1,950** vegetable hybrids and varieties in 22 crops across 110 countries
- > Innovative varieties of fruits and vegetables can help develop more sustainable and regenerative food systems and increase access to essential nutrients

¹ Includes licensed and branded hybrids, >1,500 hybrids globally as of 2021; 2 Annual yield advantage calculated each year by comparing 3 leading DEKALB products within each state having a minimum of 100 comparisons to national competitor products containing similar crop protection traits as of 2022. All comparisons are head-to-head using +- 2RMs and weighted average calculated using 15% moisture; ³ Soybean Crop Trials (184 locations with 20 in 2019 (Roundup Ready® 2 Xtend), 57 in 2020 (Roundup Ready® 2 Xtend), 67 in 2021 (XtendFlex® Soybeans) and 40 in 2022 (XtendFlex® Soybeans) reporting data located with 22-IA, 24-IL, 23-IN, 11-KS, 1-KY, 7-MI, 30-MN, 10-MO, 1-MS, 5-ND, 17-NE, 15-OH, 1-OK, 11-SD, 4-PA and 2-WI,). Significant at P ≤ 0.10 LSD at 0.6 Bu/A as of 12/13/2022. Roundup Ready® Xtend Crop data = XtendFlex® soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E^{3®} soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides.



New Cash Cover Crop for Low-Carbon Renewable Feedstock in Growing Biodiesel Market



04 World-Class Innovation



Bayer Acquires Majority Share (65%) in CoverCress Inc. (CCI)

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



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%



Scale and Expertise in Biotech Crop Development Leads the Industry



04 World-Class Innovation



Biotech Trait Development Process (12-15 years)



Phase 0



Phase 2





Phase 4

Gene/Trait Identification

Genomics and High-Throughput Protein Screening to Identify **Desired Characteristics**

Competitive Advantage

Industry-leading genomics capabilities and germplasm libraries

Best-in-class screening capabilities

Proof of Concept

Gene Optimization and State-ofthe-Art Genome Editing Capabilities Drive Product Concept Demonstrations In-Crop

Competitive Advantage

Best-in-class genome editing and gene expression toolkits drive precision in gene to phenotype optimization

High throughput protein optimization leveraging machine learning to design unique modes of action for pest control

Early Development

Large-Scale Transformation. Commercial Candidate Selection, Pre-Regulatory **Data Generation**

Competitive Advantage

Ability to rapidly test many gene combinations to evaluate stacks

Knowledge of optimal genome locations

Largest global field-testing footprint diversifies geographic data insights

Advanced Development

Trait Integration, Regulatory **Data Generation**

Competitive Advantage

New traits are introgressed into the most elite germplasm, and stacked with the industry's leading traits

Pre-Launch

Regulatory Submissions & Approvals, Seed Bulk-Up, System Testing and Pre-Marketing

Competitive Advantage

Unrivaled global regulatory experience

Identification of optimal agronomic systems (trait, germplasm, chemistry) for product deployment & customer recommendations



Short-Stature Corn Offers Transformational Shift in Production via Smart Corn System



04 World-Class Innovation





Phase 4 Breeding Approach in U.S. Ground Breaker 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

Iowa 2020 Trials Following Derecho Windstorm





Precision of Crop Application

- Improved in-season crop access due to reduced height
- Supports tailored solutions with precise in-season crop protection

Spray Rig in Short-Stature Corn Plot Jerseyville, IL August 2019





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

Poseyville, Indiana July 2021 Nitrogen Y-Drops for Precise In-Season Application



Anticipated Fit on >220m Acres and Incremental Peak Sales Potential of >€1bn for NA

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



Next Generations of Soybean Herbicide Tolerance Traits to Provide Industry Leading Flexibility



04 World-Class Innovation



Address Farmers' Needs, Herbicide Resistance Challenges



HT4 Fourth-Gen Phase 3

Expected 2027 launch

// Glyphosate // Glufosinate // Dicamba // HPPD (Mesotrione) // 2,4-D

Anticipated Fit on >180m Acres and Incremental Peak Sales Potential of >€500m



July 14th, 2021 | Jerseyville, Illinois



HT5 Fifth-Gen Advanced to Phase 3

// Glyphosate // Glufosinate // Dicamba
// HPPD (Mesotrione) // 2,4-D // PPO



July 14th, 2021 | Jerseyville, Illinois



Industry-Leading Expertise in Chemical Crop Protection R&D



04 World-Class Innovation

Ë

Designing Low Impact Chemicals to Safely & Sustainably Address Needs of Farmers and Society

Chemical Crop Protection R&D timeline (10-14 years)











Phase 0

Phase 1

Phase 2

Phase 3

Phase 4

Molecular Target & Hit Identification

Al-supported molecular target & hit identification toward selection of potent and safe molecules

Competitive Advantage

Powerful target-based discovery platform

Unique early safety assessment with *in vitro* tests and *in silico* prediction tools & models

Focus on novel Mode of Action & novel chemical spaces

Proof of Concept

Profiling of best candidates addressing market needs; Field trials; chemical & formulation optimization; mammalian & environmental toxicology assessment

Competitive Advantage

Al-supported design of molecules to create desired properties

World-class biology testing

Combined regulatory and chemical expertise allow early decisions to maximize probability of success

Early Development

Commercial candidate selection and product concepts; process development; pre-regulatory data generation

Competitive Advantage

Largest global field-testing footprint diversifies geographic data insights

Industry-leading formulation expertise with locations in Europe, NA, APAC

CoGs leadership ensured by cutting edge science and Al-supported synthesis and route design

Advanced Development

Commercial proof of concept, regulatory data generation

Competitive Advantage

Largest portfolio of assets and digital capabilities to define digitally enabled tailored solutions (CP, Breeding, Plant Biotech, Data Science)

Scientific and agronomic knowledge to design best resistance-breaking products

Pre-Launch

Regulatory Submissions & Approvals, Production, Application Optimization, Pre-Marketing

Competitive Advantage

Unrivaled global regulatory experience advising

Evaluation of agronomic systems for product deployment & customer recommendations



First New Herbicide Mode of Action in Post Emergence Weed Control in 30 years

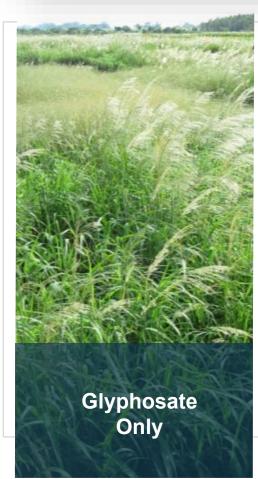


04 World-Class Innovation



New Herbicide Molecule

Project is currently in Phase 3







Potential to build on #1 position in global herbicides¹



Allows use in **various market segments**, beyond traditional nonselective use

Mix Partner +
New Herbicide
Product concept
with new active



Herbicide **tolerance trait** to be paired with this **molecule currently** in discovery

internal estimates



Industry-Leading Technology for the Next Generation of Biologicals



04 World-Class Innovation



4-6 Year Product Development Timeline

Partner of Choice to Bring the Next Generation of Biologicals to Growers



Access to a variety of diverse technologies through our Open Innovation Network

Competitive Advantage

Strategic research partners with in-depth understanding of innovative modes of action resulting in novel products Accelerate competencies in fermentation and formulation optimization of microbial products for agriculture

Competitive Advantage

Market leading end use products with ease of handling for customer and good shelf life for distribution

of application programs Competitive

Advantage

Worldwide network of field-

testing capabilities for early

screening and development

Understanding of geographic product range with precise guidance on practical use

Dedicated resources to understand compatibility, rainfastness and stability of biologicals in jug and on seed

Competitive Advantage

Exceptional customer support with market leading biological products

Sustaining today's leading lineup and pioneering next generation of biologicals

Competitive Advantage

Ability to address untapped markets and work within challenging regulatory constraints worldwide



Expanding a World Class Biological Platform with Open-Innovation Strategy



04 World-Class Innovation



Open Innovation Ecosystem



Robust asset evaluation for inlicensing or distribution of commercial or late stage products

January 2023



Commercialized





- M2i: partner to supply fruit and vegetable growers around the world with pheromone-based crop protection products
- Alpha bio control: **commercialized Flipper**
- Scouting to meet **short to mid-term** portfolio needs



Extensive pipeline advancement through development of internal assets and co-development with selected partners

SeedGrowth Corn Yield Phase 3 SeedGrowth Bird Repellent Phase 3

- Evaluating opportunities for midterm portfolio differentiation
- Actively advancing products in our pipeline
- Establishing preferred partners for co-development and commercialization



Multi-year strategic research partnerships with technology leaders to develop proprietary portfolio of next generation biologicals

October 2022

February 2023





- Ginkgo: 3-year collaboration on nitrogen optimization, carbon sequestration, and next generation crop protection
- Kimitec: strategic partnership to accelerate the development and commercialization of biological crop protection solutions and biostimulants



Expand R&D ReachTeaps Breakthrough Technology Investments



04 World-Class Innovation

NuCicer added to Portfolio in 2022; 20 Distinct Investments in Sustainable Productivity and Improved Nutrition

Leap 03/ Reduce environmental impact of agriculture



















Companies shown by primary Leap but may have potential in further Leaps. * New investment in 2022.

For additional information on these and other Leaps by Bayer investments, please visit: https://leaps.bayer.com/

Leap 07 / **Provide** next-generation healthy crops







Leap 08/ **Develop** sustainable protein supply







Leap 09/ Prevent crop and food loss











Climate FieldView Digital Tools Reach >220m Subscribed Acres



05 Digital Transformation

Climate Fieldview

- >220m subscribed acres
- > #1 brand in digital ag1
- Operates in 23 countries

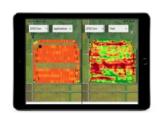


- Largest database of grower and field trial seed performance data in industry
- >80 partners on platform

In-cab Visualization



Performance Visualization



Performance Evaluation



Field Health Images



Prescription Delivery











Digital Farming Solutions Underpin and Enhance Our Ability to Bring Transformational Solutions



05 Digital Transformation



Our Vision for Digital Agriculture

Three Core Value Drivers

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





Franchise Value





Downstream Value





Platform Value



Advancing Climate Smart Practices to Transform Value Chains and Achieve Sustainability Targets



05 Digital Transformation

ForGround by Bayer

Digital platform that goes beyond carbon offsets and helps farmers transition to sustainable practices and connect with businesses looking to advance their sustainability and carbon goals



Growers have access to tools. resources, discounts and financial benefits (through Bayer Carbon Program)



Companies have access to carbon assets and services powered by **FIEDVIEW** platform to support their sustainability goals

Builds on Success with our Existing Bayer Carbon Program

- Long-term program to provide annual incentives to FIEDVIEW enrolled growers for verified and validated climate-smart practices like no-till and cover cropping
- Enables 3 Expected Downstream Revenue Opportunities in >\$200bn/year market1

Carbon **Services** **Product** sales

Carbon assets

first removals in NA and EMEA in 2023

Creates new opportunities for growers and businesses alike



- First food value chain B2B collaboration on ForGround platform spanning across Perdue's entire grain network
- Perdue grain farmers may be compensated for adopting regenerative practices, allowing Perdue to decarbonize their supply chain



- Scale Nori's carbon removal marketplace by adding Bayerowned removals
- Pave the way for price discovery on the open market
- Provide potential upside for farmers in revenue sharing agreement

Source: https://www.reuters.com/article/us-carbontrading-turnover/global-carbon-trading-turnover-at-record-214-billion-last-year-research-idUSKBN1ZN1RN



Enabling New Digital Platforms in Ag; Two Examples



05 Digital Transformation

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



- 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
- >270,000 registered growers across LATAM
- Covers ~75% of planted area



Collaboration

- 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



The Next Frontier: Evolution to Digitally Enhanced System Solutions



05 Digital Transformation

2030

Illustration: NA Smart Corn System Featuring Short Stature Corn



Discrete Solutions

CROP

PROTECTION

∲TriVolt

DELARO

ACCELERON

Tailored Solutions







Increased Value from Digital Enhancements to Grow Share of Farm

_____ Inputs to Outcomes_____

SEEDS &

TRAITS

2022

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 Illustration: NA Smart Corn System Featuring Short Stature Corn



Innovative, Sustainable Solutions to Address Global Challenges



New Standards in Sustainability









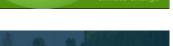
Global Challenges

Our Goals

Our Priorities

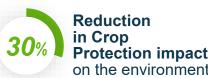
Our Solutions

Growing Population Increasing Protein Demand

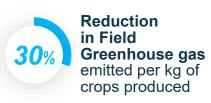


Water Quality Soil Health

Climate Change Sustainable Energy Sources







Producing & Protecting **Higher-Yielding Seeds**

Using Fewer Natural Resources

Advancing a Carbon Smart Future for Ag

- High-yielding, disease-resistant seeds
- Next-generation biotech traits and crop protection to protect yield

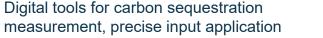






- Novel small molecules and biological solutions with reduced environmental impact
- Short stature corn provides the opportunity to unlock additional yield potential by optimizing crop inputs











 Next-generation herbicide-tolerant traits to support no-till/ conservation tillage systems

Digital tools for carbon sequestration





Science for a Better Life

Shaping the Future of Agriculture



01

Investment Case February 2023 / Bayer AG



Crop Science: Seed & Traits and Digital R&D Pipeline (Annual Update Feb 2023)



	Phase I		Phase II		Phase III		Phase IV		PSP	
CORN SEED & TRAIT	2nd Generation Seed Density Digital Tool - NA	¥	5th Generation Lepidoptera Protection 5th Generation Herbicide Tolerance w/ (RHS2 Digital Disease Mgmt. – NA Seed Placement Digital Tool - NA		Short Stature Corn – Biotech Trait ³ 4th Generation Coleoptera Protection Annual Germplasm Upgrades) DOC DOC	Short Stature Corn – Breeding Approach 4th Generation Lepidoptera Protection Seed Density Digital Tool – EMEA Seed Density Digital Tool – LATAM Annual Germplasm Upgrades	≥ □ □ ≥	~€11bn	
SEED & TRAIT C			Annual Germplasm Upgrades Seed Placement Digital Tool – NA 4th Generation Insect Protection		3rd Generation Insect Protection 2nd Generation Soy Cyst Nematode resistance 4th Generation Herbicide Tolerance (HT4)	ğ	Vistive Gold Xtend	ğ	uc	
SOYBEAN SE	The state of the s	义 义	Annual Germplasm Upgrades Soybean Native Resistance	<u></u>	(5 Tolerances –Adds 2, 4-D and HPPD) 5th Generation Herbicide Tolerance (6 Tolerances – Adds PPO) Annual Germplasm Upgrades Soybean Native Resistance		Annual Germplasm Upgrades Soybean Native Resistance	发	~€4bn	
HER⁴ el	Canola/OSR Digital Disease Mgmt NA		Wheat Digital Disease Mgmt EMEA		Canola Dicamba Tolerance Sugarbeets 2nd Generation Herbicide Tolerance ² Cotton 4th Generation Herbicide	200 200 200	Lygus and Thrips Control (ThryvOn Technology) - Stewarded Commercial Launch	ğ		
VEGETABLES and OTHER ⁴ Including Carbon Model	Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades		Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades		Tolerance (HT4) (5 tolerances – Adds 2, HPPD and PPO) Cotton 4th Generation Insect Protection Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades		Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades	L L L L L L	~€6bn	Breeding Trait Digital Model advanced to next phase

Projects listed here and included in the peak sales potential by segment do not include projects funded by our LEAPS investments; includes all advancements made in FY'22, updated Feb'23

PSP = Peak Sales Potential, 50% incremental; Expected to reach 30% of PSP by 2032, 80% of PSP by 2037 and remainder in 2038+; Note that products are excluded from the pipeline PSP typically the year following launch ² In collaboration with KWS; ³ In collaboration with BASF; ⁴ "Other" category includes seeds and traits, such as cotton, canola, wheat, OSR, rice, vegetable seeds and sugarbeets, plus carbon and digital Models



Crop Science: Crop Protection R&D Pipeline (Annual Update Feb 2023)



ı	Phase I		Phase II	Phase III	Phase IV	Life Cycle Management ¹				
	New Al Development New Herbicide ✓ New Herbicide ✓ New Herbicide ✓	**************************************		New Herbicide ✓ ✓ ✓ New Herbicide ✓ New Herbicide³ ✓		Non-Selective Glyphosate LCM Selective Merlin Flexx / Adengo LCM Balance Flexx LCM Convintro New over-the-top herbicide	✓ Mateno Complete ✓ Council Family ✓ Ronstar One ✓ Mesosulfuron LCM	√ √ √ √		
İ	New Fungicide √	مم	New Fungicide ✓ "Å"	New Fungicide ³ ✓ ✓ ✓		Luna Flexx Super Nativo Delaro Forte	√ √ √ √			
	New Insecticide ✓ ✓	ه ا		Novel Mite Solution ✓ ✓ ✓ ✓	Plenexos √ √ √ o♣o	Vayego Duo Velum LCM Rice Plant Hopper	✓ ✓ ✓			
				New Seed Treatment ✓ ^b 3, New Seed Treatment ✓ ^b 3,		INS FUN ready mixture Redigo FS 25	✓			

¹ Shown here is a subset of Bayer's total life cycle management activities; focused on new formulation developments which have the potential to bring significant innovation to customers compared to currently marketed product; Products shown may not yet be fully registered in all jurisdictions; includes all advancements made in FY'22, updated Feb'23; ² SeedGrowth is currently reported within other SBEs; ³ 3rd party collaboration

PSP = Peak Sales Potential, 50% incremental; Expected to reach 30% of PSP by 2032, 80% of PSP by 2037 and remainder in 2038+; Note that products are excluded from the pipeline PSP typically the year following launch.

advanced to next phase

Selection of projects listed here and included in the peak sales potential by segment do not include projects in early research or discovery



Science for a Better Life

Pharmaceuticals:
Driving Continued
Long-term Growth

Investment Case February 2023 / Bayer AG





Pharmaceuticals: Driving Continued Long-Term Growth

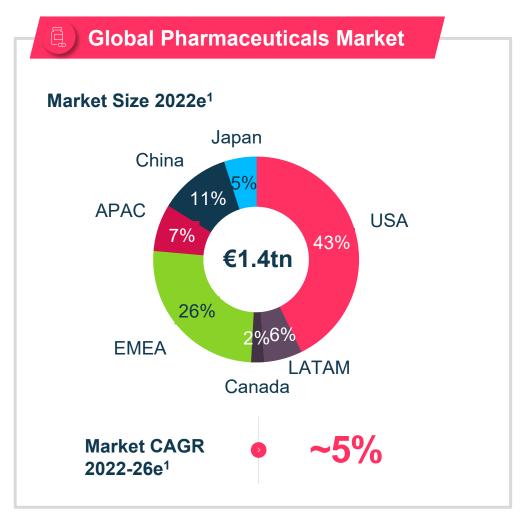




Pharma Is An Attractive And Dynamic Market With Significant Opportunities Ahead



Market & Position



Trends and Challenges



Disruptive medicines from breakthrough science



Shift from **treatment to prevention** and potential cure



Loss of exclusivity



Pressure on **pricing**



Declining R&D productivity



Increased pressure for value and real-world evidence

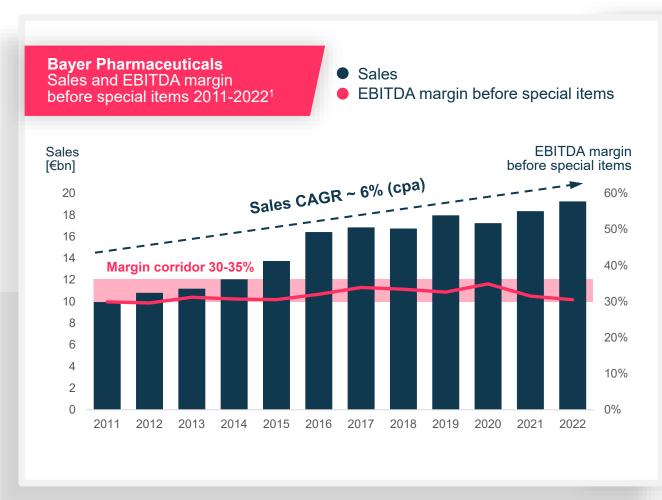
¹ Source: IQVIA Market Prognosis as of September 2022

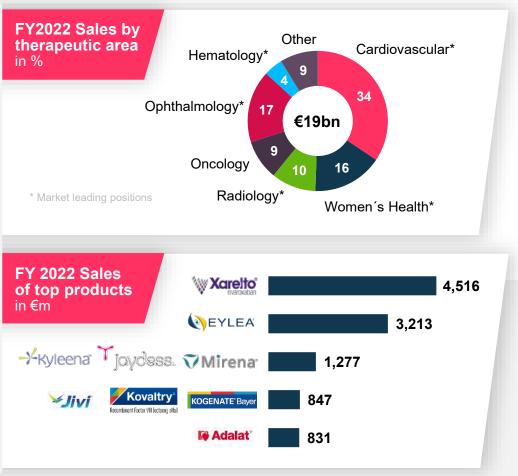


Bayer Holds Strong Positions In Areas Of High Unmet Medical Needs, Generating Attractive Returns



Market & Position



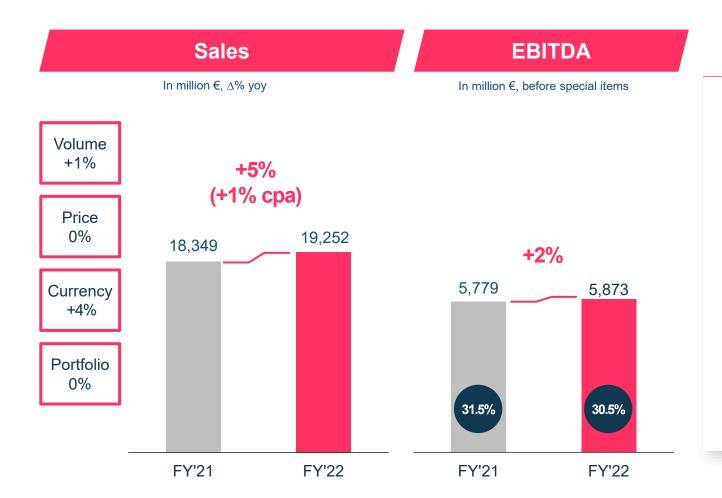


¹ As reported in the respective fiscal years



New Products Nubeqa and Kerendia Continue to Gain Momentum

1 Market & Position



Key Messages

- Nubeqa (+97%) topline doubled to ~€470m, strong launch for Kerendia (>€100m)
- Eylea (+9%) with continued growth across regions
- Xarelto (-6%) impacted by VBP¹ China, pricing pressure in UK and loss of exclusivity in Brazil
- Prior year including non-recurring Adempas milestone of €190m
- Earnings impacted by cost inflation (~€600m)
- Margin in line with prior year and guidance excluding significant dilution from foreign exchange rates (-110 bps)



Our Strategy is Geared Towards Continued and Sustainable Long-term Growth

02 Strategy



> 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 Launched Four New Drugs and Strengthened Pipeline and Technologies



02 Strategy

Main Building Blocks of Post LoE Growth





PSP ~ €0.5bn launched in 2021



PSP >€3bn launched in 2021

Asundexian

PSP >€5bn potential launch in 2026

Elinzanetant

(KaNDy NT-814)

PSP >€1bn potential launch in 2025

Oncology



PSP >€3bn launched in 2019



PSP > €0.75bn launched in 2019

Pipeline

eg. EGFRexon20 inhib., ATR inhib., TTCs

Cell & Gene Therapy Platform

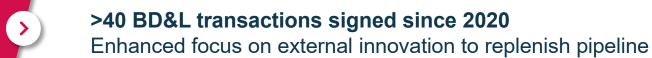


C> platform **expected to deliver significant sales contributions** from ~2025 onwards





External Innovation and BD&L



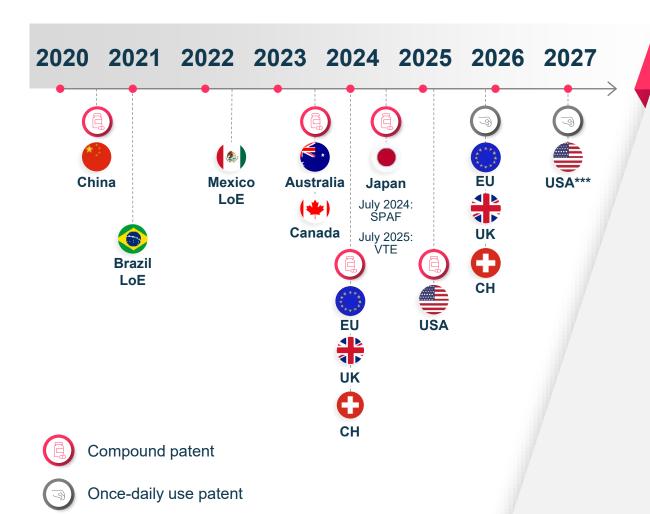
¹ In collaboration with Merck & Co. Inc., Kenilworth, NJ, USA ² In collaboration with Orion Corporation PSP = Peak Sales Potential



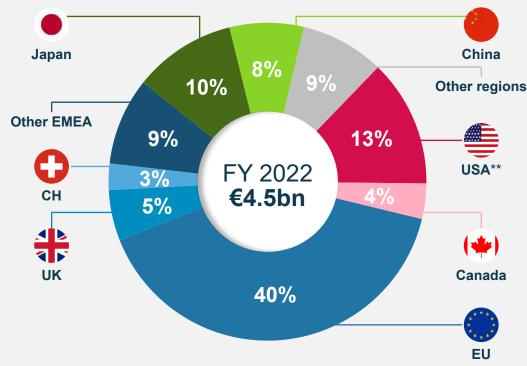
Xarelto's Main Patent Expirations* and Losses of Exclusivity (LoE)



02 Strategy



Xarelto sales by main markets in 2022



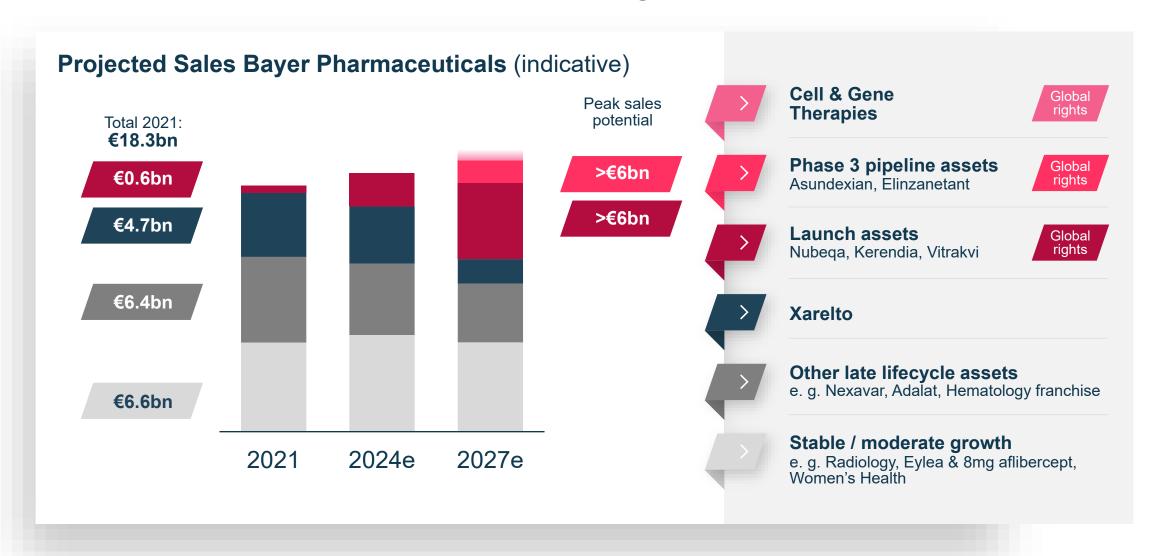
^{*} Additional IP rights with later expiration dates exist in some countries; ** Bayer royalty income; *** Gx entry on once-daily patent



Launch Assets And Late-stage Pipeline Expected to More than Offset LoE and Drive Long-Term Growth



02 Strategy

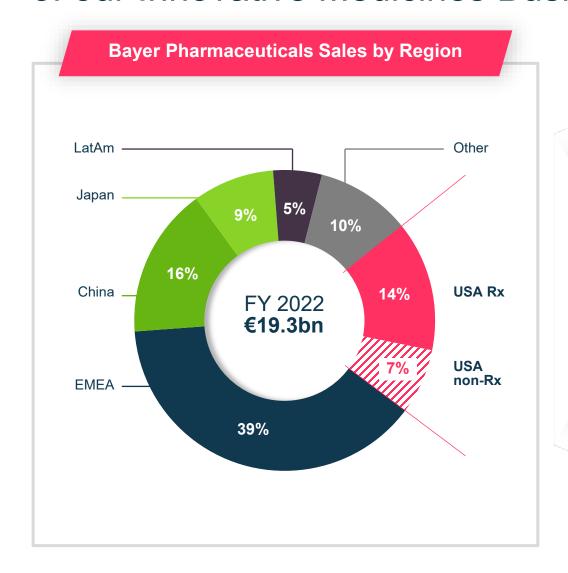


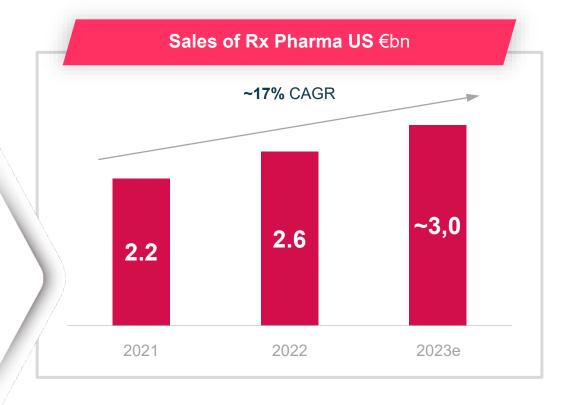


Nubeqa & Kerendia Driving Growth of our Innovative Medicines Business in the US



02 Strategy





// Market share of Nubeqa in the US expanded to >30% in nmCRPC, being #2 in nmCRPC already

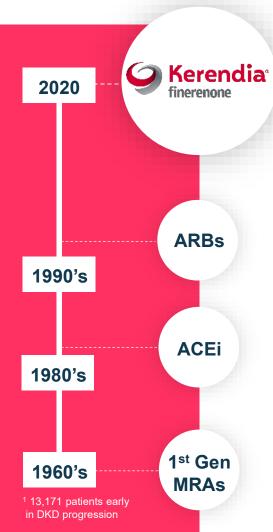
// Re-entering cardio-renal with Kerendia & Verquvo: significant investments made to build up an appropriate marketing and sales organization, headcount increased by ~50% in past 3 years



Kerendia is a Game Changer for CKD and Type 2 Diabetes Patients



)3 Growth Drivers





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

- Largest clinical program with unparalleled data¹
- 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 – US TRx development



- // Continued US market uptake
 - // One of the strongest launch dynamics in CV despite initial COVID restrictions
 - // Reimbursed access for majority of commercially insured and Medicare Part D patients
 - // Recommended by ADA, AACE and KDIGO

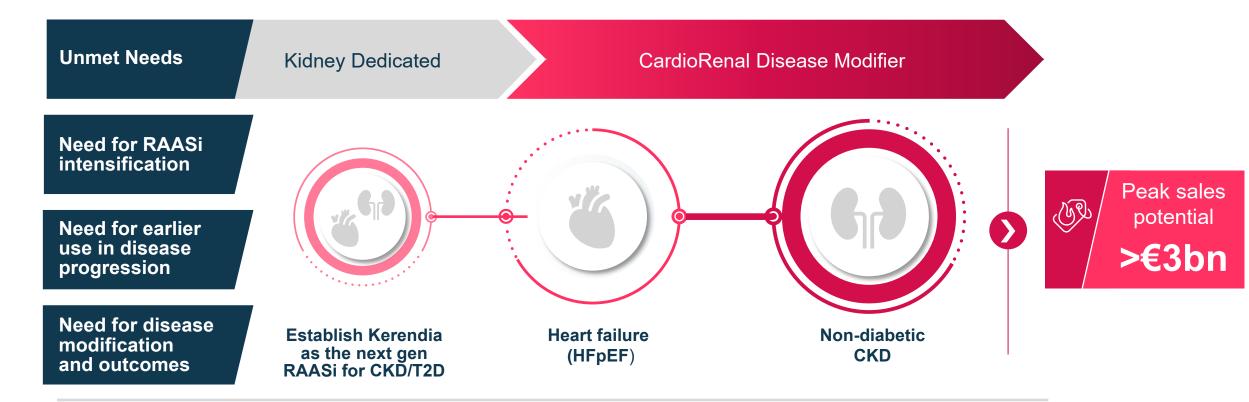
Phase III trials in 2 additional indications (HFpEF, non-diabetic CKD) with results in 2024/26



Kerendia Sets the Stage for a Long-Term Cardio-Renal Vision



03 Growth Drivers











(2024E)

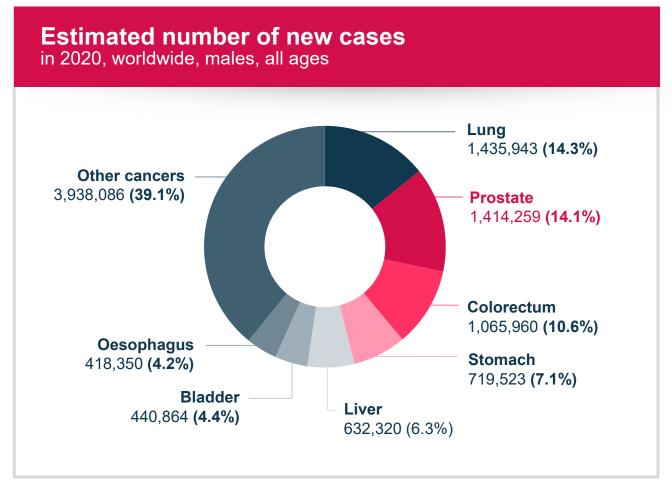
(2026E)



Prostate Cancer is at #2 Of the Most Common Cancer Types in Men Worldwide



03 Growth Drivers



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

Source: International Agency for Research on Cancer, https://gco.iarc.fr/today/online-analysis-table



We Are Committed to Make Nubeqa Available to a Broad Spectrum of Prostate Cancer Patients



03 Growth Drivers

Patient progression in prostate cancer

~10-15 years -

G7 Drug treated epidemiology estimates⁵:

Darolutamide (Nubeqa)
Phase 3 study program:

	<i>(Neo-)Adjuvant</i> early-stage		e tastatic -stage	Metastatic late-stage			
′	~145k	BCR⁴ <i>~</i> <i>~</i> 85 <i>k</i>	nmCRPC ³ ~46k	mHSPC ² ~75k	mCRPC ¹ ~145k		
,	DaSL-HiCap	Planned to be started in H1 2023	ARAMIS 🗹	ARASENS 2022			
y	2028	2027	2019	ARANOTE (ARASEC)* 2025			



ARi's moving into earlier segments

¹ Metastatic castration resistant prostate cancer ² Metastatic hormone sensitive prostate cancer ³ Non-metastatic castration resistant prostate cancer ⁴ Biochemical relapse ⁵ G7: US, EU5, JP ⁶ Androgen receptor inhibitor

^{*} Not label generating; supports ARANOTE submission



Nubeqa Has the Chance to Become a Foundational Prostate Cancer Treatment



03 Growth Drivers

Efficacy

// Highly efficacious ARi1

// 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)

// Combination opportunities

// Approved in mHSPC in the US in 2022

// Become agent of choice in prostate cancer

Sales [€bn] 2022 Ex-US ~0.8 **US** // Sales more than doubling ~0.5 // Expanding US market **x2** share to >30% in nmCRPC 0.2 // US label extension in August 2022 to treat patients with mHSPC 2021 2022 2023e Sales drivers 2023 Peak sales // Continued market share gains in (Mg) nmCRPC potential // mHSPC approvals in EU, JP, CN and >€3bn other major regions // Potential to become foundational drug

across prostate cancer indications

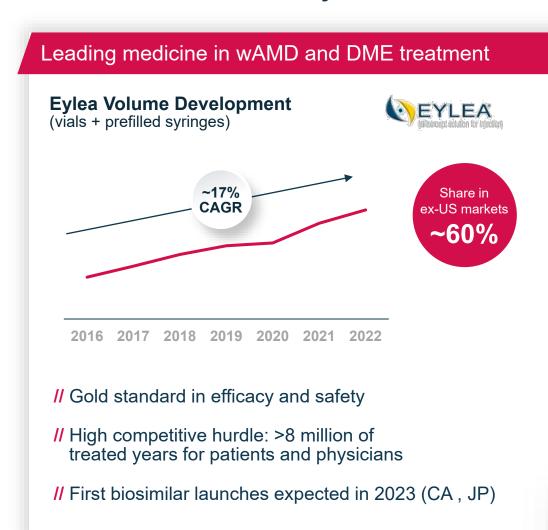
¹ Androgen receptor inhibitor



Strong Aflibercept 8mg Data Reinforce Leading Clinical Profile of Eylea Franchise



03 Growth Drivers



Unparalleled clinical data further raising the bar

Aflibercept 8mg

Aflibercept 8mg	Share of patients maintaining on dosing interval ⁽¹⁾				
Injection	Photon (DME)	PULSAR (wAMD)			
every 12 weeks	91%	79%			
every 16 weeks	89%	77%			

¹⁾ Comparator arms: Eylea every 8 weeks

- Significant prolongation of injection intervals without compromising efficacy and safety
- // Set to become new standard of care despite increasing competitive dynamics
- // Submissions in major markets in 2023, launch by 2024

Commercial potential substantially strengthened

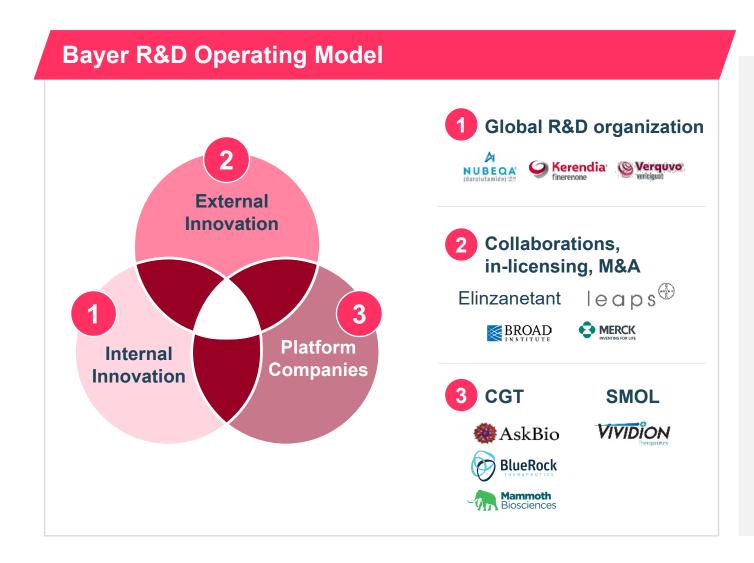
DME: diabetic macular edema; wAMD: wet age-related macular degeneration



Our Innovation Engine is Delivering



04 Innovation





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



Elinzanetant's Unique Clinical Profile Can Offer a Transformative Approach for the Treatment VMS



04 Innovation

Typical vasomotor symptoms (VMS) 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
- // Four Phase III studies (OASIS-1 OASIS-4)

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

Phase III data expected in H2 2023

Potential launch: 2025







Significant Progress Has Been Achieved In Anticoagulation Therapy But Medical Need Still Exists



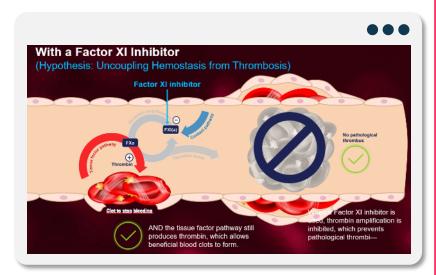
04 Innovation



- // Heparin and VKAs were the only anticoagulants available for most of the 20th century
- // Guidelines now prefer NOACs over VKAs for many indications

Need remains for anticoagulants with reduced bleeding risk in specific patient populations:

- " ~40% of eligible patients with atrial fibrillation un(der)treated due to actual/perceived bleeding risk
- More effective antithrombotic strategies (beyond antiplatelet therapy alone) for the prevention of stroke and other major vascular events in patients with prior stroke



Fredenburgh and Weitz, JTH 2020; DOI: 10.1111/jth.15126



Landmark Phase III Program Started with Oral Factor XI(a) Inhibitor Asundexian



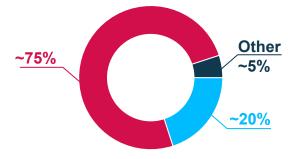
04 Innovation

Market

Ischemic Stroke by types

Non-cardioembolic

- // ~9m diagnosed patients in key 7 markets
- // Standard of care: Single/Dual APT



Cardioembolic

- // ~13m diagnosed AF patients in key 7 markets
- // Standard of care: DOACs (or VKA)
- // ~40% of eligible patients un(der)treated

Asundexian characteristics

- // Potential first-in-class, once-daily, oral small molecule FXIa inhibitor
- // New potential treatment in thrombosis prevention
- // Broad **Phase II** study program PACIFIC confirmed consistent safety and near maximum FXIa inhibition

Phase III OCEANIC Program

OCEANIC AF



- // Asundexian vs. Apixaban in atrial fibrillation
- # FPFV in December 2022

OCEANIC STROKE

OCEANIC

// Asundexian + APT in acute non-cardioembolic ischemic stroke or high-risk TIA vs. Placebo Phase III data expected in H2 2025

Potential launch: 2026



AF: Atrial fibrillation; APT: Antiplatelet therapy; DOAC: Direct oral anticoagulant; FPFV: First patient first visit; SAPT: Single antiplatelet therapy; TIA: transient ischemic attack; VKA: Vitamin K Antagonist



Advancing Leading CGT Platform with Strong Clinical Pipeline



04 Innovation



- // AAV platform (AskBio and Bayer established)
- // BlueRock's iPSC
- // CAR-T
- // Gene-editing (+ Mammoth)
- > CDMO business with strong momentum
- Industry leading CGT clinical pipeline
 - // 6 clinical projects
 - // >15 projects at pre-clinical stage

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



First results expected from Phase I cell therapy study DA-01¹ in Parkinson's disease in H2 2023



Ongoing recruitment and evaluation of patients in the US for AskBio's Phase 1b clinical study to assess safety and preliminary efficacy

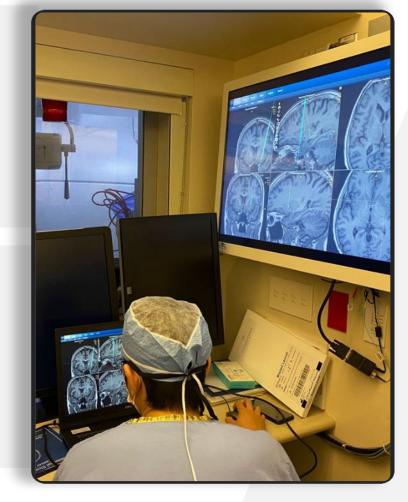


Photo: Dr. Viviane Tabar, Chair of the Department of Neurosurgery, Memorial Sloan Kettering Cancer Center

¹ Pluripotent stem cell-derived dopaminergic neurons



Pharmaceuticals – Pipeline Overview¹ (as of Feb 15, 2023)



04 Innovation

Phase 0 ²		Phase I			Phase II		Phase III	
DGKalpha Inh (BAY 2862789)	♣ •	Elimusertib (ATR Inhibitor) (BAY 1895344)	, Å, (Regorafenib (combi Nivolumab) (BAY 734506) // Solid tumors (recurrent or metastatic)	,i, 0	Copanlisib (PI3K Inhibitor) // Non-Hodgkin Lymphoma (CHRONOS-4)	؞ئہ C
PSMA TAC (BAY 3546828)		AhR Inhibitor (BAY 2416964)	,Å, (Asundexian (FXIa Inhibitor) (BAY 2433334)	9	Darolutamide (AR Inhibitor)	
PSMA SMOL TAC (BAY 3563254)		mEGFR Inhibitor (BAY 2927088)	, Å, (// Major Adverse Cardiac Events Prevention (PACIFIC-AMI)	o.♣o ■	// Prostate Cancer (mHSPC) (ARANOTE) // Adjuvant Prostate Cancer (DASL-HiCaP)	,i, O
VVD NRF2 Inh (BAY 3605349)	<u>ئ</u>	DGKzeta Inhibitor (BAY 2965501)	,i,		Runcaciguat (sGC Activator) (BAY 1101042) // Chronic Kidney Disease (CKD) (CONCORD)	1	Finerenone (MR Antagonist)	
VVD STAT3 Inh (BAY 3630914)	<u>گ</u> •	CCR8 Ab (BAY 3375968)		// Non-prolif. Diabetic Retinopathy (NPDR) (NEON-NPDR)	0,00	// Heart Failure (HFmr/pEF) (FINEARTS-HF) // Non-diabetic CKD (FIND-CKD)	؞ئہ C	
SEMA 3a (BAY 3401016)	Y •	Congestive Heart Failure Gene Therapy (AB-1002 formerly NAN-101)	ğ		BDKRB1 Receptor Antagonist (BAY 2395840) // Neuropathic Pain (BRADINP)	.i. •	Vericiguat (sGC Stimulator) // Heart Failure (HFrEF) (VICTOR³) Asundexian (FXIa Inhibitor) // Stroke Prevention in Atrial Fibrillation (OCEANIC-AF) // 2º Stroke Prevention (OCEANIC-STROKE)	å, C
LGMD2i Gene Therapy (LION-101)	ĕ ●	sGC Activator (BAY 3283142)	مد ا		Gadoquatrane (High Relaxivity Contrast Agent)	2		å. •
Next Generation Liver MRI (BAY 3393081)		Anti-a2AP (BAY 3018250)	Y		(BAY 1747846) // Magnetic Resonance Imaging (HRCA-PAT)			
		P2X4 Antagonist (BAY 2328065)	ملَّه (Adrenomedullin Pegol (PEG-ADM) (BAY 1097761) // Acute Resp. Distress Syn. (ARDS) (SEAL)	٠, •	Elinzanetant (Neurokinin-1,3 Rec Antagonist)	1
		BDKRB1 Receptor Antagonist (BAY 2395840)	Zabedosertib (ittArt4 iiii.) (BAT 1054040)		?	// Vasomotor Symptoms (OASIS)		
		sGC Activator (BAY 1211163)	,Å, (// Atopic Dermatitis (DAMASK)	o.♣, ●		
		Bemdaneprocel (Parkinson's Disease Cell Therapy) (BRT-DA01)					Submissions	
		Parkinson's Disease Gene Therapy (AB-1005 formerly AAV2-GDNF-PD)	ğ				Darolutamide (AR Inhibitor) / ADT with Chemotherapy	ئر C
		Multiple System Atrophy Gene Therapy	ğ				// EU, Japan, China: mHSPC	
Oncology		(AB-1005 formerly AAV2-GDNF-MSA) Pompe Disease Gene Therapy (ACTUS-101)	8				Aflibercept 8MG // EU. US ⁴ : Diabetic Macular Edema (DME)	ام در ام
Cardiovascular Diseases	cular Diseases Huntington's Disease Gene Therapy (BV-101) Health		ă				// EU, US ⁴ : Neovasc. Age-rel. Macular Degen. (nAMD)	, -
Women's Health			* * * * * * * * * * * * * * * * * * *					
Others	GPR84 Antagonist (BAY 3178275)		3 0		F	ull pipeline	e package available for download ເ	under:
						https://www	v.bayer.com/en/pharma/development-pipe	<u>eline</u>
New molecular entity								
Life cycle management					Antibody 🦒 Biologic 👸 Cell Therapy	Contrast A	ent 🂆 Gene Therapy 🔀 Radiotherapy 🎎 Sn	nall Mole

¹ Bayer and partner sponsored + 3rd party label enabling studies with first patient first visit 2 Pre-clinical selected assets on path to IND 3 Conducted by Merck & Co 4 US submission made by Regeneron Pharmaceuticals



Science for a Better Life

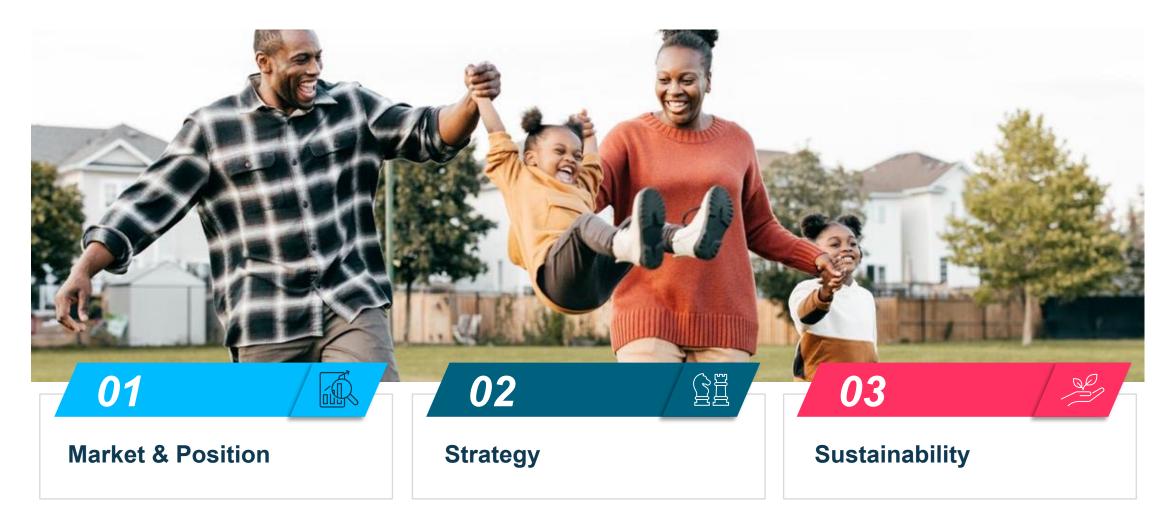
Driving Sustainable Outperformance in Consumer Health

Investment Case February 2023 / Bayer AG





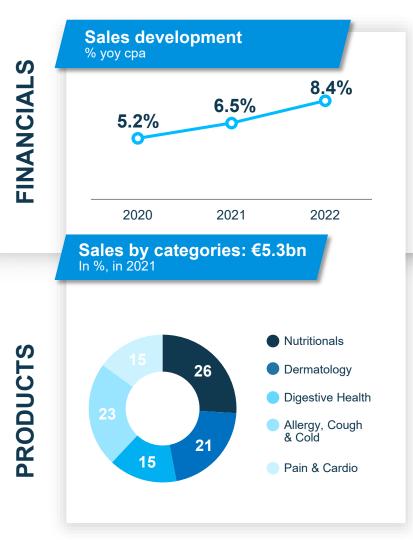
Driving Sustainable Outperformance in Consumer Health



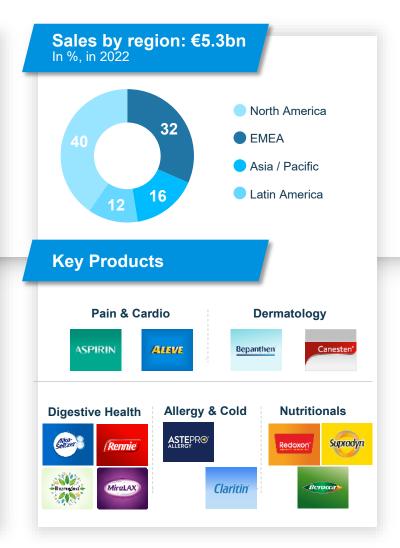


Consumer Health: A Leading Global OTC Player

01 Market & Position









A Clear Game Plan to Sustain Outperformance



02 Strategy



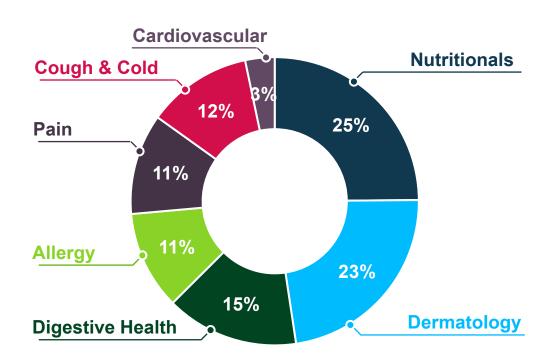


A leading Consumer Health Player with a Well-Balanced Portfolio

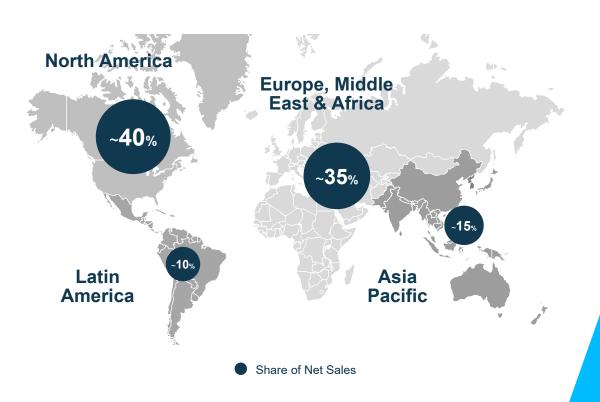
32 Strategy

Growth-Focused Capital Allocation

Category Portfolio



Geographic Footprint



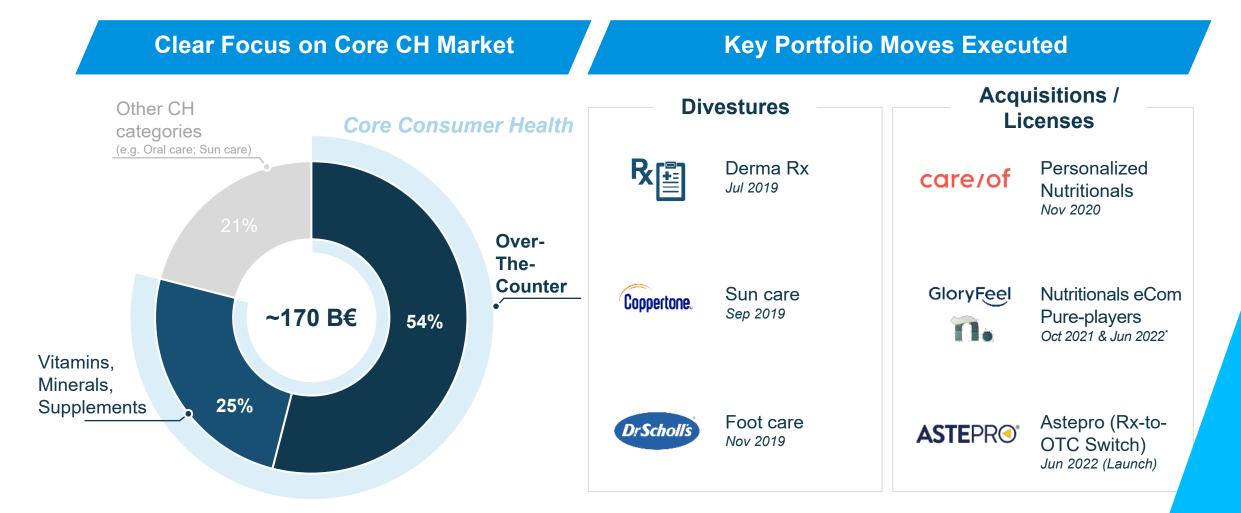


Focused portfolio on Core Consumer Health Where We Can Win



02 Strategy

Growth-Focused Capital Allocation



^{*} Strategic minority stake in Natsana Sources: OTC, VMS - Nicholas Hall DB, Global CHC Sales 2021; Others - Euromonitor Retail Value MSP, 2021



Accelerating Growth from Innovation

Iconic Global and Local Brands Built Over Decades



02 Strategy

Growth-Focused Innovation





Key levers to sustain above-market growth



02 Strategy

Growth-Focused Innovation

Attractive Demand Spaces

High-growth Markets

Rx-to-OTC **Switches**

Digital Commerce & Health Platforms







ASTEPRO 24 HOUR RELIEF OF ◀ Sneezing ASTEPRO Itchy nose







ada

- // Premium Nutritionals
- // Healthy Aging
- // Stress and Sleep
- // Medicated Skin

- // China
- // India
- // Mexico
- // ASEAN

- // Astepro
- // Switch #2
- // Switch #3



- // eCommerce
- // Digital Diagnostics
- // Digital Therapeutics



Modernizing Our Brand Building and Sales Capabilities



02 Strategy

Modernized Marketing & Sales

















From Mass to **Precision Marketing**

% Precision marketing¹

25%

) 58%

30%

2018

2021

2024 - Ambition

Accelerating E-commerce

% Net Sales²

04%

11%

2019

2022

2024 - Ambition

¹Percentage of digital media which is data-driven precision marketing

² Percentage of net sales which is through e-commerce channels



Accelerating Use of Data to Personalize Consumer Engagement



02 Strategy

Modernized Marketing & Sales

Data & Digital First

Leading in Digital Platforms

Contextual Engagement

2019 - 2022

Share of Digital Media¹





























Share of Personalized Creatives¹







¹ Bayer internal data



Doubling Down on e-Commerce and Growth Platforms



02 Strategy

Modernized Marketing & Sales

Winning in Key eCom Platforms

2019

2022

2024

care/of

GloryFeel

Strategic Portfolio Moves



Share of Digital Commerce¹







eCom Growth FY'211























Nov. 2020











Digital Engagement Mechanisms







¹ Bayer internal sales data * Strategic minority stake in Natsana



Pricing and Trade Excellence to Drive Value Creation with Customers



02 Strategy

Modernized Marketing & Sales

Innovations Playing Across Different Value Tiers

Premium Bepanthen' **Value Offerings ASPIRINA**





Consumer Health as a Force for Good

03 Sustainability

Expand Access to Everyday Health



- Million people with improved access to self-care in underserved communities
- // Investing in accessible and more sustainable products
- // Reached 4+ Million underserved women and babies through the Nutrient Gap Initiative

Path to Climate Neutrality



35% CO₂ emissions reduction achieved across our operations

- // Investing in energy efficiency projects and increasing green energy across our sites
- // Advancing sustainable packaging

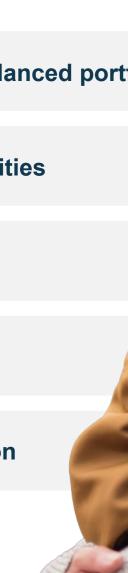


Driving Sustainable Outperformance in Consumer Health





- > World-class science, consumer and HCP capabilities
- Clear strategy to sustain outperformance
- > Track record of execution excellence
- > Attractive growth profile and cash flow generation





Science for a Better Life

Sustainability

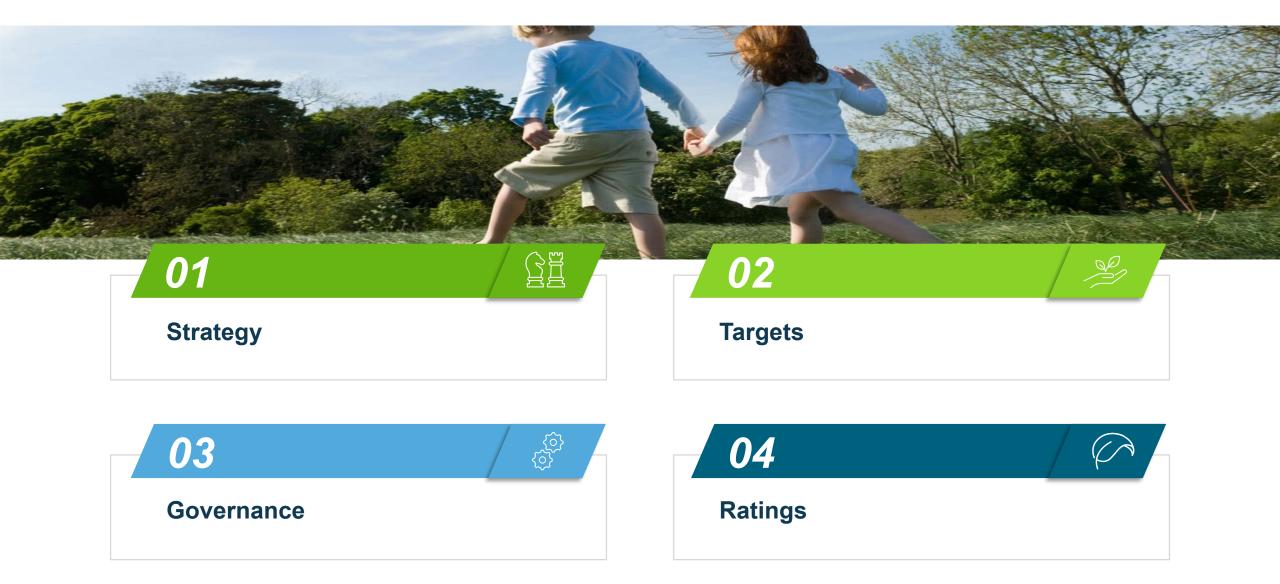
04 Investment Case

Investment Case February 2023 / Bayer AG





Sustainability @Bayer





Sustainability is Integral to Our Values, Strategy and Operations



01 Strategy

We Intend to Create Bold Impact and Generate Sustainable Business Opportunities



Long-term business growth through sustainable innovation

Growth



Sustainable Innovation as Foundation for Business Opportunities

SUSTAINABILITY

01 Strategy

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





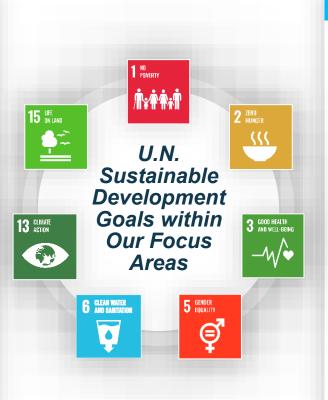
Ambitious Measurable Targets for Sustainable Development



02 Targets

Our 2030 Targets are In Line with UN SDGs and the Science Based Targets Initiative

Decrease ECOLOGICAL footprint Climate neutrality at own sites + RAGETS reduced emissions in our supply chain > 42% reduction target¹ for Scope 1 & 2 500m € CapEx for emission reduction 50m-200m € OpEx for offsetting projects 12.3% reduction target² for Scope 3 **Net Zero emission target until** 2050 in line with Paris Agreement (Scope 1, 2 & 3) CS: -30% greenhouse gas emissions in key agricultural crops in main regions; -30% environmental impact of our crop protection products CH: Transition all Consumer Health products to 100% recyclable or reusable packaging





 $^{^{1}\,\}text{By}$ 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°



We Are on Track in Our Decarbonization Journey – Need to Work Harder with Our Supply Chain



02 Targets

Scope 1&2

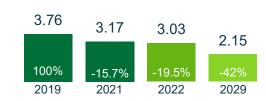
SCIENCE BASED TARGETS

42% less CO₂ in our own operations by 2029 & **Net Zero** by 2050

Reduced emissions by 4.5% or around 140,000 metric tons compared to 2021 (-19.5% compared to base year)

Reduction mainly due to a greater share of **electricity** being purchased from **renewable energy sources**

Additionally, offsetting of 450,000 metric tons of greenhouse gas emissions¹



in mio metric tons of CO₂ equivalent; % change vs. base year 2019

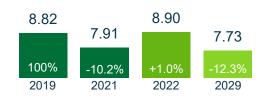
Scope 3



12.3% less CO₂ in the value chain by 2029

Emissions increased by 12.5% or 990,000 tons vs. prior year

Increase was largely attributable to business growth, replenishment of inventories and an increase in air freight and business travel



in mio metric tons of CO₂ equivalent; % change vs. base year 2019



30% less greenhouse gas emissions by 2030²

Continued efforts in **Carbon Initiative Program** supported by our digital application **Climate FieldView**[™] Digital platform was used on >220m acres of farmland in 23 countries in 2022 Carbon Program was further expanded in 10 countries in 2022 Launched "For Ground" in the U.S.

¹ Find our offsetting approach here and more info here: https://www.bayer.com/en/sustainability/climate-protection

²30% 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



2030

02 Targets





~550M

Smallholder farmers worldwide



// Lack of access to new technologies



// Limited productivity of their crops



// Limited access to knowledge



// Climate Change



Feed >50% of population in developing countries



// Exposed to the markets; price volatility and fluctuations



// Hunger & malnutrition



// Lack of access to markets and capital



// Additional challenges caused by Covid-19



2019

(Baseline)

Progress

Commercial Forecast & Initiatives 42 52 100

2022

2021

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



Access for 100m Women to Family Planning



02 Targets

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

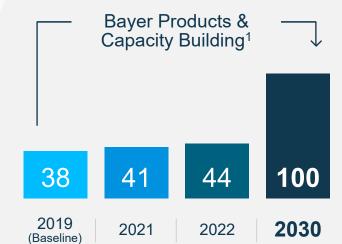
// Gender inequality is still high, teenage pregnancy and maternal death are serious health concerns, especially in LMICs

If 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



Progress



How to get there

// Capacity building¹,
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

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

¹ Capacity building refers to the development of knowledge, skills, commitment, structures, systems and leadership to enable and strengthen self-reliance and resilience of the local health systems and of the key players towards family planning and sexual reproductive health. We aim to do leverage partnerships to create impact at scale.



Access to Self-Care for 100m People in Underserved Communities



2 Targets

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

// Partnerships and Initiatives, e.g. the Nutrient Gap Initiative

// Activating our trusted OTC brands and end-to-end value chain

Go-To-Market

BAYER

Product

Pricing

Pricing

// Focus on high impact markets: US, LATAM, ASEAN, METAP

// Self-Care Education initiatives form the basis for shaping behavioral change to empower consumers to manage their own health better







Strong Governance Measures Accompany our Strategy

SUSTAINABILITY

03 Governance

Our CEO is Chief Sustainability Officer

ESTABLISHED GOVERNANCE BODIES

Supervisory Board ESG Committee advises & monitors management

External Sustainability Council¹ and newly established Bioethics Council² as institutionally anchored independent expert advisory

External and Internal **Audits**

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 TRANSPARENCY³ **ENGAGEMENT** AND REPORTING

Group Positions⁴ published on important sustainability matters

Reporting in line with sustainability frameworks (SASB, TCFD)

Additional publication of topic specific reports⁵

Science Collaboration Register extended with recent launch in the US

GROUP-WIDE REGULATIONS AS MANDATORY FRAMEWORK

Broad group-wide policy-based framework

Sustainability Policy as overarching framework

BASE⁶ 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



¹ https://www.bayer.com/en/sustainability/sustainability-council
2 https://www.bayer.com/en/sustainability/the-bayer-bioethics-council

⁵ https://www.bayer.com/en/sustainability/initiatives

⁶ https://www.bayer.com/en/sustainability/base



Important Improvements in ESG Ratings Achieved



04 Ratings

Removal of Red Flags at MSCI and ISS ESG Norm-Based Research in 2021/2022

Agency	Score (type)	Score 2022	Comments
MSCI 🌐	ESG Score Controversy level	A ► (GMO)	Improvement of Rating from BB to A ► (GMO) removed
SUSTAINALYTICS	Risk Score Controversy level	29.9 (medium) 5	Controversy level and rating impacted by ongoing Glyphosate litigations
ISS ESG ⊳	ESG Score Norm-based	C+ (1 st decile) ► (Neonics)	Currently under review ► (Neonics) removed in 2021
RepRisk	Index	53 (high risk) as of Dec '22	Ambition to reach medium risk target corridor
DISCLOSURE INSIGHT ACTION	Climate Water Forest	A A- B	Scores maintained on high level
access to medicine index	Ranking	#9 out of 20	Entered Top 10 in November 2022 Significant improvement from previous score #13
Access to Seeds Index	Ranking	#1 of 32 Africa ¹ #3 of 31 South & South-East Asia	Leading Positions in relevant regions











