



Science for a Better Life

A Global Leader in Health & Nutrition

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Investment Case

November 2022 / Bayer AG





Cautionary Statements Regarding Forward-Looking Information

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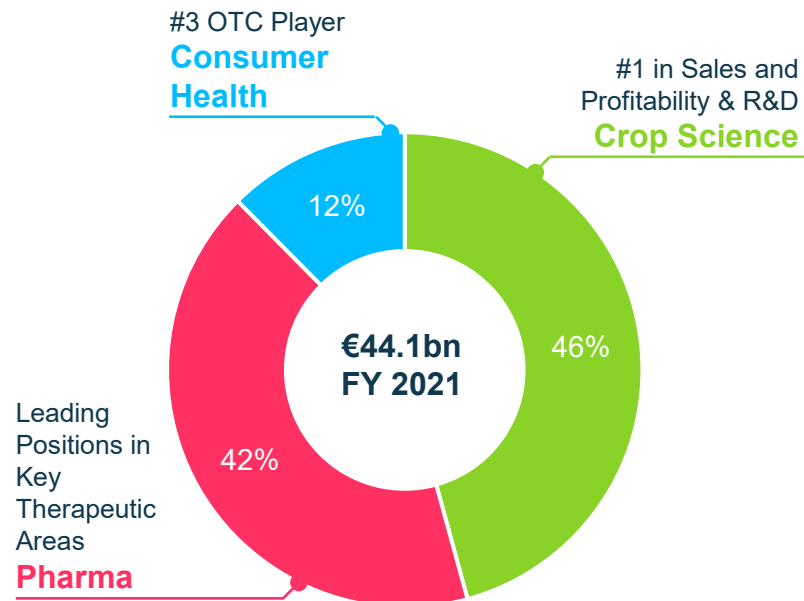
The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.



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



¹Source: Company Estimates

²Source: IQVIA MIDAS MAT Q3-20

³Source: Nicholas Hall & Company DB6

Market Size

Crop Science



~€100bn¹

Pharmaceuticals



~€1,000bn²

Consumer Health



~€150bn³



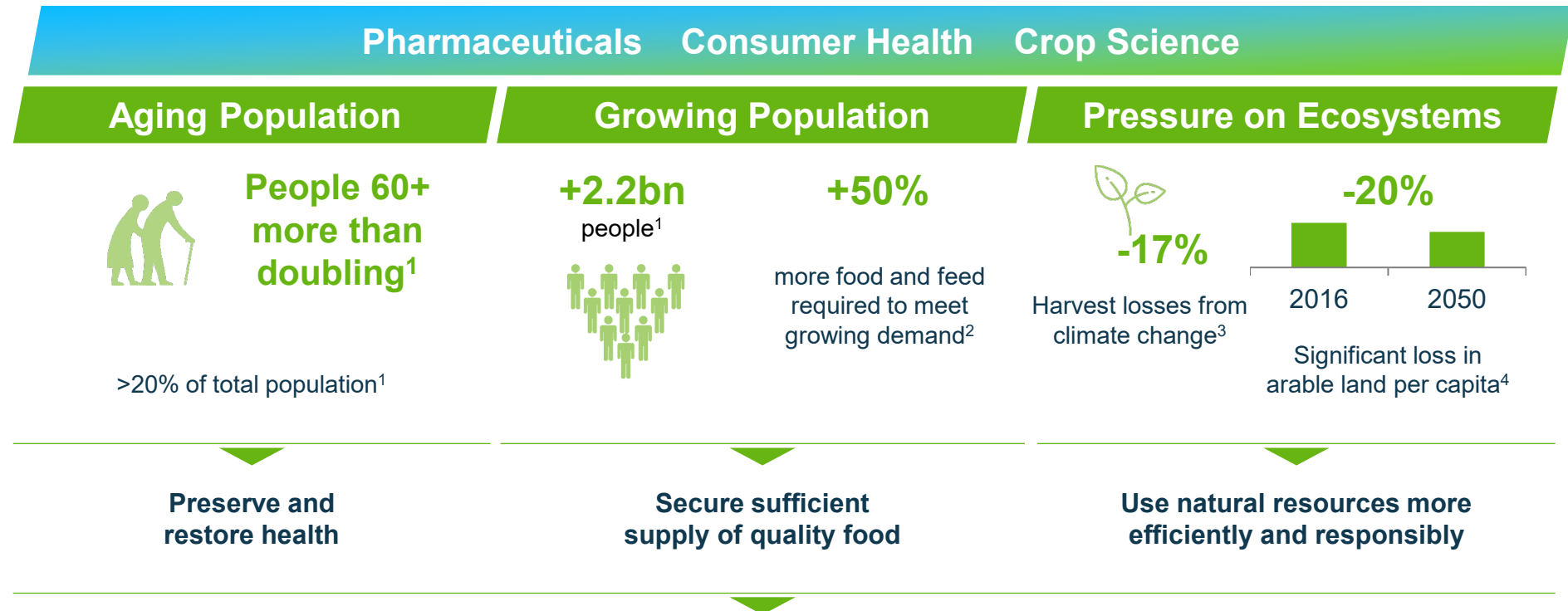
Global Megatrends in Health & Nutrition

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

Megatrends through 2050

Societal Needs

Our Mission



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



Science For A Better Life

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

² FAO 2017, (FAO Global Perspective Studies)






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

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



Leadership and Innovation Set the Course for Our Future Growth

Key Growth Drivers

-  Long-term megatrend tailwinds are propelling growing demand in the Life Sciences
-  Number one position in Ag inputs and leading positions in key Pharma and Consumer categories
-  World-class innovation: technological breakthroughs driven by the bio-revolution
-  Accelerated transformation and further efficiency gains in our operations
-  Focus on sustainability to create new value

Crop Science Innovation Pipeline

Annual R&D Investment:

€2.0bn

Key Current Launch Products:



Key Mid-/Late-Stage Pipeline Opportunities:

- **Short Stature Corn** *SmartStax^{PRO}*
- **Soybean Herbicide Trait Stack with Five-Tolerances** *Xivana[®]*
- **Fox Supra (Indiflin[®])¹**

Pharmaceuticals Innovation Pipeline

Annual R&D Investment:

€3.1bn

Key Current Launch Products:



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

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

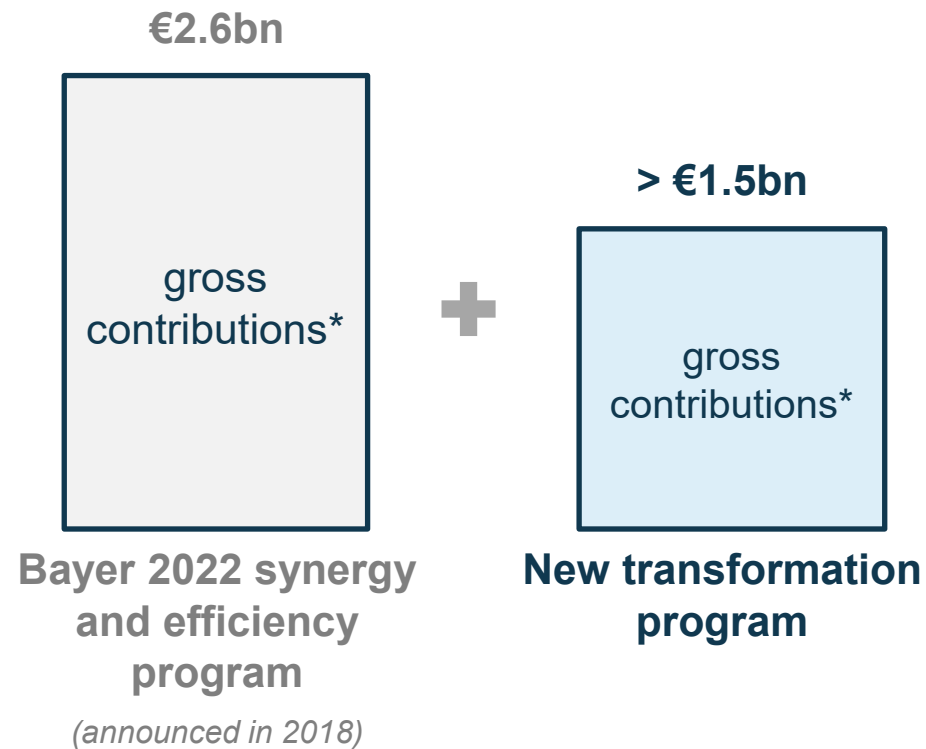
¹ In collaboration with Sumitomo



New Transformation Program with Gross Contributions of >€1.5bn

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

Transformation Programs



Delivery

- **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

* 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 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

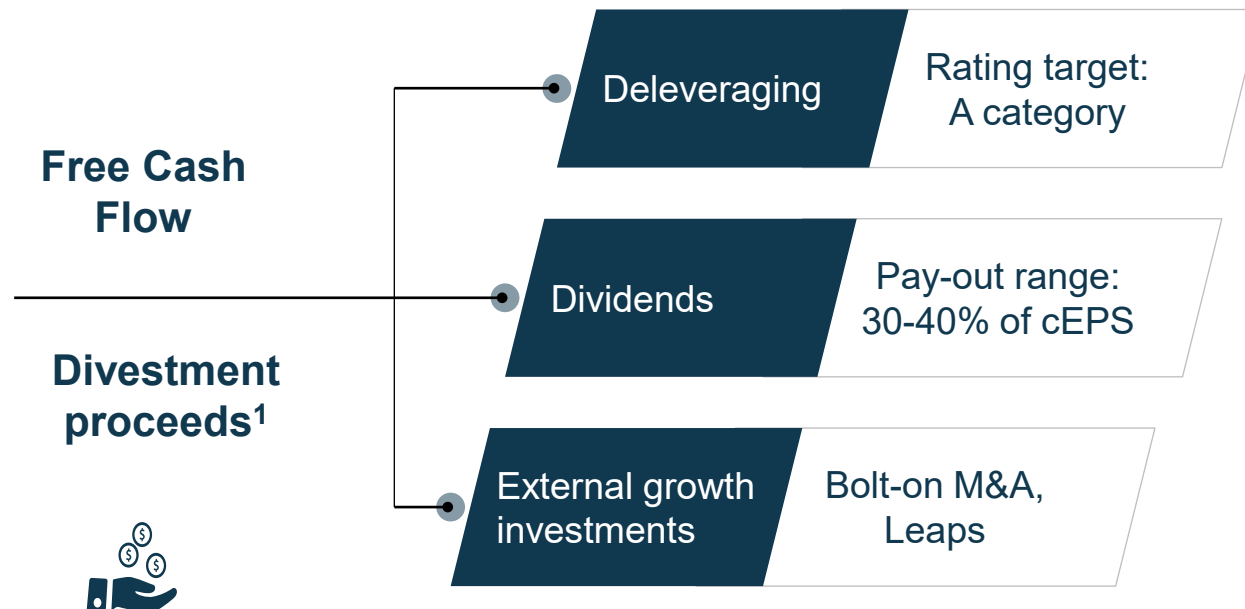
Our Free Cash Flow is impacted by **litigation** pay-outs and cash-effective **one-time costs** for transformation



Disciplined Capital Allocation to Delever, Pay Dividends and Invest

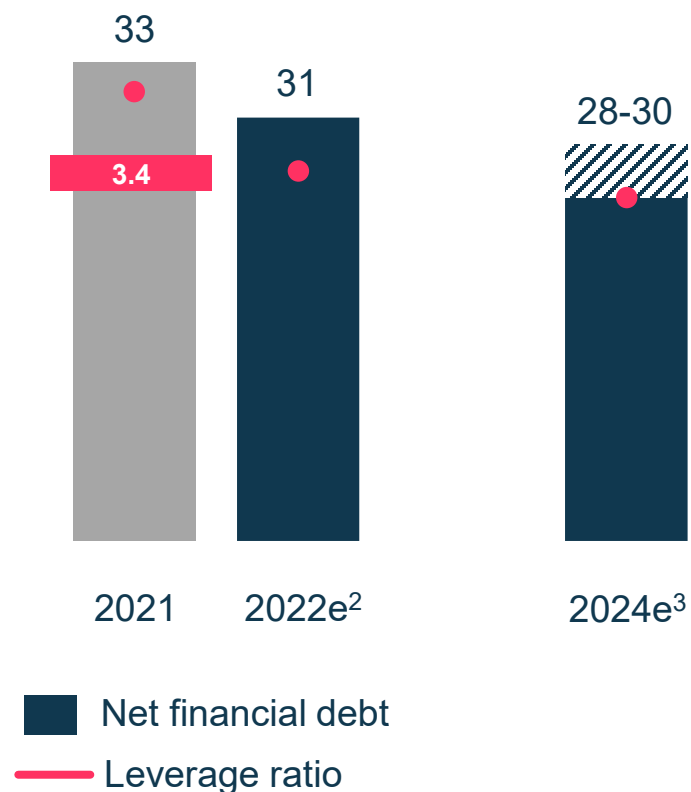
Expect Net Debt to Return to €28-30bn by 2024

Capital allocation priorities



Net financial debt development

In €bn



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

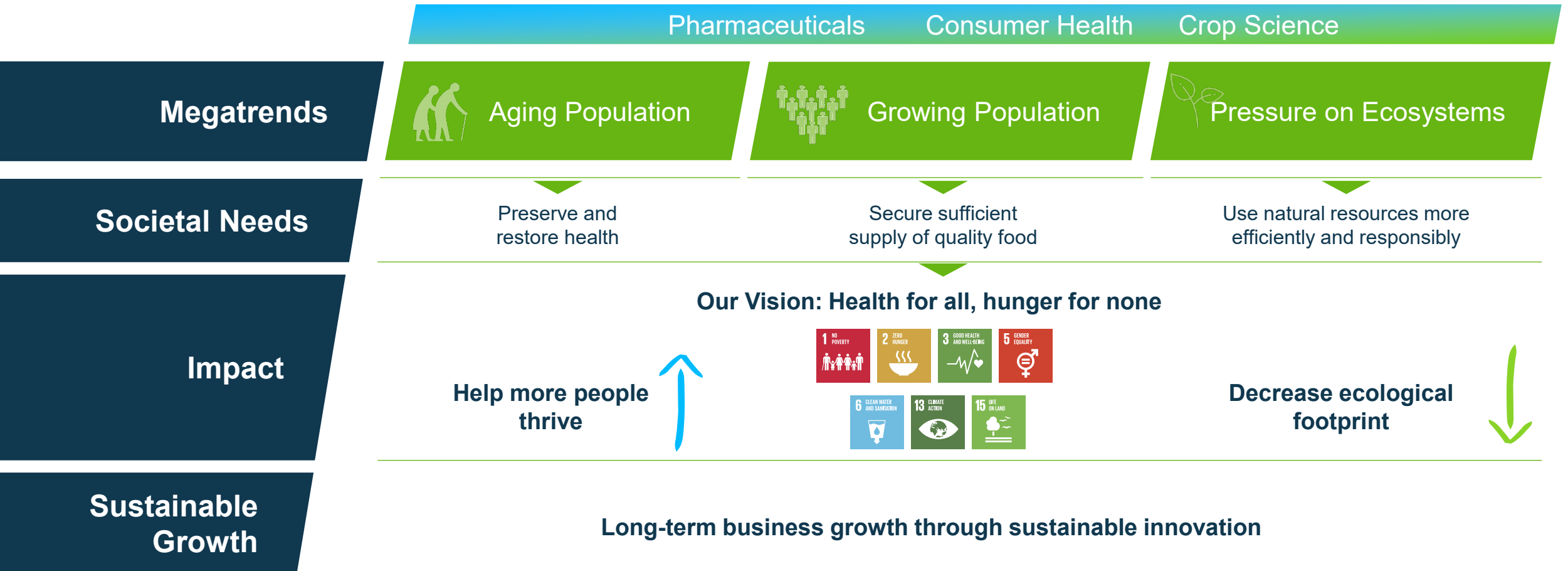
³ Currency assumptions based on month-end Dec 2020 spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 91.5 RUB

/// = 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





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

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Investment Case

November 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

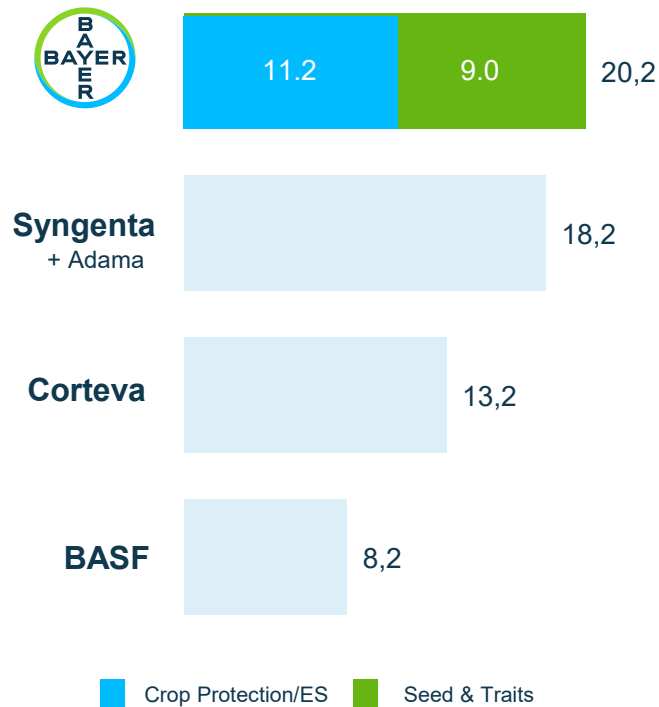


The Established Leader in Crop Science

Industry Leading Profitability Underpinned by >€2bn in Annual Seed & Trait Licensing Revenue

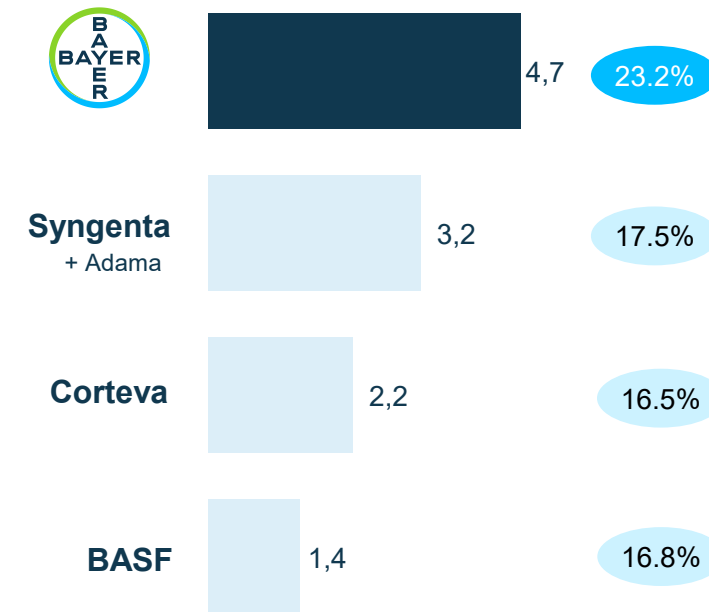
Largest in Sales

Total Sales¹ (€bn), FY 2021



Highest Profitability

EBITDA¹ (€bn) / EBITDA¹ Margin (%), FY 2021



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

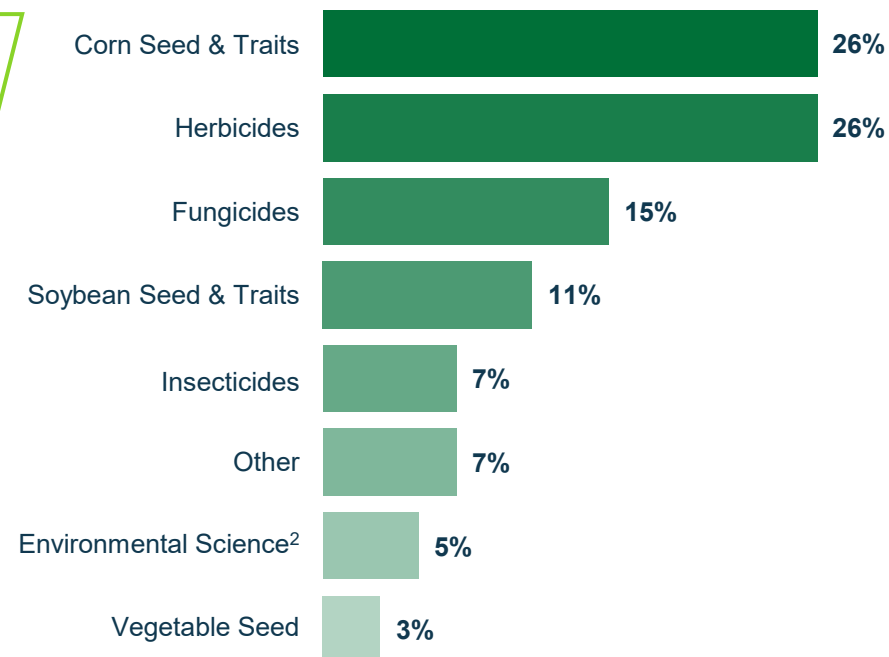


Growers Worldwide Recognize the Value We Deliver

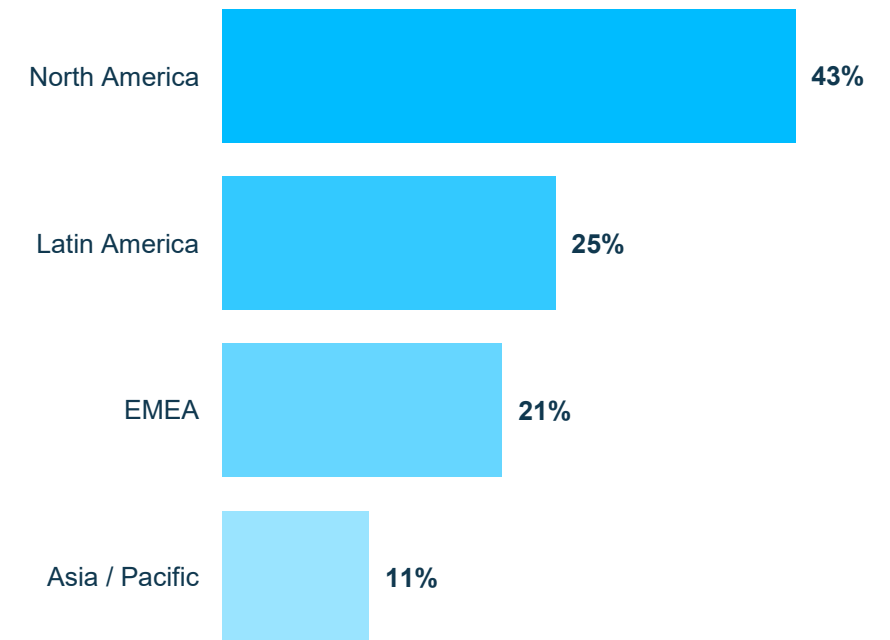
#1 in Seed & Traits Sales with Leading Crop Protection Portfolio in €100bn Global Ag Input Market

Bayer Crop Science 2021 Sales (€20.2bn)

Sales by Product Line



Sales by Region



#1 Market Position

Corn Seed & Traits
Herbicides
Soybean Seed & Traits

#2 Market Position

Fungicides
Vegetable Seed

#3 Market Position

Insecticides

¹ Source: Company estimates. Market positions based on 2021 data; ² announced definitive agreement to sell Environmental Science Professional business in March, 2022

Vision / Health For All, Hunger For None



> 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 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

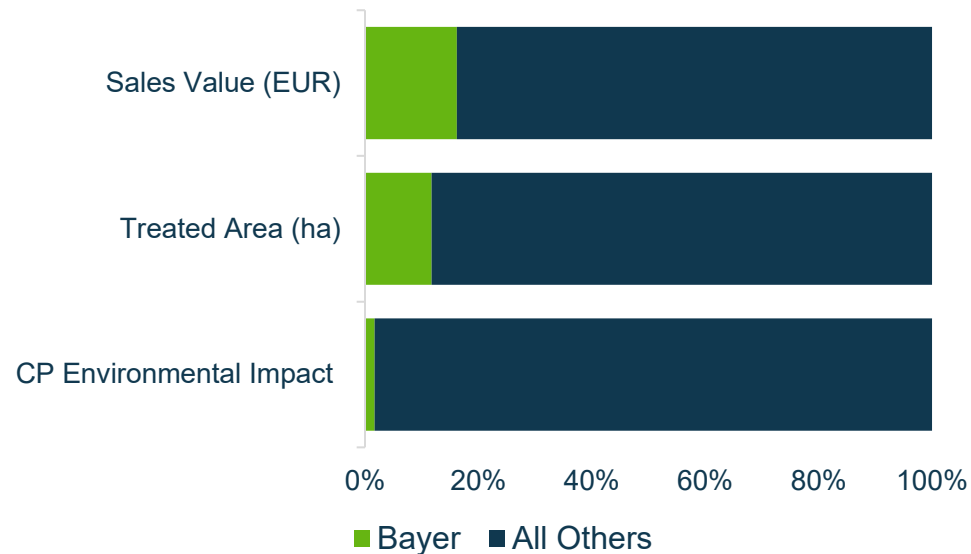
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Achieved planned 2022 synergies in 2021; accelerate with new efficiency program until 2024



Driving Higher Value with Lowest Estimated Environmental Impact Crop Protection Portfolio Relative to Sales and Treated Value

2020 Crop Protection Industry's Environmental Impact



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

Key Crop Protection Products



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 **~€3bn¹**



Pre-emergence selective corn herbicide

- Contains 3 AIs: Thiencazabzone, Flufenacet and Isoxaflutole to help growers mitigate resistance challenges
- TriVolt goes to work to provide overlapping residual control of key broadleaf weeds and grasses.

Launched in 2022



Control



TriVolt Complete

Convintro²

Waterhemp and Palmer Amaranth control in North America

- Diflufenican is a new site of action for use in corn and soybeans in North America
- Diflufenican is already used in Europe and will be available for burndown and pre-emergence

To Launch in mid-decade



Pyroxasulfone



Convintro

¹ Internal estimates; ² Not yet registered in U.S. or Canada and is subject to approval



Fungicides: New Innovations Drive our Growth Potential

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

Fox Supra

- Adds next-gen technology **Indiflin®¹** to Fox Xpro

- Offers **unrivaled control** of Asian Soybean Rust
- Builds on **#1 position** in soybean fungicides² in LATAM

PSP of >€400m

Pre-Launch in 2022; full scale launch in 2023



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

DELARO Complete

3
MoA

- Prothioconazole
- Trifloxystrobin
- **Fluopyram**

- Highest performing foliar fungicide from Bayer
- Third MoA provides consistent control against Gray Leaf Spot, White Mold and Brown Spot
- Corn, soybeans

PSP of >€100m

Launched in the U.S. in 2021



Use in soybeans in Frankenmuth, Michigan, 2019

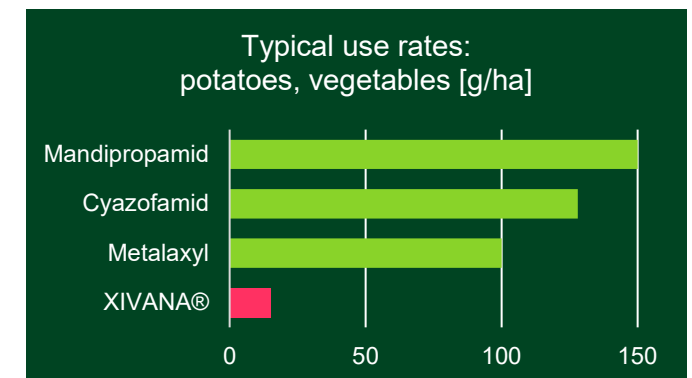
Xivana

- 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





Insecticides: New Launches Drive our Global Expansion

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



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

- **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



Plenexos

- First **ketoenol insecticide** expected to offer both **foliar** and **soil uses** against key sucking pests (aphids, white flies)

- **Spidoxamat²** 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





Biologicals Create New Value; Enable Crop Management Benefits

Leveraging the Power and Sustainability Derived from Microbes

Bayer is the **#1 Trusted Brand** in Biologicals by Growers⁴

 In-licensed / Commercial Products	SeedGrowth					Foliar & Soil applied			
	Corn Yield	Soy Yield	Nematicide	Fungicide	Other	Insecticide	Fungicide	Soilborn Disease/Pest	Crop Performance Enhancers
	BioRISE ¹	TagTeam ^{®3} Optimize ^{®3}	Poncho [®] Votivo ^{®2}	Integral [®] Pro ²	TagTeam ^{®3} JumpStart ^{®3}	    	     		 

¹ Also sold under Acceleron[®] and Torque^{®3} brand names; ² 3rd party product from BASF; ³ In-licensed from Novozymes

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

- >20** In-licensed/ Commercial products
- >5** Ongoing collaborations and licensing partners
- >10** Pipeline Candidates⁵
- >30** Assets under evaluation for new collaborations or in-licensing
- NEW** Closed transaction with Ginkgo Bioworks to become multi-year microbial strategic partner

⁴ 75-100 growers polled in each of seven countries (Europe, Brazil, US) for potato, tomato and grapes, Bayer Market Research 2020, ⁵ Includes early research and collaborations

Reaching >60m acres in row crops and high value horticulture and vegetables acres



#1 in Global Corn Seed & Trait Sales

Expect to Widen the Gap with Corn S&T Pipeline with €10-11bn of Peak Sales Potential⁶



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



¹ Source: Bayer and Corteva as reported, Syngenta based on AgbiolInvestor estimates, exchange rate FY2021: ~1.18 USD/EUR; ² Internal estimates; market position and seed (germplasm) share measured as of 2022 for U.S. and Europe and as of 21/22 season for Brazil, Argentina, Mexico and South Africa; ³ Includes the sum of branded plus licensed seed share in the respective countries/region; ⁴ Represents the percentage of corn acres planted in the country that contain at least one Bayer biotech trait; ⁵ Hybrid corn market only; ⁶ Expect ~50% of peak sales potential to be incremental and expect ~80% of the projects to reach peak by 2035.

Rollout of Most Advanced Corn Rootworm Control Trait Continues

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

LAUNCHED: Brazil/Argentina 20/21

2021/2022: >4m acres

VT4PRO



- **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

2022: ~100k acres

2023e: >1m acres

SmartStax PRO
With RNAi TECHNOLOGY

Average Root Rating: 0.30

Location: Ireton, Iowa July 20, 2021



Average Root Rating: 1.20



Corteva QROME Product (P1366Q)

2021 U.S. Field Results¹

- **SmartStax PRO with RNAi Technology** had **lower root injury scores 97.4%** of the time
- **SmartStax PRO: 0.28 nodes** of root injury **Qrome Products: 0.97 nodes** of root injury
- For each root node damaged by CRW larvae, a yield loss of ~15% can be expected.² 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.

¹ Head-to-head comparisons across 40 locations with corn rootworm pressure in the U.S. in 2021

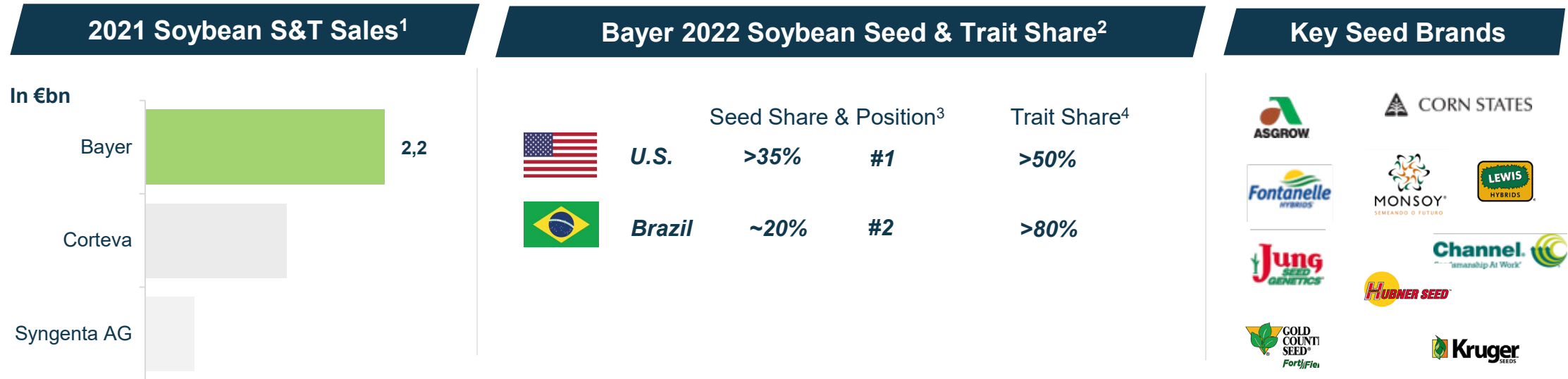
² Tinsley, N.A., Estes, R.E. and Gray, M.E. 2012. Validation of a nested error component model to estimate damage caused by corn rootworm larvae. Journal of Applied Entomology. DOI:10.1111/j.1439-0418.2012.01776.x

³ SmartStax® PRO corn products will be commercially available for the 2022 growing season. ⁴ VT4PRO with RNAi Technology corn products are expected to be commercially available for the 2024 growing season.



Global Soybean Seed & Trait Sales Leader

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

XTENDFLEX
SOYBEANS

PLATAFORMA
INTACTA2
XTEND

HT4 Soybeans
3rd Gen Insect Protection Trait

HT5 Soybeans
4th Gen Insect Protection Trait

2021

2025

2030

¹ Source: Bayer and Corteva as reported; Syngenta based on AgbiolInvestor estimates; exchange rate FY2021: ~1.18 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.



XtendFlex and XtendiMax Defend #1 Soybean System in NA

~16m XtendFlex Acres in First Season in North America; >20m in 2022



#1 NA soybean system¹

Only system with **14-days residual activity**; controls significantly more weeds than the Enlist system³

~**45m** acres in soybean system 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

Top volume **XtendFlex** soybeans have a **2.5+bu/acre advantage** vs. Enlist E3 soybeans²

¹ Bayer internal estimates; ² 2021 Farmer Managed Soybean System Trials (67 locations in 2021 reporting data located with 12-IA, 11-IL, 9-IN, 3-MI, 9-MN, 8-NE, 5-OH, 2-PA, 2-WI, 1-ND, 1-SD, 4-KS). Significant at P ≤ 0.05 LSD at 1.2 Bu/A as of 01/05/2022. Roundup Ready® Xtend Crop System data = XtendFlex® soybeans with a farmer-selected weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E3® soybeans with a farmer-selected weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides; ³ Based on EPA labels for the chemistries.



Next-Gen Intacta Traits to Sustain Leading Franchise in Brazil

Intacta 2 Xtend Launched; IP3 Currently in Phase 3, IP4 Advanced to Phase 1



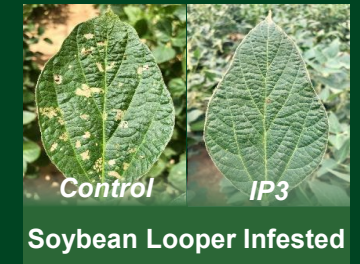
INTACTA RR2 PRO®

#1 South America soybean system¹

- 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 South America 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 more than **6m** acres for the 2022/23 season.
- Performance advantage of **2.89 bu/acre**



- **IP3 in Phase 3**; delivering multiple modes-of-action for insect control



- **IP4 ADVANCED** to Phase 1; focused on Brazil

IP3 = 3rd generation insect protection trait in soybeans

IP4 = 4th generation insect protection trait in soybeans

¹ Data based on number of traited acres per Bayer internal estimates



Multiple Traits in Late-Stage Development for Cotton Farmers

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

1st generation

ThryvON™

First-ever biotech trait for piercing and sucking insect control

5 herbicide tolerances

HT4 Cotton

- Glyphosate
- Dicamba
- Glufosinate
- HPPD
- PPO

4th generation

Bollgard 4 Cotton

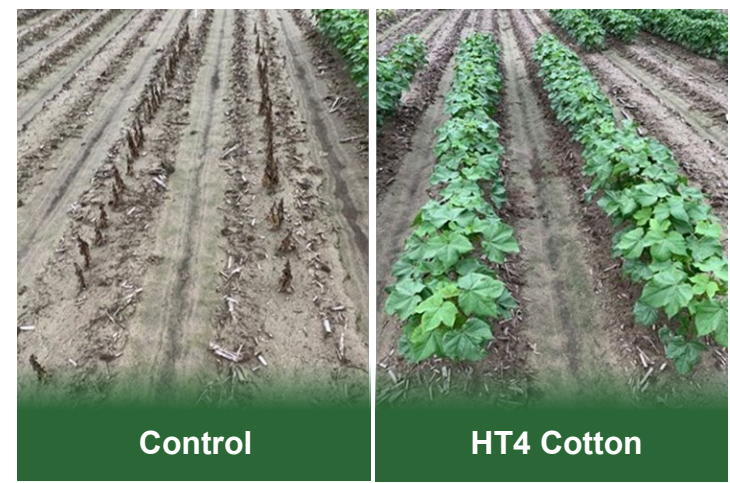
Season-long protection with multiple modes of action for key lepidopteran pests

Stewarded **Commercial Launch** in 2022 in the U.S.



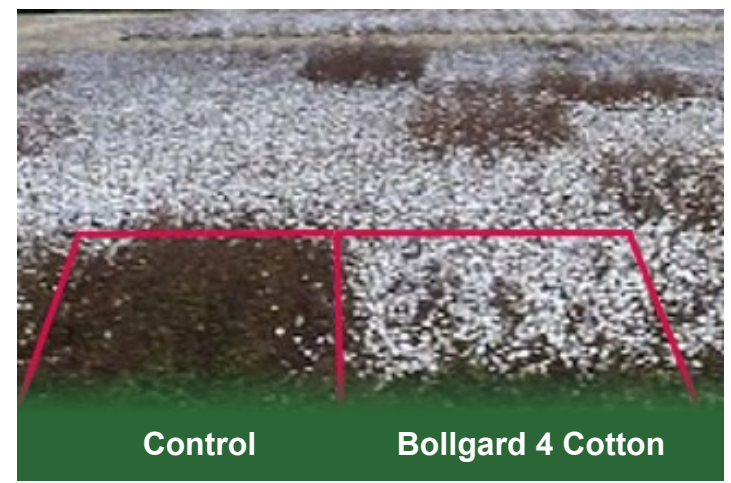
Scott, Mississippi, U.S. | Sep. 27, 2021

ADVANCED to Phase 3



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

ADVANCED to Phase 3



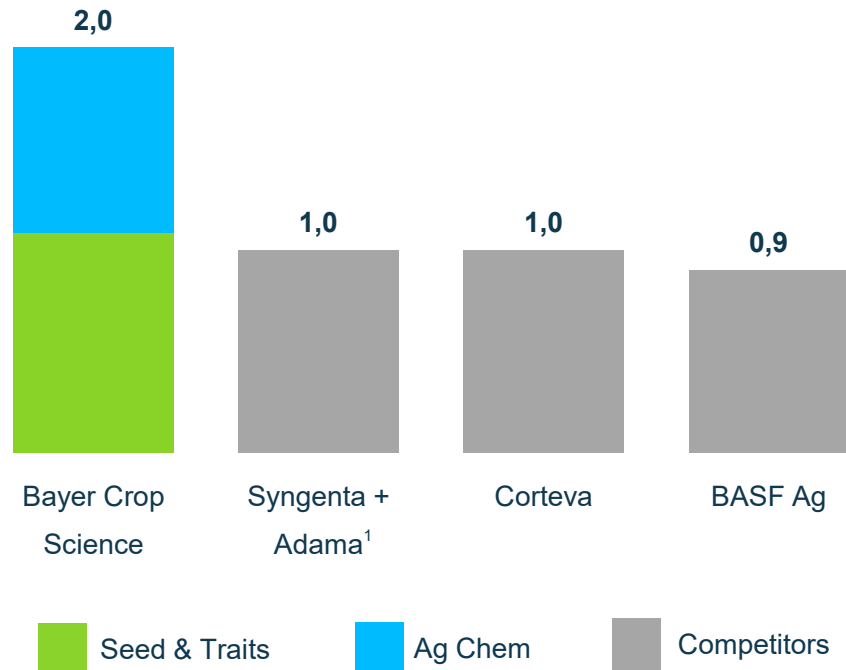
2019 Rocky Mount NCSU Results

¹ 2021 cotton seed & traits sales for Bayer Crop Science
ThryvON™ 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)



Top Talent:

>7,100
R&D employees²

>100
Key Collaborations

Generating Next Generation Solutions:

>500
Hybrids & Varieties Deployed³

15
New Biotech Traits in Development

>300
New Crop Protection Registrations³

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



Pipeline with Up to €30bn Peak Sales Potential Delivering for Farmers

Seed, Trait, Crop Protection and Digital Solutions Peak Sales Potential by Strategic Business Segments

Insecticides: ~€2bn

- Plenexos
- Novel Mite Solution

Herbicides: ~€3bn

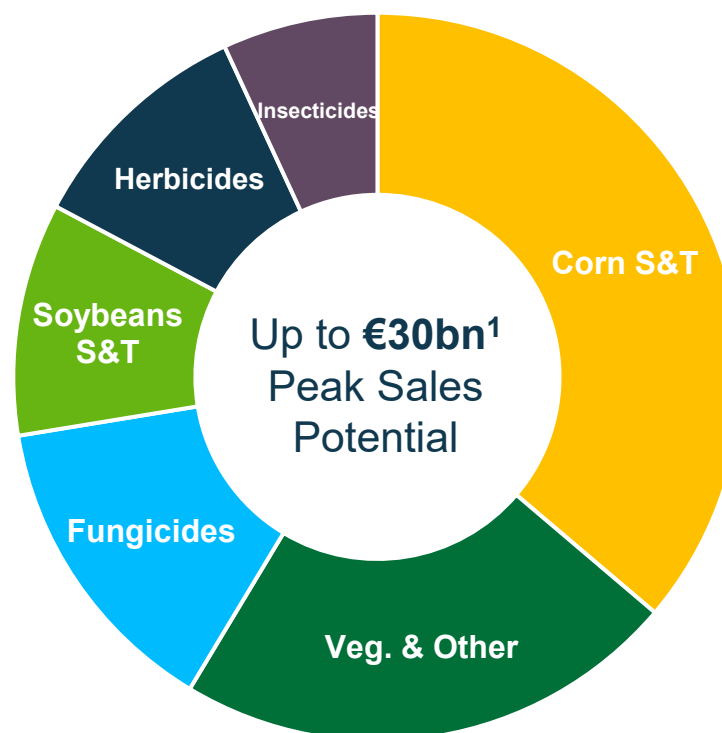
- 3 New Herbicides (Corn, Corn & Soy, Other)
- New post-emergence broad acre Herbicide

Soybeans S&T: ~€3bn

- Annual Germplasm Upgrades
- HT4 and HT5 Soybeans
- 3rd and 4th Gen Insect Control Traits
- Digital Tools (e.g. Disease Management, Seed Placement)

Fungicides: ~€4bn

- Fox Supra (Indiflin®)
- Iblon
- Xivana
- Minuet/Serenade Soil Activ
- 2 new Fungicides (soybeans, F&V)
- New Biological Fungicide (F&V)



Corn S&T: ~€10-11bn

- Annual Germplasm Upgrades
- Short Stature Corn
- 4th and 5th Gen Insect Control Traits
- 4th and 5th Gen HER Tolerance Traits
- Digital Tools (e.g. Disease Management, Seed Density)

Veg. & Other: ~€6-7bn

- Annual Germplasm Upgrades (e.g. vegetables, canola, cotton, rice)
- Hybrid wheat
- HT4, ThryvOn Technology, Bollgard 4 in Cotton
- Canola Dicamba Tolerance Trait
- Sugarbeets 2nd Gen Herbicide Tolerance Trait
- Digital Tools (e.g. Microsoft Collaboration, Orbia, Wheat Digital Disease Management EMEA)
- Carbon
- New Biological Seed Treatment (SeedGrowth)

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. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+, Note: Projects listed are subset of the pipeline; selected top contributors to peak sales potential; as of February 2022

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



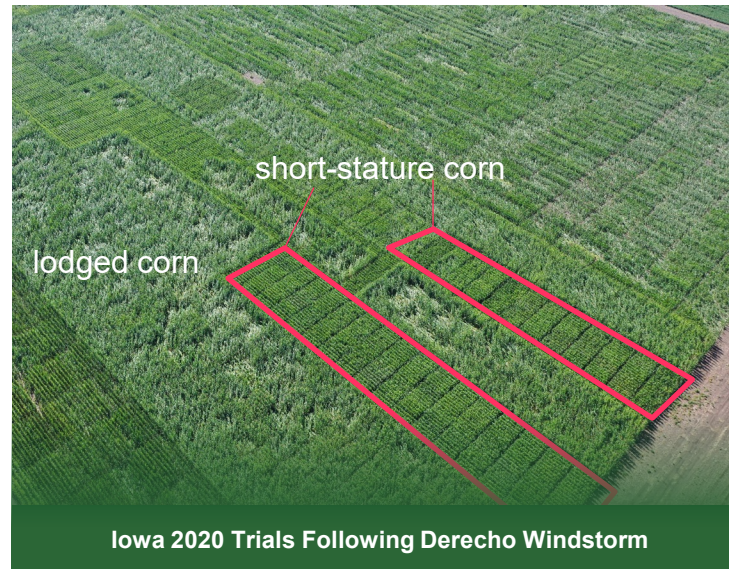
Precision of Crop Application

- 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.



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>)

Three Generations of Soybean Herbicide Tolerance Traits

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

3 herbicide tolerances

LAUNCHED;
reached >20m
commercial acres in
2022

- Glyphosate
- Dicamba
- Glufosinate



June 29th, 2021 | Storm Lake, Iowa

5 herbicide tolerances

HT4
Fourth-Gen
Phase 3

Expected 2027
launch

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



July 14th, 2021 | Jerseyville, Illinois

6 herbicide tolerances

HT5
Fifth-Gen
Phase 2

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



July 14th, 2021 | Jerseyville, Illinois

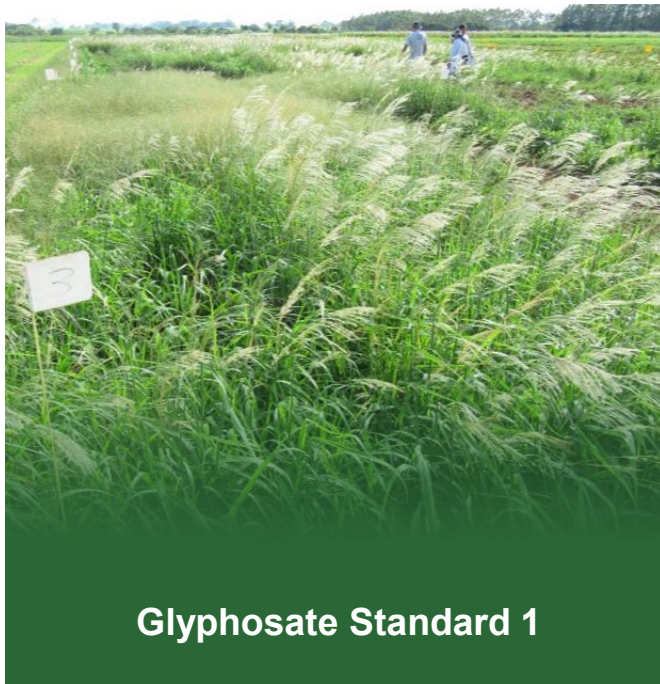
Always read and follow label instructions. Products not registered in all jurisdictions.



First New Herbicide MoA in Post Emergence Weed Control in 30 years

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

¹ Internal estimates

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



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



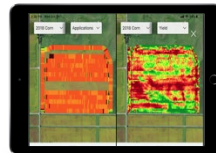
Largest database of grower and field trial seed performance data in industry

>70 partners on platform

In-cab visualization



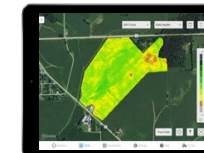
Performance Visualization



Performance Evaluation



Field Health Images



Prescription Delivery



¹ according to Kynetec December 2021 FieldView Brand Tracker

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

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



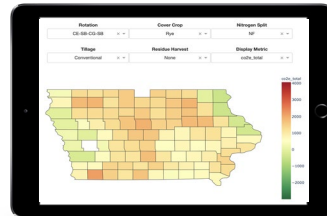
Platform Value

Digital Unlocks Scalable Climate-Smart Business Models

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

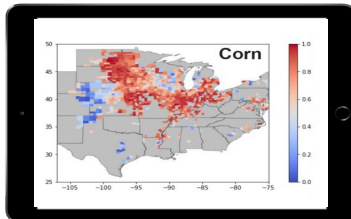
FIELDVIEW has the potential to streamline the way carbon is measured, verified and reported, to enable scalable, climate-smart business models

Quantification



CO₂e Total

Verification & Reporting



Crop Rotation by Field

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 trust**²

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.

¹ Source: <https://www.reuters.com/article/us-carbontrading-turnover/global-carbon-trading-turnover-at-record-214-billion-last-year-research-idUSKBN1ZN1RN>; 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

Orbia

- 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.

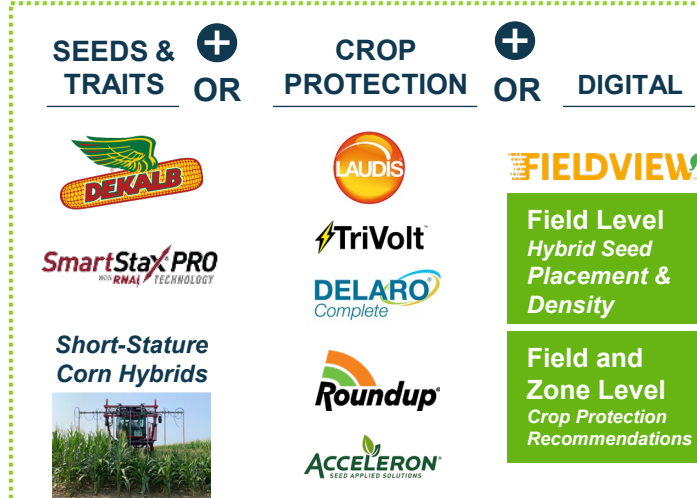


The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: NA Smart Corn System Featuring Short Stature Corn



Tailored Solutions



Crop System Solutions



Increased Value from Digital Enhancements to Grow Share of Farm

Inputs to Outcomes

2022

2030

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



Innovative, Sustainable Solutions to Address Global Challenges

Global Challenges

Growing Population
Increasing Protein
Demand

Our Goals

30%

Reduction in Crop
Protection impact
on the environment

Our Priorities

Producing &
Protecting
Higher-Yielding
Seeds

Our Solutions

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



Water Quality
Soil Health

30%

Reduction in Crop
Protection impact
on the environment

Using
Fewer
Natural
Resources

- 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



Climate Change
Sustainable Energy
Sources

30%

Reduction of field
greenhouse gas emitted
per kg of crops produced

Advancing a
Carbon Smart
Future
For Ag

- Digital tools for carbon sequestration measurement, precise input application
- Next-generation herbicide-tolerant traits to support no-till/ conservation tillage systems



Carbon
Program



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

November 2022 / Bayer AG





Pharmaceuticals: Driving Continued Long-Term Growth

1

Market & Position

2

Strategy

3

Growth Drivers

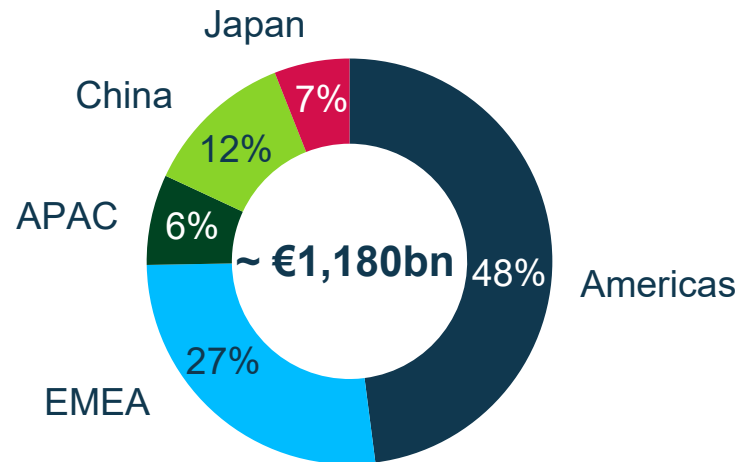
4

Innovation

We are Operating in a Rapidly Changing but Attractive Market Environment Driven by Megatrends and the Bio Revolution

Pharma Market

Market Size 2021e¹



Market CAGR 2021-25e¹

▶ **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

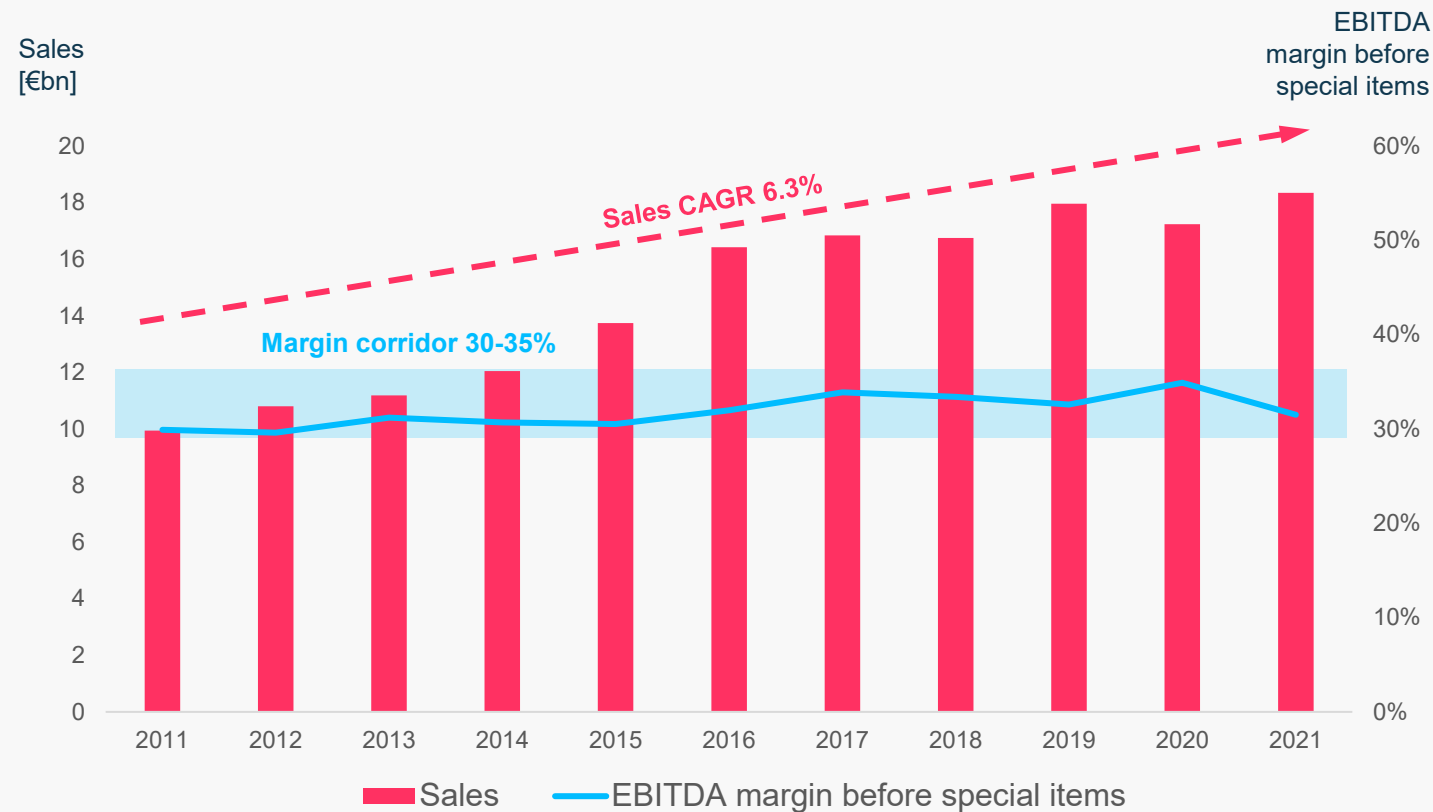
Challenges

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

¹ Source: IQVIA Market Prognosis as of September 2021

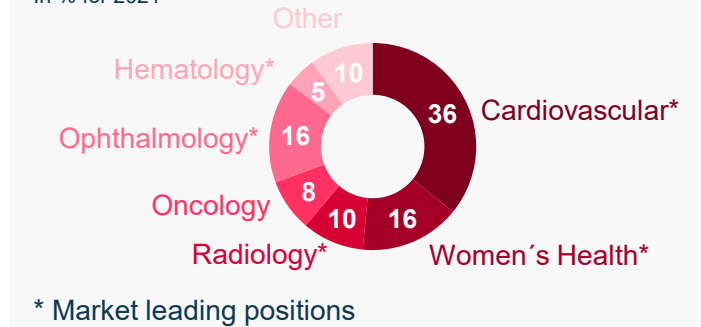
Bayer Pharmaceuticals Holds Strong Positions in Areas of High Unmet Medical Needs, Generating Growth and Attractive Returns

Bayer Pharmaceuticals – Sales and EBITDA margin before special items 2011-2021¹⁾



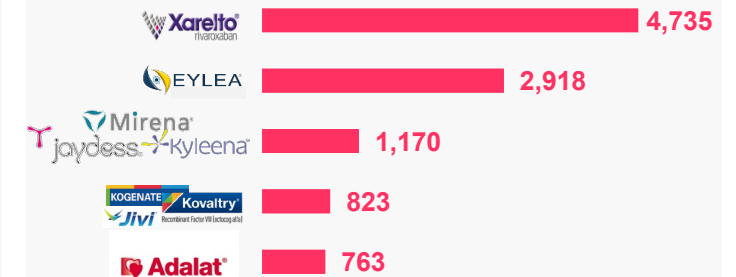
Sales by therapeutic area

In % for 2021



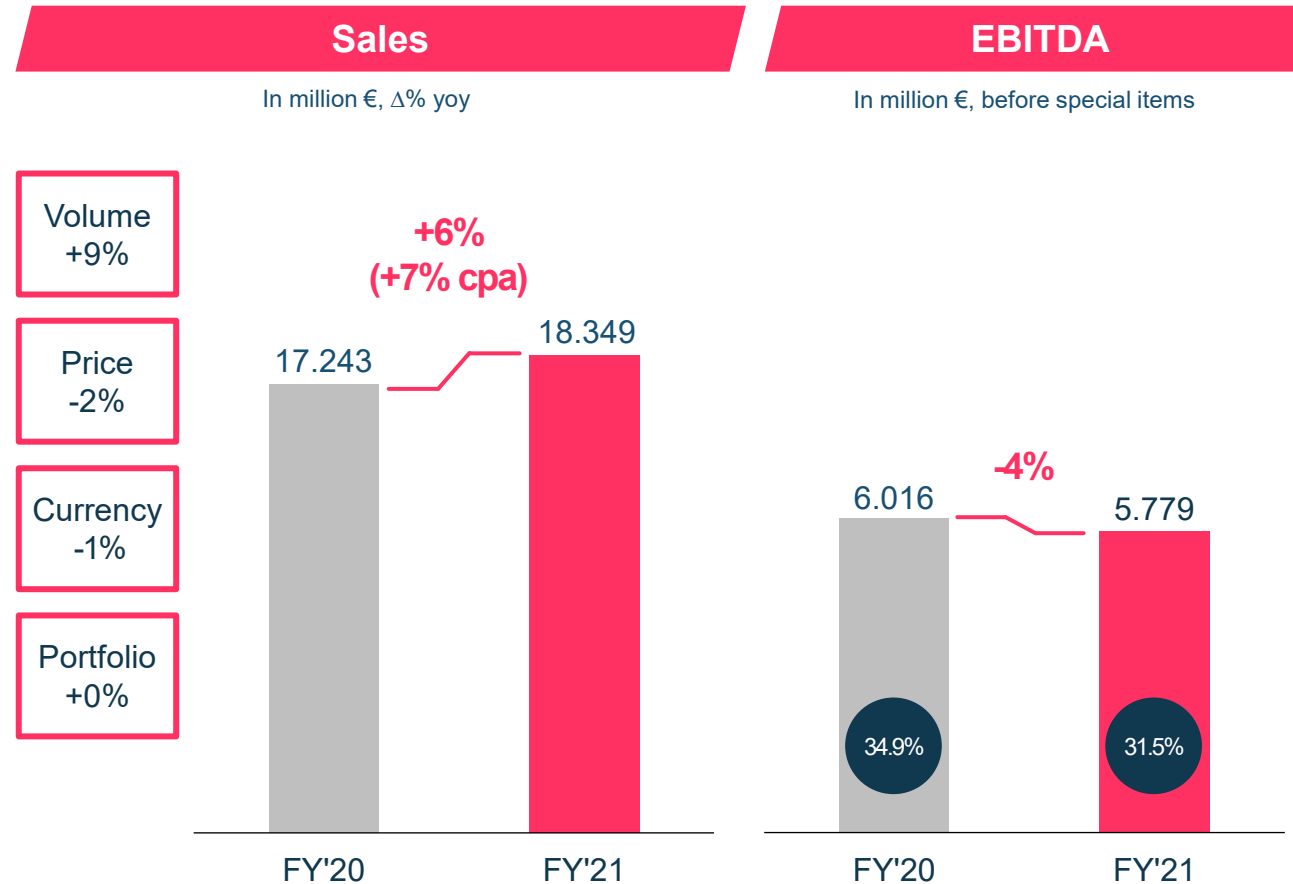
Sales of top products

In €m for 2021



1) as reported in the respective fiscal years

Strong Volume Expansion in FY 2021



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 Margin before special items, 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



PSP ~ €0.5bn
launched in 2021



PSP ≥ €1.0bn
launched in 2021

Elinzanetant
(KaNDy NT-814)

PSP ≥ €1.0bn
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

>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 /// November 2022

Capturing the Full Commercial Potential of Market Leading Therapies



Guidance FY2022

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

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



Guidance FY2022

Mid-single digit growth

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

PHOTON (DME)

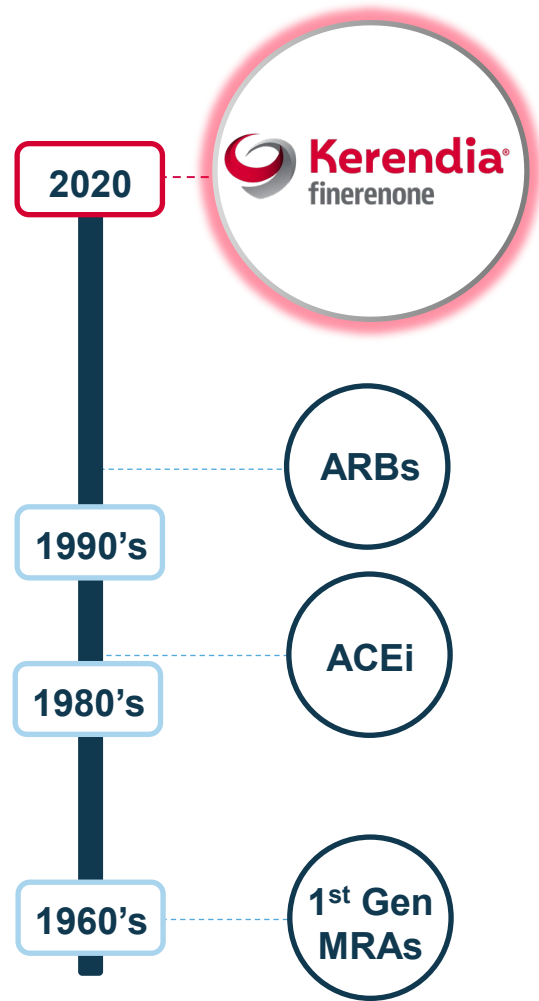
PULSAR (neov. AMD)



Goal: Prolongation of injection intervals

Prefilled syringes launched in 2020 in EU and JP

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



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

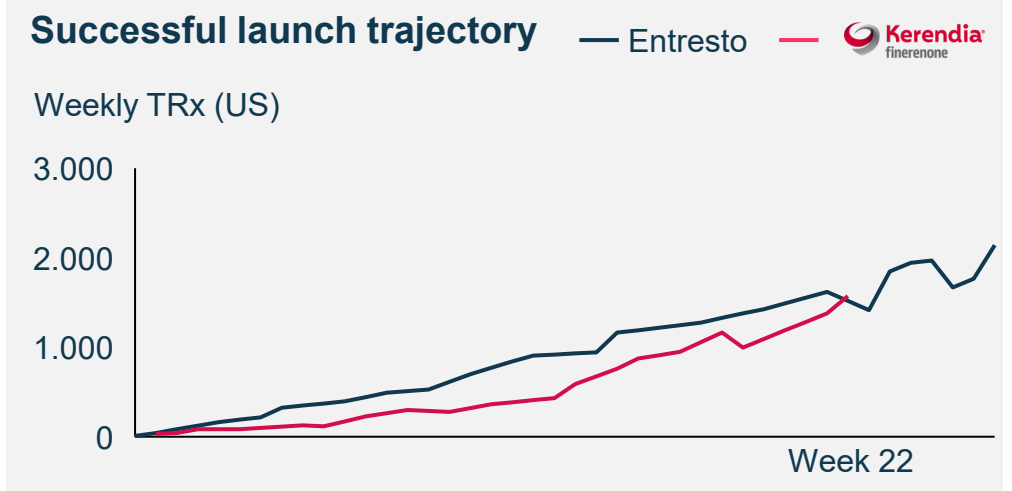
Largest clinical program with unparalleled data¹

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



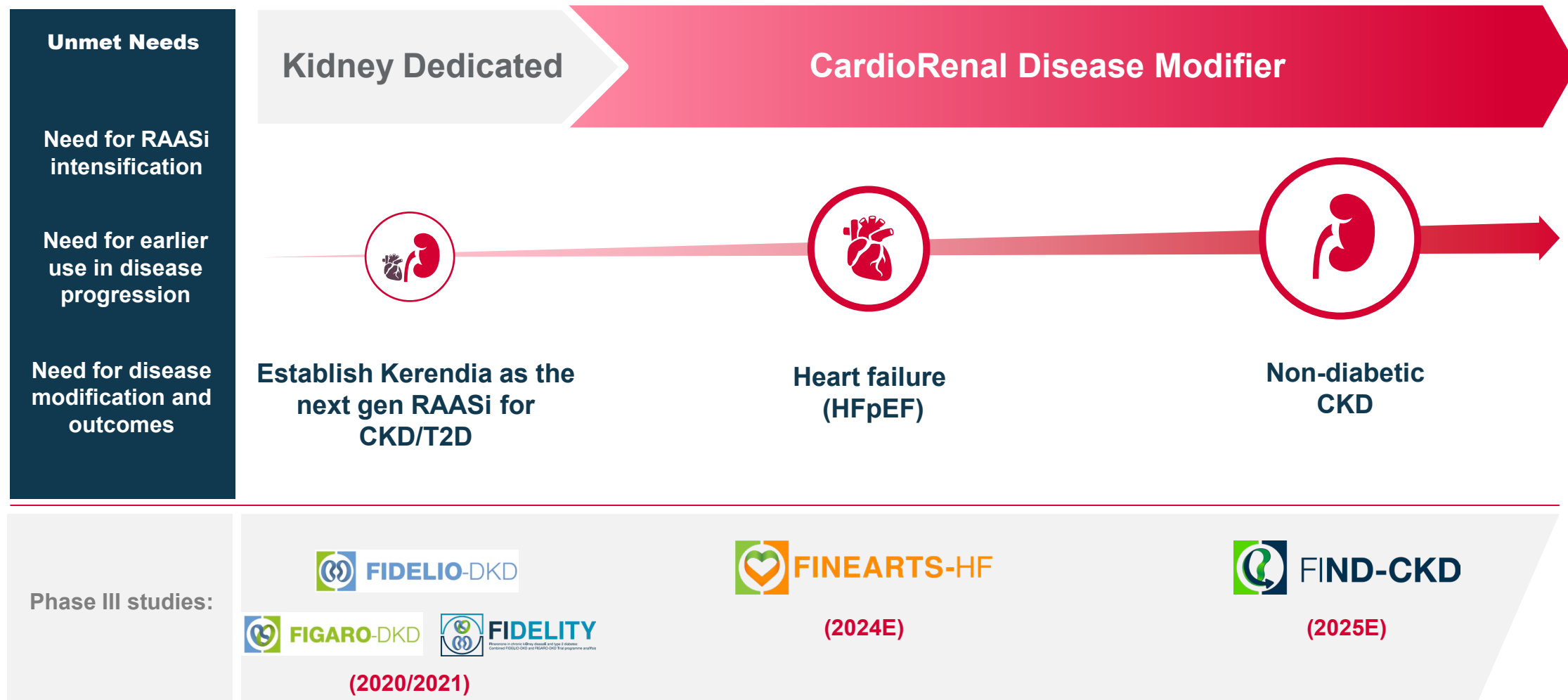
- // Full global rights including the US
- // Broad early adoption following US launch in Q3 2021
- // Updated ADA guidelines
- // Approved in EU in Feb. 2022

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

¹ 13,171 patients early in DKD progression



Kerendia sets the stage for a long-term cardio-renal vision and targets to deliver blockbuster potential



Dates indicate primary trial completion according to clinicaltrials.gov

We are Targeting to Significantly Expand our Presence in Selected Areas of Oncology where One Blockbuster can Build a Franchise

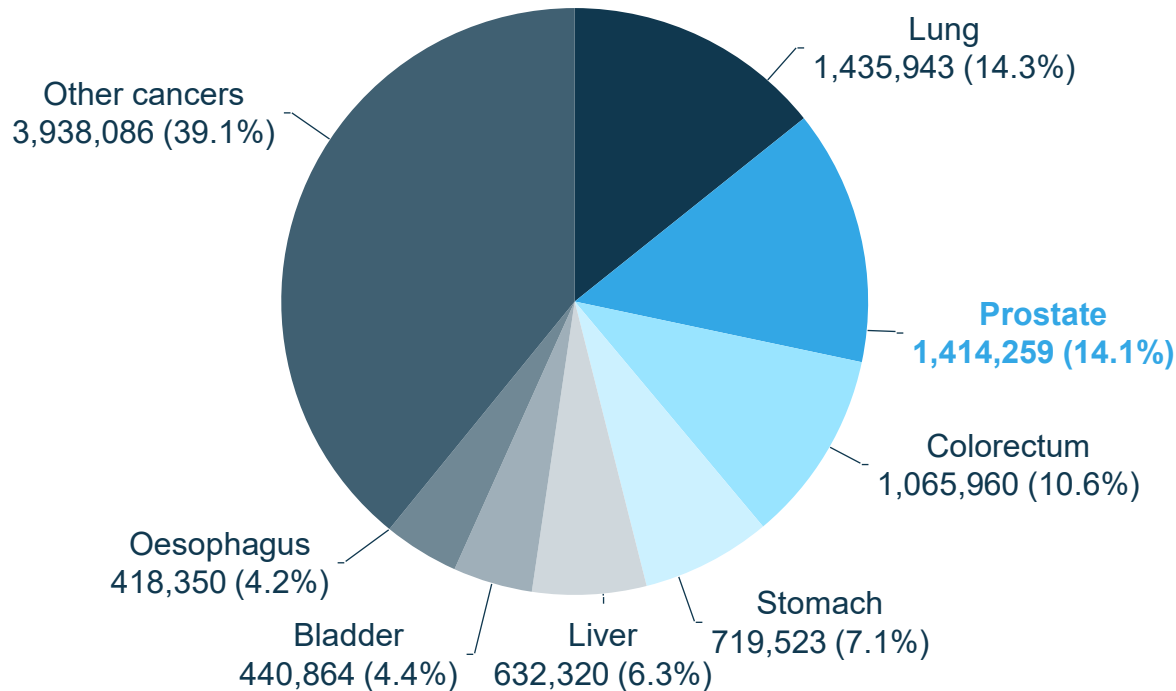
Key elements to achieve our growth aspiration



- 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



Characteristics of Prostate Cancer

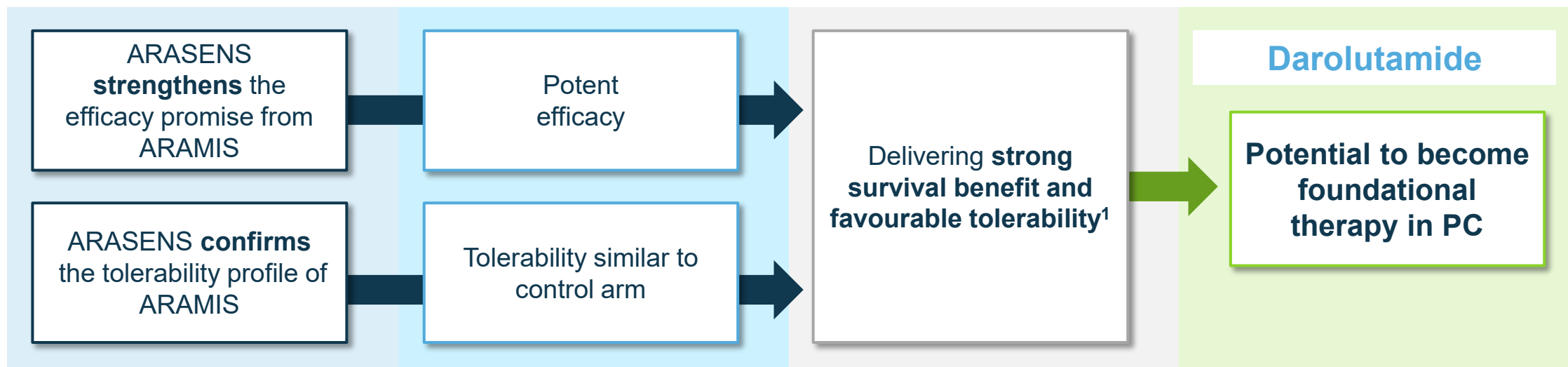
- Usual onset: age >50 years
- Diagnostic method: PSA testing, tissue biopsy, medical imaging
- Prognosis: long-term survival in early-stage, significant higher morbidity in late-stage

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



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

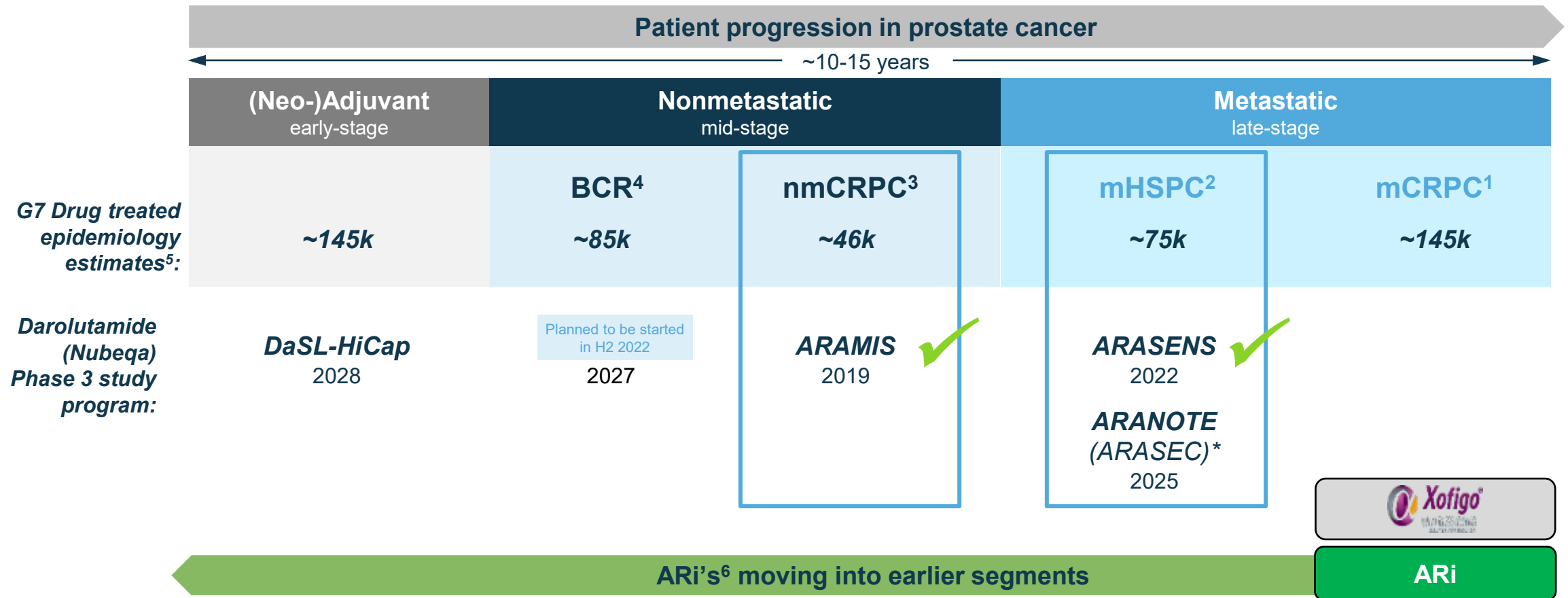
Study	Efficacy		Tolerability
	Primary endpoint	Selected secondary endpoints	
ARAMIS nmCRPC	Metastasis free survival prolongation by 22.0 months, 59% risk reduction (HR=0.41, p<0.001)	Overall survival 31% risk reduction (HR=0.69, p=0.003) Time to pain progression prolongation by 14.9 months, 35% risk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



¹ compared to control arm



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



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 With the Chance to Become a Foundational Drug to Treat Prostate Cancer – Peak Sales Potential of >€3bn

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

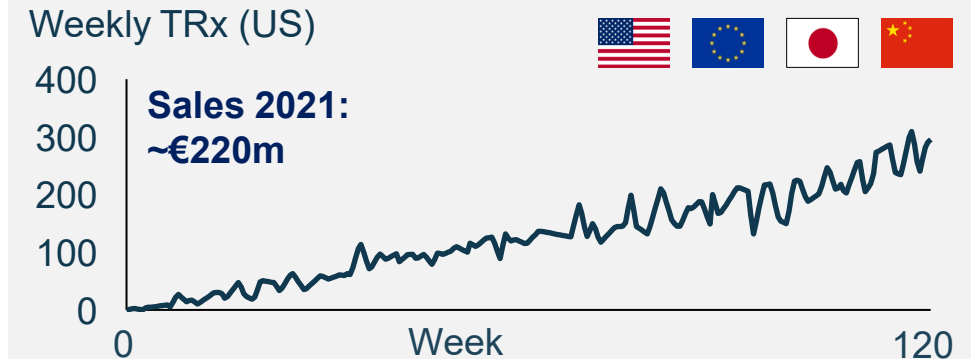
- Well tolerated safety profile
- Limited potential for drug-interactions
- Early data indicate limited blood-brain barrier penetration

Lifecycle Management

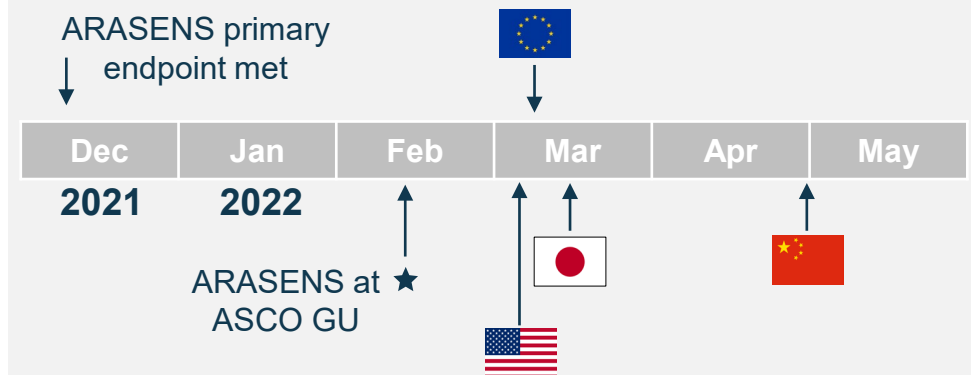
- Approved in nmCRPC in the US (2019), Europe + Japan (2020) and China (2021)
- Become agent of choice in prostate cancer
- Combination opportunities

¹ Androgen receptor inhibitor

Strong launch performance in nmCRPC

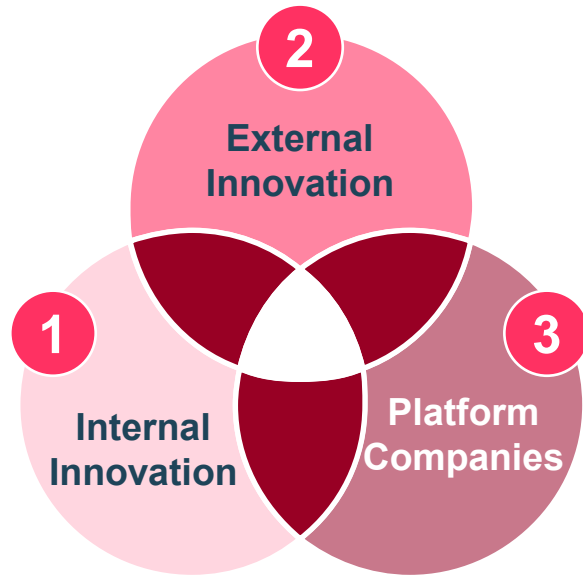


Planned submissions for mHSPC label extension





Our Innovation Engine is Delivering



1

Global R&D organization



2

Collaborations, in-licensing, M&A



3

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

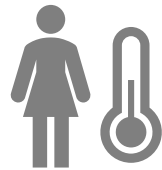
- Venturing into **new modalities** (Cell & Gene Therapy)
- Broadening the **Oncology** pipeline (eg. Systems Oncology, Atara)
- Commercial partnerships in **China** (eg. Hua Medicine)
- Deals in the **Digital** Space (eg. R&D: Schroedinger, Exscientia, Recursion; Commercial: OneDrop)
- Continued augmentation 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



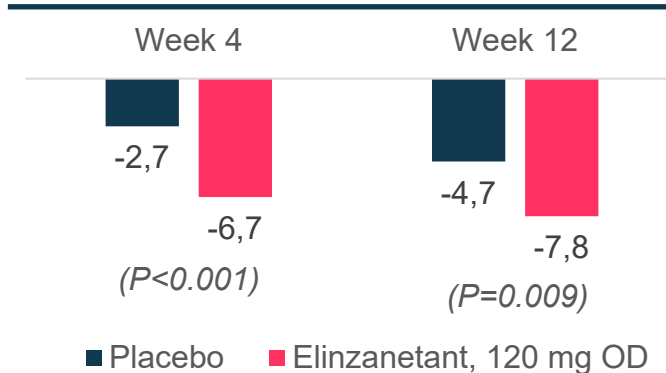
Night sweats

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)



Phase III study started in 2021, data expected in H1 2023

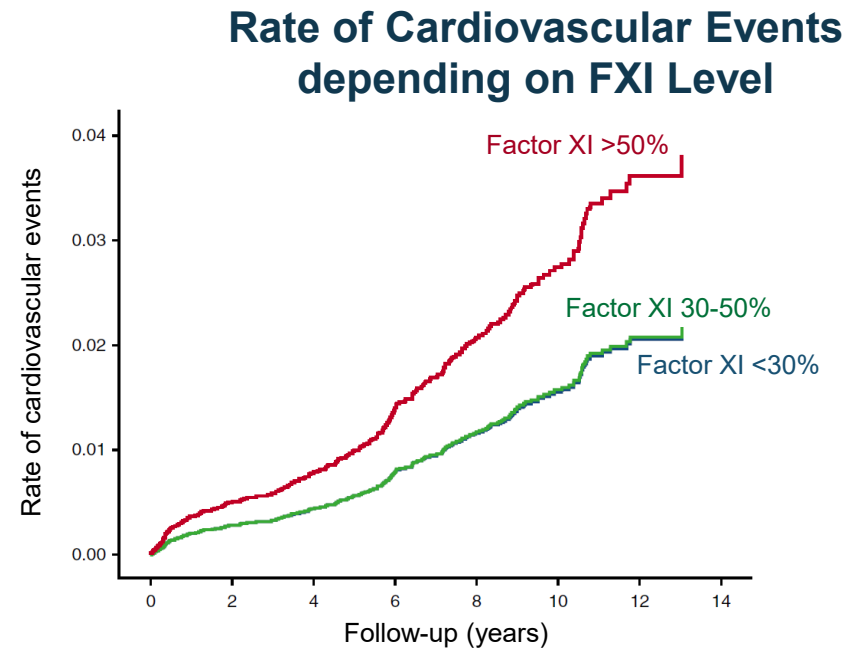
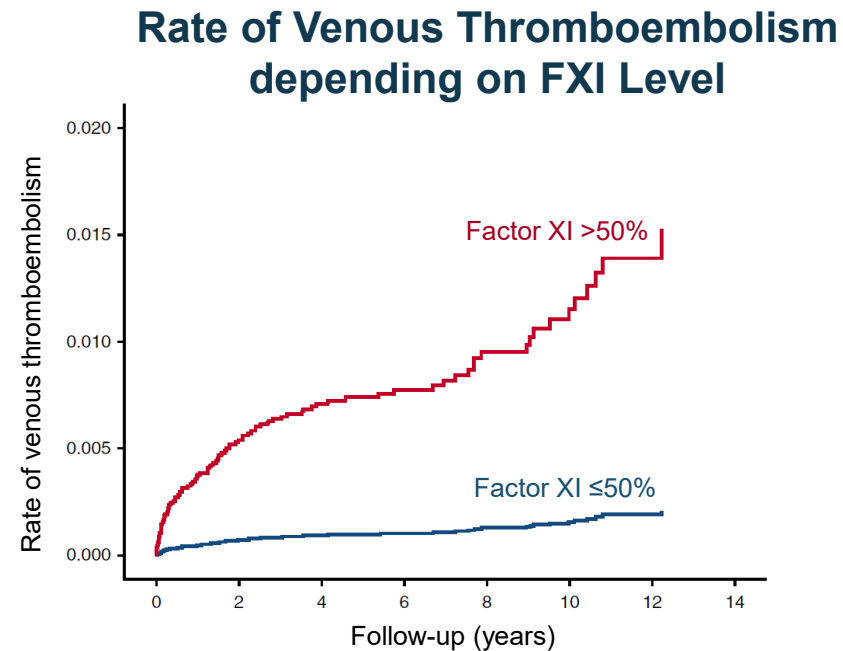


Significant Progress Has Been Achieved in Anti-coagulation Therapy but Medical Need Still Exists



- 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

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

Advancing Leading CGT Platform with Strong Clinical Pipeline

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

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

¹ Pluripotent stem cell-derived dopaminergic neurons



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

Overview Development Portfolio (as of November 8, 2022)

Phase I (17)	Phase II (10)	Phase III (9)
Elimusertib (ATR Inhibitor) (BAY 1895344)	Regorafenib (combi Nivolumab) (BAY 734506) /// Solid tumors (recurrent or metastatic)	Darolutamide (AR Inhibitor) (BAY 1841788) /// Prostate Cancer (mHSPC) (ARANOTE) /// Prostate Cancer (aHSPC) (DASL-HiCaP)
SLFN12 Complex-Inducer (BAY 2666605)	Regorafenib (combi Pembrolizumab) (BAY 734506) /// Hepatocellular Carcinoma (HCC)	Copanlisib (PI3K Inhibitor) (BAY 806946) /// Non-Hodgkin Lymphoma (CHRONOS-4)
mEGFR Inhibitor (BAY 2927088)	Asundexian (FXIa Inhibitor) (BAY 2433334) /// Stroke Prevention in Atrial Fibrillation (PACIFIC-AF) /// 2° Stroke Prevention (PACIFIC-STROKE) /// Major Adverse Cardiac Events Prevention (PACIFIC-AMI)	Finerenone (MR Antagonist) (BAY 948862) /// Heart Failure (HFmr/pEF) (FINEARTS-HF) /// Non-diabetic CKD (FIND-CKD)
HER2-TTC (HER2-Targeted Thorium Conjugate) (BAY 2701439)	Runcaciguat (sGC Activator) (BAY 1637108) /// Chronic Kidney Disease (CKD) (CONCORD) /// Non-prolif. Diabetic Retinopathy (NPDR) (NEON-NPDR)	Vericiguat (sGC Stimulator) (BAY1021189) /// Heart Failure (HFref) (VICTOR*)
Bapotulimab (ILDR2 fb Antibody) (BAY 1905254)	Adrenomedullin Pegol (PEG-ADM) (BAY 1097761) /// Acute Resp. Distress Syn. (ARDS) (SEAL TRIAL)	Elinzanetant (Neurokinin-1,3 Rec Antagonist) (BAY 3427080) /// Vasomotor Symptoms (OASIS)
CCR8 dep Ab (BAY 3375968)	BDKRB1 Receptor Antagonist (BAY 2599210) /// Neuropathic Pain (BRADINP)	Aflibercept 8MG (BAY 865321) /// Diabetic Macular Edema (DME) (PHOTON**) /// Neovasc. Age-rel. Macular Degen. (nAMD) (PULSAR)
AhR Inhibitor (BAY 3176803)	Gadoquatrane (High Relaxivity Contrast Agent) (BAY 1747846) /// Magnetic Resonance Imaging (HRCA-PAT)	
Congestive Heart Failure Gene Therapy		
sGC Activator 4 (BAY 3283142)		
P2X4 Antagonist (BAY 2328065)		
BDKRB1 Receptor Antagonist (BAY 2599210)		
Pompe Disease Gene Therapy		
Parkinson's Disease Gene Therapy		
Parkinson's Disease Cell Therapy		
sGC Activator 3 (BAY 1211163)		
ADRA2C Antagonist (BAY 2925976)		
Zabedoseritib (IRAK4 Inhibitor) (BAY 1834845)		

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

ONCOLOGY	WOMEN'S HEALTH
CARDIOVASCULAR DISEASES	OTHERS

* Trial conducted by Merck & Co.

** Trial conducted by Regeneron Pharmaceuticals

R&D Developments (since last update on August 4, 2022)

Phase I	Phase II	Phase III	Commercial
<div>+</div> Initiation of CCR8 dep antibody (immuno oncology) <div>-</div> Discontinuation of peboctocogene camaparvovec (FVIII gene therapy)	<div>💡</div> Completion of PACIFIC study program with FXIa inhibitor asundexian (stroke prevention in atrial fibrillation, secondary stroke prevention and prevention of major cardiac events following an acute myocardial infaction) <div>-</div> Completion of fesomersen and osocimab studies (thrombosis prevention in end-stage renal disease); decision taken to discontinue further development	<div>💡</div> Announcement of OCEANIC study program with FXIa inhibitor asundexian (stroke prevention in atrial fibrillation, secondary stroke prevention) <div>➡</div> <div>💡</div> Presentation of aflibercept 8mg study program (diabetic macular edema and neovascular age-related macular degeneration) at the Annual Meeting of the American Academy of Ophthalmology <div>-</div> Discontinuation of regorafenib (Glioblastoma)	<div>💡</div> Nubeqa (darolutamide): US label extension to treat patients with metastatic hormone-sensitive prostate cancer <div>💡</div> Kerendia (finerenone): <ul style="list-style-type: none"> US label extension to include results from Phase III study FIGARO-DKD (patients with earlier stage of chronic kidney disease associated with type 2 diabetes (CKD/T2D)) Adaption of KDIGO guideline to add Kerendia to a RASi and SGLT2i for treatment of CKD/T2D

Oncology

Cardiovascular Diseases

Women's Health

Others

💡 Newsflow

➡ Advancements

+

 Additions

-

 Discontinuations



Science for a Better Life
**Winning in
Consumer Health**

////////

Investment Case

November 2022 / Bayer AG





Winning in Consumer Health

1

Market & Position

2

Strategy

3

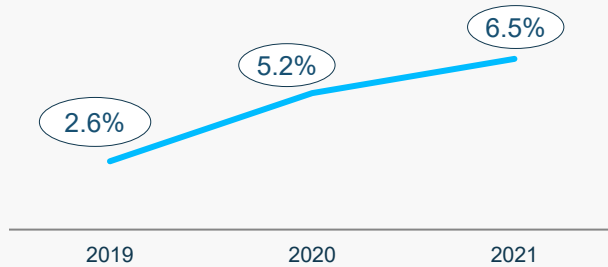
Sustainability



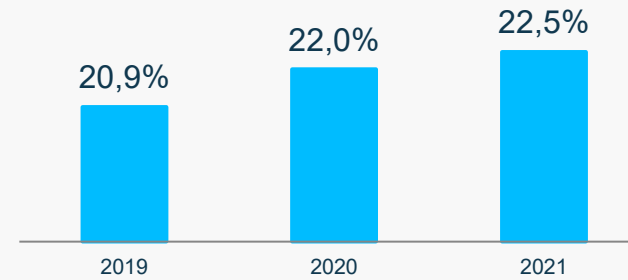
Consumer Health: A Leading Global OTC Player

FINANCIALS

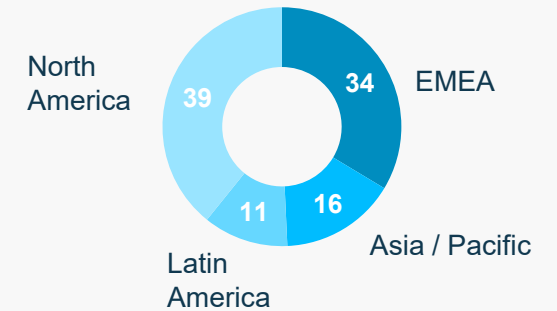
Sales development % yoy cpa



EBITDA margin development In %, before special items

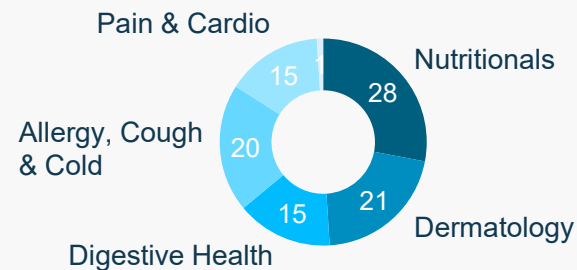


Sales by region: €5.3bn In %, in 2021

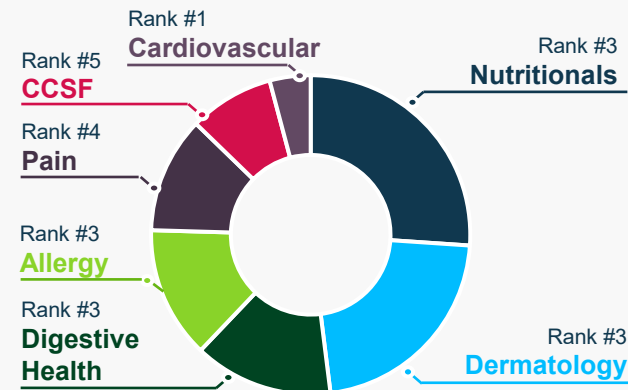


PRODUCTS

Sales by categories: €5.3bn In %, in 2021



Market positions by category¹



Key products

Pain & Cardio:



Dermatology:



Digestive Health:

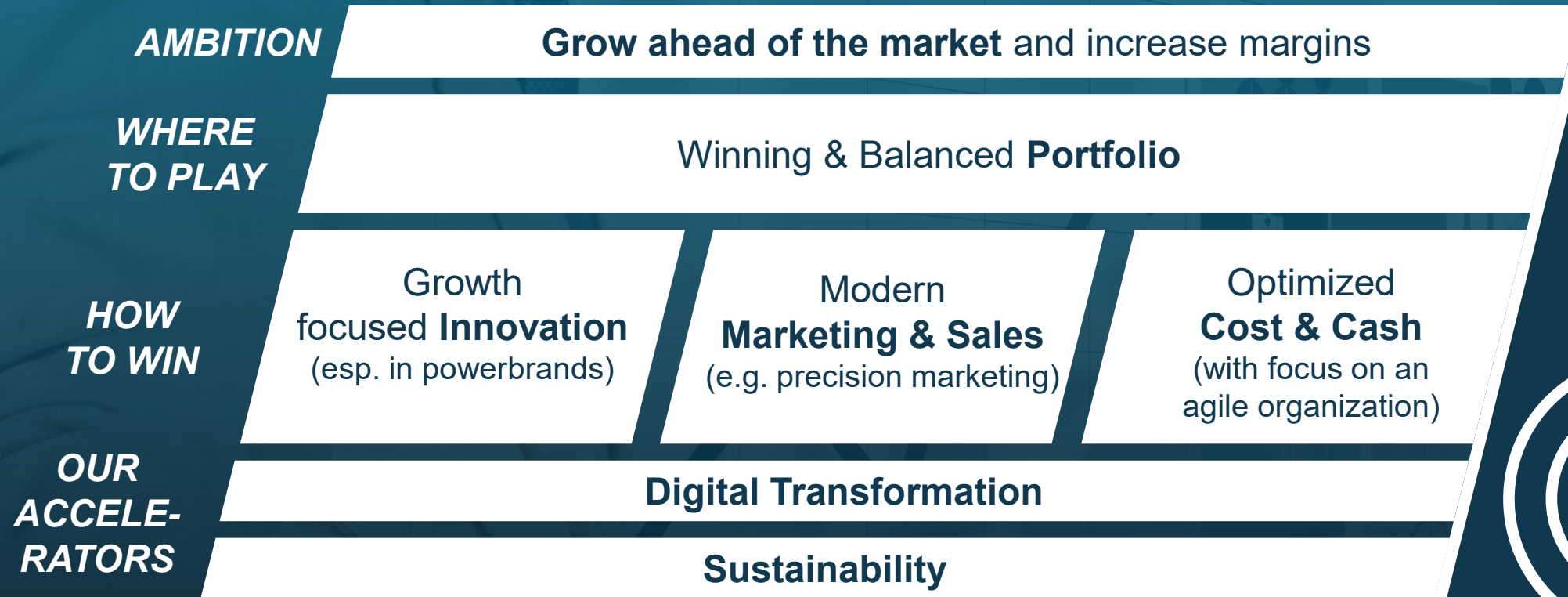


Allergy & Cold:



¹ Source: Net Sales FY2021, TABS Market Share MAT Aug 2021

A Multifaceted Plan to Drive Further Growth

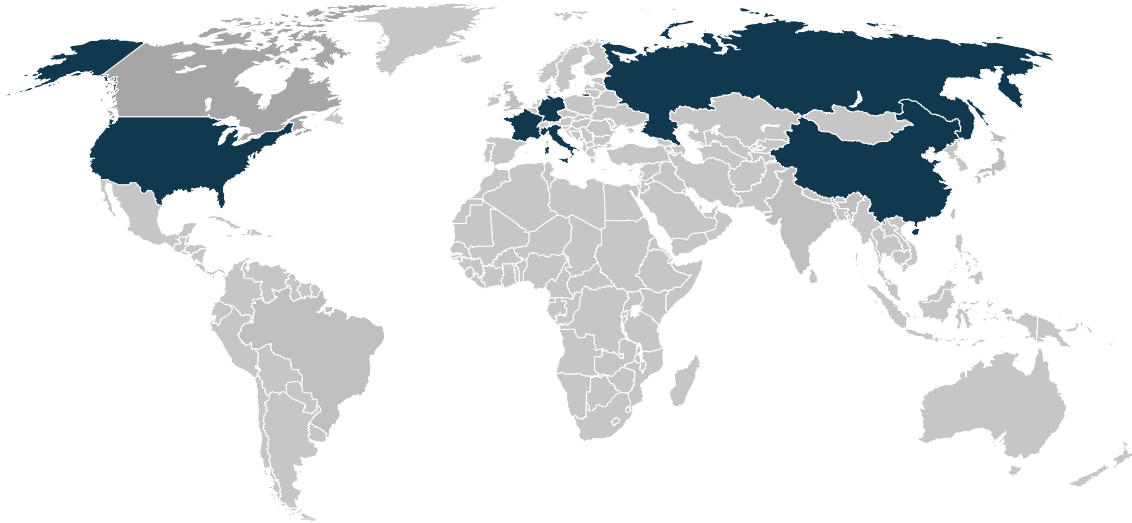


Driving Disproportionate Growth in Attractive Segments and Markets

Strong positions in 7 out of Top 10 OTC markets



■ Top 5 position



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

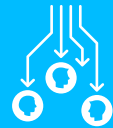


Modernizing Our Brand Building and Sales Capabilities

**Brands
with Purpose**



**From Mass to
Precision Marketing**



% Precision
marketing¹

25%

2018

58%

2021

80%

2024 - Ambition

**Accelerating
E-commerce**



% Net Sales²

3%

2018

10%

2021

15%+

2024 - Ambition

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



Environmental

Health Literacy

Partnerships & brand purpose activations for underserved



Vitamin Angels, Kirk Humanitarian

Accessible Products

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



Accessible SKUs & relevant GTMs

Carbon Neutral Production

CO2 reduction: Energy efficiency and renewable energy projects



Removal of ozone depleting liquids from HVAC plants

Sustainable Products

Sustainable packaging



Baselining of environmental impact of packaging & finding alternatives



Science for a Better Life

Sustainability @Bayer

////////

Investment Case

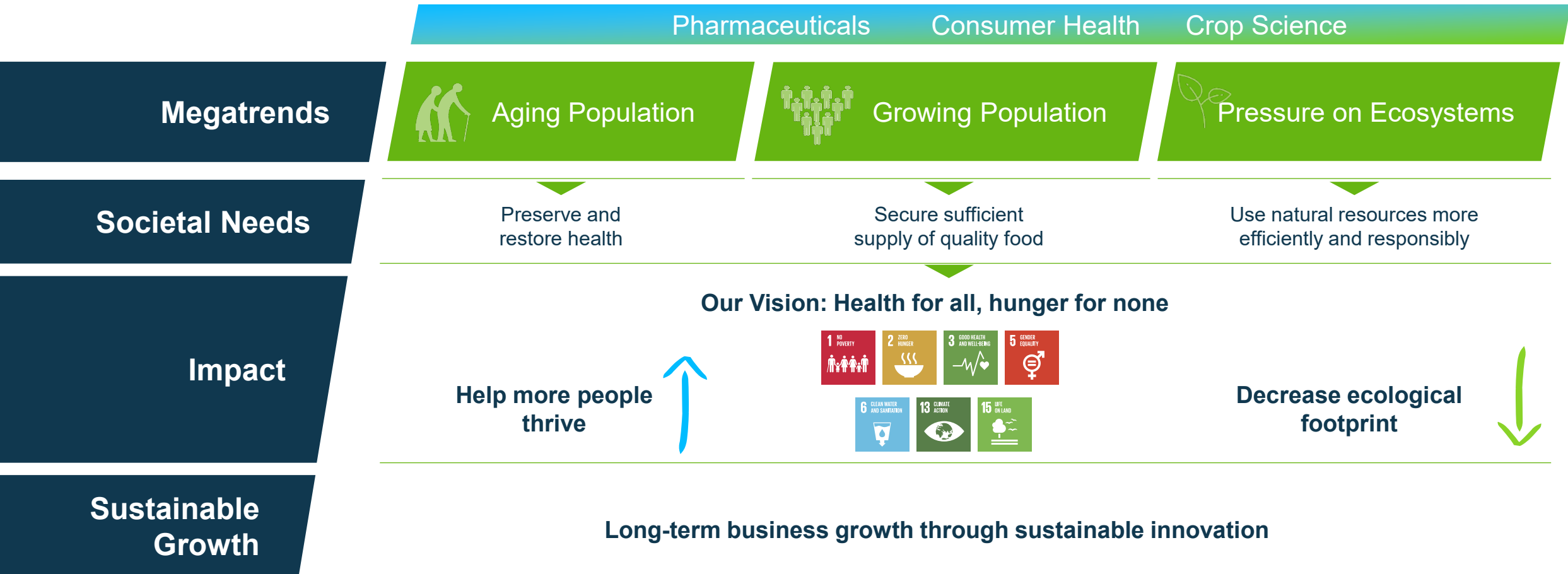
November 2022 / Bayer AG





Sustainability is Integral to Our Values, Strategy and Operations

We intend to create bold impact and generate sustainable business opportunities





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

Decrease *ECOLOGICAL* footprint



Climate neutrality at own sites + 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 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)



Help more *PEOPLE* thrive



Support **100m smallholder farmers** in LMIC³



Provide **100m women** in LMIC³ with **access to modern contraception**



Expand **access to self-care for 100m people** in underserved⁴ 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**

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

/// Bayer AG /// Investment Case /// November 2022 ² By 2029 from a 2019 base year is in line with limiting global warming to below 2 C°

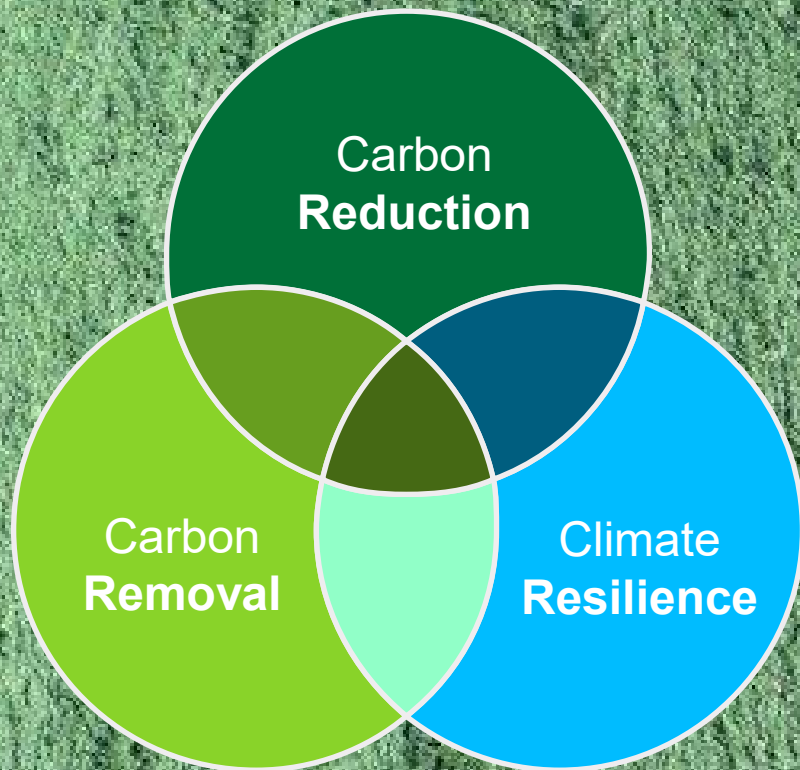
³ LMIC: low and middle income countries - all countries included in the [World Bank list](https://www.worldbank.org/en/country/low-income) as per 1 July 2019

⁴ Underserved: economically or medically

For more info here: <https://www.bayer.com/en/sustainability/targets>



We Take Broad Climate Action Along the Value Chain



Reduce Emissions

42% less CO₂ in our own operations¹ by 2029
12.3% less CO₂ in the value chain² by 2029
30% less greenhouse gas emissions³ by 2030
Net Zero by 2050



Offsetting & Carbon Assets

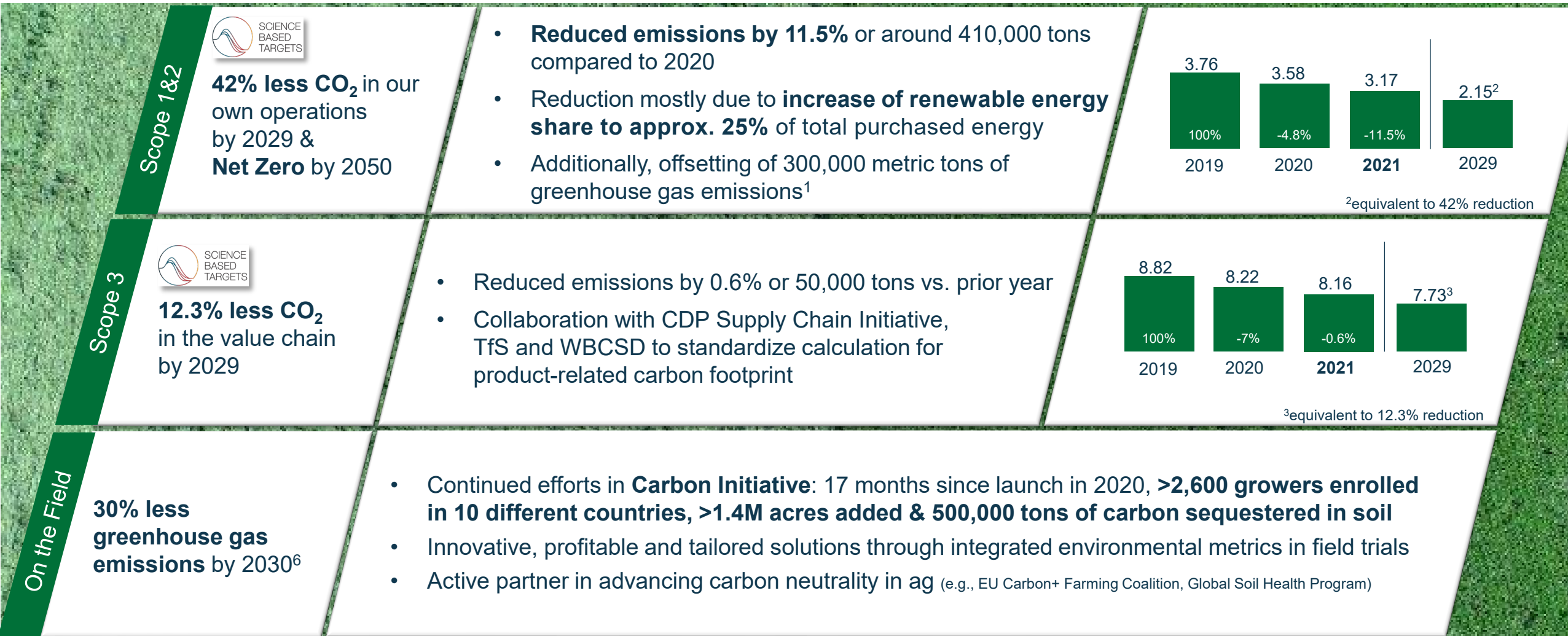
Offset remaining emissions with increasing share of **removals**
 Generate certified digitally-enabled **carbon assets⁴** with farmers



Support Resilience

In **supply chains**
 Of **farmers** on climate change impacts
 Integrate climate into **risk and opportunity** management following TCFD recommendation

We Are on Track in our Decarbonization Journey



Support 100m Smallholder Farmers

Accessing smallholders improves lives and creates business opportunities

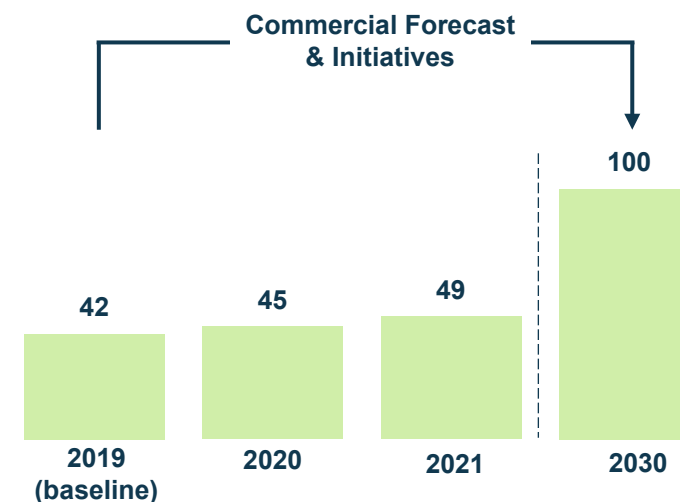
Challenges



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



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

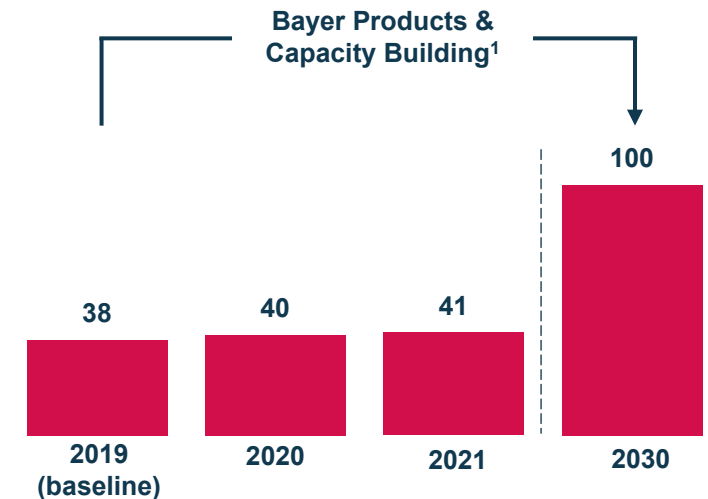
Challenges

- **>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 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

Progress



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

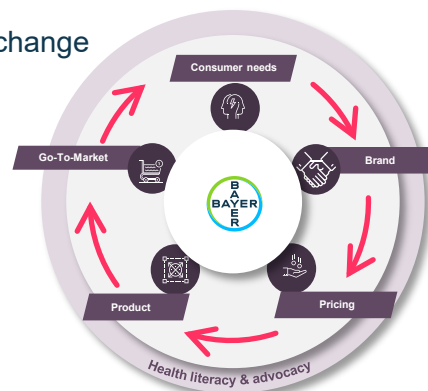
Everyday health as the first and last line of care

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**

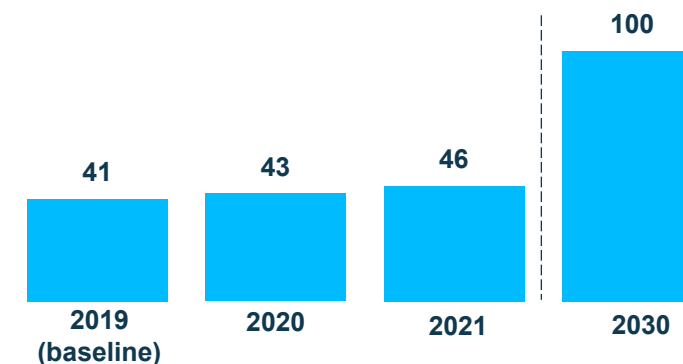
How to get there

- **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:

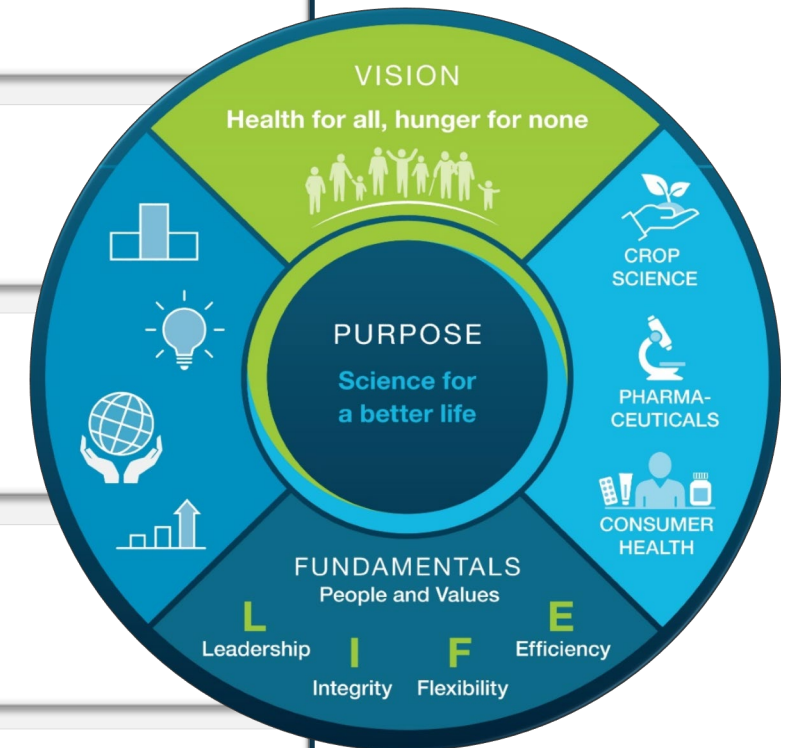
- // Growth driven by partnership initiative
- // 13 million additional people were already reached in India¹

Numbers reflect people (millions)



Strong Governance Measures Accompany our Strategy

Our CEO is Chief Sustainability Officer



¹ <https://www.bayer.com/en/sustainability/sustainability-council>

² <https://www.bayer.com/en/sustainability/transparency-builds-trust>








³ <https://www.bayer.com/en/sustainability/position-biodiversity>

⁴ <https://www.bayer.com/en/sustainability/base>



Important Improvements in ESG Ratings Achieved

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)	Ambition to reach medium risk target corridor
 CDP <small>DISCLOSURE INSIGHT ACTION</small>	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

DAX® 50 ESG



ecovadis
Business Sustainability Ratings





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

A Global Leader in Health & Nutrition

////////

Investment Case

November 2022 / Bayer AG

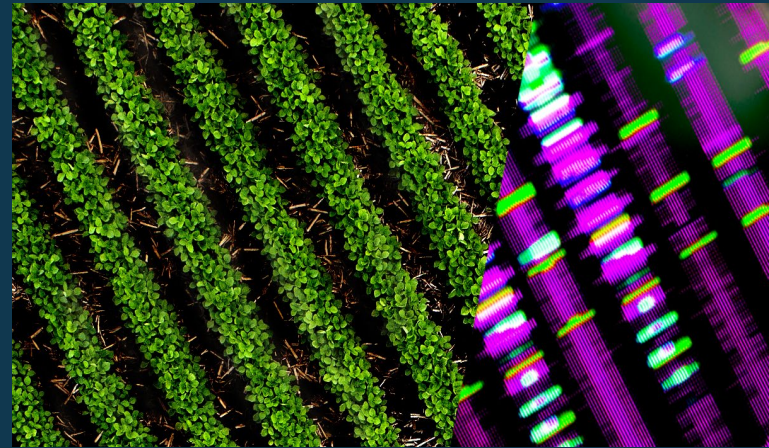




Investor Conference Call

Q3 2022 Results

November 8th, 2022
Werner Baumann, CEO
Wolfgang Nickl, CFO





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 at <http://www.bayer.com/>.

The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

Guidance at constant currencies, not including portfolio divestitures if not mentioned differently.



Q3 2022 Results

Business Update



Werner Baumann, CEO



On Track for Full Year Guidance



1

Continued Growth Momentum



2

Robust Performance across Divisions



3

Important Innovation Milestones



Q3 2022 Results

Group Performance & Outlook



Wolfgang Nickl, CFO

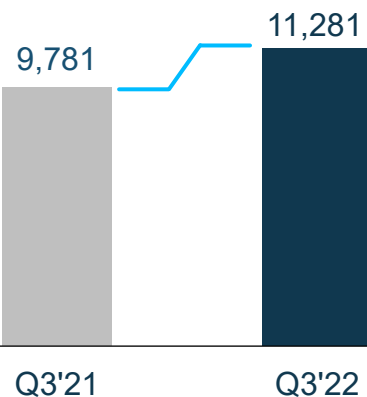


Q3 2022: Continued Growth in Sales and Earnings

Sales

In million €, Δ% yoy

+15%
(+6% cpa)

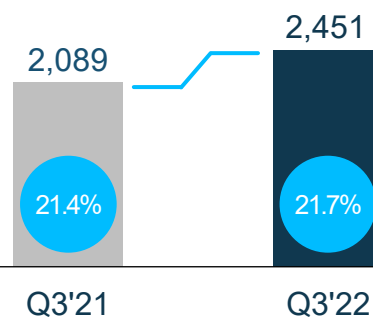


FX tailwind of €940m

EBITDA

In million €, before special items

+17%

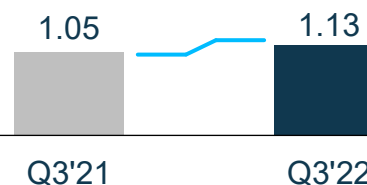


FX headwind of €78m

Core EPS

In €, Cont. Operations

+8%

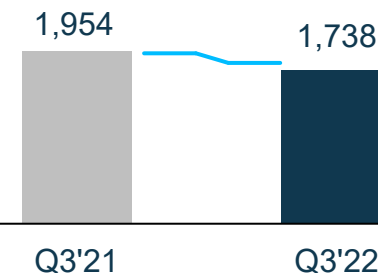


Macro impact on core Financial Result

Free Cash Flow

In million €

-11%

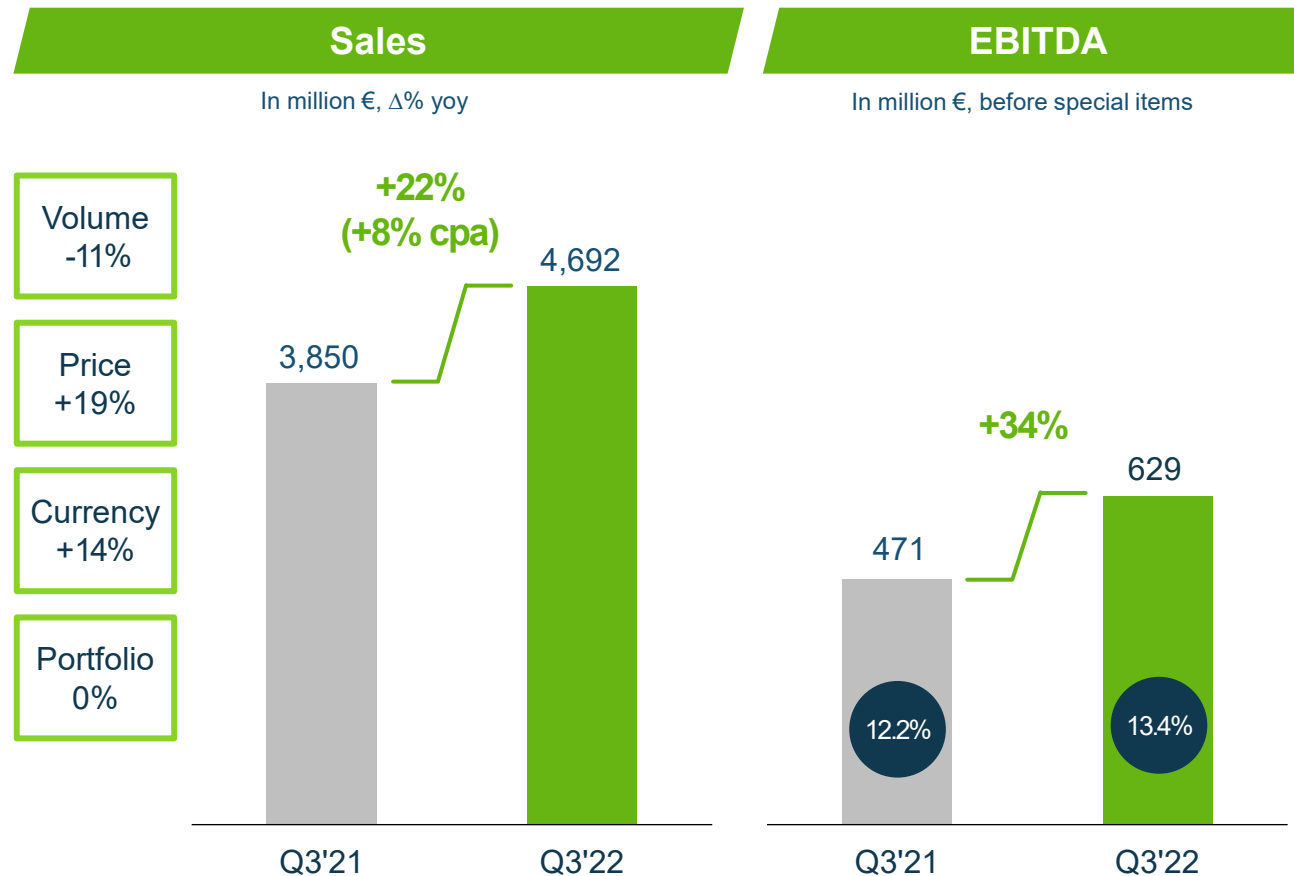


Inflation impact on inventory, timing of rebates

● EBITDA Margin before special items, cpa = currency and portfolio adjusted



Crop Science: Sustained Growth Momentum



Key Messages

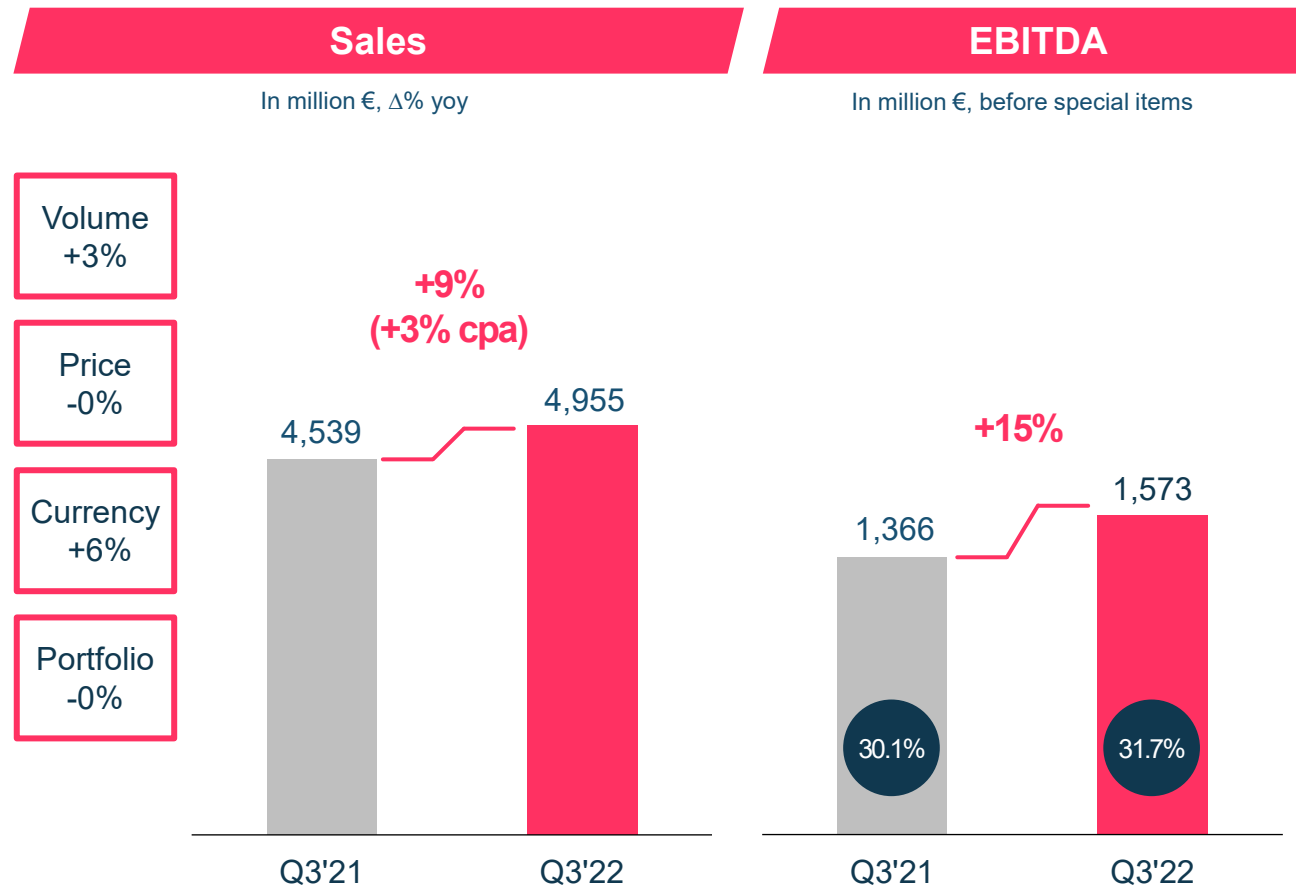
- Herbicides (+45%) pricing main growth driver due to continued favorable market dynamics
- Strong start to LATAM (+31%) season driven by herbicides, corn, soy and insecticides
- Corn S&T (-16%) with typical phasing of returns due to lower planted acres in NA; increased market share and up 5% YTD
- Soy S&T (-8%) impacted by higher returns
- Higher prices and efficiency measures more than offset ~250m EUR of cost inflation

● EBITDA Margin before special items, cpa = currency and portfolio adjusted

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



Pharmaceuticals: Increasing Contribution from New Products



Key Messages

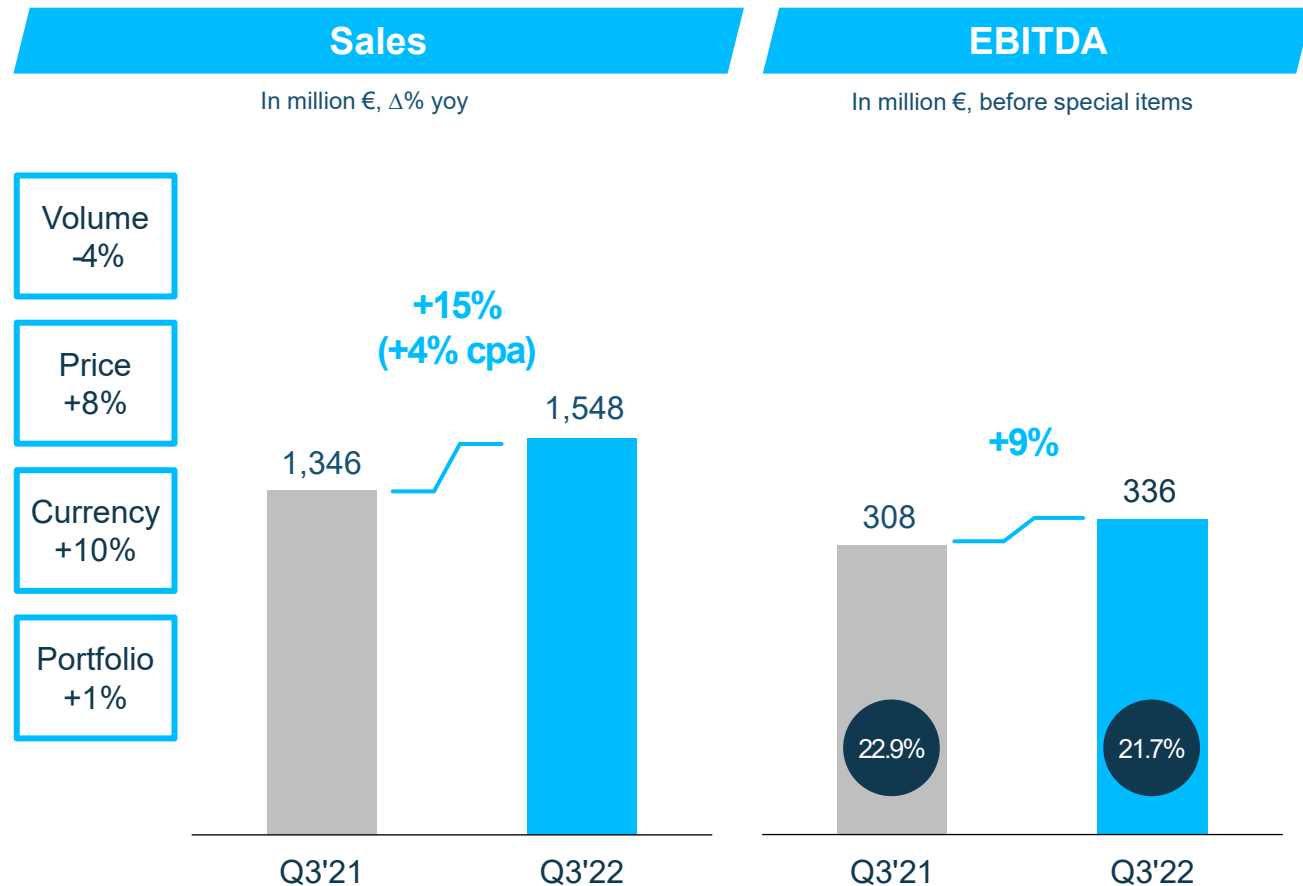
- Eylea™ (+4%) growing across regions, particularly Europe and China
- Xarelto™ (-8%) still impacted by VBP in China and loss of exclusivity in Brazil
- More than half of top line growth driven by new products: Nubeqa™ sales almost doubled again, ongoing good momentum for Kerendia™
- Sales include milestones from Cell & Gene and chemoproteomics platforms
- Earnings also benefited from focused marketing and R&D investments as well as sale of non-core businesses

● EBITDA Margin before special items, cpa = currency and portfolio adjusted

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



Consumer Health: Continuous Growth Across All Regions



Key Messages

- Allergy & Cold (+17%) driven by high number of cold incidences and U.S. Astepro™ launch
- Dermatology (+14%) growth especially driven by Bepanthen™
- Nutritionals (-8%) normalize at high levels and in line with market for this category
- Continuous spending discipline and price management offset increasing cost inflation
- Margin includes substantial investment into Astepro™ launch

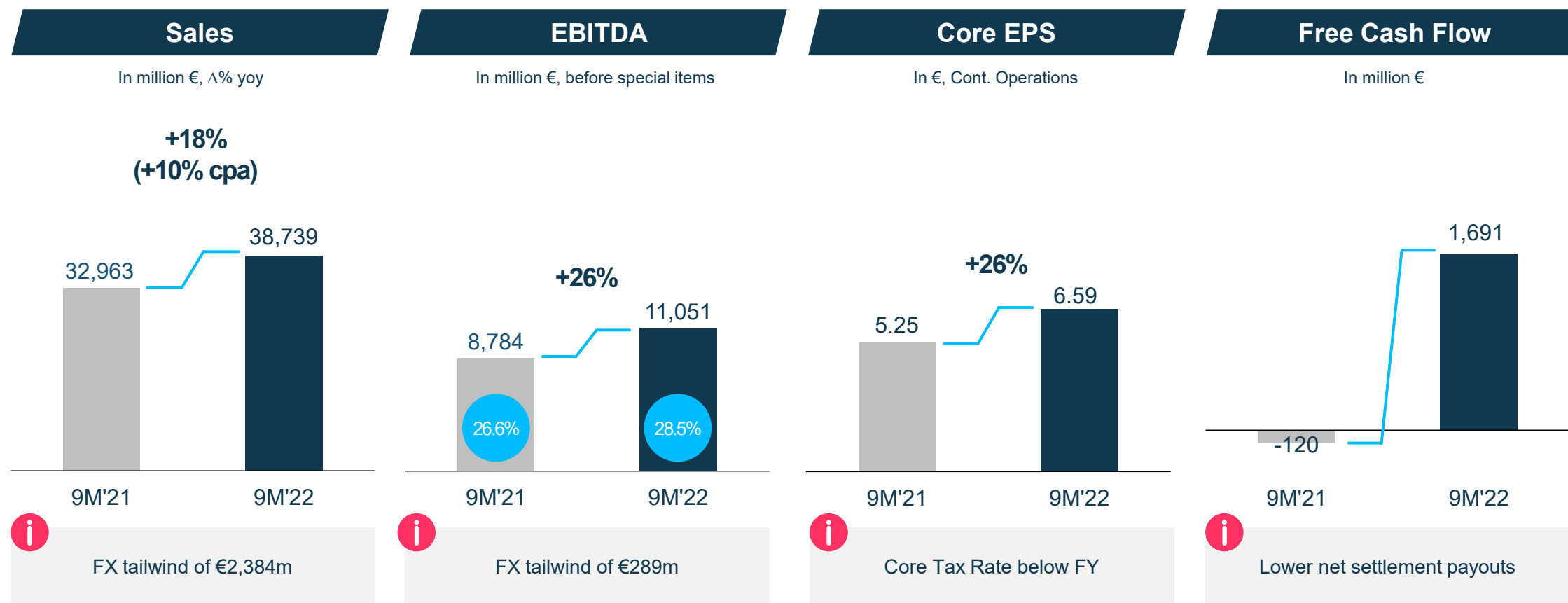
● EBITDA Margin before special items, cpa = currency and portfolio adjusted

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



9M 2022: On Track for Full Year Guidance

Significant Inflation – Offset by Pricing and Efficiencies



● EBITDA Margin before special items, cpa = currency and portfolio adjusted



ES divestment effects included;
at constant currencies
(based on 2021 average Actual rates)

FY 2022: Group P&L Outlook Confirmed

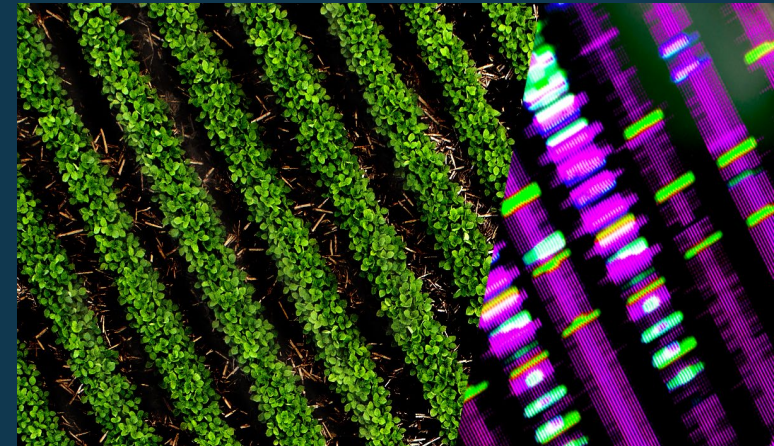
	At constant currencies	Estimated currency impact ¹	
Net Sales	€47bn – €48bn	~ + €3.5bn	
EBITDA margin <i>(before special items)</i>	26 - 27%	~ - 0.7%pts	
Core EPS	~ €7.30	~ + €0.40	• Now including ES divestment effect
Free cash flow	~ €3.0bn ²	not material	• Increased by 0.5bn due to lower net settlement payments
Net financial debt	~ €31bn	~ + €2.0bn	• Updated for ES divestment proceeds of €2.1bn in 2022



Investor Conference Call

Q3 2022 Results




November 8th, 2022
Werner Baumann, CEO
Wolfgang Nickl, CFO





FY 2022: Divisional Outlook

ES divestment effects included;
at constant currencies
(based on 2021 average Actual rates)

		Sales Growth 2022 (cpa)	EBITDA-margin 2022 (before special items)
Crop Science		~ 13%	~ 27%
Pharmaceuticals		3% - 4%	~ 32%
Consumer Health		6% - 7%	22% - 23%



FY 2022: Other Group KPIs Outlook

	At constant currencies	Estimated currency impact ¹	
Special items (EBITDA)	~ +€0.2bn	Not material	• Updated for ES divestment gains
Depreciation and amortization (clean) of which for intangible assets (clean)	~ €4.0bn ~ €2.5bn		• Updated in line with YTD
Core financial result	~ -€1.8bn	-€0.1bn	
Core tax rate	~ 23%	Not material	
Reconciliation (cEBITDA)	~ -€700m		

¹ Currency assumptions based on month-end Sept 2022 spot rates (1 EUR=) 0.97 USD, 5.24 BRL, 6.94 CNY, 140.94 JPY, 58.11 RUB. Impact calculated as difference to constant currencies



Q3 2022: Core EPS to EPS Bridge





9M 2022: Core EPS to EPS Bridge





Q3 2022: Key KPIs Bayer Group

[€ million]

Q3 2021 Q3 2022

Net Sales	9,781	11,281
EBITDA before special items	2,089	2,451
Special items	-689	-155 ¹
Reported EBITDA	1,400	2,296
Depreciation & Amortization	870	1,097
Reported EBIT	530	1,199
Amortization and impairment losses / loss reversals on intangible assets	436	679
Special items (EBITDA)	689	154
Other	62	21
Core EBIT	1,717	2,053
Core financial result (before special items)	-325	-544
Core EBT	1,392	1,509
Taxes (before special items)	-353	-389
Core tax rate	25.4%	25.9% ²
Minorities	-5	-6
Core Net income	1,034	1,114
No. of shares (m)	982.42	982.42
Core EPS (€)	1.05	1.13
Income from cont. Operations (after income taxes, w/o non-controlling interest)	85	546
Income from discount. Operations (after income taxes)	0	0
Net income	85	546
EPS from cont. and discount. Operations (€)	0.09	0.56
<hr/>		
Delta Working Capital	2,034	831 ³
Operating Cash Flow (cont. operations)	2,811	2,654
Free cash flow	1,954	1,738
CapEx and leasing, cont. Operations	-649	-726

1

Less restructuring special items

2

Guidance at ~23% for FY 2022

3

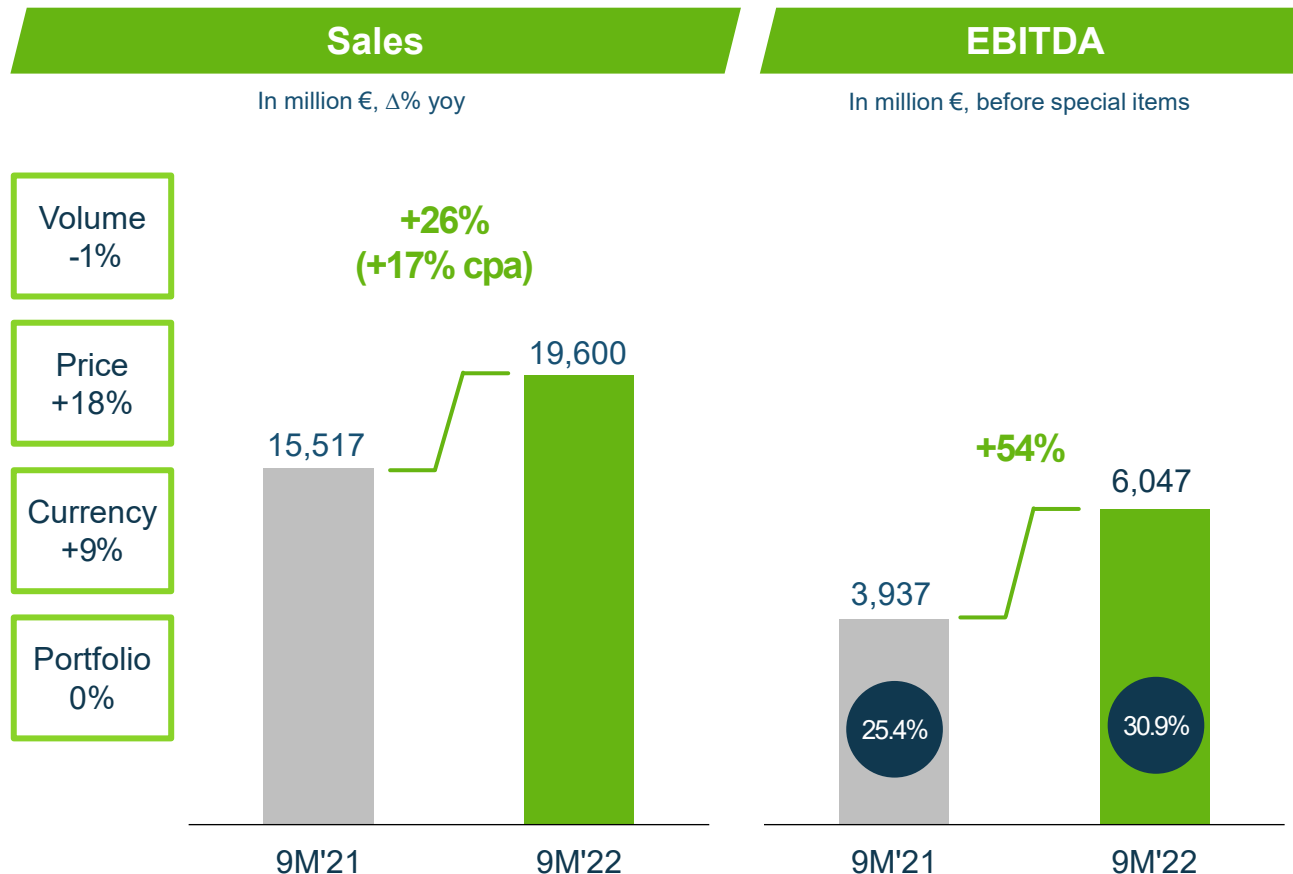
Inflation in inventories and phasing of rebate payments

Q3 2022: Key KPIs by Division

	Crop Science		Pharmaceuticals		Consumer Health		Reconciliation		Group	
[€ million]	Q3 21	Q3 22	Q3 21	Q3 22	Q3 21	Q3 22	Q3 21	Q3 22	Q3 21	Q3 22
Sales	3,850	4,692	4,539	4,955	1,346	1,548	46	86	9,781	11,281
Sales by region:										
Europe / Middle East / Africa	748	823	1,842	1,829	441	472	44	84	3,075	3,208
North America	1,063	910	994	1,317	529	628	1	0	2,587	2,855
Asia / Pacific	427	480	1,459	1,538	206	247	0	0	2,092	2,265
Latin America	1,612	2,479	244	271	170	201	1	2	2,027	2,953
EBITDA	294	619	1,070	1,501	302	332	-266	-156	1,400	2,296
Special items	-177	-10	-296	-72	-6	-4	-210	-69	-689	-155
EBITDA before special items	471	629	1,366	1,573	308	336	-56	-87	2,089	2,451
EBITDA margin before special items	12.2%	13.4%	30.1%	31.7%	22.9%	21.7%	-121.7%	-101.2%	21.4%	21.7%
EBIT	-200	53	850	1,152	219	239	-339	-245	530	1,199
Special items	-181	-10	-296	-71	-7	-4	-210	-68	-694	-153
EBIT before special items	-19	63	1,146	1,223	226	243	-129	-177	1,224	1,352
EBIT margin before special items	-0.5%	1.3%	25.2%	24.7%	16.8%	15.7%	-280.4%	-205.8%	12.5%	12.0%
Operating cash flow, continuing	1,340	1,157	1,517	1,468	308	300	-354	-271	2,811	2,654
D&A and Write-downs	494	566	220	349	83	93	73	89	870	1,097
Employees at end of period	33,852	34,654	39,922	40,558	10,724	10,857	15,316	16,227	99,814	102,296



9M 2022: Crop Science



● EBITDA Margin before special items, cpa = currency and portfolio adjusted

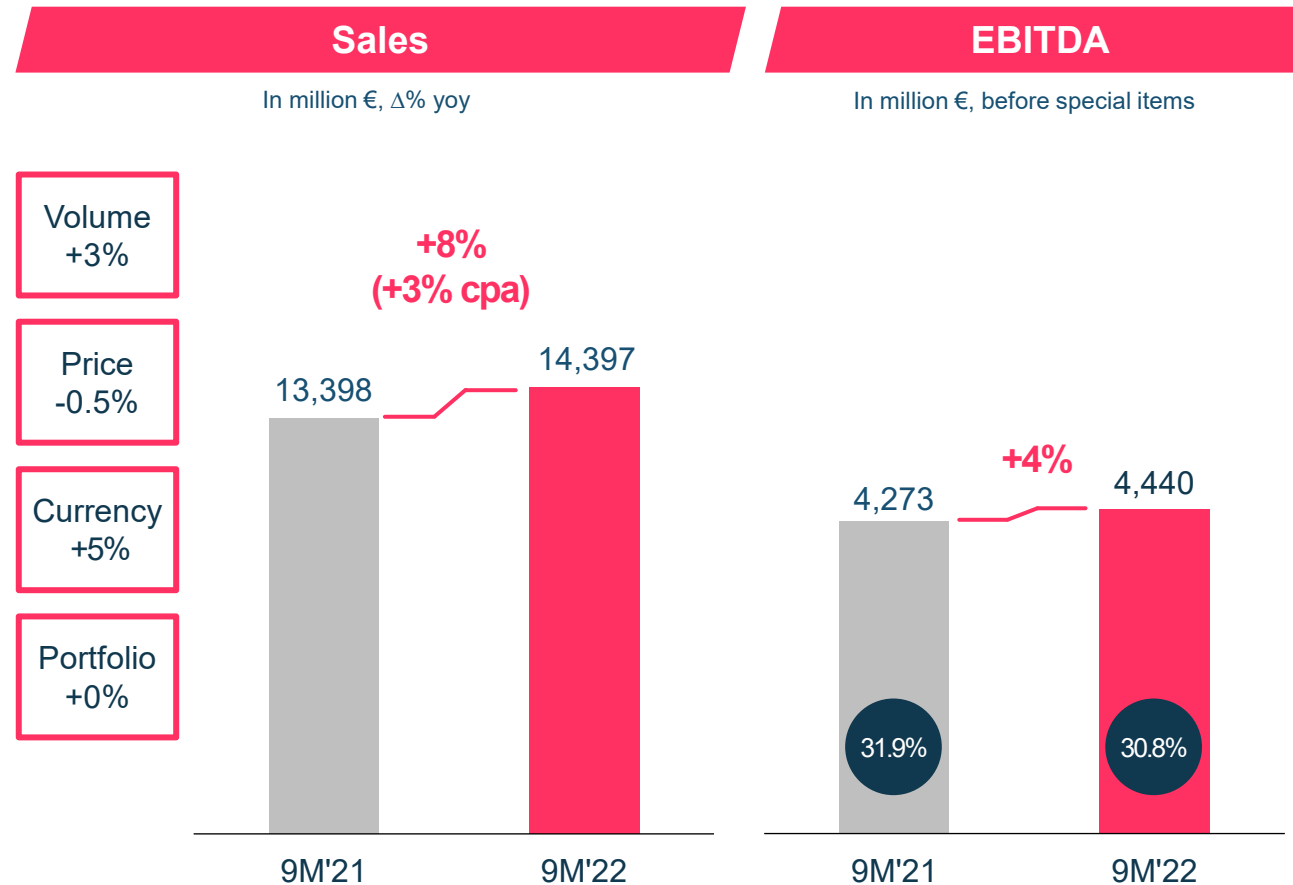
Key Messages

- Herbicides (+53%) with stronger pricing due to continued tight supply and strong demand for glyphosate-based herbicides
- Corn S&T (+5%) from higher pricing and growth in global share despite lower acres planted in U.S.
- Soy S&T (-8%) impacted by reduction of excess seed sales and slightly lower share in U.S.
- Fungicides (+9%) driven by price, as well as volume in EMEA and LATAM
- Earnings benefit from value-based pricing and efficiency measures that outpace significant cost inflation of ~700m EUR
- Dilutive FX effect on margin of 130 bps

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



9M 2022: Pharmaceuticals



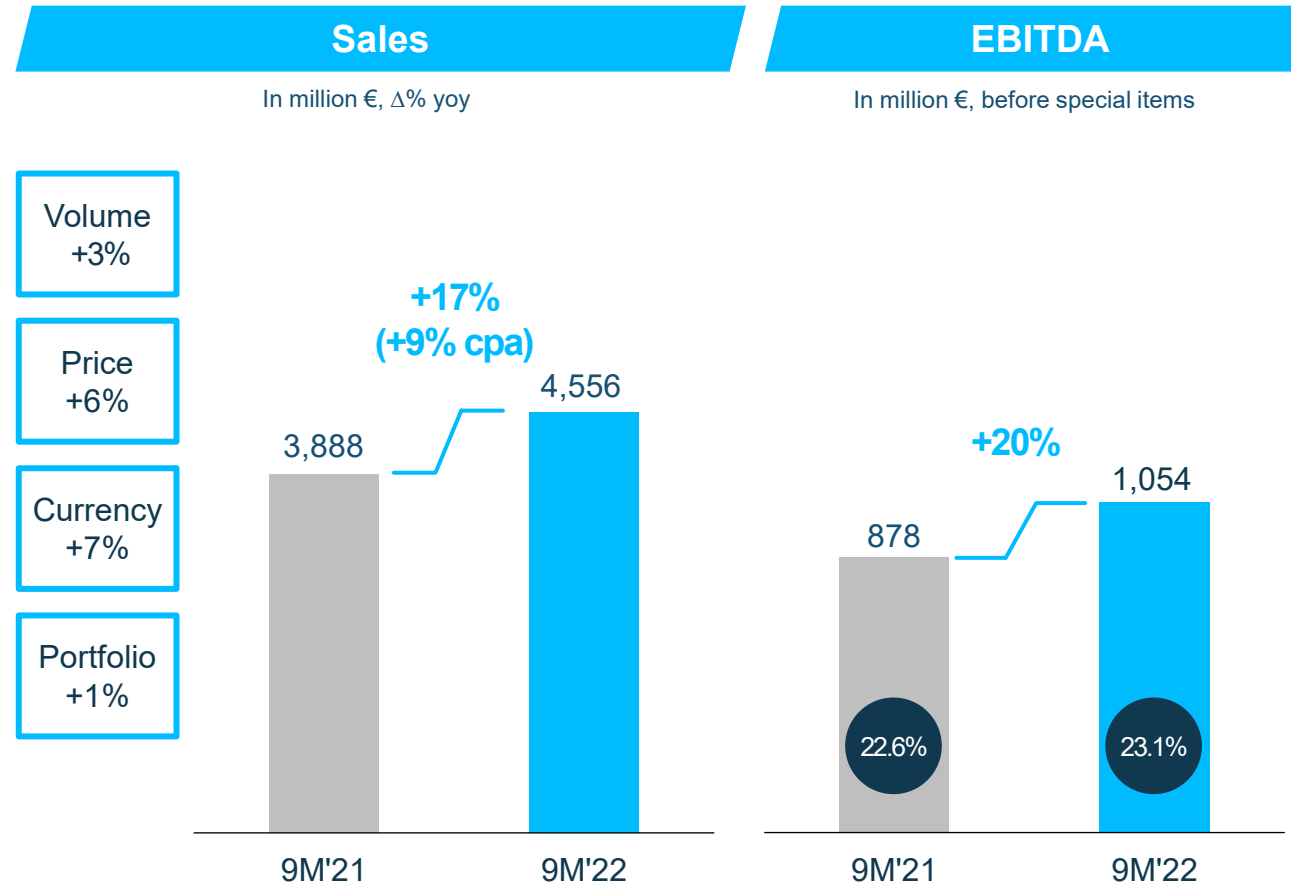
● EBITDA Margin before special items, cpa = currency and portfolio adjusted

- Key Messages**
- Eylea™ (+10%) driven by growing volumes in all regions, particularly Europe
 - Xarelto™ (-7%) impacted by VBP driven lower price and volumes in China as well as loss of exclusivity in Brazil
 - Continued strong momentum of launch products Nubeqa™ (+88%) and Kerendia™
 - Achieved key pipeline milestones: landmark phase III program for asundexian and positive phase III readout for aflibercept 8mg
 - Investments into launches and innovation
 - FX (-130 bps) and inflation weighing on margin

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



9M 2022: Consumer Health



Key Messages

- Allergy & Cold with exceptional growth (+24%) driven by higher number of cold incidences and the launch of Astepro™
- Nutritionals (+1%) normalize at very high level
- Product line extension Bepanthen Dry Skin contributes to Dermatology growth (+11%)
- Strong earnings increase, despite continuous inflationary cost pressure and additional brand investments
- Accretive FX effect on margin of 40 bps

● EBITDA Margin before special items, cpa = currency and portfolio adjusted

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



9M 2022: Key KPIs Bayer Group

[€ million]

9M 2021 9M 2022

Net Sales	32,963	38,739
EBITDA before special items	8,784	11,051
Special items	-4,106	-812 ¹
Reported EBITDA	4,678	10,239
Depreciation & Amortization	3,346	4,659
Reported EBIT	1,332	5,580
Amortization and impairment losses / loss reversals on intangible assets	2,133	3,460
Special items (EBITDA)	4,106	812
Other	108	36
Core EBIT	7,679	9,888
Core financial result (before special items)	-825	-1,528
Core EBT	6,854	8,360
Taxes (before special items)	-1,680	-1,865
Core tax rate	24.6%	22.4% ²
Minorities	-13	-19
Core Net income	5,161	6,476
No. of shares (m)	982.42	982.42
Core EPS (€)	5.25	6.59
Income from cont. Operations (after income taxes, w/o non-controlling interest)	-161	3,539
Income from discount. Operations (after income taxes)	0	0
Net income	-161	3,539
EPS from cont. and discount. Operations (€)	-0.16	3.60
<hr/>		
Delta Working Capital	-568	-4,280 ³
Operating Cash Flow (cont. operations)	2,043	4,032
Free cash flow	-120	1,691
CapEx and leasing, cont. Operations	-1,471	-1,625

1

Glyphosate Litigation Provision in Q2 2021

2

Guidance at ~23% for FY 2022

3

Glyphosate Litigation Provision in Q2 2021 offset in Other WoC for cashflow calculation

9M 2022: Key KPIs by Division

	Crop Science		Pharmaceuticals		Consumer Health		Reconciliation		Group	
[€ million]	9M 2021	9M 2022	9M 2021	9M 2022	9M 2021	9M 2022	9M 2021	9M 2022	9M 2021	9M 2022
Sales	15,517	19,600	13,398	14,397	3,888	4,556	160	186	32,963	38,739
Sales by region:										
Europe / Middle East / Africa	3,632	4,211	5,311	5,542	1,293	1,425	157	183	10,393	11,361
North America	7,026	8,327	3,022	3,486	1,502	1,820	1	1	11,551	13,634
Asia / Pacific	1,569	1,808	4,374	4,623	629	737	1	0	6,573	7,168
Latin America	3,290	5,254	691	746	464	574	1	2	4,446	6,576
EBITDA	225	6,035	4,262	4,497	857	1,029	-666	-1,322	4,678	10,239
Special items	-3,712	-12	-11	57	-21	-25	-362	-832	-4,106	-812
EBITDA before special items	3,937	6,047	4,273	4,440	878	1,054	-304	-490	8,784	11,051
EBITDA margin before special items	25.4%	30.9%	31.9%	30.8%	22.6%	23.1%	-190.0%	-263.4%	26.6%	28.5%
EBIT	-1,930	2,823	3,531	3,560	607	762	-876	-1,565	1,332	5,580
Special items	-4,178	-1,334	-19	-33	-21	-25	-362	-832	-4,580	-2,224
EBIT before special items	2,248	4,157	3,550	3,593	628	787	-514	-733	5,912	7,804
EBIT margin before special items	14.5%	21.2%	26.5%	25.0%	16.2%	17.3%	-321.3%	-394.1%	17.9%	20.1%
Operating cash flow, continuing	-1,063	1,321	2,898	2,527	714	729	-506	-545	2,043	4,032
D&A and Write-downs	2,155	3,212	731	937	250	267	210	243	3,346	4,659
Employees at end of period	33,852	34,654	39,922	40,558	10,724	10,857	15,316	16,227	99,814	102,296



Bayer AG

Company Info



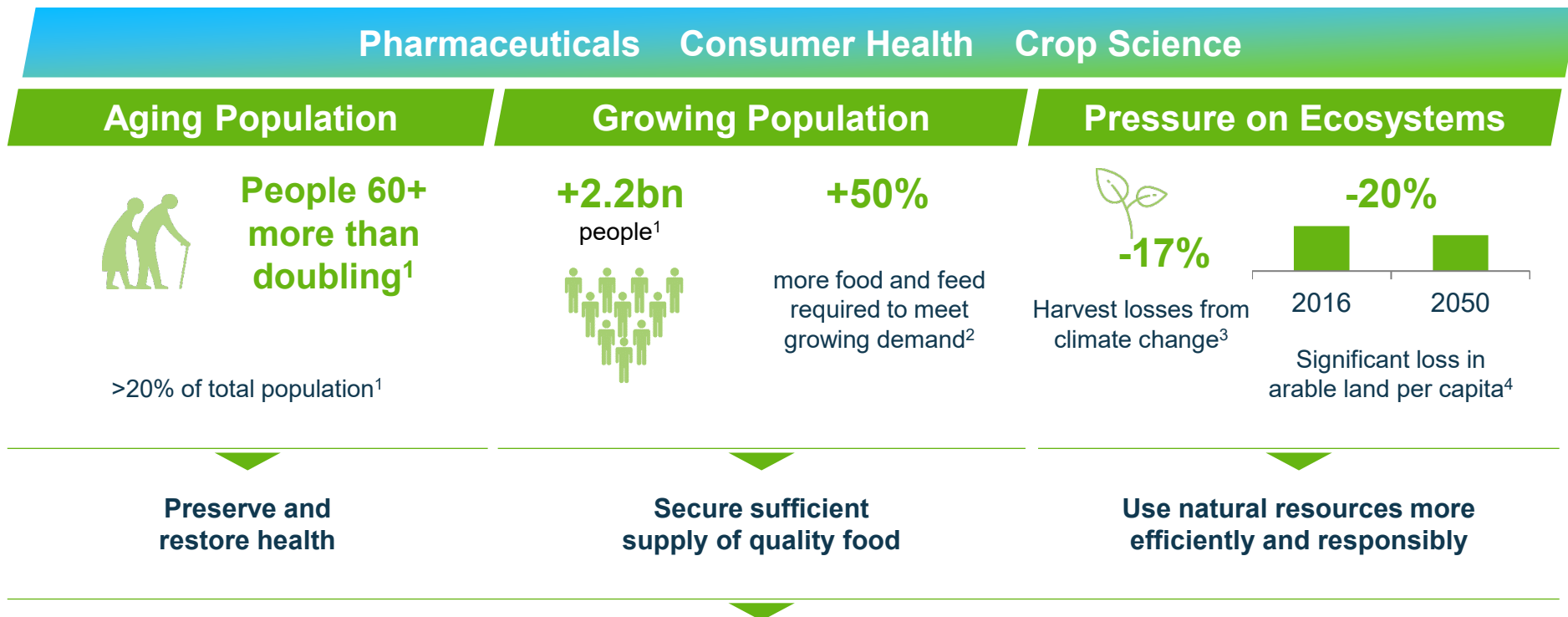
Global Megatrends in Health & Nutrition

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

Megatrends through 2050

Societal Needs

Our Mission



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



Science For A Better Life

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

² FAO 2017, (FAO Global Perspective Studies)






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

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



Leadership and Innovation Set the Course for Our Future Growth

Key Growth Drivers

-  Long-term megatrend tailwinds are propelling growing demand in the Life Sciences
-  Number one position in Ag inputs and leading positions in key Pharma and Consumer categories
-  World-class innovation: technological breakthroughs driven by the bio-revolution
-  Accelerated transformation and further efficiency gains in our operations
-  Focus on sustainability to create new value

Crop Science Innovation Pipeline

Annual R&D Investment:

€2.0bn

Key Current Launch Products:



Key Mid-/Late-Stage Pipeline Opportunities:

- **Short Stature Corn** 
- **Soybean Herbicide Trait Stack with Five-Tolerances** 


Pharmaceuticals Innovation Pipeline

Annual R&D Investment:

€3.1bn

Key Current Launch Products:



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

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

¹ In collaboration with Sumitomo



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



Important Improvements in ESG Ratings Achieved

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)	Ambition to reach medium risk target corridor
 CDP <small>DISCLOSURE INSIGHT ACTION</small>	Climate Water Forest	A A- B	Scores maintained on high level
 access to medicine index	Ranking	#13 out of 20	Significant improvement from #16 in 2021 Ambition to become top 10 with next evaluation in 2023
 Access to Seeds Index	Ranking	#1 of 32 Africa ¹ #3 of 31 South & South-East Asia	Leading Positions in relevant regions

DAX® 50 ESG



ecovadis
Business Sustainability Ratings















Innovation



Pharmaceuticals: R&D Developments (since last update on August 4, 2022)


Phase I	Phase II	Phase III	Commercial
<div><div></div><div>Initiation of CCR8 dep antibody (immuno oncology)</div></div> <div><div></div><div>Discontinuation of peboctocogene camaparvovec (FVIII gene therapy)</div></div>	<div><div></div><div>Completion of PACIFIC study program with FXIa inhibitor asundexian (stroke prevention in atrial fibrillation, secondary stroke prevention and prevention of major cardiac events following an acute myocardial infarction)</div></div> <div><div></div><div>Completion of fesomersen and osocimab studies (thrombosis prevention in end-stage renal disease); decision taken to discontinue further development</div></div>	<div><div></div><div>Announcement of OCEANIC study program with FXIa inhibitor asundexian (stroke prevention in atrial fibrillation, secondary stroke prevention)</div></div> <div><div></div><div></div></div> <div><div></div><div>Presentation of aflibercept 8mg study program (diabetic macular edema and neovascular age-related macular degeneration) at the Annual Meeting of the American Academy of Ophthalmology</div></div> <div><div></div><div>Discontinuation of regorafenib (Glioblastoma)</div></div>	<div><div></div><div>Nubeqa (darolutamide): US label extension to treat patients with metastatic hormone-sensitive prostate cancer</div></div> <div><div></div><div>Kerendia (finerenone):<ul style="list-style-type: none">US label extension to include results from Phase III study FIGARO-DKD (patients with earlier stage of chronic kidney disease associated with type 2 diabetes (CKD/T2D))Adaption of KDIGO guideline to add Kerendia to a RASi and SGLT2i for treatment of CKD/T2D</div></div>

Oncology


Cardiovascular Diseases

Women's Health


Others




Newsflow



Advancements



Additions



Discontinuations



Pharmaceuticals: Overview Development Portfolio (as of November 8, 2022)

Phase I (17)	Phase II (10)	Phase III (9)
Elimusertib (ATR Inhibitor) (BAY 1895344)	Regorafenib (combi Nivolumab) (BAY 734506) /// Solid tumors (recurrent or metastatic)	Darolutamide (AR Inhibitor) (BAY 1841788) /// Prostate Cancer (mHSPC) (ARANOTE) /// Prostate Cancer (aHSPC) (DASL-HiCaP)
SLFN12 Complex-Inducer (BAY 2666605)	Regorafenib (combi Pembrolizumab) (BAY 734506) /// Hepatocellular Carcinoma (HCC)	Copanlisib (PI3K Inhibitor) (BAY 806946) /// Non-Hodgkin Lymphoma (CHRONOS-4)
mEGFR Inhibitor (BAY 2927088)	Asundexian (FXIa Inhibitor) (BAY 2433334) /// Stroke Prevention in Atrial Fibrillation (PACIFIC-AF) /// 2° Stroke Prevention (PACIFIC-STROKE) /// Major Adverse Cardiac Events Prevention (PACIFIC-AMI)	Finerenone (MR Antagonist) (BAY 948862) /// Heart Failure (HFmr/pEF) (FINEARTS-HF) /// Non-diabetic CKD (FIND-CKD)
HER2-TTC (HER2-Targeted Thorium Conjugate) (BAY 2701439)	Runcaciguat (sGC Activator) (BAY 1637108) /// Chronic Kidney Disease (CKD) (CONCORD) /// Non-prolif. Diabetic Retinopathy (NPDR) (NEON-NPDR)	Vericiguat (sGC Stimulator) (BAY1021189) /// Heart Failure (HFref) (VICTOR*)
Bapotulimab (ILDR2 fb Antibody) (BAY 1905254)	Adrenomedullin Pegol (PEG-ADM) (BAY 1097761) /// Acute Resp. Distress Syn. (ARDS) (SEAL TRIAL)	Elinzanetant (Neurokinin-1,3 Rec Antagonist) (BAY 3427080) /// Vasomotor Symptoms (OASIS)
CCR8 dep Ab (BAY 3375968)	BDKRB1 Receptor Antagonist (BAY 2599210) /// Neuropathic Pain (BRADINP)	Aflibercept 8MG (BAY 865321) /// Diabetic Macular Edema (DME) (PHOTON**) /// Neovasc. Age-rel. Macular Degen. (nAMD) (PULSAR)
AhR Inhibitor (BAY 3176803)	Gadoquatrane (High Relaxivity Contrast Agent) (BAY 1747846) /// Magnetic Resonance Imaging (HRCA-PAT)	
Congestive Heart Failure Gene Therapy		
sGC Activator 4 (BAY 3283142)		
P2X4 Antagonist (BAY 2328065)		
BDKRB1 Receptor Antagonist (BAY 2599210)		
Pompe Disease Gene Therapy		
Parkinson's Disease Gene Therapy		
Parkinson's Disease Cell Therapy		
sGC Activator 3 (BAY 1211163)		
ADRA2C Antagonist (BAY 2925976)		
Zabedoseritib (IRAK4 Inhibitor) (BAY 1834845)		

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

ONCOLOGY	WOMEN'S HEALTH
CARDIOVASCULAR DISEASES	OTHERS

* Trial conducted by Merck & Co.

** Trial conducted by Regeneron Pharmaceuticals



CORN SEED & TRAIT
€10-11bn PSP

SOYBEAN SEED & TRAIT
~€3bn PSP

VEGETABLES and OTHER⁴

Projects listed here and included in the peak sales potential by segment do not include projects funded by our LEAPS investments

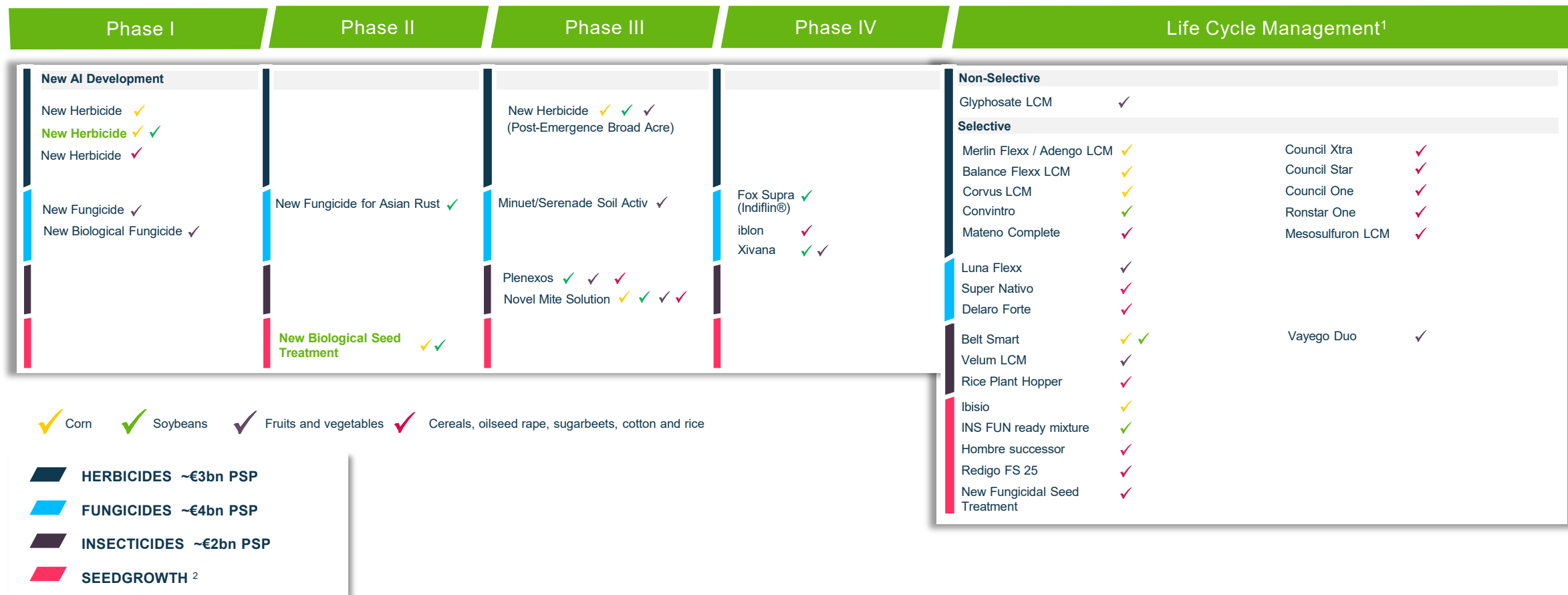
■ advanced to next phase

Annual upgrades with new hybrids or varieties launching annually and multiple generations in development.



Crop Science: R&D Pipeline (as of February 2022)

Key Crop Protection Projects with ~€9bn Peak Sales Potential; ~50% Incremental



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. ² SeedGrowth is currently reported within other SBEs

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

■ advanced to next phase



Crop Science: Breadth and Depth of Five Core R&D Platforms Power Innovation

CONVERGENCE OF LEADING R&D PLATFORMS TO UNLOCK NEXT LAYER OF VALUE CREATION IN AGRICULTURE

SEEDS & TRAITS



Breeding

Leading germplasm libraries paired with advanced breeding and data science technology application

1.7P³ calculations in cloud-based algorithms

>3,500 unique field-testing locations

>500 deployments a in corn, soybeans, vegetables in 2021



Biotech

Leading protein optimization technology with extensive protein libraries

First to combine RNAi technology with biotech

>2.7bn datapoints generated by Precision Genomics team to deliver biotech traits and accelerate genetic gain

>15 new and next-gen. traits in development

CROP PROTECTION



Chemistry

Strong discovery platform for molecules with new modes-of-action and differentiated profiles

100% novel Mode of Action in early discovery

30-60 molecules selected for field trials per year

Expect **~100** new formulations to launch in the next decade



Biologicals

270,000 microbes in collection

>100,000 strains characterized every year with in silico, in vitro or in planta assays

>1,700 trials in 44 countries in 2021

~60m acres of commercial products in row crops annually

DIGITAL FARMING



Data Science

#1 database of grower and field trial seed performance data in the industry

>87.5bn data points of product performance under real-world farmer management practices

>200m subscribed acres across 23 countries



Consumer Health: Accelerating Growth with Innovation

Selected Examples of Recent Launches or Approvals



Astepro Rx-to-OTC Switch (launch in 2022)

- First **OTC Steroid-Free Antihistamine** Nasal Spray approved in US, addressing consumer unmet needs with differentiated solution



AleveX Topical Pain Relief Solutions (launched 2021)

- Expansion into a large and fast-growing segment, offering superior consumer experience



Bepanthen extension to Dry Skin (launched 2021)

- Science-based innovation, solving high consumer dissatisfaction