



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

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**Investment Case**

February 2022 / Bayer AG





# Cautionary Statements Regarding Forward-Looking Information

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

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

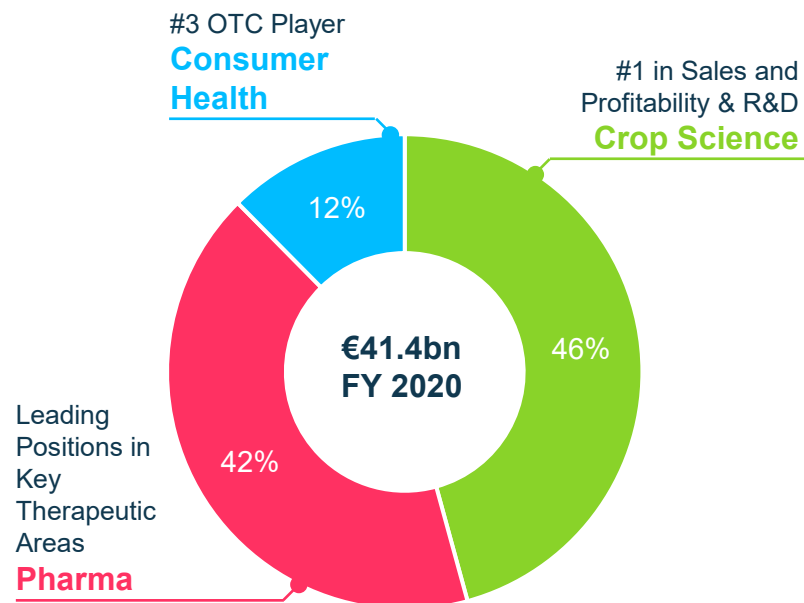
The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.



# 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



<sup>1</sup>Source: Company Estimates

<sup>2</sup>Source: IQVIA MIDAS MAT Q3-20

<sup>3</sup>Source: Nicholas Hall & Company DB6

## Market Size

### Crop Science



~€100bn<sup>1</sup>

### Pharmaceuticals



~€1,000bn<sup>2</sup>

### Consumer Health



~€150bn<sup>3</sup>



# Global Megatrends in Health & Nutrition

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

**Megatrends through 2050**

**Societal Needs**

**Our Mission**

## Pharma/Consumer Health

## Crop Science

### Aging Population



**People 60+ more than doubling<sup>1</sup>**

>20% of total population<sup>1</sup>

**Preserve and restore health**

### Growing Population

**+2.2bn people<sup>1</sup>**



**+50%**

more food and feed required to meet growing demand<sup>2</sup>

**Secure sufficient supply of quality food**

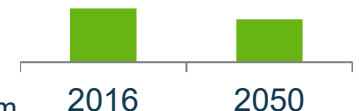
### Pressure on Ecosystems



**-17%**

Harvest losses from climate change<sup>3</sup>

**-20%**



Significant loss in arable land per capita<sup>4</sup>

**Use natural resources more efficiently and responsibly**

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



Science For A Better Life

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

<sup>2</sup> FAO 2017, (FAO Global Perspective Studies)

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






<sup>4</sup> 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:

€2.7bn

### 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
- P2X3 Receptor Antagonist**
  - Multi-indication opportunity

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

<sup>1</sup> In collaboration with Sumitomo



# Profitable Growth Expected in the Mid-Term

Anticipate €43-45bn Sales and €5bn in Annual Free Cash Flow by 2024 for the Group

1

Enable growth

2

Drive profitability

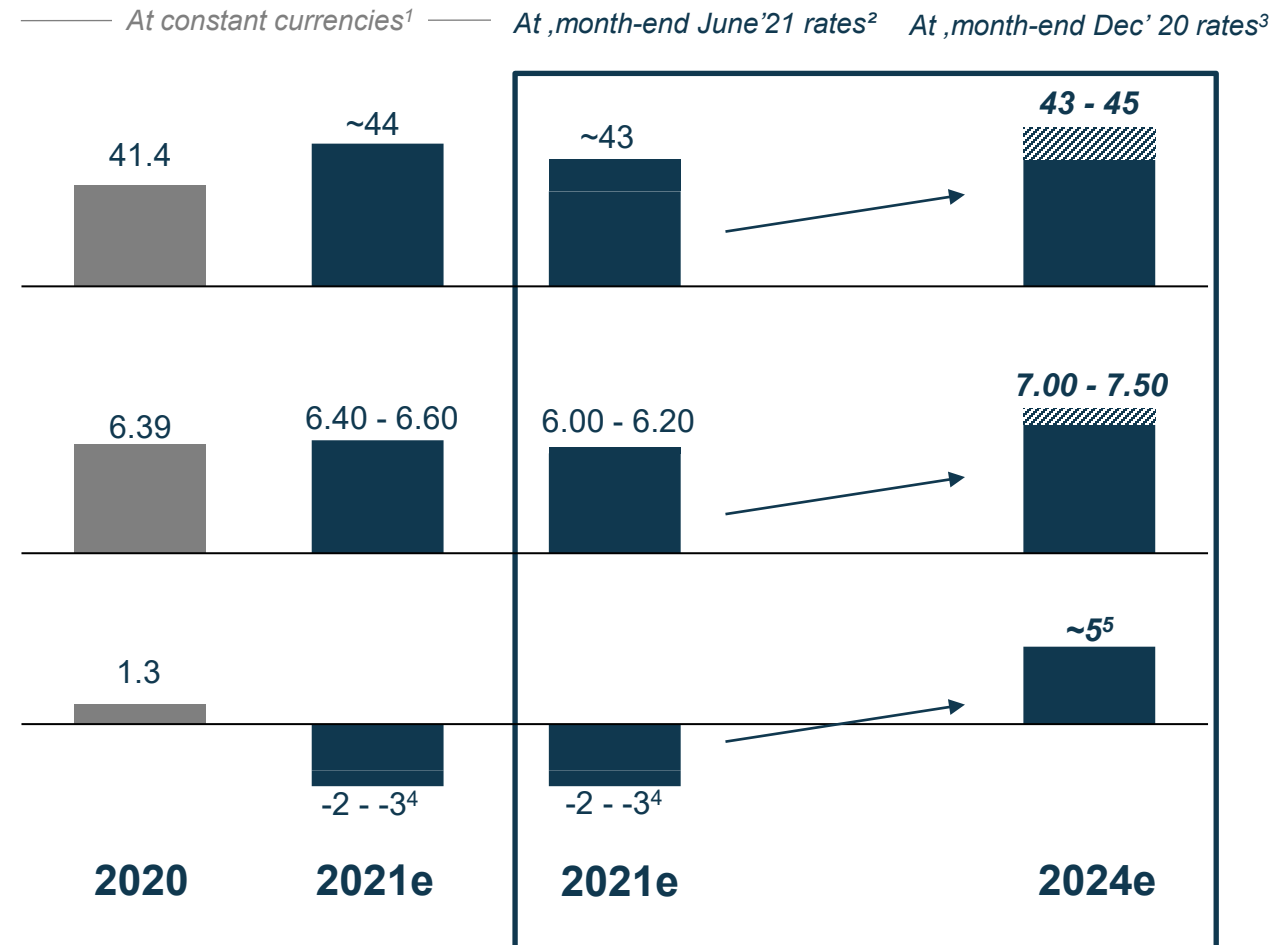
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Focus on cash

**Sales**  
in €bn

**Core EPS**  
in €

**Free Cash Flow**  
in €bn



<sup>1</sup> Reflects our 2021 plan at the average actual currencies for 2020; Acquisition of Vividion Therapeutics not included <sup>2</sup> Currency assumptions based on month-end June 2021 spot rates (1 EUR=) 1.19 USD, 5.90 BRL, 7.69 CNY, 131 JPY, 24.4 MXN, 86.8 RUB

<sup>3</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 24.4 MXN, 91.5 RUB

<sup>4</sup> Settlement payouts of ~€7bn included <sup>5</sup> Settlement payouts and special items of ~€1bn included

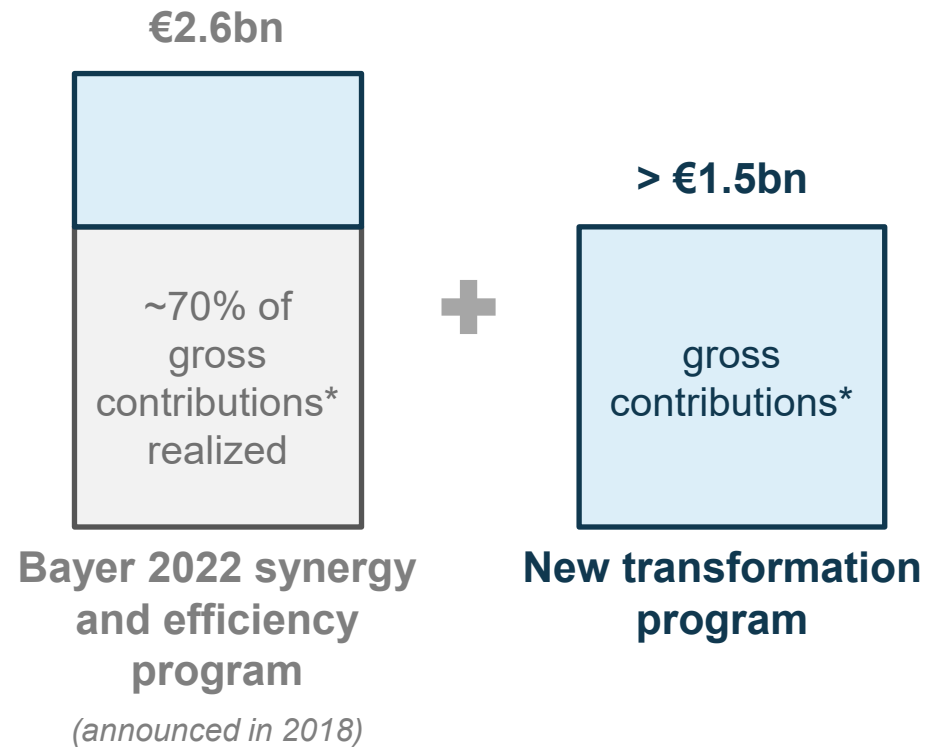
/// = Indicates corridor between high- and low case



# New Transformation Program with Gross Contributions of >€1.5bn

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

## Transformation programs



## Delivery

- Implementation of **Bayer 2022 ahead of plan**
- 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
- Going forward, we will keep you updated and **jointly implement and track** both programs

\* Gross contributions will be partially re-invested to fuel growth and are included in our guidance for 2021-24  
 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

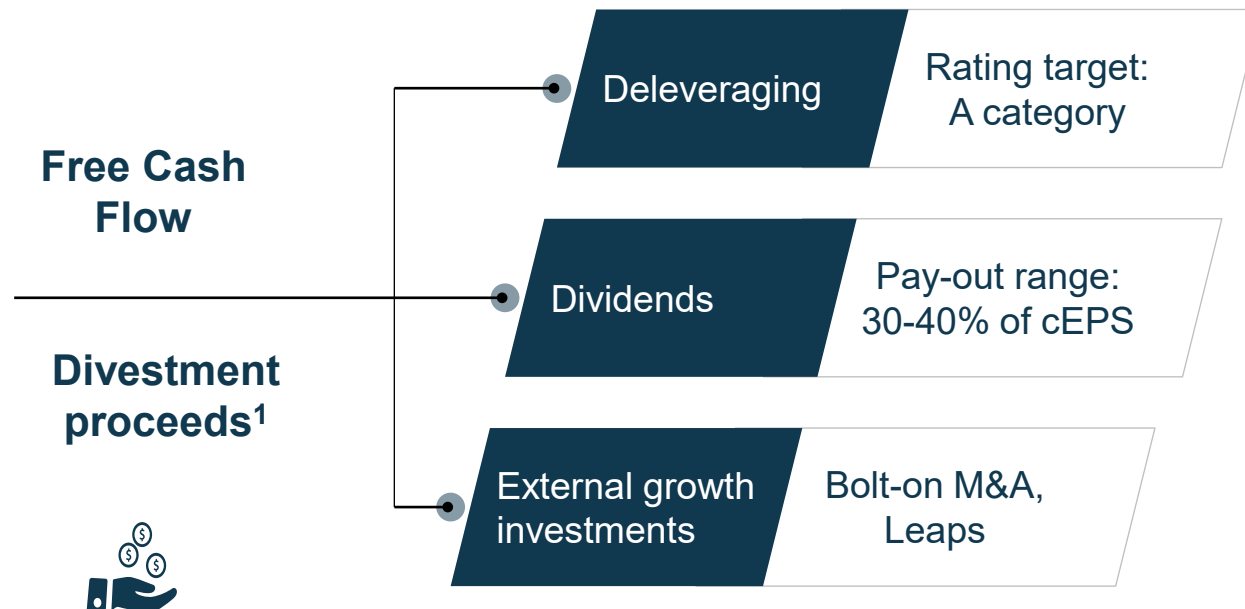




# Disciplined Capital Allocation to Delever, Pay Dividends and Invest

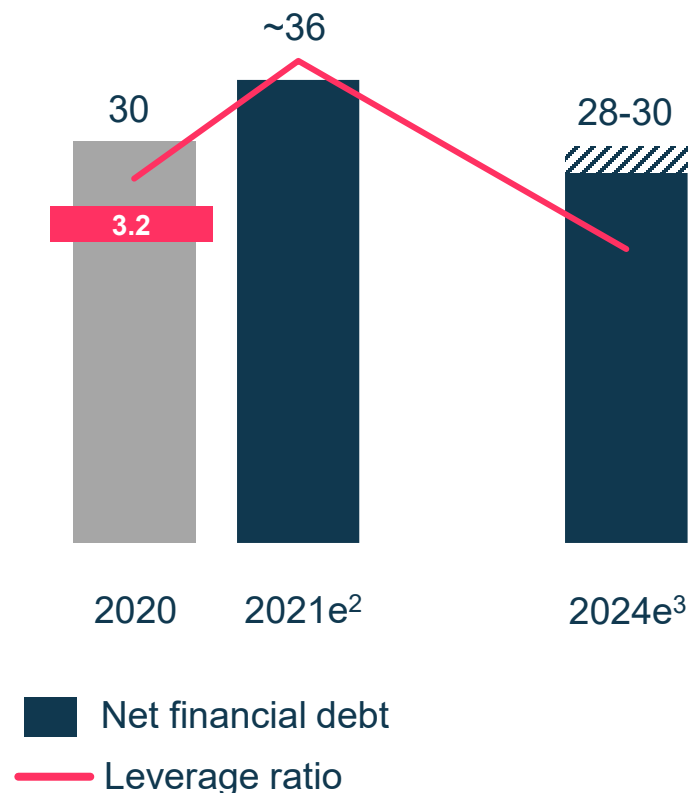
Expect Net Debt to Increase in 2021 with Planned Settlements and Return to €28-30bn by 2024

## Capital allocation priorities



## Net financial debt development

In €bn



<sup>1</sup> From non-strategic divestments below divisional level and sale of other fixed assets <sup>2</sup> Currency assumptions based on month-end June 2021 spot rates (1 EUR=) 1.19 USD, 5.90 BRL, 7.69 CNY, 131 JPY, 24.4 MXN, 86.8 RUB

<sup>3</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 24.4 MXN, 91.5 RUB

/// = Indicates corridor between high- and low case



# Ambitious Measurable Targets for Sustainable Development

2030 Targets in Line with UN SDGs and Our Vision; **Health for All, Hunger for None**

**Help more PEOPLE thrive: Drive growth in underserved regions**



Support **100m<sup>1</sup> smallholder farmers** in LMIC<sup>2</sup>



Provide **100m<sup>1</sup> women** in LMIC with **access to modern contraception**



Expand **access to self-care for 100m<sup>1</sup> people** in underserved<sup>3</sup> communities



**Decrease ECOLOGICAL footprint: Drive growth through sustainable resource use**



**Climate neutrality at own sites + reduced emissions in our supply chain**

// 42%<sup>1</sup> reduction target for Scope 1 & 2<sup>4</sup>

// 12.3%<sup>1</sup> reduction target for Scope 3<sup>4</sup>

**+ Net Zero emission target until 2050** in line with long term goal of Paris Agreement (Scope 1, 2 & 3)<sup>4</sup>

**Established a Sustainability Council comprised of highly renowned experts to provide advice and review progress on sustainable business strategy and social innovation in consultation with our CEO and Boards**

<sup>1</sup> LMIC: low and middle income countries - All countries included in the World Bank list as per 1 July 2019.

<sup>2</sup> Baseline(2019). Numbers reflect people; preliminary figures; pending external audit : ~42m smallholder farmers; ~38m women; ~41m people; 3.7m tCO<sub>2</sub>e for Scope 1&2; 10m tCO<sub>2</sub>e for Scope 3.

<sup>3</sup> Underserved : Economically or medically.

<sup>4</sup> Scope 1: emissions from own operations; Scope 2: emissions from purchased energy; Scope 3: emissions along the value chain



# 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

February 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

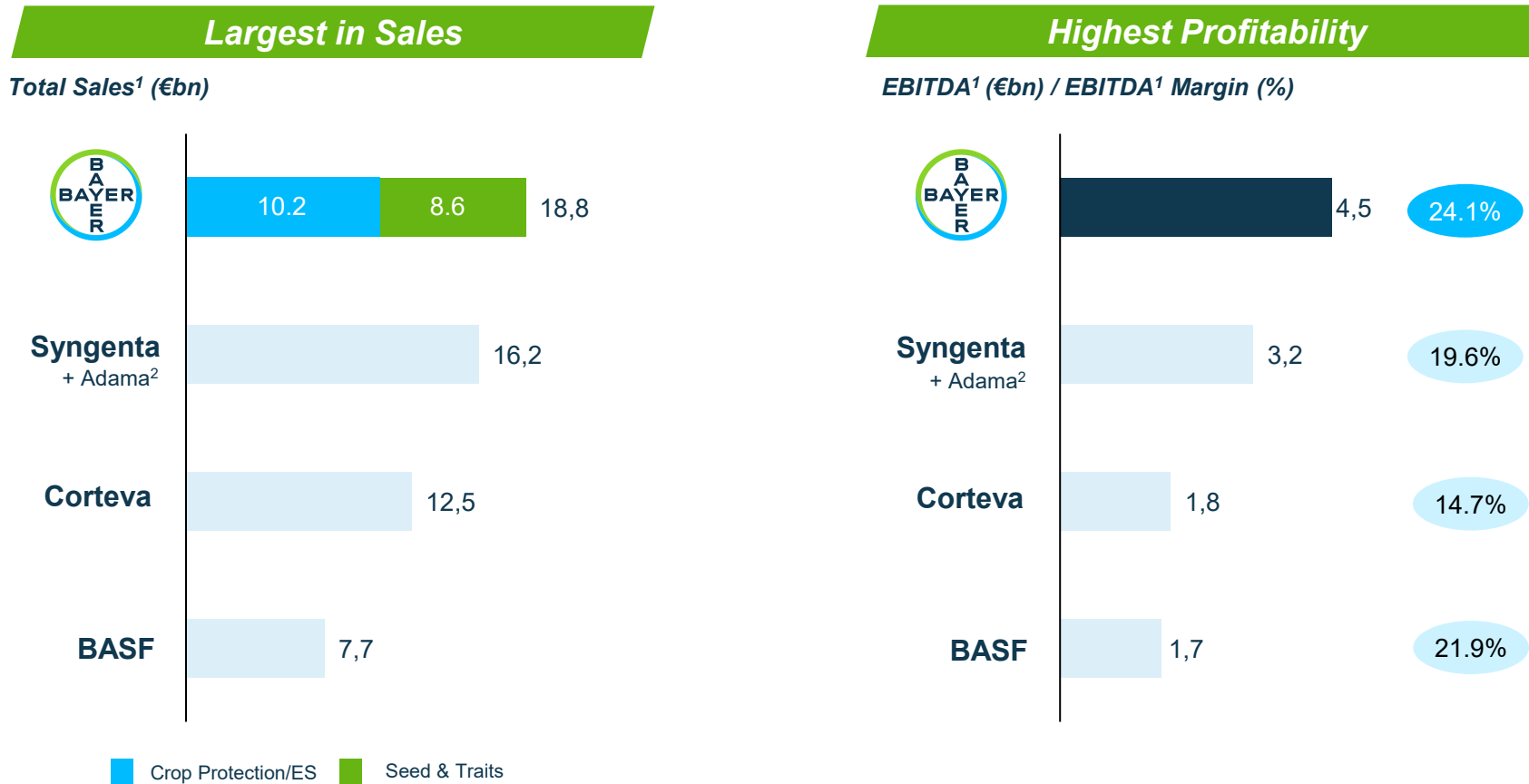
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Financial Targets



# The Established Leader in Crop Science

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



<sup>1</sup> Company information ; exchange rate: FY 2020: ~1.14 USD/EUR. EBITDA before special items. FY2020 sales

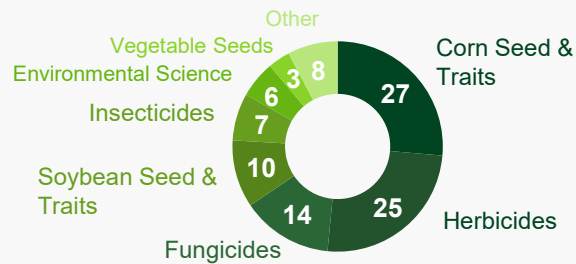
<sup>2</sup> Represents the legacy Syngenta results plus Adama



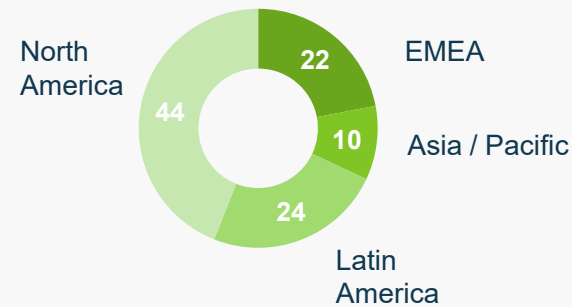


# Global #1 in Seed & Traits with Leading Crop Protection Portfolio

## Product areas – Bayer Crop Science In %, based on sales 2020 €18.8bn



## Sales by Region – Bayer Crop Science In %, in 2020 €18.8bn

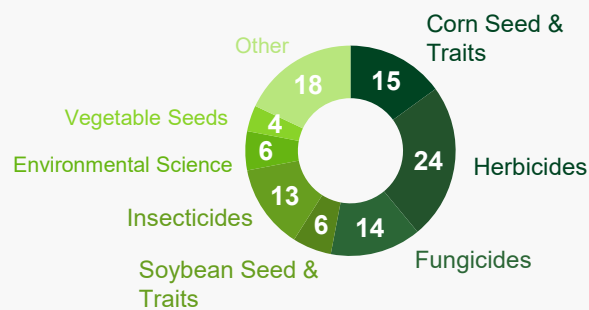


## Market Positions<sup>1</sup>

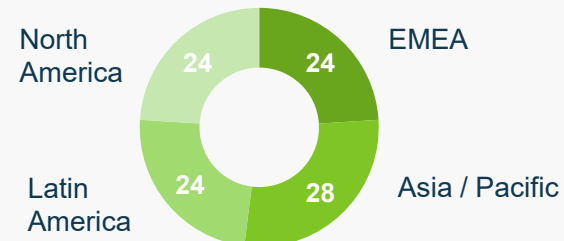


Corn S&T	#1
Soybean S&T	#1
Vegetable Seeds	#2
Herbicides	#1
Fungicides	#2
Insecticides	#3

## Product areas – Ag Input Market In %, based on sales 2020 ~€100bn<sup>1</sup>



## Sales by Region – Ag Input Market In %, in 2020 ~€100bn<sup>1</sup>



## Key Products

### Crop Protection:

### Seed & Traits:

<sup>1</sup> Source: Company estimates. Market positions based on 2019 data.



# Megatrends Drive Market Growth and Need for Innovation

Ag Market Remains Attractive with Expected ~3% CAGR<sup>1</sup> to 2030

Expected 10 Yr. Global Ag Input Market Growth Rate

**3%  
CAGR**

2020E Global Ag Input Market

Crop Protection

Seed and Traits

~€100bn<sup>1</sup>

## Demand



**50%** More food, feed & biofuel<sup>2</sup> needed



**10<sub>bn</sub>** World population<sup>2</sup>



**70%** More meat in developing nations<sup>2</sup> needed

## Supply



**17%** Harvest losses from climate change<sup>2</sup>



**12<sub>m</sub>** Ha of agricultural land loss annually



**20%** Reduction in arable land per capita<sup>2</sup>

<sup>1</sup> Source: Company estimates. Total of ~€100bn includes ~€6bn value of Environmental Science; graph does not.

<sup>2</sup> Source: FAO 2017, The Future of Food and Agriculture, by 2050



## Purpose

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

## Strategic Ambition

### Perform

Grow above market and deliver strong returns

### Transform

Achieve 100% digitally enabled sales by 2030

## Pillars

Operational Excellence

World Class Innovation

Digital Transformation

New Standards in Sustainability

**Win** by being more grower centric

## Vision

*Health for all,  
hunger for none*





# A Clear Plan to Accelerate Growth and Outperform the Market

## 2021: Transition

## 2022-2024: Acceleration

Sales Growth<sup>1</sup>

~ 7%

EBITDA Margin<sup>2</sup>

~23%

Sales Growth<sup>1</sup>

3% to 5%

EBITDA Margin<sup>3</sup>

27% to 29%

2024e

1

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

2

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

3

Upgrade the Americas to next-gen soybean trait technology

4

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

5

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

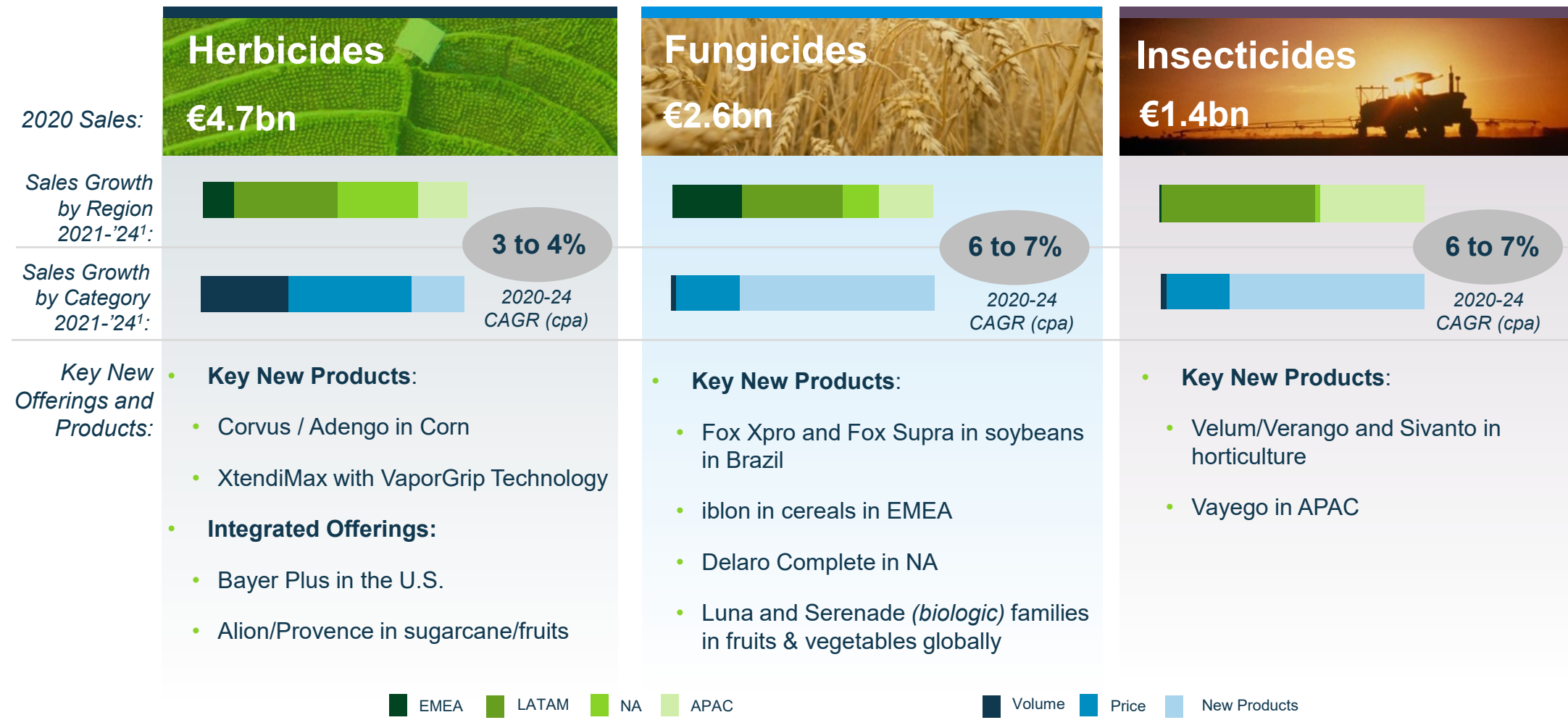
<sup>1</sup> Currency and portfolio adjusted

<sup>2</sup> Before special items. Currency assumptions based on month-end June 2021 spot rates (1 EUR=) 1.19 USD, 5.90 BRL, 7.69 CNY, 131 JPY, 24.4 MXN, 86.8 RUB <sup>3</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 8.00 CNY, 127 JPY, 24.4 MXN, 91.9 RUB

/// Bayer AG /// Investment Case /// February 2022



# Innovation, Integrated Offerings Drive Crop Protection Growth



■ EMEA 
 ■ LATAM 
 ■ NA 
 ■ APAC 
 ■ Volume 
 ■ Price 
 ■ New Products

<sup>1</sup> Company estimates, currency and portfolio adjusted.





# Deploying >250 Corn Hybrids in 2021 to Expand Leading Position

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

## Mid-Term Key Growth Drivers in Corn

**NEW**

Superior-performing Bayer branded hybrids capture **#1** brand share position in the U.S. in 2021.



<b>United States</b>	<b>#1</b> Market Pos.
Market Size:	~93m acres
Germplasm Share:	>55%

<b>Mexico</b>	<b>#1</b> Market Pos.
Market Size:	~20m acres
Germplasm Share:	>65% <sup>1</sup>

<b>Brazil</b>	<b>#1</b> Market Pos.
Market Size:	~52m acres
Germplasm Share <sup>1</sup> :	~30%

<b>Argentina</b>	<b>#1</b> Market Pos.
Market Size:	~20m acres
Germplasm Share:	~60% <sup>1</sup>

<b>Europe</b>	<b>#2</b> Market Pos.
Market Size <sup>2</sup> :	~60m acres
Germplasm Share:	~20%

<b>South Africa</b>	<b>#1</b> Market Pos.
Market Size:	~6m acres
Germplasm Share:	~70%

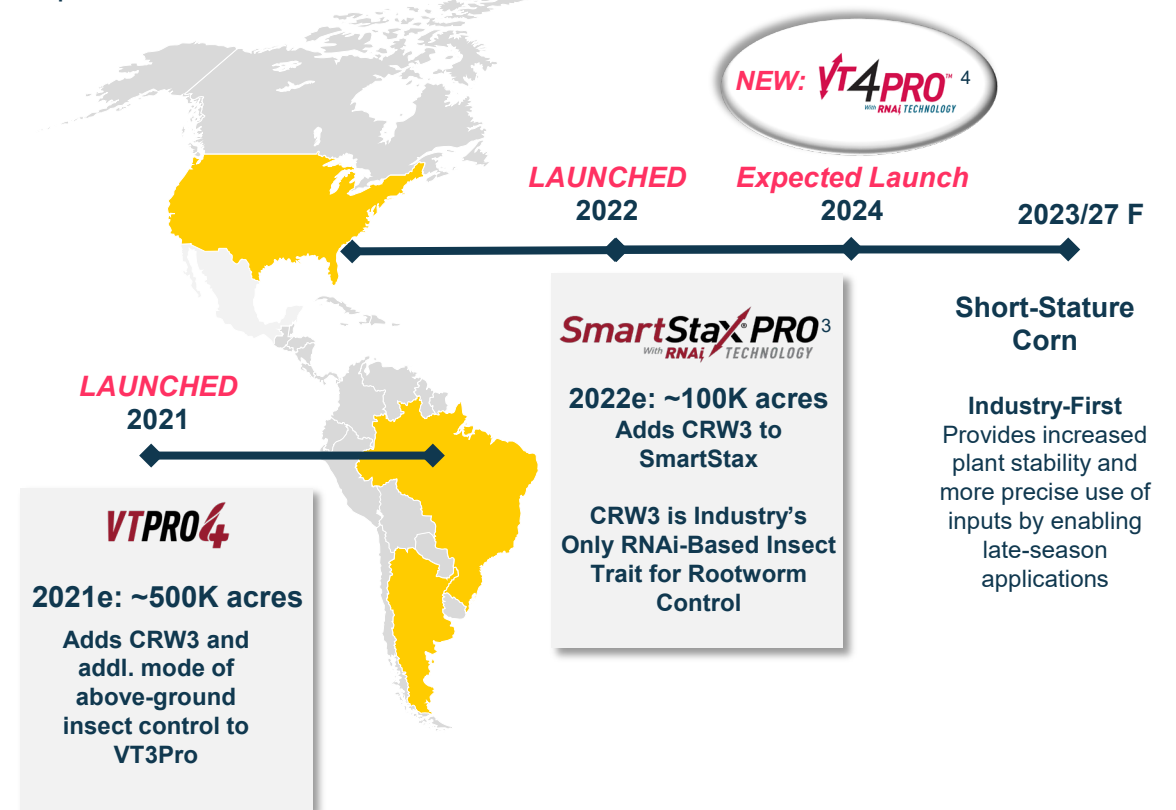
Note: Size of market, market position and germplasm share measured as of 2021.

<sup>1</sup> In hybrid corn market only; <sup>2</sup> Eu27 +UK, Russia and Ukraine

<sup>3</sup> SmartStax® PRO corn products will be commercially available for the 2022 growing season.

<sup>4</sup> VT4PRO with RNAi Technology is not currently available for commercial sale or commercial planting. Commercialization is dependent on multiple factors, including successful conclusion of the regulatory process. The information presented herein is provided for educational purposes only and is not and shall not be construed as an offer to sell.

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

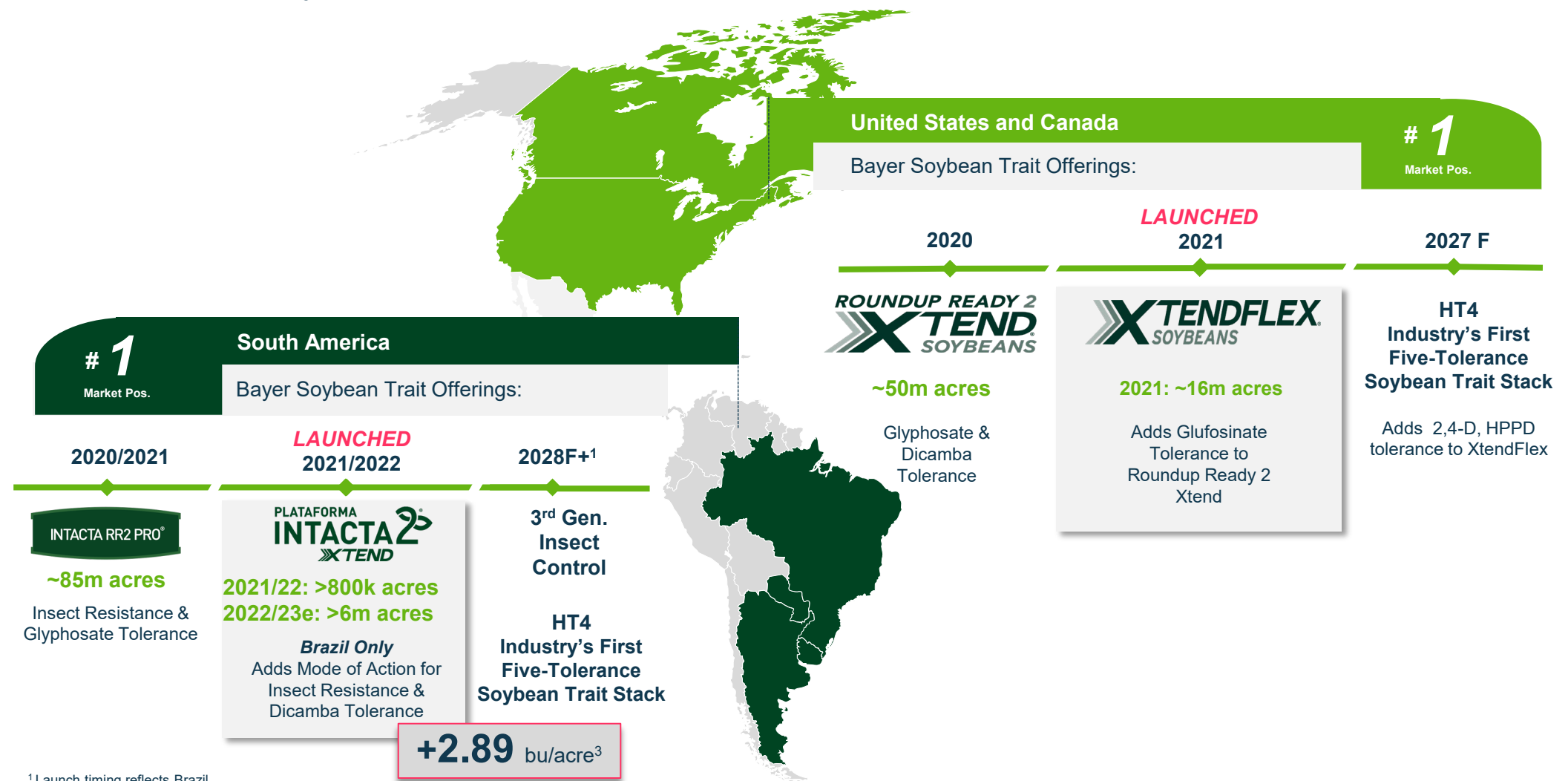






# Upgrading the Americas to Next-Gen Soybean Trait Technology

Expect 1-2%<sup>2</sup> Soybean S&T Sales CAGR 2021-'24

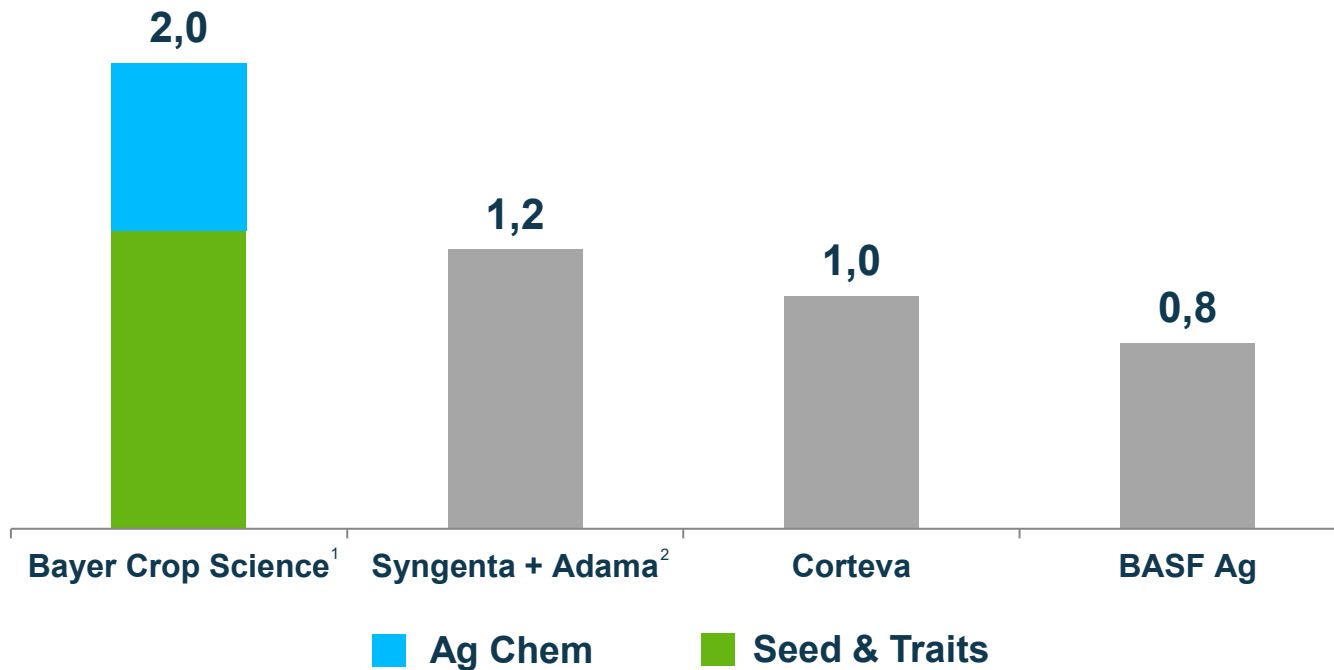


<sup>1</sup> Launch timing reflects Brazil  
<sup>2</sup> Currency and portfolio adjusted  
<sup>3</sup> Compared to similar varieties in checks across 500 locations in 2020/2021 crop year  
 /// Bayer AG /// Investment Case /// February 2022



# Unmatched R&D Investment Powers Industry-Leading Portfolio

## Ag R&D Investment (€bn)



**#1 R&D Platform  
in Crop Science**

**>7,100 R&D  
employees<sup>3</sup>**

**>100 key  
collaborations;  
partner of choice**

<sup>1</sup> 2020 reported results, company information; exchange rate: FY 2020: ~1.14 USD/EUR. Bayer R&D excludes impairment charges

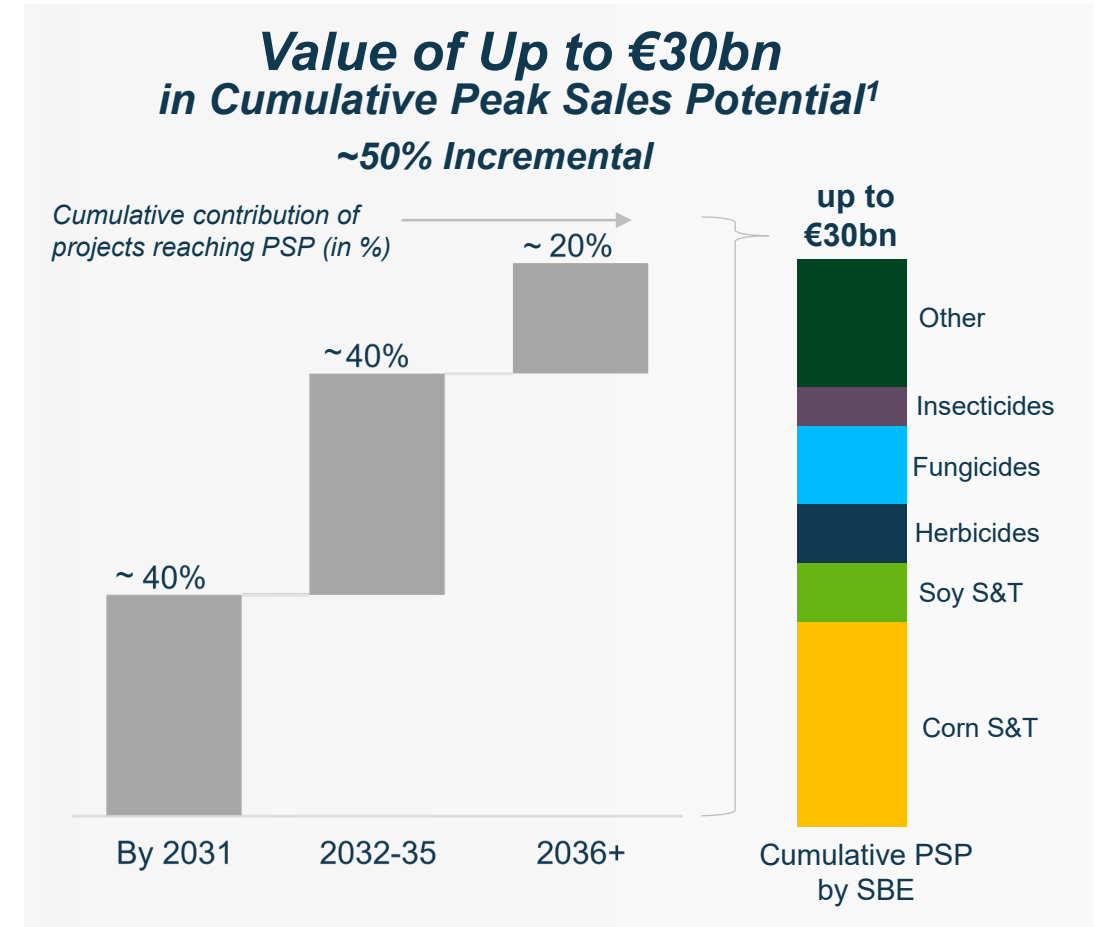
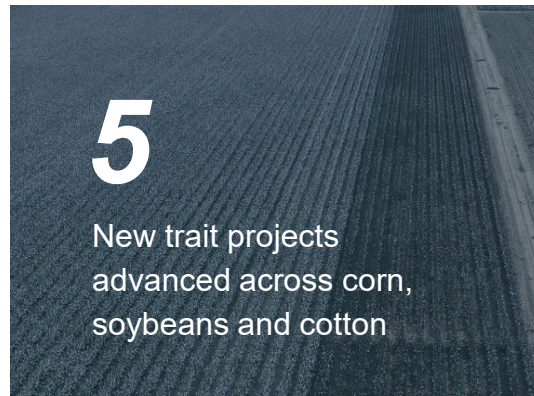
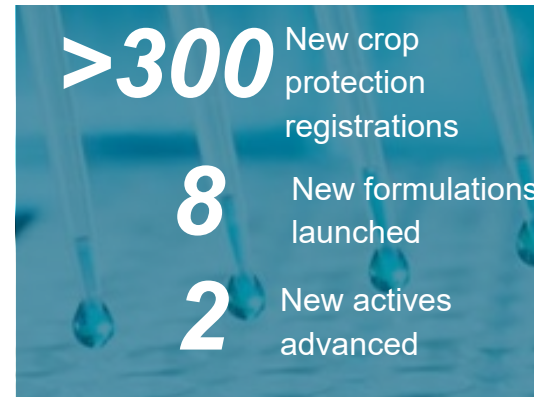
<sup>2</sup> Represents the legacy Syngenta results plus Adama, includes capitalized development costs

<sup>3</sup> Includes permanent and temporary employees



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

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



<sup>1</sup> Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. PSP = Peak sales potential SBE = Strategic Business Entity



# Short-Stature Corn Offers Transformational Shift in Production

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

## Field Plots Around the Globe Demonstrate Key Features and Benefits of Short-Stature Corn



### Game-Changing Innovation

- Unparalleled 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%<sup>1</sup>



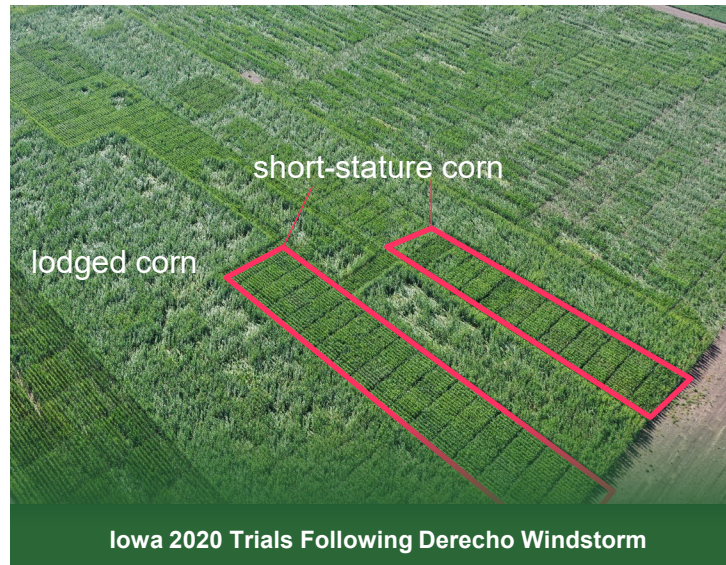
### Digitally Optimized System

- Extended in-season crop access due to shorter height
- Supports tailored solutions with precise in-season crop protection



### More Sustainable Future

- Potential to optimize use of key nutrients like nitrogen, as well as reducing land and water requirements
- Opportunity to plant at higher densities, as evidenced in Vitala commercial beta in Mexico



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



# 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 Growers<sup>4</sup>

 The power of nature. Empowered by science.	SeedGrowth					Foliar & Soil applied			
	Corn Yield	Soy Yield	Nematicide	Fungicide	Other	Insecticide	Fungicide	Soilborn Disease/Pest	Crop Performance Enhancers
	<b>BioRISE</b> <sup>1</sup>	TagTeam <sup>®3</sup> Optimize <sup>®3</sup>	Poncho <sup>®</sup> Votivo <sup>®2</sup>	Integral <sup>®</sup> Pro <sup>2</sup>	TagTeam <sup>®3</sup> JumpStart <sup>®3</sup>	    	     		 

<sup>1</sup> Also sold under Acceleron<sup>®</sup> and Torque<sup>®3</sup> brand names; <sup>2</sup> 3rd party product from BASF; <sup>3</sup> 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 Candidates<sup>5</sup>
- >30** Assets under evaluation for new collaborations or in-licensing opportunities

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

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

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

## *Our Positive Impact on Agriculture*

- Increase **yield** and improve **profitability**
- Leverage information to **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



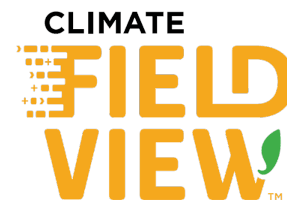
Platform Value



# Climate FieldView Provides Unmatched Visualization, Analysis and Insights to Enable Growers to Enhance Productivity

## Climate FieldView

- **>180m** subscribed acres
- **#1** brand in digital ag<sup>1</sup>
- Operates in **23** countries

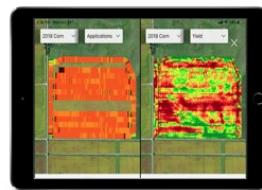


- **Largest database** of grower and field trial seed performance data in industry
- **>70** partners on platform

### In-cab visualization



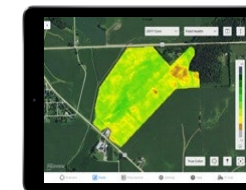
### Performance Visualization



### Performance Evaluation



### Field health images



### Prescription Delivery



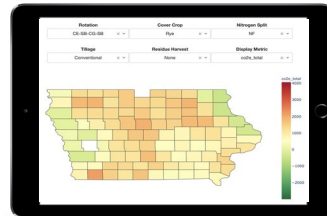
<sup>1</sup> according to Kynetec December 2021 FieldView Brand Tracker

# Digital Unlocks Scalable Climate-Smart Business Models

Carbon Markets Valued at >\$200bn/year<sup>1</sup> and Growing with Consumers' Demand for Sustainability

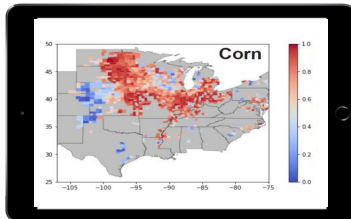
**FIELDVIEW** has the potential to streamline the way carbon is measured, verified and reported, to enable scalable, climate-smart business models

## Quantification



CO<sub>2</sub>e Total

## Verification & Reporting



Crop Rotation by Field

## Carbon Initiative

~2,500 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**<sup>2</sup>

## 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.

<sup>1</sup> Source: <https://www.reuters.com/article/us-carbontrading-turnover/global-carbon-trading-turnover-at-record-214-billion-last-year-research-idUSKBN1ZN1RN>; <sup>2</sup> 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



**Collaboration**

- Combines **Bayer's ag expertise** and leading digital farming platform with **Microsoft's cloud technology** and unrivaled B2B solutions, to enhance digital infrastructure
- **Cloud-based set of digital tools** and data science solutions for agriculture and adjacent industries
- Seeking to create and commercialize **off-the-shelf opportunities** for other companies **to enter and innovate directly in ag** and other industries.
- **Solutions** to address farming operations, **sustainable sourcing, manufacturing and supply chain improvement**, and **ESG monitoring** and measurement

<sup>1</sup> Brazil-based marketing agency.

## Orbia: First Digital Ag-Marketplace



*Expansion to Argentina, Colombia and Mexico*

- JV between Bayer and Bravium<sup>1</sup>
- Connects growers, input providers and grain traders to a network to expand their reach, secure financing, redeem rewards, purchase and sell inputs

- Established in 2019 in **Brazil**
- **Main agricultural marketplace** with largest loyalty program
- **>300 distributors** with inputs such as pesticides, seeds and fertilizers
- **>185,000** registered growers
- Covers **~70% of planted area**



# Setting the Standard for Sustainability and Biodiversity in Agriculture

## Bayer's 2030 Sustainability Commitments

### Advancing a carbon-zero future for agriculture

# 30%

Reduction of field greenhouse gas emitted per kg of crops produced

- Climate-smart practices:
  - No-tillage      Highly Productive Crops
  - Cover Crops      Precision Agriculture
  - Optimize use of synthetic fertilizers through the use of microbes



### Produce higher-yielding crops with fewer natural resources and inputs

# 30%

Reduction in Crop Protection impact on the environment

- Climate FieldView for precision application of crop protection
- Resistant traits help to reduce crop protection use
- Develop and promote crop protection solutions with lower environmental impact



### Empower 100 million smallholder farmers to access sustainable Ag solutions

# 100m

Smallholders benefit from access to products, services and partnerships

- Enhancing social innovation (e.g. with Better Life Farming)
- Digital transformation with FarmRise
- Introduce new, higher-yielding, resource efficient rice hybrids





# Crop Science Mid-Term Targets

A Clear Plan to Outperform the Market and Expand Industry-Leading Profitability

## Sales / Sales Growth

Crop  
Science

Actual	cpa	At month-end Dec. 20 rates <sup>2</sup>
2020	2021e*	2022-'24e
€18.8bn	~ 7%	3% to 5%

## EBITDA Margin (before special items)

Crop  
Science

	At month end June 20 rates <sup>1</sup>	At month-end Dec. 20 rates <sup>2</sup>
2020	2021e	2024e
24.1%	~ 23%	27% to 29%

## Divisional Drivers

CAGR cpa  
2020-'24<sup>3</sup>

**Sales:**

- 3-4%** • **Herbicides:** Xtendimax with VaporGrip Xtra recovery, Bayer Plus and other integrated offerings, pricing
- 6-7%** • **Fungicides and Insecticides:** New products like Fox Supra, iblon, Luna and Vayego, integrated offerings
- 3-4%** • **Corn S&T:** New hybrids, VTPro4, SmartStax PRO and VT4Pro traits
- 1-2%** • **Soybean S&T:** Transition in 2021, then grow thereafter with trait upgrades in the Americas
- 4-5%** • **Vegetable Seeds:** New hybrids/varieties
- 1-2%** • **Other:** ThryvOn Technology, U.S. and Brazil cotton, offset by loss of TSA sales to BASF

**cEBITDA:**

- Pricing lift from innovation and FX recovery in Brazil, augmented by new cost efficiency program; assumes Dec. 20 currency rates throughout plan.

\*As updated in August 2021  
cpa: currency and portfolio adjusted

<sup>1</sup> Currency assumptions based on month-end June 2021 spot rates (1 EUR=) 1.19 USD, 5.90 BRL, 7.69 CNY, 131 JPY, 24.4 MXN, 86.8 RUB

<sup>2</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 24.4 MXN, 91.5 RUB

<sup>3</sup> CAGR from 2020 base year.





Science for a Better Life  
**Transforming Pharma  
to Deliver Sustainable  
Long-term Growth**

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**Investment Case**

February 2022 / Bayer AG





# Transforming Pharma to Deliver Sustainable Long-Term Growth

1

Market & Position

2

Strategy

3

Growth Drivers

4

Innovation

5

Sustainability

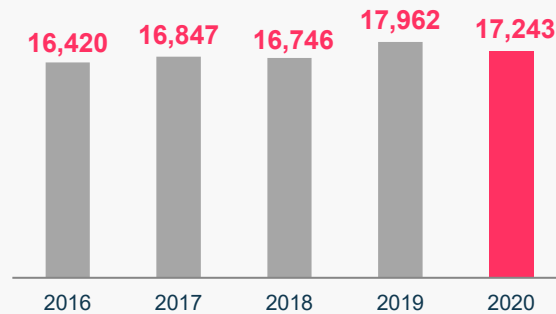
6

Financial Targets

# Pharma: Focused on Therapeutic Areas with High Unmet Needs

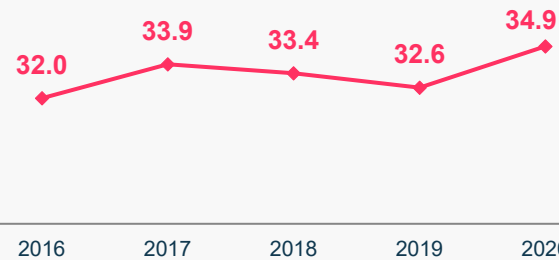
## Sales development

In €m



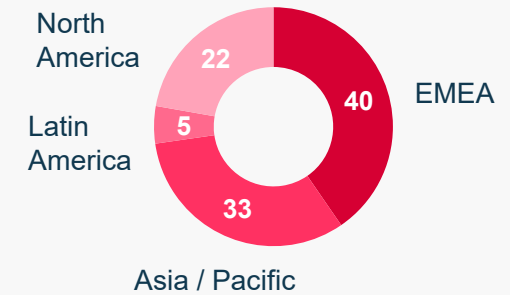
## EBITDA margin development

In %, before special items



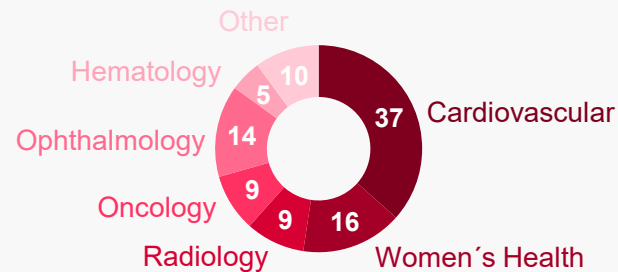
## Sales by region

In %, in 2020



## Therapeutic areas

In %, based on sales 2020



## Leading positions in key therapeutic areas



Cardiovascular

Hematology

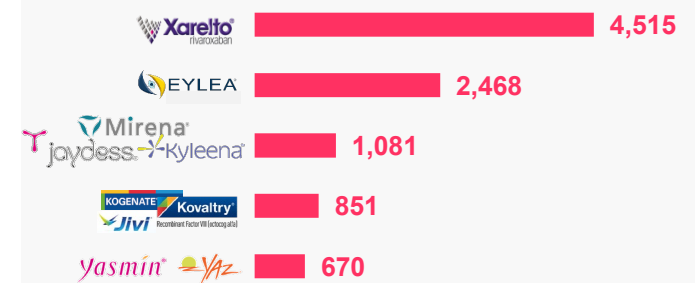
Retinal Diseases

Women's Health

Radiology

## Top products

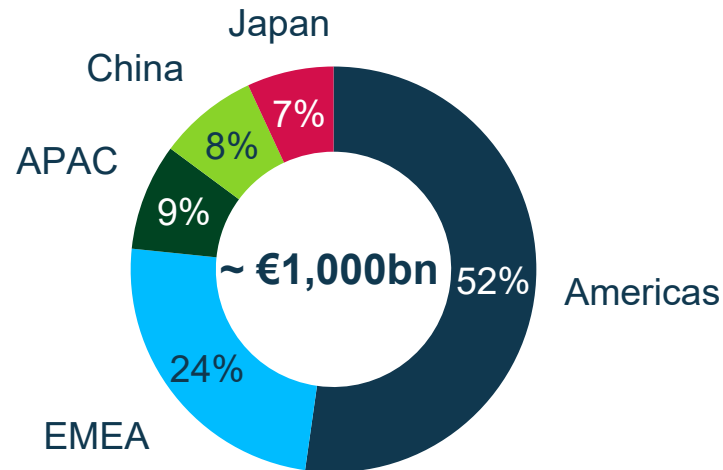
In €m, based on sales 2020



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

## Pharma Market

### Market Size 2020<sup>1</sup>



### Market CAGR 2020-24e<sup>2</sup>

▶ **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

<sup>1</sup> Source: IQVIA MIDAS MAT Q3-20

<sup>2</sup> Source: IQVIA Market Prognosis as of September 2020

# The Transformation of Pharma is Underway



**Management team focused on improving existing structures and processes**



**Realize full potential of products and pipeline to mitigate LoE impact and return to growth**



**Re-allocate resources and shape financial profile to post LoE future**



**Capitalize and build on investments in breakthrough innovation, espec. C&GT**



**Challenge strategic direction of R&D - enhance focus on external innovation**



# Our Transformation is Guided by Five Strategic Focus Areas

## Strategic Focus Areas

Portfolio and  
Pipeline



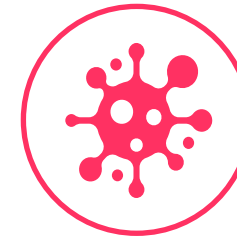
Digital Health



Cell & Gene  
Therapy



Oncology



China & US

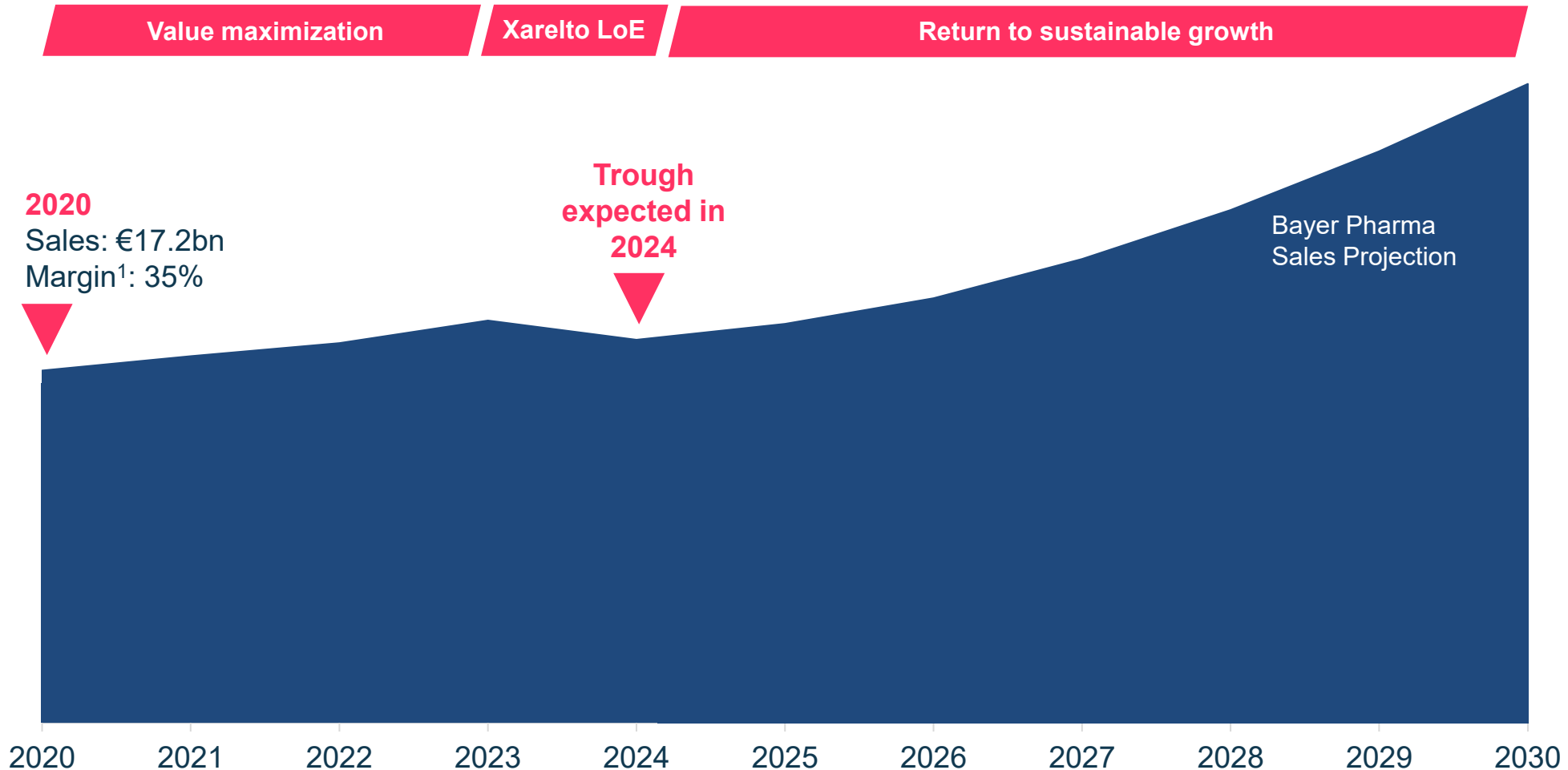


## Key Priorities

- ▶ **Maximize the value** of the current portfolio and **manage the loss of exclusivity** for Xarelto & Eylea
- ▶ **Deliver three new potential blockbusters** from late-stage pipeline
- ▶ **Build digital health solutions** and 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



# Bayer's Long-Term Sales Projection Reveals Limited LoE Impact and Return to Sustainable Long-term Growth



<sup>1</sup> EBITDA margin before special items

Graphic illustrative



# We Laid The Foundation for Long-term Growth at Pharma

## Main Building Blocks of Post LoE Growth

### Late-stage Pipeline in CV & WH



PSP ~ €0.5bn



PSP ≥ €1.0bn

**Elinzanetant**  
(KaNDy NT-814)

PSP ≥ €1.0bn

### Oncology



PSP ≥ €1bn



PSP > €0.75bn

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

### Cell & Gene Therapy Platform

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



### External Innovation and BD&L

>25 BD&L-transactions signed in 2020  
Enhanced focus on external innovation to replenish pipeline

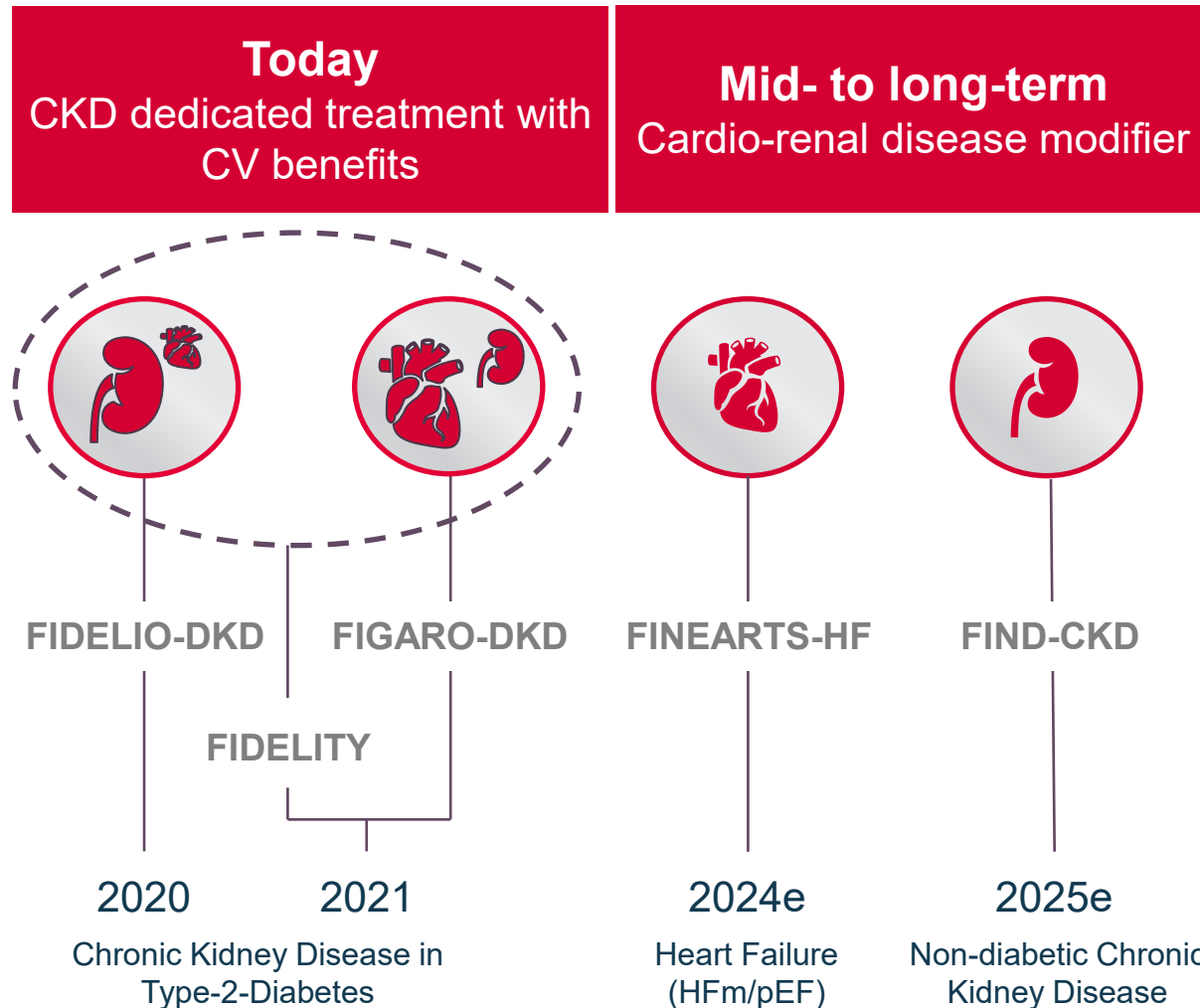
<sup>1</sup> In collaboration with Merck & Co. Inc., Kenilworth, NJ, USA

<sup>2</sup> In collaboration with Orion Corporation

PSP = Peak Sales Potential

/// Bayer AG /// Investment Case /// February 2022

# Kerendia may Become a Foundational Cardio-renal Disease Modifier with a Strong Scientific and Clinical Base



- Chronic Kidney Disease in Type-2-Diabetes
  - 160 mio patients
  - Shortens life expectancy by 16 years
  - #1 cause for dialysis / transplants
- Kerendia provides kidney and heart protection for patients along the disease continuum in CKD and T2D
- New drug class on top of existing treatment paradigm
- Launched in the US
- Life-cycle management expanding into heart failure (HFm/pEF) and non-diabetic CKD

# Global Roll-out of Launch-Products Underway



## Darolutamide (AR-Antagonist)<sup>1</sup>

- Launched in nmCRPC - global roll-out underway
- Differentiated clinical profile - 31% OS benefit & favourable safety profile (ARAMIS)
- Prim. completion of phase III trial in mHSPC with chemo in 2021e (ARASENS)
- New phase III trial in mHSPC without chemo (ARANOTE)
- Peak sales potential  $\geq$ €1bn



## Larotrectinib (TRK-inhibitor)

- First and only selective TRK inhibitor
- Tumor agnostic label - unprecedented clinical benefit in 17 tumor types
- High overall response rate across adults (71%) and pediatric (92%) patients
- CNS efficacy demonstrated
- Peak sales potential >€750m



## Vericiguat (sGC-stimulator)<sup>2</sup>

- Launched in the US for the treatment of chronic heart failure (HFrEF)
- Absolute risk reduction of 4.2 per 100 patient years for the primary endpoint demonstrated in pivotal VICTORIA trial
- Submitted for marketing authorization in multiple countries worldwide.
- Peak sales potential ~€500m (as reported by Bayer)

<sup>1</sup> In collaboration with Orion Corporation

<sup>2</sup> In collaboration with Merck & Co. Inc., Kenilworth, NJ, USA

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

## Key elements to achieve our growth aspiration



Key sales contributors, graphic illustrative

- Realize blockbuster potential of NUBEQA
- Expand prostate franchise with NUBEQA and Xofigo
- 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



# Highlighting Late-/Mid-stage Pipeline Opportunities and Scientifically Appealing Early R&D Assets

## Late-/Mid-Stage Opportunities<sup>1</sup>



### Finerenone

- Non-diabetic CKD
- Heart Failure



### Factor XI(a) portfolio

- Thrombo-embolic diseases



### Elinzanetant (KaNDy NT-814)

- Vasomotor symptoms during menopause



### P2X3 Receptor Antagonist

- Multi-indication opportunity

## Scientifically Appealing Early Assets<sup>1</sup>



### Precision Molecular Oncology

- EGFRex20 inhibitor
- ATR inhibitor



### Targeted Alpha Therapies

- Thorium conjugates



### CAR T-Cell Immuno-oncology

- Collaboration with Atara Biotherapeutics



### Gene Therapy

- AskBio AAV gene augmentation platform



### Cell Therapy

- BlueRock iPSC technology platform

<sup>1</sup> selected examples

# External Innovation to Accelerate Replenishment of Pipeline and Broaden Modalities

## Selected High-Level Overview

### Momentum Significantly Increased

---

>25 **Transactions** signed in 2020

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

# Our Cell & Gene Therapy Strategy Builds on Four Integrated Platforms to Drive the Next Wave of Innovation at Pharma

## Gene Augmentation



- Industry-leading AAV vector gene augmentation platform
- Monogenic & pathway diseases
- CDMO business (Viralgen) already generates revenues

## Stem Cells



- Creating induced pluripotent stem cells (iPSC) with broad differentiation
- Create an entirely new generation of cellular medicines
- Ph 1 for lead program in Parkinson's disease

## Allogeneic Cell Therapy

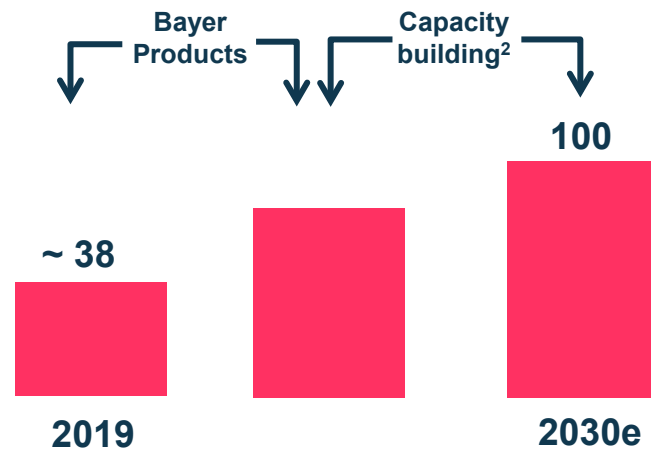
### Collaboration with Atara Biotherapeutics

- Next-generation, mesothelin-directed CAR T-cell therapies
- Focus on potential allogeneic, "off the shelf" tumor therapies

**Gene Editing** as cross-functional enabling technology

# Sustainability is Fully Embedded in our Strategy

## ▶ Providing **100m women** in LMIC<sup>1</sup> with **access to modern contraception**



## ▶ Implementing **patient affordability programs** around the world

We aim to broaden access to our pharmaceutical products to 100m people in low- and middle-income countries

- “Health for All - Hunger for None” are core to our raison d’être at Pharma
- Measurable targets linked to incentive scheme
- Adopting an equitable pricing approach that incorporates country-level affordability.
- Focus on LMIC as priority in terms of pricing flexibility and patient affordability program implementation.

Numbers reflect women using modern contraception (millions) <sup>1</sup> LMIC: low and middle income countries

<sup>2</sup> Capacity building refers to the development of knowledge, skills, commitment, structures, systems and leadership to enable and strengthen self-reliance and resilience of the local health systems and of the key players towards family planning and sexual reproductive health. We aim to do leverage partnerships to create impact at scale.



# Mid-term Targets for Pharma Reflect Limited Impact from the LoE for Xarelto

## Sales / Sales Growth

—— act —— — At constant currencies<sup>1</sup> — At month-end Dec' 20 rates<sup>2</sup> ——

2020

2021e\*

2022/2023e

2024e

Pharmaceuticals

€17.2bn

~ 6%

3% to 5%

Low- to mid-single-digit decline

## EBITDA margin (before special items)

2020

2021e

2022/2023e

2024e

Pharmaceuticals

34.9%

~32%

32% to 34%

Above 30%

## Divisional Drivers

- Top-line trough due to Xarelto LoE expected in 2024 - returning to growth thereafter
- New launches (eg. Nubeqa, Verquvo, Finerenone) to drive growth
- Continued focus on tight expense control
- Investing in new launches

cpa: currency and portfolio adjusted

\* As updated in August 2021

<sup>1</sup> Reflects our 2021 plan at the average actual currencies for 2020 <sup>2</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 24.4 MXN, 91.5 RUB





Science for a Better Life

# Winning in Consumer Health

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## Investment Case

February 2022 / Bayer AG





# Winning in Consumer Health

1

Market & Position

2

Strategy

3

Sustainability

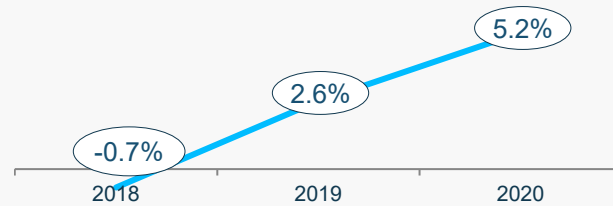
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Financial Targets

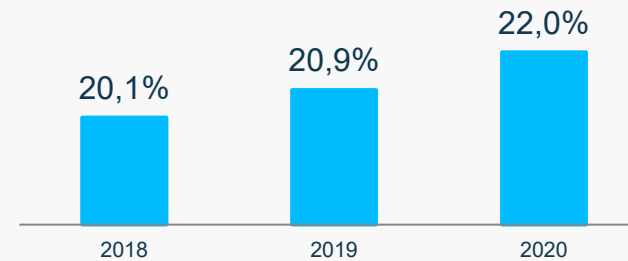
# Consumer Health: A Leading Global OTC Player

## FINANCIALS

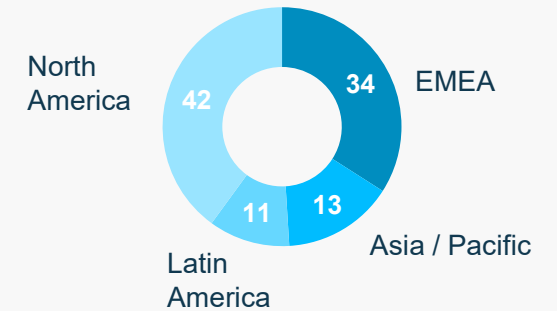
**Sales development**  
In €m / % yoy cpa



**EBITDA margin development**  
In %, before special items

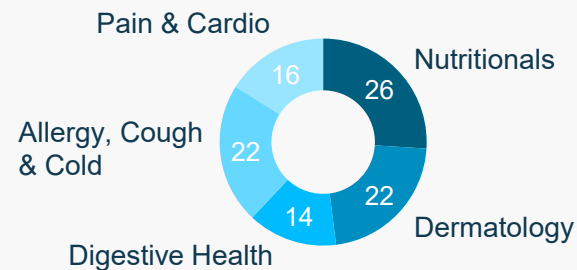


**Sales by region: €5.1bn**  
In %, in 2020

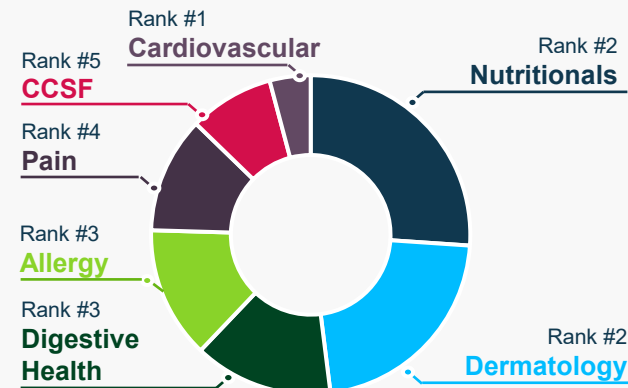


## PRODUCTS

**Sales by categories: €5.1bn**  
In %, in 2020



**Market positions by category<sup>1</sup>**



**Key products**

**Pain & Cardio:**



**Dermatology:**



**Digestive Health:**

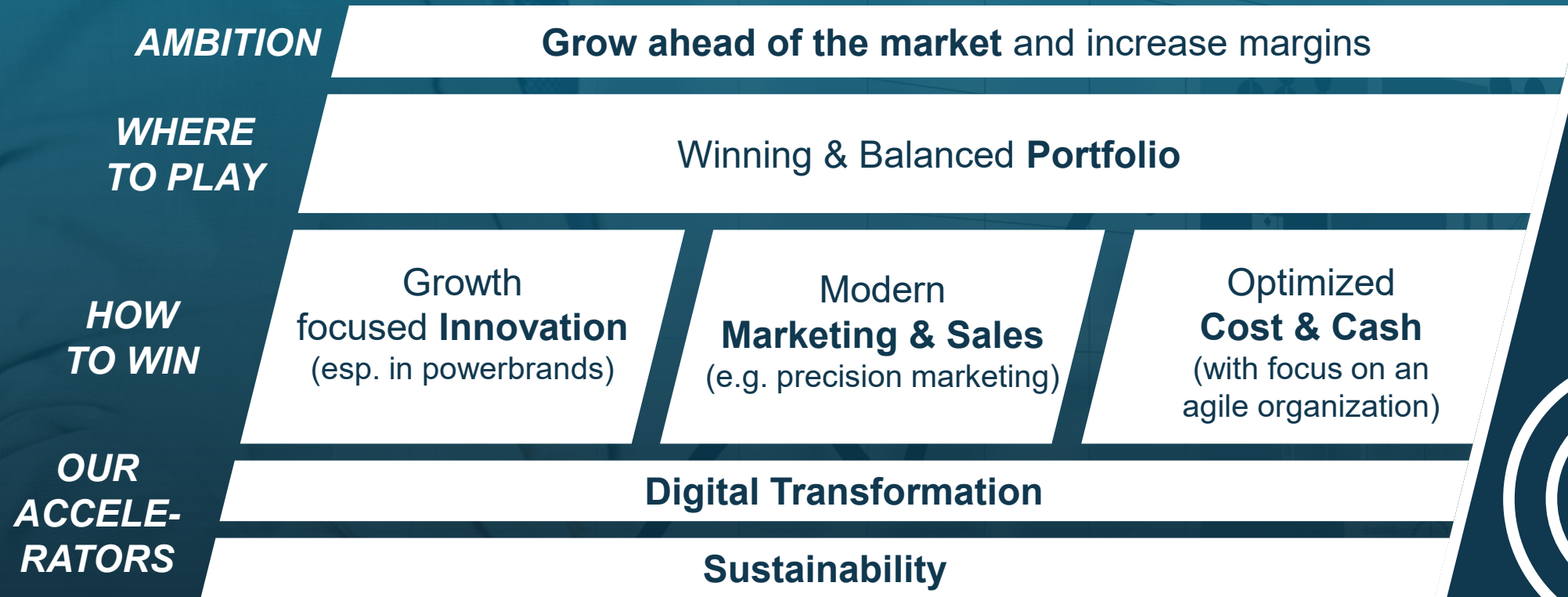


**Allergy & Cold:**



<sup>1</sup> Nicholas Hall & Company DB6 October 2020

# A Multifaceted Plan to Drive Further Growth

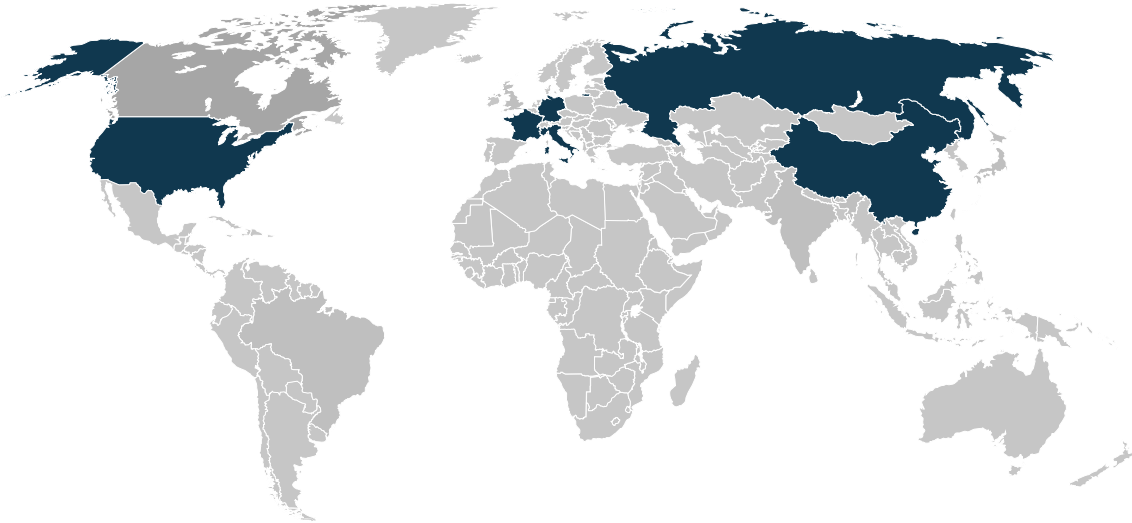


# Driving Disproportionate Growth in Attractive Segments and Markets

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

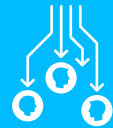


# Modernizing Our Brand Building and Sales Capabilities

**Brands  
with Purpose**



**From Mass to  
Precision Marketing**



% Precision  
marketing<sup>1</sup>

**25%**

2018

**50%**

2020

**80%**

2024 - Ambition

**Accelerating  
E-commerce**



% Net Sales<sup>2</sup>

**3%**

2018

**7%**

2020

**15%+**

2024 - Ambition

<sup>1</sup> Percentage of digital media which is data-driven precision marketing

<sup>2</sup> 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



# Consumer Health: Sustainable Profitable Growth

## Sales / Sales Growth

—— act —— *At constant currencies<sup>1</sup>* – *At month-end Dec' 20 rates<sup>2</sup>* –

2020

2021e\*

2022-'24e

Consumer Health

€5.1bn

3 to 4%

3 to 5%

## EBITDA Margin (before special items)

2020

2021e

2024e

Consumer Health

22.0%

22 - 23%

Mid-20's

## Divisional Drivers

- Net Sales to grow above market
- cEBITDA improvement through growth acceleration and continued efficiency gains
- Focus on continued Cash Flow improvement

\* As updated in August 2021

cpa: currency and portfolio adjusted

<sup>1</sup> Reflects our 2021 plan at the average actual currencies for 2020 <sup>2</sup> Currency assumptions based on month-end December spot rates (1 EUR=) 1.23 USD, 6.37 BRL, 7.98 CNY, 126 JPY, 24.4 MXN, 91.5 RUB



# 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**

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**Investment Case**

February 2022 / Bayer AG

