BAYER

Science for a Better Life

A Global Leader in Health & Nutrition

/ / / / / / / / / / / / / / / /

Investment Case

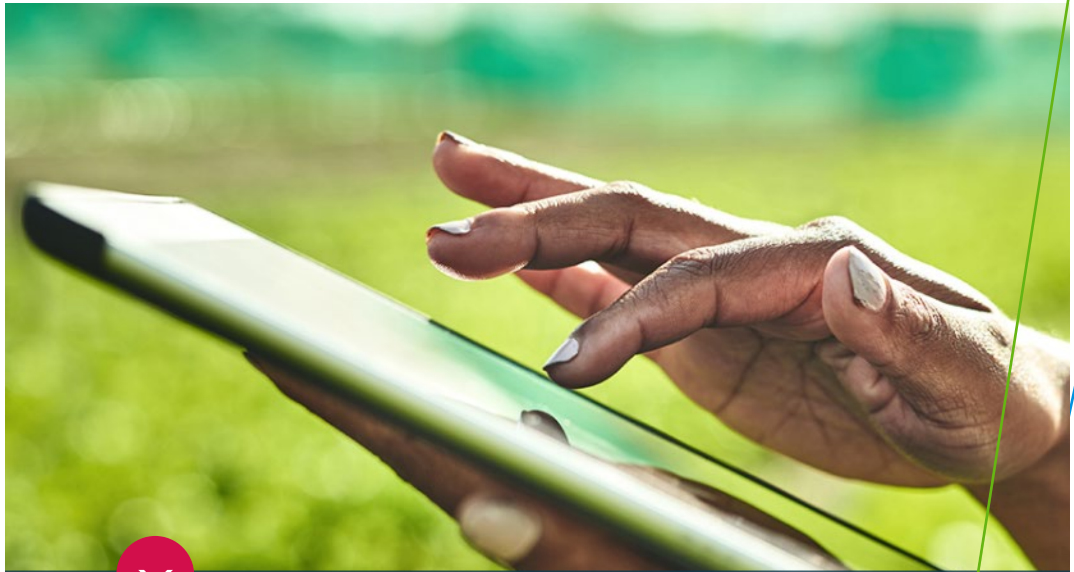
August 2023 / Bayer AG

Cautionary Statements Regarding Forward-Looking Information

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

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

WWW.BAYER.COM



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

Index

Bayer: A Global Leader in Health and Nutrition

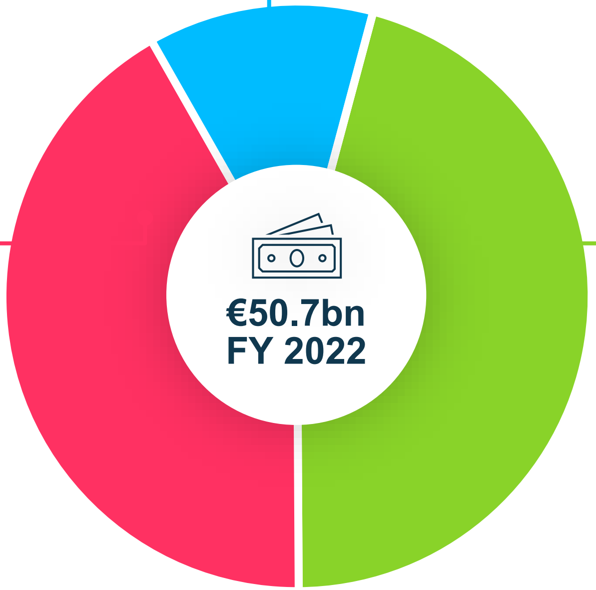
Well Positioned to Create Value in Growing Markets using Science to Address Societal Megatrends

BAYER GROUP SALES

12%
#3 OTC Player
Consumer Health

38%
Leading Positions in Key Therapeutic Areas
Pharma

50%
#1 in Sales and Profitability & R&D
Crop Science



MARKET SIZE

CROP SCIENCE

2022 > €100bn[1]

2030 > €200bn[1]

PHARMACEUTICALS

~ €1,400bn[2]

CONSUMER HEALTH

~ €150bn[3]

[1]Source: Company Estimates, >€200bn market opportunity by 2030 includes global Ag input market + related adjacencies
[2]Source: IQVIA Market Prognosis as of September 2022
[3]Source: Nicholas Hall

Global Megatrends in Health & Nutrition

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

PHARMACEUTICALS • CONSUMER HEALTH • CROP SCIENCE

Megatrends through 2050

AGING POPULATION

People 60+ more than doubling[1]

>20% of total population [1]

GROWING POPULATION

+2.2bn

People [1]

+50%

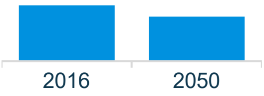
more food and feed required to meet growing demand [2]

PRESSURE ON ECOSYSTEMS

-17%

Harvest losses from climate change [3]

-20%



Significant loss in arable land per capita [4]

Societal Needs

Preserve and restore health

Secure sufficient supply of quality food

Increase productivity and farm incomes while renewing nature

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

01

CROP SCIENCE INNOVATION PIPELINE

Annual R&D Investment: €2.6bn[1]

Key Current Launch Products: VTPRO4, SmartStax PRO, Plataforma Intacta 2 Xtend, XtendFlex Soybeans, Fox Supra (Indiflin®)[2], Xivana

Key Mid-/Late-Stage Pipeline Opportunities

// Preceon Smart Corn System featuring Short Stature Corn

// Soybean Herbicide Trait Stack with Five-Tolerances

// New Herbicide Molecule

// New Fungicide Molecules

// Next Gen Corn Insect Traits (LEP4, 5, CRW4)

02

PHARMACEUTICALS INNOVATION PIPELINE

Annual R&D Investment: €3.4bn

Key Current Launch Products: Nubeqa (darolutamide), Kerendia finerenone, Vitrakvi (larotrectinib), Verquvo (vericiguat) tablets

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

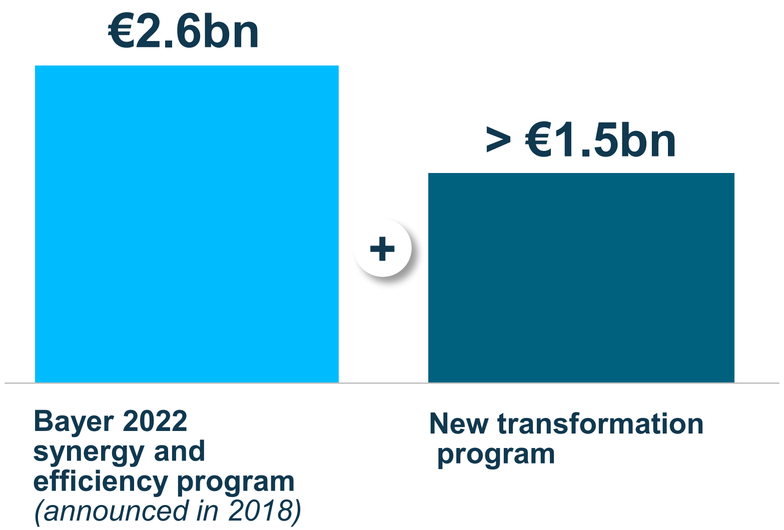
Note: Subject to regulatory approvals and pending registrations. Represents a subset of the pipeline; [1]R&D expenses exclude special items [2] In collaboration with Sumitomo

New Transformation Program with Gross Contributions of >€1.5bn

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

Transformation Programs

GROSS CONTRIBUTIONS*



Delivery

BAYER 2022 PROGRAM SUCCESSFULLY CONCLUDED

We accelerate our transformation to become leaner and more agile

// **Optimizing** Divisions and Enabling Functions

// **Improving** our go-to-market models

// **Strengthening** our digital and data **capabilities**

// **Structural measures and optimization** of external spend

// **Increasing resilience** of supply chain

* Gross contributions will be partially re-invested to fuel growth and are included in our guidance for 2022-24 Note: One-time costs in same magnitude as for Bayer 2022 (1.7x the total contribution)

Focus on Cash Generation Embedded in Incentive Plans

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

Improve free cash flow

Optimize working capital focusing on overdue management, inventory and payables; prioritizing CapEx

Adapt incentive scheme

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

Capital Employed / Divestments

Optimization of fixed asset portfolio, for example, sale of property

Sale of businesses / brands below division level (e.g. ES professional)

Litigation pay-outs & special items

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

Disciplined Capital Allocation to Delever, Pay Dividends and Invest

Financial Strategy Directed Towards Regaining Long-Term “A” rating

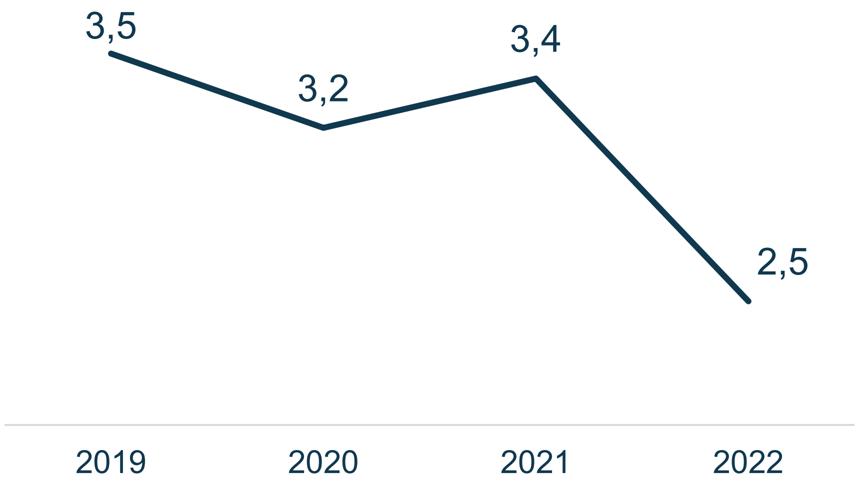
Capital Allocation Priorities

Free Cash Flow

Divestment proceeds[1]

- **Deleveraging** — **Rating target:** A category
- **Dividends** — **Pay-out range:** 30-40% of cEPS
- **External growth investments** — **Bolt-on M&A,** Leaps

Development of Leverage*



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

Sustainability is Integral to Our Values, Strategy and Operations

We intend to create bold impact and generate sustainable business opportunities

PHARMACEUTICALS • CONSUMER HEALTH • CROP SCIENCE

Megatrends	AGING POPULATION	GROWING POPULATION	PRESSURE ON ECOSYSTEMS
Societal Needs	**Preserve and restore health**	**Secure sufficient supply of quality food**	**Increase productivity and farm incomes while renewing nature**

Impact

OUR VISION: HEALTH FOR ALL, HUNGER FOR NONE

Help more people thrive

1 NO POVERTY · 2 ZERO HUNGER · 3 GOOD HEALTH AND WELL-BEING · 5 GENDER EQUALITY · 6 CLEAN WATER AND SANITATION · 13 CLIMATE ACTION · 15 LIFE ON LAND

Deliver net benefits to nature

Sustainable Growth

Long-term business growth through sustainable innovation

Investment Thesis

Key Takeaways

01 We are a **global leader in Health & Nutrition** that addresses societal megatrends

02 We are **well-positioned** to shape **regenerative agriculture**

03 We expect to **translate innovation** into profitable **mid-term growth**

04 We expect to **improve our profitability** by **accelerating our transformation**

05 We have **disciplined capital allocation priorities:** delever, pay dividends and invest

06 We have **integrated sustainability** in our business **strategy** and **incentive systems**

Science for a Better Life

Shaping the Future of Regenerative Agriculture

01

Investment Case
August 2023 /
Bayer AG

Shaping the Future of Regenerative Agriculture

01 Market & Position

02 Strategy

03 Operational Excellence

04 World-Class Innovation

05 Digital Transformation

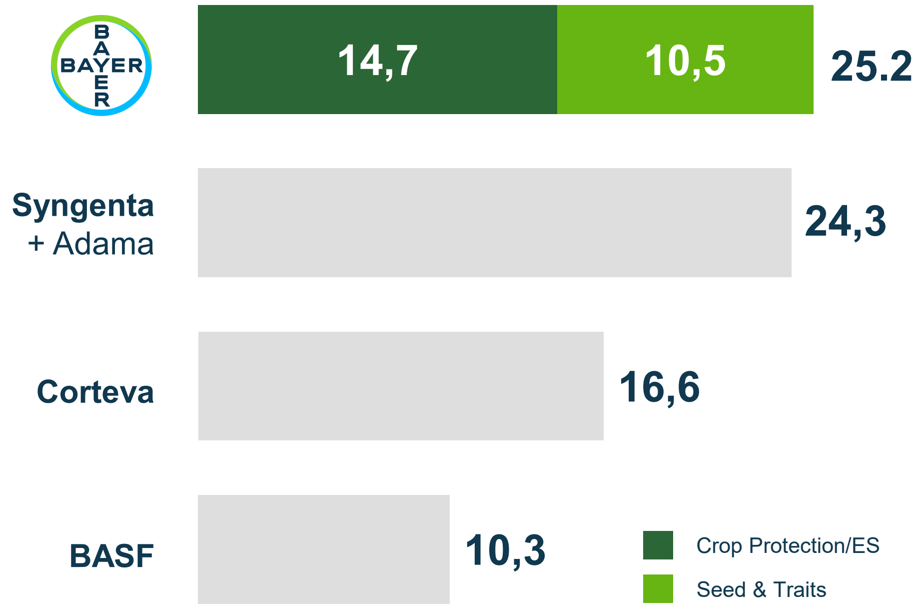
06 New Standards in Sustainability

The Established Leader in Crop Science

Industry Leading Profitability underpinned by ~€2.6bn in Annual Seed & Trait Licensing Revenue

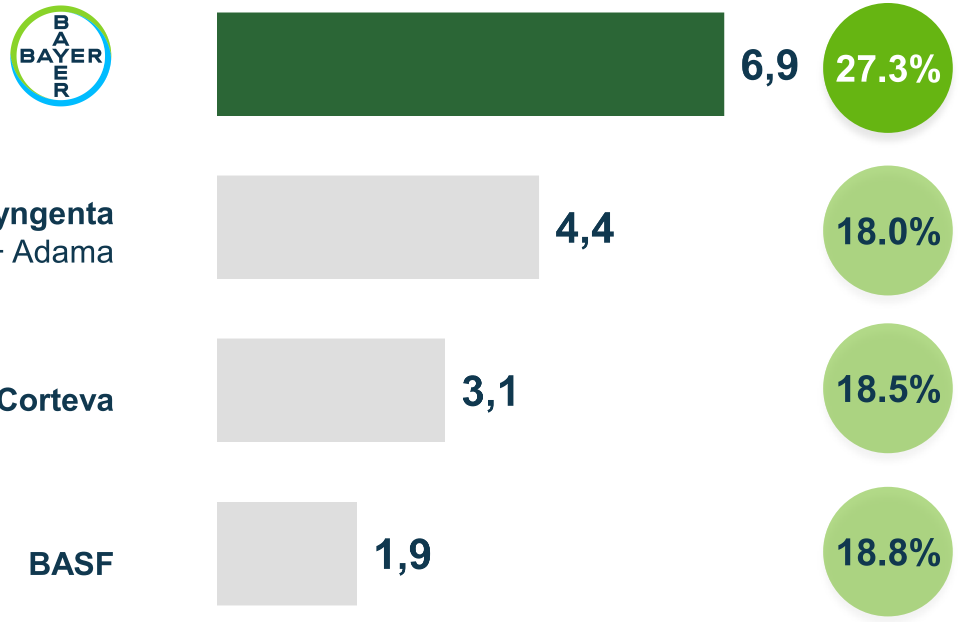
Largest in Sales

Total Sales[1] (€bn), FY 2022



Highest Profitability

EBITDA[1] (€bn) / EBITDA[1] Margin (%), FY 2022



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

Growers Worldwide Recognize the Value We Deliver

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

#1 Market Position

- Corn Seed & Traits
- Herbicides
- Soybean Seed & Traits

#2 Market Position

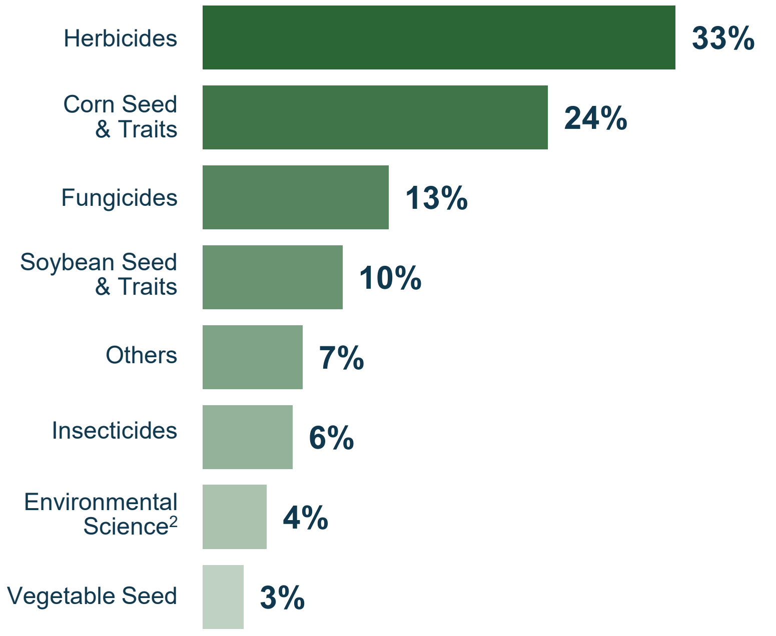
- Fungicides
- Vegetable Seed

#3 Market Position

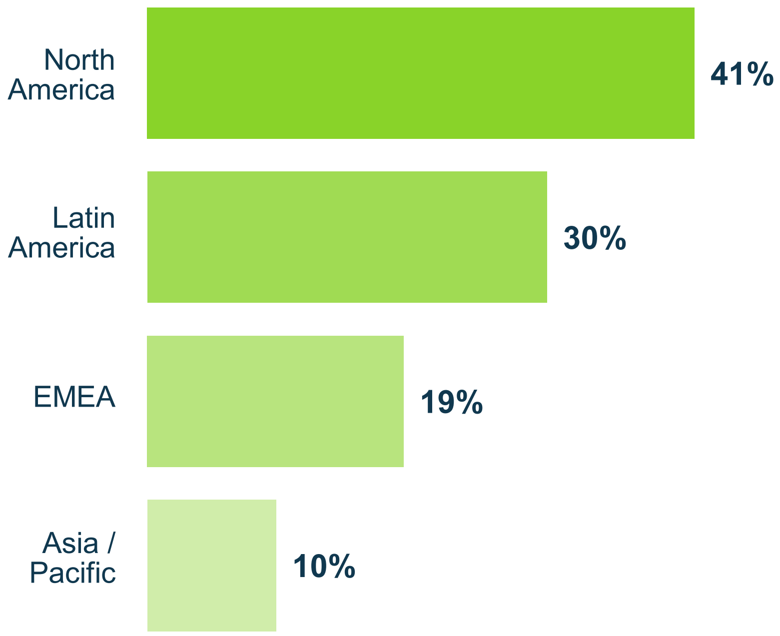
- Insecticides

Bayer Crop Science 2022 Sales (€25.2bn)[1]

SALES BY STRATEGIC BUSINESS ENTITY



SALES BY REGION



Note: Market Position determined annually, as of Q1-2023
[1] Company information; exchange rate: FY 2022: ~1.05 USD/EUR.
[2] Environmental Science Divestiture - October 2022

Our Global Food Systems are Under Increasing Pressure

Demand for Sustainably Sourced Food and Renewable Fuels Never Greater

GROWING POPULATION

+2.2bn
people on the planet by 2050[1]

PRESSURE ON ECOSYSTEMS

-17%
harvest losses from climate change[7]

+50%
more food and feed required to meet growing demand [2]

>3bn
people live in agricultural areas with high to very high water shortages[3]

>70%
of all available freshwater is used in agriculture[4]

90%
of all soils are expected to be degraded by 2050[5]

-20%
loss in arable land per capita by 2050[6]

[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] FAO, 2020 (Water Scarcity | UN-Water (unwater.org))
[4] UN-Water, 2021 Water Scarcity | UN-Water (unwater.org))
[5] FAO Saving our soils by all earthly ways possible | FAO Stories | Food and Agriculture Organization of the United Nations
[6] 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
[7] Nelson et. al, (2014); FAO 2016 "Climate change and food security"

Lead

with Regenerative Ag Solutions

Win

by being more grower centric

Our Strategic Priorities

01 **Maintain Leadership** positions in our core markets

02 **Shape Regenerative Ag** by investing to increase food production, farm incomes and resilience in a changing climate, while renewing nature

03 **Digitally Enable Our Sales** to offer full crop system solutions, creating an outstanding customer experience

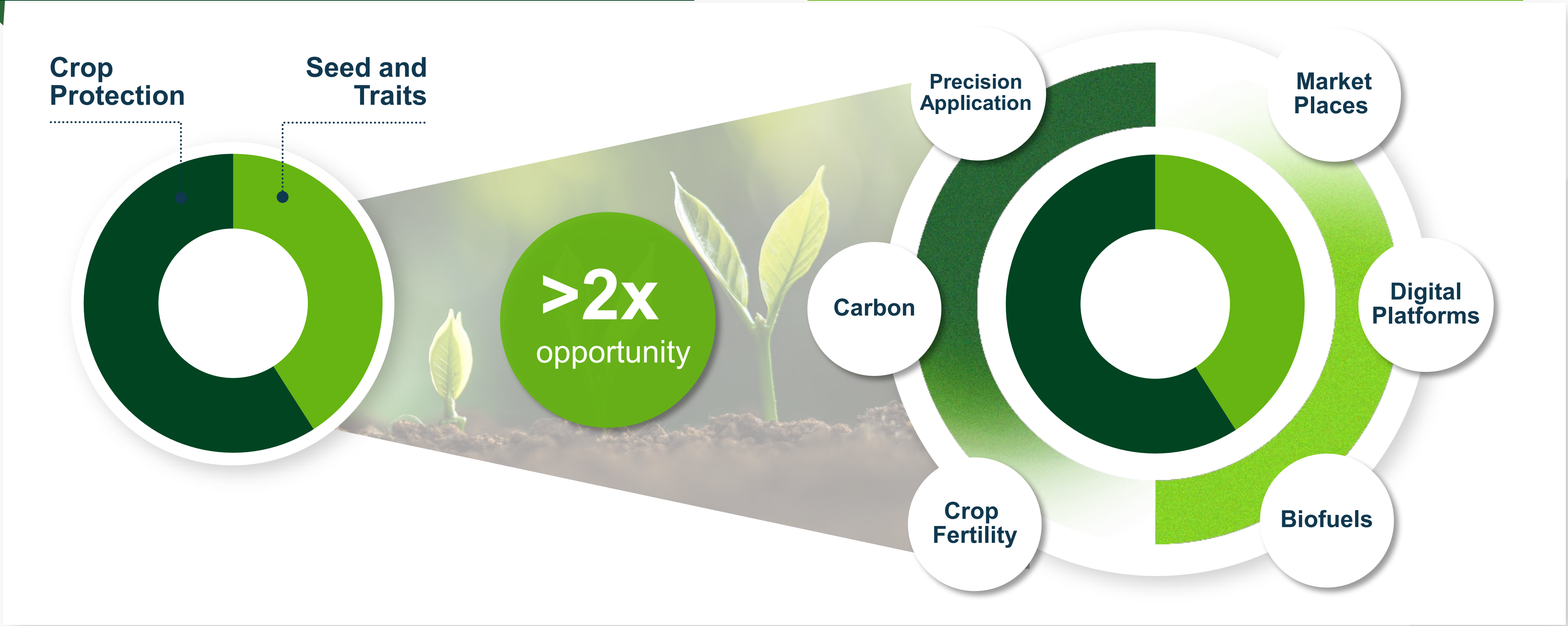
04 **Invest** in innovation **to Win** in new markets

regenerating growth

More than Doubling Our Accessible Market by Driving Productivity and Sustainability Together to Unlock Adjacent Spaces

>100bn[1] €
2022 Global Ag Input Market

>200bn[1] €
2030 Global Ag Input Market & Related Adjacencies



[1] Company estimates

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

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

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

03 Upgrade the Americas to **next-gen soybean trait technology**

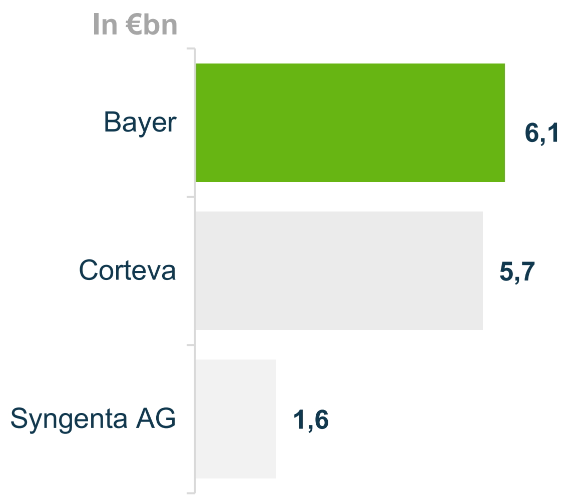
04 Implement **new vegetable seeds strategy** and launch **new traits in cotton** to drive growth

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

#1 Position in Global Corn Seed & Traits

Expect to Widen the Gap with Corn S&T Pipeline with €11bn of Peak Sales Potential[1]

2022 Corn S&T Sales[2]



Bayer 2022 Corn Seed Share[3]

	Seed Share & Position[4]		Trait Share[5]
U.S.	>55%	#1	~85%
Brazil	~35%	#1	~35%
Argentina	~50%	#1	~50%
Mexico	~75%[4]	#1	NA
Europe	~20%	#2	NA
South Africa	~75%	#1	~65%

Key Seed Brands

DEKALB, CORN STATES, LEWIS HYBRIDS, Channel, Kruger, AGROESTE, GOLD COUNTRY SEED, Jung, HUBNER SEED, sementes agroceres, Fontanelle HYBRIDS

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

2022: VTPRO4, SmartStax PRO with RNAi Technology

2023: PRECEON Smart Corn System – **Short-Stature Corn Hybrids**

2024: VT4PRO with RNAi Technology

2027: **Short-Stature Corn – Biotech Trait**
4th Gen Lepidoptera Trait
4th Gen Coleoptera Protection Trait

2030: **HT5 Corn**
5th Gen Lepidoptera Trait

[1] Expect ~50% of peak sales potential to be incremental and expect ~80% of the projects to reach peak by 2037; [2] Source: Bayer and Corteva as reported in FY 2022, exchange rate FY2022: ~1.05 USD/EUR, Syngenta based on AgbioInvestor estimates; [3] Internal estimates; market position, seed (germplasm) share and trait share measured as of 2022 for U.S. and Europe and as of 22/23 season for Brazil, Argentina, Mexico and South Africa; [4] Includes the sum of branded plus licensed seed share in the respective countries/region; [5] Represents the percentage of corn acres planted in the country that contain at least one Bayer biotech trait

Rollout of Most Advanced Corn Rootworm Control Trait Continues

03

CRW3: Industry's Only RNAi-Based Corn Rootworm Trait Launched in Brazil in VTPRO4 and in the U.S. in SmartStax PRO; Expected 2024 Launch in VT4PRO in U.S. as Additional Offering

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

VTPRO4

2023/2024e: >15m acres

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

SmartStax PRO With RNAi TECHNOLOGY

LAUNCHED U.S. 2022
2022: ~100k acres
2023e: >1m acres

Corteva Qrome product (P1366Q)

Average Root Rating: 0.30 | **Location:** Ireton, Iowa July 20, 2021 | **Average Root Rating:** 1.20

- **SmartStax PRO with RNAi Technology** has less average corn rootworm damage in 100% of the trials vs. Corteva Qrome® products in 34 Bayer trials in medium to very high corn rootworm pressure environments[1]
- For each root node damaged by CRW larvae, a yield loss of ~15% can be expected.[3] Root injury score of **0.97 nodes** in a 200 bu/acre yield environment could result in **29 bu/acre yield loss**
- ~30m acres infested with CRW in the U.S.

VT4PRO™ With RNAi TECHNOLOGY

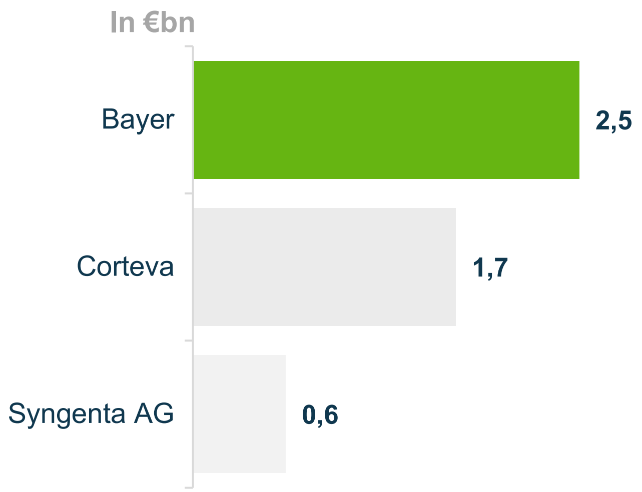
*VT4PRO with CRW3 expected **2024 launch in the US;** additional offering with **5+ bu/ac advantage over Corteva Qrome products**[3]*

[1] Head-to-head comparisons across 34 Bayer trials in medium to very high corn rootworm pressure environments;
[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] Based on 2022 Bayer breeding data generated over 253 locations, 2838 comparisons of 2024 launch class of VT4PRO with RNAi technology vs. key commercial Qrome products within +/- 2 RM maturity range

Global Soybean Seed & Trait Sales Leader

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

2022 Soybean S&T Sales[1]



Bayer 2022 Soybean Seed & Trait Share[2]

	Seed Share & Position[3]		Trait Share[4]
U.S.	***>35%***	***#1***	***~50%***
Brazil	***~15%***	***#2***	***>80%***

Key Seed Brands

ASGROW, CORN STATES, Fontanelle Hybrids, MONSOY, LEWIS HYBRIDS, Jung Seed Genetics, Channel, Hubner Seed, Gold Country Seed, Kruger Seeds

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

2021: XTENDFLEX SOYBEANS; PLATAFORMA INTACTA 2 XTEND

2025: **HT4 Soybeans**
3rd Gen Insect Protection Trait

2030: **HT5 Soybeans**
4th Gen Insect Protection Trait

[1] Source: Bayer and Corteva as reported; Syngenta based on AgbioInvestor estimates – exchange rate FY'2022: ~1.05 USD/EUR; [2] Internal estimates; market position and seed (germplasm) share measured as of 2022 for U.S and as of 22/23 season for Brazil; [3] Includes the sum of branded plus licensed seed share in the respective countries/region; [4] Represents the percentage of soybean acres planted in the country that contain at least one Bayer biotech trait.

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

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

#1 **In North America soybean performance**[1]

Only technology that includes **14-days residual activity;** Controls significantly more weeds than the Enlist system[2]

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

ROUNDUP READY 2 XTEND SOYBEANS

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

XTENDIMAX VaporGrip Technology | WARRANT | Roundup PowerMAX HERBICIDE

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

XTENDFLEX SOYBEANS

- 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:**

XTENDIMAX VaporGrip Technology | WARRANT | Roundup PowerMAX HERBICIDE | Glufosinate

- Reached **>20m** acres in the U.S. in 2022
- Over the last 4 years, **RR2Xtend** & **XtendFlex** soybeans saw a **2.9+bu/acre** advantage vs. Enlist™ E3 soybeans

[1] Bayer internal estimates; [2] Based on EPA labels of the chemistries; [3] Soybean Crop Trials (184 locations with 20 in 2019 (Roundup Ready® 2 Xtend), 57 in 2020 (Roundup Ready® 2 Xtend), 67 in 2021 (XtendFlex® Soybeans) and 40 in 2022 (XtendFlex® Soybeans) reporting data located with 22-IA, 24-IL, 23-IN, 11-KS, 1-KY, 7-MI, 30-MN, 10-MO, 1-MS, 5-ND, 17-NE, 15-OH, 1-OK, 11-SD, 4-PA and 2-WI,). Significant at P ≤ 0.10 LSD at 0.6 Bu/A as of 12/13/2022. Roundup Ready® Xtend Crop data = XtendFlex® soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E3® soybeans with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides.

Next-Gen Intacta Traits to Expand Leading Soybean Franchise

Intacta 2 Xtend Successfully Launched; IP3 and IP4 in Pipeline to Deliver >€800m peak sales potential

1st Generation — INTACTA RR2 PRO®

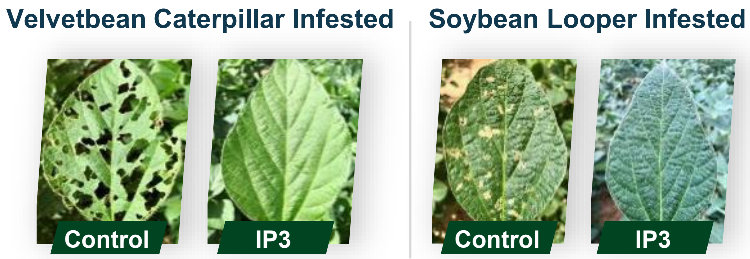
2nd Generation — PLATAFORMA INTACTA 2 XTEND

3rd and 4th Generation — INSECT PROTECTION

#1 South America soybean system[1]

- **Excellent control** of soybean loopers, velvetbean caterpillar and axil borer
- **Glyphosate tolerance** provides proven weed control and enables conservation tillage
- On ~**85m** acres in Brazil in 2022/23

- Industry-first with three proteins for insect control and resistance management, plus adds dicamba tolerance for tough-to-control weeds
- LAUNCHED in Brazil in 2021/22 season. Targeting **>10m** acres for the 2023/24 season
- Performance advantage of **2.89 bu/acre**



- **IP3 in Phase 3;** Delivering multiple modes-of-action for insect control
- **IP4 ADVANCED to Phase 2;** focused on Brazil
- **>€800m peak sales potential**

Boone, Iowa, June 2021

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

Next-Generation Traits Further Enhance Cotton Productivity

Driving Sustainability and Profitability in our >€600m Cotton S&T Business[1]

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

Global Leader in Cotton Seeds and Traits

U.S. Germplasm Share of Market: **>60%**

Trait Share of Market: **U.S. ~70%** | **Brazil >40%** | **Australia 100%**

Next Generation Cotton Trait Technologies

Building on Bollgard 3 XtendFlex Technology with 2023 commercial **launch of ThryvOn Technology**

Phase 3:

- **4th gen herbicide tolerance**, adding HPPD and PPO tolerance to XtendFlex
- **4th gen Bollgard 4 cotton** also in **Phase 3**, offering multiple modes of action to control lepidopteran insects

[1] 2022 cotton seed & trait sales for Bayer Crop Science; shares measured as of 2022 for U.S and as of 22/23 season for Brazil and Australia
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.

Vegetable Seed Business on Path to Regain #1 Position

Seminis

Driving Vegetable Seed Profitability and Growth

De Ruiter

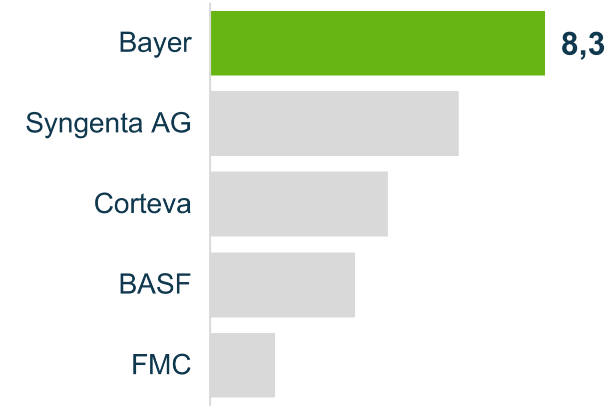
- Expect above market growth across all **four customer segments**: protected, smallholder, open field and processing
- Deployed >90 new varieties in 2022; sell **~2,000 vegetable hybrids** and varieties in **22 crops** across **110 countries**
- Developing innovative varieties **to drive more sustainable and regenerative food systems** and increase access to essential nutrients
- Portfolio well positioned to deliver on expanding markets in **EMEA** and **APAC**
- Focused on value creation by driving customer operations & innovation excellence
- Partnering across the value chain to deliver products for sustainability & consumer value

Leading Positions in Global Crop Protection

Driving >€13bn in Sales in 2022

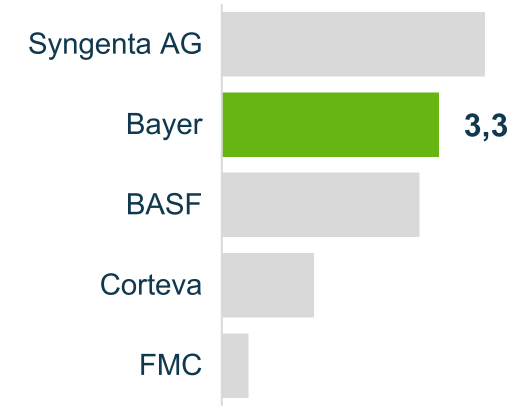
2022 Herbicides Sales[1]

In €bn



2022 Fungicides Sales[1]

In €bn



2022 Insecticides Sales[1]

In €bn

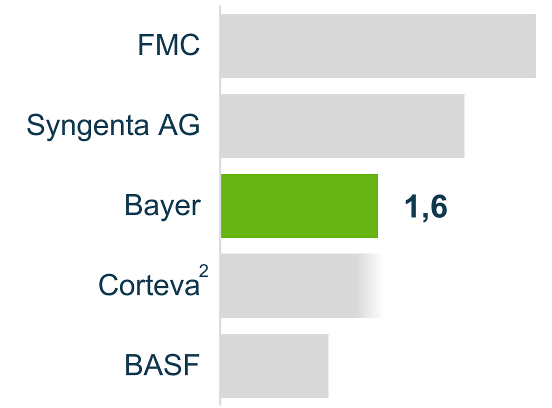


Chart shows comparison to strategic peer group
[1] Source: Company reporting, exchange rate FY2022: ~1.05 USD/EUR
[2] Corteva Insecticides sales exclude non-crop business, internal estimates

Bringing New Crop Protection Innovation to Market

Launched Two New Actives, 10 New Formulations and >250 Registrations in 2022

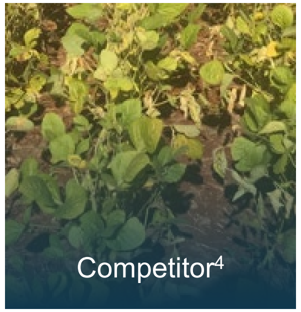
Industry Leading Crop Protection Development…

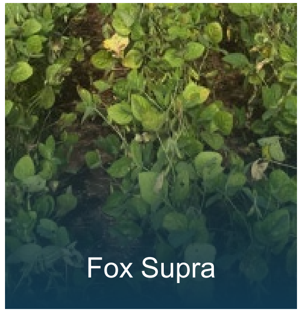
15 new AIs launched in the past 15 years;
9 advancing, including 2 launches, in 2022

Fox Supra

- Includes next-gen technology **Indiflin®**[1], with Prothioconazole
- Offers **unrivaled control** of Asian Soybean Rust
- Builds on **#1 position** in soybean fungicides[2] in LATAM

PSP of Fox Family[3] ~€850m
Pre-launched in 2022 in Brazil & Paraguay



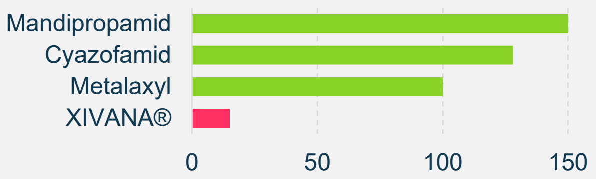


Xivana

- Powered by **Fluoxapiprolin**
- New horticulture fungicide; delivers outstanding protection of grapes – to expand to potatoes and vegetables
- High, **long-lasting efficacy**

PSP of >€200m
Launched in 2022 in Australia (grapes)

Typical use rates:
potatoes, vegetables [g/ha]

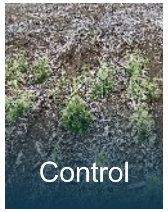


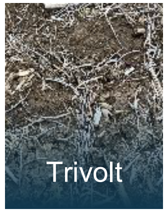
… drives our Life Cycle Management

10 new formulations launched in 2022

TriVolt

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





Mateno Complete

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

Fox products also sold under Cripton brand name in other markets; [1] In collaboration with Sumitomo; [2] Internal estimates; [3] for soybeans in LATAM; [4] BASF Orkestra Ultra; PSP = Peak Sales Potential

Building on the Leading Portfolio of Biological Solutions to Meet Growing Market Needs

The power of nature. Empowered by science.

	Biocontrols			Biostimulants	
	Insecticides	Fungicides	SeedGrowth/Soil	SeedGrowth	Crop Performance Enhancers
In-licensed / Commercial Products	XenTari WG, BioAct Prime, FLiPPER, VYNYTY Citrus, decis, Citrole[1], REQUIEM	SERENADE ASO, SONATA	Integral Pro[3] Poncho Votivo[3] SERENADE Soil Activ	B-360[2] TagTeam[4] Nitragin Gold[4] Optimize[4]	Ambition, Ambition Cobre

Table shows selected examples only

Leading Position

- Bayer is the **#1 Trusted Brand** in Biologicals by Growers[5]
- Delivering **~€200m in annual sales** in 2022
- Offering **>20 commercial products**

Select Key Product Offerings

ACCELERON SEED APPLIED SOLUTIONS

- **Acceleron portfolio** offers advanced seed treatment solution in the industry (for corn, soybean and cotton)
- **Designed to complement, protect, and enhance seeds including Bayer's DEKALB corn commercial hybrids from the outset** (exclusive combinations of seed treatments merging chemical and biological products)

FLiPPER ***Biological Insecticide***

- **Natural product** containing fatty acids derived from a by-product of extra virgin olive oil
- Consistent broad-spectrum activity across multiple fruit and vegetable crops and pests
- **In-licensed from AlphaBio Control**

[1] In-licensed from Total Energies; [2] Also sold under BioRise and Torque brand names; [3] 3rd party product from BASF, [4] In-licensed from Novozymes; [5] 75-100 growers polled in each of seven countries (Europe, Brazil, US) for potato, tomato and grapes, Bayer Market Research 2020

Serenade Soil Activ Tailored for Soil and Crop Health

Accelerate Growth in Emerging Global Soil Application Market Across Fruits & Vegetables

NEW Serenade Soil Activ propelling Serenade brands to >€170m peak net sales in next 10 years

Serenade brand family: the biological active *bacillus amyloliquefaciens strain QST 713* delivers solutions in emerging soil treatment and expanding bacterial disease markets:

- **Serenade ASO** offers QST 713's combination of several modes of action to help **control foliar bacterial and fungal diseases while reducing residues**
- **NEW Serenade Soil Activ** with its higher concentration of QST 713 spores provides farmers handling efficiency with low use rates and less water consumption
  - The concentrated QST 713 spores, applied in furrow or via drip, can speed up root formation and uptake of nutrients, raising marketable qualities (skin, shelf life, nutrient content)
  - Launched in U.S., Canada & Australia, sales in all global regions expected with coming registrations

- Higher proportion of big potatoes
- ~10% more premium class potatoes
- Better skin finish, improved uniformity
- Lower use of water/ac

Sustainably increases marketable yield with spores optimized for improved root colonization

SERENADE SOIL ACTIV

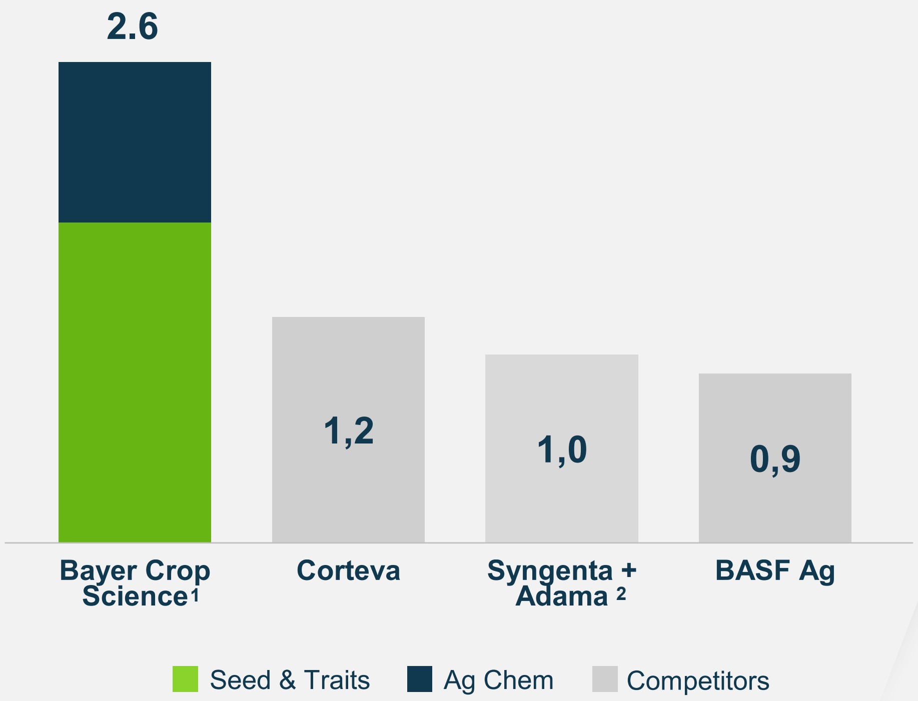
UNTREATED

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

Building the Farm of the Future with €2.6bn Annual R&D Investment

2022 Ag R&D Investment

In €bn



Top Talent:

>7,700
R&D employees[3]

>100
Key Collaborations

Providing Next Generation Solutions:

>500
Hybrids & Varieties Deployed in `22

12
New Biotech Traits in Development

>250
New Crop Protection Registrations in `22

30-60
New Molecules in Field Trials Annually

2022 reported results, exchange rate: FY 2022: ~1.05 USD/EUR; [1] Bayer R&D expenses exclude special items; [2] Represents the legacy Syngenta results plus Adama for FY'22; [3] Per Bayer annual report

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

~50% of Peak Sales Incremental to Current Annual Sales

by Sales Reporting SBE

Other SBE[2]

- Hybrid Wheat, **~€700m**
- Digital Platforms, HortiView
- 100's of cotton varieties, 1000's of vegetable varieties/hybrids, canola hybrids and rice hybrids

Insecticides

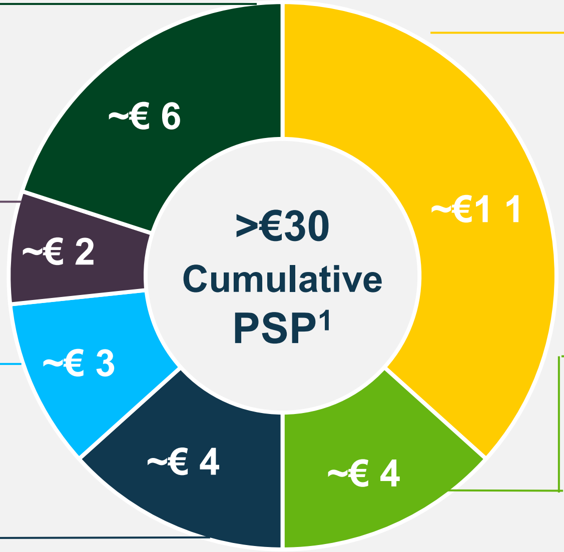
- Plenexos Insecticide, **~€500m**
- Various LCM projects (formulations and mixtures)
- Digital Farming Solutions Franchise Value

Fungicides

- Next generation Fungicide Small Molecules, **>€1.2bn**
- Various LCM projects (formulations and mixtures)
- Digital Farming Solutions Franchise Value

Herbicides

- New Herbicide Small Molecule, **>€750m**
- Various LCM projects (formulations and mixtures)
- Digital Farming Solutions Franchise Value



In €bn

Corn S&T

- Preceon Smart Corn System, **>€1.5bn** globally
- Next Gen Corn Insect Traits (LEP4, 5, CRW4), **>€1bn**
- 5^{th} Generation Herbicide Tolerance in Corn
- 1000's of new corn hybrids
- Digital Farming Solutions Franchise Value

Soy S&T

- 4^{th} and 5^{th} Gen Herbicide Tolerance Trait in Soybeans, **>€1bn**
- 3^{rd} and 4^{th} Gen Insect Protection Trait in Soybeans, **>€800m**
- 1000's of new soybean varieties

Digital Farming Solutions Franchise Value

Upside Opportunities:

- Direct Seeded Rice
- Corn Biotech Traits in new markets in Asia & Africa
- New Herbicide Small Molecule, over-the-top label
- Carbon Farming
- **~€1.5bn** Biologicals Sales Ambition

Phasing of €30bn PSP[1]**: 30%** by 2032**, 80%** by 2037

[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. Note that products are excluded from the pipeline PSP typically the year following launch. Projects listed are only a subset of the pipeline.
SBE = Strategic Business Entity; LCM = Life Cycle Management; PSP = Peak sales potential
[2] "Other SBE" category includes seeds and traits, such as cotton, canola, wheat, OSR, rice, vegetable seeds and sugarbeets, plus digital platforms

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

>3,500 unique **field-testing locations**

>500 deployments in 2022:

>250 in corn
~150 in soybeans
>90 in vegetables
>10 in cotton

BIOTECH

- Leading protein optimization technology with extensive protein libraries
- First-ever biotech trait for piercing and sucking insect protection

>65 traits products in 27 years – reaching ~300m acres annually

~3bn datapoints generated by Precision Genomics team to deliver biotech traits and accelerate genetic gain

12 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 **~90-100** new formulations to launch in the next decade

Launched **15** new actives in past 15 years

BIOLOGICALS

- **Open Innovation Model** to deliver innovative and sustainable solutionsto growers

>40 assets under evaluation for new collaborations or in-licensing

>1,300 trials in 46 countries in 2022

2 Multi-year strategic partnerships with Ginkgo Bioworks and Kimitec

>60m acres in row crops, plus additional high value horticulture and vegetables acres

DIGITAL FARMING

DATA SCIENCE

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

>115bn data points of product performance under real-world farmer management practices

>220m subscribed acres across 23 countries

Data Connected Plant Breeding Advantage

Breeding Product Development Process (8-10 years)

Data & analytics driving decisions & AI connected pipeline - enabling a dynamic breeding pipeline

Fieldview Field Health Imagery Data Collection

Seed Chipping Technology for accelerated discovery

Marana, AZ Protected Culture Design Center

Cassette Planter delivers large scale field testing

Drone Sensors; globally connected data ecosystem

Seed Bulk-Up for Pre-Launch testing

Customer Insights

Data & Insights

Customer driven quantitative economic indices

Discovery

Population Selection

Population simulation and human supervised, model driven selection for desired characteristics

Phase One

Early Design

Advanced genomic selection including future environmental challenges

Phase Two

Intermediate Development

Large-Scale Field Testing, Trait Integration and prescriptive data collection to inform models and feed pipeline

Phase Three

Advanced Product Understanding

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

Phase Four

Pre-Launch

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

Competitive Advantages

Customer Insights
- Extensive environmental and on-farm data driving targeted discovery
- Unique data-driven bio-economic models that allow precise fitting of product concepts

Discovery
- Industry-leading global germplasm libraries across crops and markets- 100X larger
- Decades of field and genomic data combined with industries leading data science platform

Phase One
- Ability to rapidly sample and genetically evaluate millions of seeds- 15X faster
- Advanced Product Design facilities that enable multiple cycles of planting per year

Phase Two
- Industry leading Trait Integration programs stack traits into elite germplasm
- Largest global field-testing footprint & digital field-testing twin capabilities diversifies geographic data insights

Phase Three
- Fully automated seed distribution centers prescriptively sample diverse growing environment
- Traited-Testing evaluates products as they would be experienced by the growers

Phase Four
- Most advanced and distributed network of field testing in the industry
- Evaluation of agronomic systems for product deployment & customer recommendations

Deploying >250 Corn Hybrids in 2022 to Expand Leading Position

Foundational to Expected Growth in Our >€6bn Global Annual Corn Seed & Trait Sales

Extensive Corn Germplasm Delivers

- **>100m** acres of Bayer Corn Germplasm grown in 2022
- Deployed **>250** new hybrids globally in 2022; offer **>1,500** hybrids globally
- **>7 bu/acre U.S. yield advantage** with leading hybrids in like-for-like trait package hybrid comparisons[1]
- **Best NCGA Yield Performer**[2] in 2022, **winning >70% of the ~National Spots**, with 20 of the 27 spots from Bayer germplasm

Key Seed Brands

DEKALB

Channel.

AGROESTE

sementes agroceres

[1] Annual yield advantage calculated each year by comparing 3 leading DEKALB products within each state having a minimum of 100 comparisons to national competitor products containing similar crop protection traits as of 2022. All comparisons are head-to-head using +- 2RMs and weighted average calculated using 15% moisture; [2] NCGA = National Corn Growers Association – National Corn Yield Contest.

Soybeans, Cotton and Vegetable Seed Businesses Annual Germplasm Refresh to Drive Sales Growth

Soybeans

- Deployed **~150** new varieties in 2022; offer **>850** varieties in North America
- Over last 4 years, RR2Xtend & Xtend Flex Soybeans saw a **2.9 bu/acre advantage**[1] over Enlist™ E3 Soybeans

Cotton

- Deployed **>10 varieties** in 2022; offer **>30 Deltapine varieties in the U.S.**
- U.S. lint/acre yield advantage with leading varieties; 2022 was **~70 lbs/ac advantage for Deltapine**[2] vs. top-planted competitor varieties

Vegetables

- Deployed **>90** varieties in 2022; sell **~2,000 vegetable hybrids** and varieties in **22 crops** across **110 countries**
- Innovative varieties of fruits and vegetables can **help develop more sustainable and regenerative food systems** and increase access to essential nutrients

[1] Soy Trials: (184 locations with 20 in 2019 (Roundup Ready® 2 Xtend), 57 in 2020 (Roundup Ready® 2 Xtend), 67 in 2021 (XtendFlex® Soybeans) and 40 in 2022 (XtendFlex® Soybeans) reporting data located with 22-IA, 24-IL, 23-IN, 11-KS, 1-KY, 7-MI, 30-MN, 10-MO, 1-MS, 5-ND, 17-NE, 15-OH, 1-OK, 11-SD, 4-PA and 2-WI,). Significant at P ≤ 0.10 LSD at 0.6 Bu/A as of 12/13/2022. Roundup Ready 2 Xtend or XtendFlex® soybeans planted with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist E3® soybeans planted with a farmer-selected (or in case of Bayer Trials, Bayer-selected) weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides; [2] Cotton 3-year average: 2600 trials comparing top DP varieties within a region vs. the top 3 planted competitors based on market survey data (Kynetec).

Hybrid Wheat: New Production System for the World's Largest Crop

Potential to Shape Transformation of Wheat Production by End of the Decade

Resilient Hybrid Wheat System

- Hybrid wheat expected to provide **higher yield** and **yield stability,** with potential fit on a significant portion of the ~**555m acres of wheat** grown globally and **~€700m PSP**
- Envision a **more sustainable and resilient system** with better nitrogen use efficiency, disease, drought and heat tolerance
- Advancements in **genomic tools** and the **cytoplasmic male sterility system** are enabling the development of hybrid wheat at competitive cost
- 'Blue ocean' market potential to drive value of market for Wheat seed and technologies, which has already happened in crops like corn

Hybrid Wheat Row Configuration Testing
Nampa, Idaho | June 2022

Hybrid Wheat Nursery
Filer, Idaho | June 2022

Market Leaders in Hybrid Wheat

Different climatic zones in key regions Europe and North America require **distinct approaches**:

Europe

- In 2021, we launched a **strategic R&D partnership with RAGT**, the European market leader in varietal wheat, leveraging strong complementarity of partners:
  - **RAGT:** Best-in-class germplasm and rich portfolio of native traits
  - **Bayer:** Wide array of R&D assets, seed production know-how; leader in CP

US

- Hybrid wheat program based on our leading U.S. WestBred germplasm position

Our Vision: A digitally enabled sustainable hybrid wheat system offering

Bayer Direct Acres: Direct Seeded Hybrid Rice System

Elite Rice Germplasm, Effective Weed Mgmt. and Digital Tools to Drive Sustainable, Operational Efficiency

Bayer direct acres

Bayer Portfolio of Solutions for Rice Production

Seeds & Seed Growth	Herbicides		Fungicides	Insecticide	Crop Performance Enhancer
Arize, Gaucho	Council activ	Ricestar, Adora	Antracol, Nativo	Vayego	Ambition
~40% Seed Share in DSR Market in India (7% of Acres)	Post-Emergent single shot application	Need Based LPO			

DIGITAL TOOLS & PLATFORMS — FARMRISE

CARBON & SUSTAINABILITY

Opportunity for 75% DSR HA in India by 2040[1]

DIRECT SEEDED RICE SYSTEM

- *Elite Designed Hybrid Rice*
- *Integrated & Effective Weed Mgmt System*
- *Digital Insights & Agronomic Support*

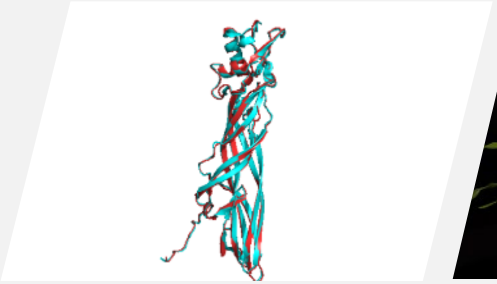
HYBRID RICE TRIALS

[1] internal estimate based on socio economic, climate effects and policy environment

Decades of Investment and Expertise Unlocks Biotech Advantage

04

Biotech Trait Development Process (12-15 years)



Gene Library contains Millions of Unique Proteins

Gene to Phenotype Optimization

Commercial Candidate Selection

Field Trials for Trait Approval

Seed Bulk-Up for Pre-Launch testing

Phase 0

Trait Discovery

High-Throughput Screening Identifies Desired Characteristics

Phase 1

Proof of Concept

State-of-the-Art Gene and Protein optimization capabilities Drive Product Concept Demonstrations In-Crop

Phase 2

Early Development

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

Phase 3

Advanced Development

Trait Integration, Regulatory Data Generation

Phase 4

Pre-Launch

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

Competitive Advantages

Phase 0

Industry-leading **microbial gene libraries** enable new trait areas and novel MOAs

Application of **cutting-edge RNA** technologies to develop targeted innovative products

Industry leading **genome editing toolkits** drives novel trait discovery

Phase 1

Best-in-class **synthetic biology gene** expression toolkits drive precision in gene to phenotype optimization

High throughput, AI-driven protein design drives rapid iteration to optimize new MOAs

Phase 2

Development of **multi-gene stacks** that enable a multitude of solutions for growers

CRISPR technology for targeted insertion to enable product development flexibility

Largest global field-testing footprint diversifies geographic data insights

Phase 3

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

Phase 4

Experience successfully launching traits globally

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

Offers Transformational Shift in Production

Powered by Short Stature Corn Hybrids and FIELDVIEW

PRECEON™ SMART CORN SYSTEM

04

Key Features and Benefits Enhance Profitability and Environmental Sustainability of Corn Production

Protection

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

Iowa 2020 Trials Following Derecho Windstorm

Access

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

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

Yield potential

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

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

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

Global On-Farm Trials for PRECEON Smart Corn System

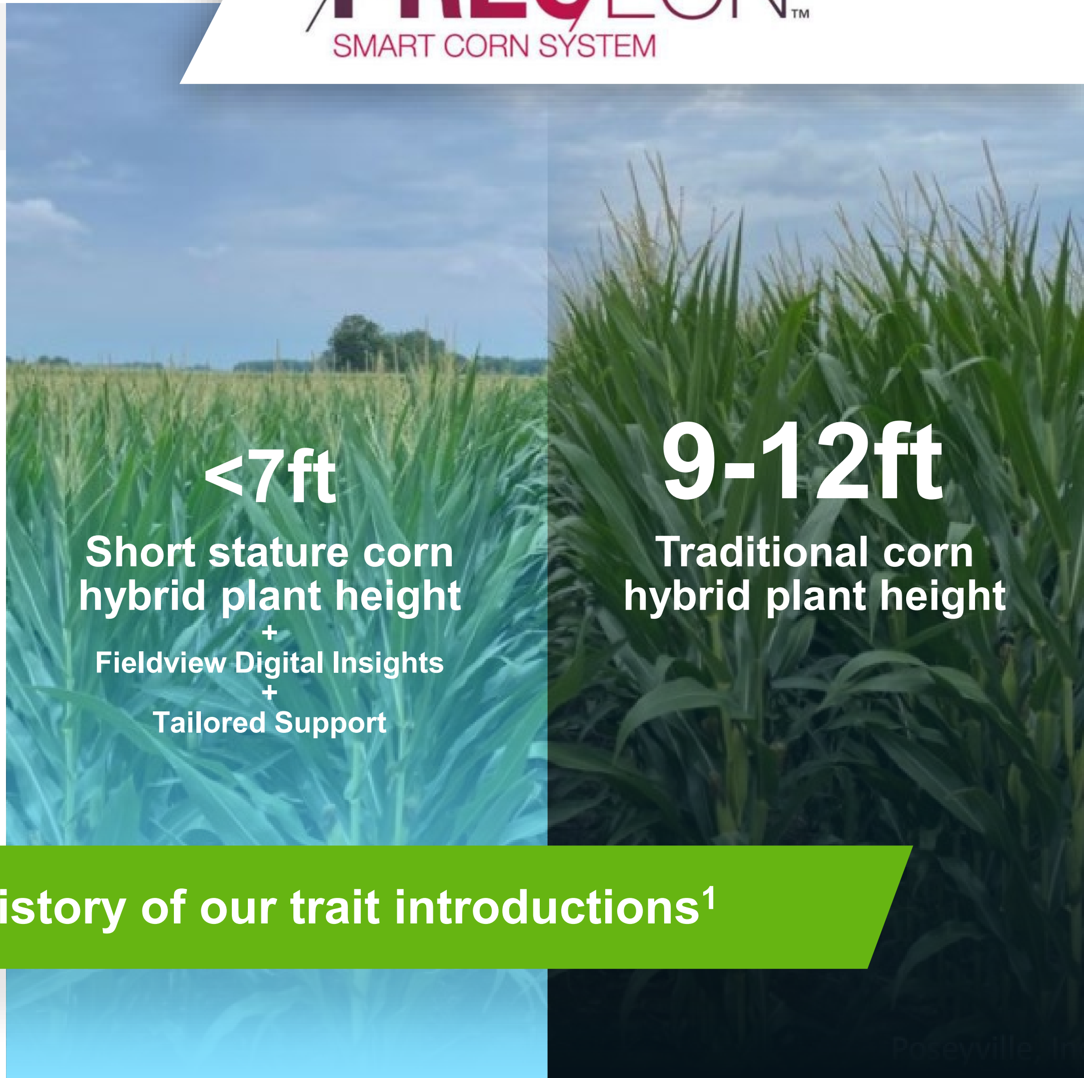
Powered by Short Stature Corn Hybrids and FIELDVIEW

GROUND BREAKERS

New era in corn production to help farmers manage risk and protect yields

PRECEON™ SMART CORN SYSTEM

NA	**300** on-farm trials on **30,000** U.S. acres
LATAM	Trialing with large key customers in Brazil, Argentina and Mexico
EMEA	**80** trials in 2 countries
APAC	Early phase testing in multiple countries



Highest likelihood to plant a new trait in the history of our trait introductions[1]

[1] Source: Online farmer survey Feb./Mar. 2020 (n=900)

Planning Regional Tailored Approaches

Holistic Smart Corn System Powered by Short Stature Corn Developed via Three Technology Approaches

PRECEON™ SMART CORN SYSTEM

Planned Technology Approach for Launch of Preceon Smart Corn System

Breeding Approach – Phase IV
2023 Ground Breaker Trials in the U.S.
Native Trait: advanced breeding used to introgress naturally occurring short stature characteristics into elite germplasm

Biotech Approach[1] – Phase III
Uses transgene to shorten internodes; enables applicability across wide array of germplasm

Gene Editing Approach - Discovery
Location of launch will be dependent upon regulatory environments

>220m
Corn Acres Global Potential

Americas Alone Account for 140m Acres

>€1.5bn
Global Peak Sales Potential

[1] in collaboration with BASF

Next Gen Soybean Herbicide Tolerance Traits to Provide Industry Leading Flexibility

Drives **~€1bn Peak Sales Potential** by Addressing Farmers' Herbicide Resistance Challenges

4th Gen Herbicide Tolerance (HT4)

In Phase 3

Expected 2027 launch

- Adds 2 additional herbicide tolerances: **HPPD (Mesotrione) + 2,4-D**

July 2022 | Jerseyville, Illinois

Potential Opportunity Across

>180m

Soybean Acres

5th Gen Herbicide Tolerance (HT5)

Advanced to Phase 3

- Adds 1 additional herbicide tolerance: **PPO**

July 2022 | Monmouth, Illinois

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

Developing Novel Cash Cover Crop with Potential for Low-Carbon Renewable Feedstock

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

CoverCress

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

Unique Rotational Agronomic System to Deliver Renewable Fuels to the Market
3 Crops in 2 Seasons to provide growers sustainable benefits and new cash cover crop

CoverCress

- **Low carbon intensity rotational cash crop** that can deliver many ecosystem benefits of a cover crop and attractive economics of an oilseed crop
- **Carbon sequestration** 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

- 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

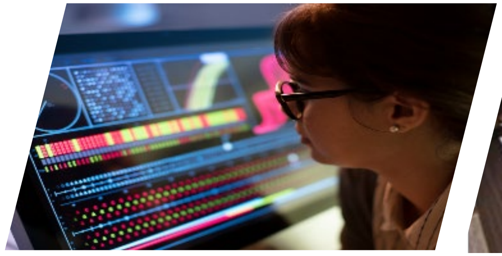
The Business Model

- Closed Loop Production Contract (i.e. Farmers will be paid a premium to produce CoverCress; Bunge delivers oil to Chevron to convert to Renewable Diesel/Sustainable Aviation Fuel; CoverCress receives value from crusher (i.e. Bunge))
- CoverCress ownership: Bayer 65%; Chevron and Bunge 35%

Industry-Leading Expertise in Chemical Crop Protection R&D

Designing Molecules to Safely & Sustainably Address Needs of Farmers and Society

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



Phase 0

Mode of Action & Hit Identification

AI-supported molecular target & hit identification toward designing of potent and sustainable molecules

Competitive Advantage

Powerful target-based discovery platform

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

Focus on novel Mode of Action & novel chemical spaces

Phase 1

Proof of Concept

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

Competitive Advantage

AI-supported design of molecules to create desired properties

World-class biology testing

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

Phase 2

Early Development

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

Competitive Advantage

Largest global field-testing footprint diversifies geographic data insights

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

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

Phase 3

Advanced Development

Commercial proof of concept, regulatory data generation

Competitive Advantage

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

Scientific and agronomic knowledge to design best resistance-breaking products

Phase 4

Pre-Launch

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

Competitive Advantage

Unrivaled global regulatory experience advising

Evaluation of agronomic systems for product deployment & customer recommendations

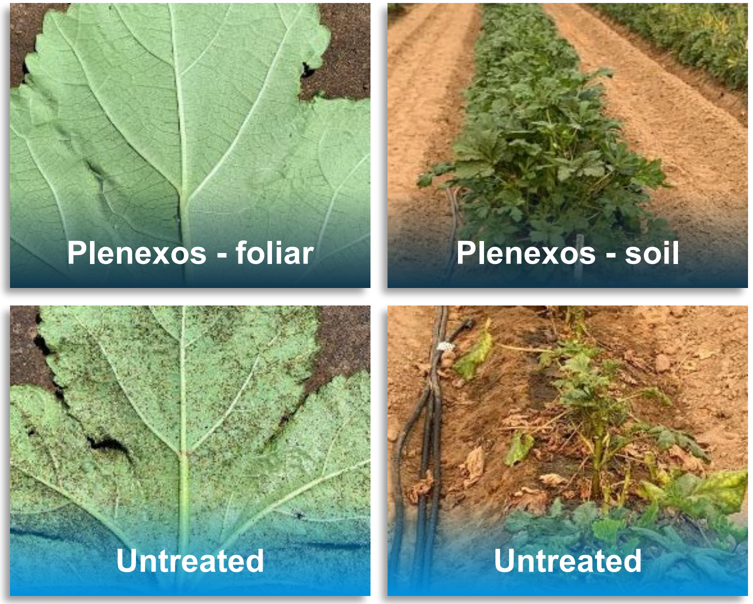
Plenexos… Where Healthier Fields Meet Higher Yields

Our Next Generation Ketoenol Insecticide with ~€500m Peak Sales Potential

Plenexos will be the first ketoenol insecticide expected to offer both foliar and soil uses

Plenexos will enhance ketoenol insecticides by offering:

- High plant mobility, which will ensure **high efficacy** against key sucking pests (aphids, whiteflies, scales, mealybugs) at **low dose rates** for **foliar and soil uses**
- Featuring a **broad crop scope**, Plenexos will be suitable for application in **arable and horticulture** crops (soybeans, cotton, fruits and vegetables)
- Favorable pollinator and beneficial toxicological profile which will ensure **broad flexibility** and **fit to Integrated Pest Management programs, as well as low residue levels** for several uses
- Targeted markets: LATAM, NA, APAC and TAMECIS[1]
- **First regulatory submissions** in key markets in **2022, first launches** expected from **2025 onwards**[2]



Increases productivity per acre and field health through improved insect control

Always read and follow label instructions. Products not registered in all jurisdictions. Plenexos is the brand name of the ketoenol insecticide Spidoxamat
[1] TAMECIS stands for Turkey, Africa, Middle East, Commonwealth of Independent States; [2] 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, or a recommendation to use, any unregistered pesticide for any purpose whatsoever. It is a violation of federal law to promote or offer to sell an unregistered pesticide

New Broad Spectrum Fungicide[1] with a PSP of >€1bn

A New Fungicide with Broad Geographical, Crop and Disease Scope, Currently in Phase 3

New broad-spectrum Fungicide with blockbuster potential

- For global use confirmed in cereals, corn, fruits & vegetables with upside potential in numerous other crops
- Proven Mode of Action in a highly competitive future market
- Favorable regulatory profile
- Providing farmers worldwide with a reliable tool to ensure healthy crops and robust resistance management
- Excellent fit with Bayer's fungicide portfolio, helping to strengthen our leading position

[1] in collaboration with 3rd party; PSP = Peak Sales Potential

Enriching Our Pipeline with Novel and Sustainable Modes of Action

04

CropKey First representatives of CropKey approach are being brought from conception to reality in record time

New Herbicide Molecule

- /// First new mode of action in post emergence weed control in 30 years, based on CropKey approach
- /// Securing farmers production in situations with tough to control grasses
- /// Allows use in various new market segments, as well as potential for precision application

PSP of >€750m

Project is currently in Phase 3

New Fungicide Molecule

- /// Broad-spectrum Horticulture fungicide with a new mode of action, based on CropKey approach
- /// Control of key leaf spot fungi (incl. Anthracnose) across key regions
- /// Opportunities to extend beyond horticulture to cereals (barley), oil seed rape and seed treatment[1]

PSP of >€200m[1]

Project is currently in Phase 2

Glyphosate Only

Mix Partner + New Herbicide
Product concept with new active

Standard Only

New Fungicide

[1] Expansion into oil seed rape and seed treatment not yet included in PSP; PSP = Peak Sales Potential

Industry-Leading Technology for the Next Generation of Biologicals

04

4-6 Year Product Development Timeline

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

Discovery

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

Competitive Advantage

Strategic research partners with in-depth understanding of innovative modes of action resulting in novel products

Research Optimization

Accelerate competencies in fermentation and formulation optimization of microbial products for agriculture

Competitive Advantage

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

Field Development

Worldwide network of field-testing capabilities for early screening and development of application programs

Competitive Advantage

Understanding of geographic product range with precise guidance on practical use

Grower Support

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

Competitive Advantage

Exceptional customer support with market leading biological products

Industry leading portfolio

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

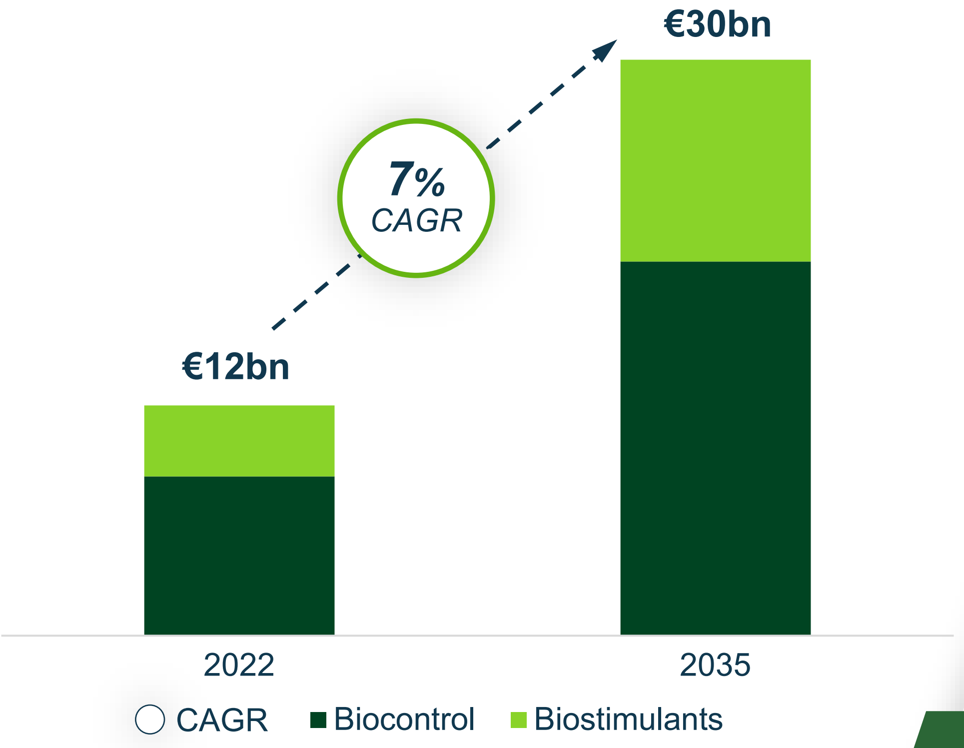
Competitive Advantage

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

Biologicals Market Expected to More than Double to €30bn by 2035

We aim to Outgrow the Market with a 17% CAGR

Global Biologicals Market



Source: Global Agricultural Biologicals Market, Forecast to 2030, Frost & Sullivan, 2022 and internal estimates

Bayer Biologicals Opportunity

€200m
Sales 2022

17% CAGR

> €1.5bn
Sales 2035e

In-licensing or distribution; expanding current portfolio

Pipeline advancements

Strategic research partnerships

Increasingly stringent regulatory approvals processes, consumers' demand for low- and no-residue food products and retailer food sourcing standards drive growers to look for new innovations in crop protection

Expanding a World Class Biological Platform with Open-Innovation

Partner of Choice with Industry Leading Capabilities in Development, Regulatory and Commercialization

Open Innovation Ecosystem //////////

Robust asset evaluation for **in-licensing or distribution** of commercial or late stage products

January 2023 ***Commercialized***

- Scouting to meet **short to mid-term portfolio needs**
- M2i: partner to supply fruit and vegetable growers around the world with pheromone-based crop protection products
- Ecología y Protección Agricola: commercialized Vynyty Citrus

Pipeline advancements through development of internal assets and co-development with selected partners

SeedGrowth Corn Yield PHASE 3 ***SeedGrowth Bird Repellant PHASE 3***

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

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

October 2022 ***February 2023***

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

Complementing efforts with academic partnerships and Leaps by Bayer investments, *such as:* andes Sound PIVOT BIO

Comprehensive Open-Innovation Strategy for Nitrogen Fixation

The Need

- Synthetic nitrogen fertilizer has helped feed >3.5bn people[1]
- Regulatory requirements are increasing around the globe
- But accounts for ~3% of global greenhouse gas emissions

// "Pulling fertilizer out of thin air" //

Our Approach

- In-licensing or distribution
- Pipeline advancements
- Strategic research partnerships

Transformational Partnership with GINKGO BIOWORKS

- Enhance nitrogen fixing bacteria through synthetic biology
- Leverage Ginkgo's expertise in microbial discovery, our expertise in agronomics, product development and commercialization
- Exclusive commercialization rights to programs already started at Bayer and/or Joyn Bio
- Aiming to reduce use of added synthetic fertilizers while maintaining the yield potential of the crops

[1] Source: Our World in Data

Leaps by Bayer Technology Investments Expand R&D Reach

04

18 Distinct Investments in Sustainable Productivity and Improved Nutrition

Leap 03/ Reduce environmental impact of agriculture

EarthOptics
Sound
Pivot Bio
NewLeaf symbiotics
andes
ChrysaLabs
AgBiome

Leap 07/ Provide next-generation healthy crops

pairwise
Unfold
ukko

Leap 08/ Develop sustainable protein supply

NuCicer
Amfora
Fork&Good

Leap 09/ Prevent crop and food loss

Apollo Agriculture
grãodireto
Guardian Agriculture
Rantizo — We deliver solutions
Oerthbio

Companies shown by primary Leap but may have potential in further Leaps
For additional information on these and other Leaps by Bayer investments, please visit: https://leaps.bayer.com/

Digital Platform Optimizing Through the Farm into the Value Chain

Enabling Sustainable Solutions from Farm to Fork

FROM DATA TO VALUE

Digital shifting from data collection and visualization to an essential tool for all farming operations

Digital is transforming to enable new opportunities across the value chain

//// **Lab & Greenhouse** → **Farm** → **Value Chain** ////

DRONE-BASED APPLICATION
TIMING RECOMMENDATIONS
PEST DETECTION
HYBRID RECOMMENDATIONS

AG MARKETPLACES
DOWNSTREAM VALUE
RISK SHARING
SUSTAINABILITY & CARBON

Digital Farming Brings Transformational Solutions While Driving Significant Franchise Value and Opportunities Downstream and in Value Chain

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

01 FRANCHISE VALUE

02 DOWNSTREAM VALUE

03 PLATFORM VALUE

Fieldview Digital Insights Maximizing Smart Corn System

PRECEON™ SMART CORN SYSTEM

Comprehensive Digital Agronomic Support

- Hybrid Selection & Placement
- Planting Density
- Planting Date
- Fertility Recommendations & Timing
- Crop Protection Recommendations & Timing

CLIMATE FIELDVIEW™

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

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

Advancing Climate Smart Practices on Farm to Achieve Carbon Goals for Growers and Businesses; Creating New Revenue Stream

ForGround by Bayer

Digital platform that helps farmers transition to climate-smart practices and connects growers, acres, and buyers to more meaningful opportunities.

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

&

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

Our Commitment: 30% Reduction of Field Greenhouse Gas Emissions **by 2030**

Builds on Success with our Existing Bayer Carbon Program

~2,600 participating farmers | **10** countries covered | **~1.5m** acres globally

// Long-term program providing **annual incentives** to FIELDVIEW users, enrolled in the program, for verified and validated **climate-smart practices** like no-till and cover cropping

// Enables 3 Expected Downstream Revenue Opportunities **in >$200bn/year** market[1]

Carbon Services

Product Sales

Carbon Assets
First revenue generating carbon asset in 2023

Creates new opportunities for growers and businesses alike

PERDUE AgriBusiness

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

Nori

- Supports Nori in **advancement of the carbon marketplace**
- **Pave the way** for price discovery of carbon removal credits on the open market
- Bayer Carbon Program grower payments will be reassessed in accordance with **carbon credit market price** fluctuations

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

Industry First Collaboration Offering B2B Digital Solutions that Connect the Farm to the Value Chain

Microsoft COLLABORATION

- Azure Data Manager for Agriculture is the **largest connection** point of agricultural data and services **driving interoperability** across the value chain – including food, feed, fiber and fuel
- Combines **Bayer's ag expertise** and leading digital farming platform with **Microsoft's cloud technology** for unrivaled B2B solutions
- **Bayer AgPowered Services**, based on proprietary capabilities, now available to the industry on **Azure Data Manager's robust infrastructure**
  - Imagery Insights
  - Crop Water Use Maps
  - Growing Degree Days
  - Smart Boundary Detection[1]
  - Crop Growth Models[1]
- **Provides cloud-based digital tools** and data science solutions for ag and agri-food businesses to license and use for **internal platforms or customer-facing digital solutions**
- **Will provide solutions** to address farming operations, **sustainable sourcing, manufacturing and supply chain improvement, and ESG monitoring** and measurement

Enabling Transparency and Sustainability for Companies and Consumers; Advancing New Opportunities for Farmers

[1] Additional offerings in development

Orbia JV is the Largest Digital Ag-Marketplace in LATAM

In Combination with FIELDVIEW, Provides an Integrated Digital Grower Experience

- JV between Bayer, Bravium[1], 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[2]
- **~300 distributors** with inputs such as pesticides, seeds and fertilizers
- **~€460m** in commissioned online transactions (GMV[3]) in 2022
- **>270,000 registered growers** across LATAM
- Covers **~75% of Brazil planted area**
- Recently launched **Orbia Pag,** the first digital pre-approved credit mechanism for farmers

[1] Brazil-based marketing agency who managed Bayer's loyalty program in Brazil, prior to the formation of Orbia.
[2] Orbia is named „Nucle“ in Mexico // [3] GMV means Gross Merchandise Value, the most common metric for marketplace development

BAYER

Future of Farming

Broadening our sustainability approach with a regenerative focus

regenerating growth

Sustainability Focus

"Producing more with less"

We're supporting food security while reducing agriculture's impact on nature

We're committed to: (1) minimizing the climate footprint of farming, (2) reducing the environmental impact of crop protection, (3) enabling smallholder farmers and (4) improving water use

Reducing and mitigating:

Increasing productivity while reducing the impact on nature

Regenerative Focus

"Producing more and restoring more"

We're supporting food security and securing farm incomes while delivering net benefits to nature

We're committed to: **(1)** minimizing the climate footprint of farming, **(2)** reducing the environmental impact of crop protection, **(3)** enabling smallholder farmers and **(4)** improving water use

+

We're delivering nature-positive outcomes by improving soil health, restoring biodiversity and protecting habitats, conserving water and sequestering carbon

We're helping farmers increase productivity and incomes with climate adaptation solutions and new sources of revenue

Adapting and regenerating:

Increasing productivity and incomes while renewing nature

Broadening our Reach to Shape Regenerative Ag on >400m Acres

- // Today our seed & trait technologies reach **~340m** acres globally, anchoring our vision for regenerative system solutions
- // By the middle of the next decade, we envision broadening our reach to **>400m acres**
- // Hybrid wheat, direct seeded rice, corn traits in Africa & Asia and carbon farming enable potential in new crops and markets
- // Preceon Smart Corn System and next-gen herbicide tolerance in soybeans build out our base

Delivering Regenerative Ag Benefits and Improved Profitability

Example: 130 HA Bayer Forward Farm Agricola Testa, located in Pergamino, Argentina 2019-2022

Increased farmer roi[1]

+13% grain productivity

+22% gross margin/HA

.....And more sustainable agriculture[1]

65% Improvement in carbon balance (CO_2 eq kg/ha)

+1,512 carbon sequestration (Kg CO_2/HA)

+40% system biomass production

-15% less sprays

Graphical depiction of Bayer Forward Farm in Pergamino, Argentina

Farmer expanded regenerative farming practices to 1,000 HA rented land after seeing these results

[1]Since 2015, Agricola Testa has been certified in Good Agricultural Practices in sowing, spraying and harvesting. Results shown here depict the improvements achieved from adoption of no-till agriculture, crop rotation, inclusion of winter & cover crops, implementation of digital agriculture, selection of top performing germplasm, biotechnology traits, a balanced fertilization strategy and monitoring pests for defined control timing practices, from 2019 to 2022 at Bayer's Forward Farm, Agricola Testa, located in Pergamino, Argentina.

Innovative, Sustainable Solutions to Address Global Challenges

Global Challenges:

Our Sustainability Goals:

30% — **Reduction in Crop Protection impact** on the environment

30% — **Reduction in Field Greenhouse gas** emitted per kg of crops produced

25% — **Reduction in Water Use** per kg of crops produced in rice cropping systems

100m — **Empowering 100m smallholder** farmers by 2030, to become more productive and profitable

Our Solutions:

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

Xivana PRECEON SMART CORN SYSTEM FLIPPER

- Digital tools for carbon sequestration measurement, precise input application
- Next-gen herbicide tolerant traits to enable no-till/ conservation tillage systems
- Covercress cover crops

FIELDVIEW CoverCress The cover crop that pays

- High-performing rice seed
- Digital precision farming
- Innovative crop protection solutions for weed control in lieu of field flooding

Arize

- Arize dry-seeded rice varieties and hybrids
- Better Life Farming
- FarmRise Mobile App
- Food Value Chain Partnerships and BayGAP

FARMRISE

APPENDIX

Science for a Better Life

Shaping the Future of Agriculture

01

Investment Case
August 2023 /
Bayer AG

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

€21bn PSP

	Phase I	Phase II	Phase III	Phase IV	PSP
CORN SEED & TRAIT	Corn Disease Shield - NA 2nd Generation Seed Density Digital Tool - NA Annual Germplasm Upgrades	5th Generation Lepidoptera Protection 5th Generation Herbicide Tolerance w/ (RHS2) **Digital Disease Mgmt. – NA** **Seed Placement Digital Tool - NA** Annual Germplasm Upgrades	Short Stature Corn – Biotech Trait[2] 4th Generation Coleoptera Protection Annual Germplasm Upgrades	Short Stature Corn – Breeding Approach 4th Generation Lepidoptera Protection **Seed Density Digital Tool – EMEA** **Seed Density Digital Tool – LATAM** Annual Germplasm Upgrades	~€11bn
SOYBEAN SEED & TRAIT	Digital Disease Mgmt. - NA Annual Germplasm Upgrades Soybean Native Resistance	Seed Placement Digital Tool – NA **4th Generation Insect Protection** Annual Germplasm Upgrades Soybean Native Resistance	3rd Generation Insect Protection 2nd Generation Soy Cyst Nematode resistance 4th Generation Herbicide Tolerance (HT4) *(5 Tolerances –Adds 2, 4-D and HPPD)* **5th Generation Herbicide Tolerance *(6 Tolerances – Adds PPO)*** Annual Germplasm Upgrades Soybean Native Resistance	Vistive Gold Xtend Annual Germplasm Upgrades Soybean Native Resistance	~€4bn
VEGETABLES and OTHER[3] Including Carbon Model	Canola/OSR Digital Disease Mgmt. - NA Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades	Wheat Digital Disease Mgmt. - EMEA Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades	Canola Dicamba Tolerance Sugarbeets 2nd Generation Herbicide Tolerance[1] Cotton 4th Generation Herbicide Tolerance (HT4) (5 tolerances – Adds 2, HPPD and PPO) Cotton 4th Generation Insect Protection Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades	Lygus and Thrips Control (ThryvOn Technology) - ***Stewarded Commercial Launch*** Wheat Annual Germplasm Upgrades Wheat Disease Package Upgrades Cotton Annual Germplasm Upgrades Canola/OSR Annual Germplasm Upgrades Veg- Annual Germplasm Upgrades Rice Annual Germplasm Upgrades	~€6bn

Breeding
Trait
Digital Model
advanced to next phase

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

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

[1] In collaboration with KWS; [2] In collaboration with BASF; [3] "Other" category includes seeds and traits, such as cotton, canola, wheat, OSR, rice, vegetable seeds and sugarbeets, plus carbon and digital Models

Crop Science: Crop Protection R&D Pipeline

(Annual Update Feb 2023)

€9bn PSP

	Phase I	Phase II	Phase III	Phase IV	Life Cycle Management[1]	PSP
HERBICIDES	**New AI Development** New Herbicide ✓ New Herbicide ✓ ✓ New Herbicide ✓		New Herbicide ✓ ✓ ✓ **New Herbicide** ✓ New Herbicide[3] ✓		**Non-Selective** Glyphosate LCM ✓ **Selective** Merlin Flexx / Adengo LCM ✓ Balance Flexx LCM ✓ Convintro ✓ New over-the-top herbicide ✓ Mateno Complete ✓ Council Family ✓ Ronstar One ✓ Mesosulfuron LCM ✓	~€4bn
FUNGIC.	New Fungicide ✓	**New Fungicide** ✓	**New Fungicide[3]** ✓✓✓		Luna Flexx ✓ Super Nativo ✓ ✓ Delaro Forte ✓	~€3bn
INSECT.	**New Insecticide** ✓ ✓			**Plenexos** ✓ ✓ ✓	Vayego Duo ✓ Velum LCM ✓ Rice Plant Hopper ✓	~€2bn
SEED GROWTH[2]			**New Seed Treatment** ✓ **New Seed Treatment** ✓		INS FUN ready mixture ✓ Redigo FS 25 ✓	

✓ Corn ✓ Soybeans ✓ Fruits and vegetables ✓ Cereals, oilseed rape, sugarbeets, cotton and rice Biological Small Molecule

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

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

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

Science for a Better Life

Pharmaceuticals: Driving Continued Long-term Growth

02

Investment Case
August 2023 /
Bayer AG

Pharmaceuticals: Driving Continued Long-Term Growth

01

Market & Position

02

Strategy

03

Growth Drivers

04

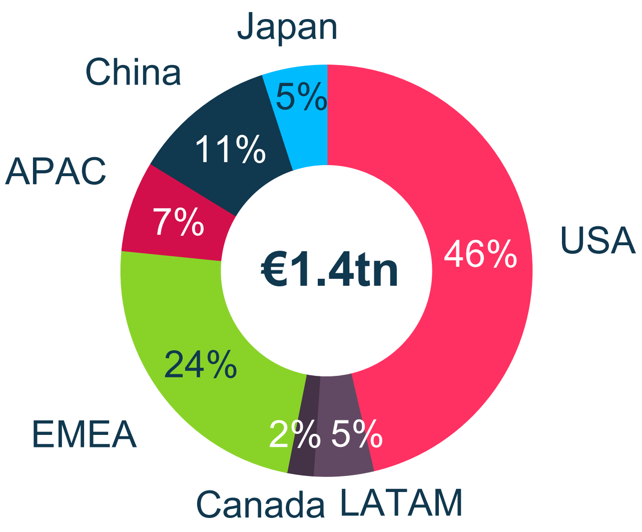
Innovation

Pharma Is An Attractive And Dynamic Market With Significant Opportunities Ahead

01

Global Pharmaceuticals Market

Market Size 2022[1]



Market CAGR 2022-26e[1] ~5%

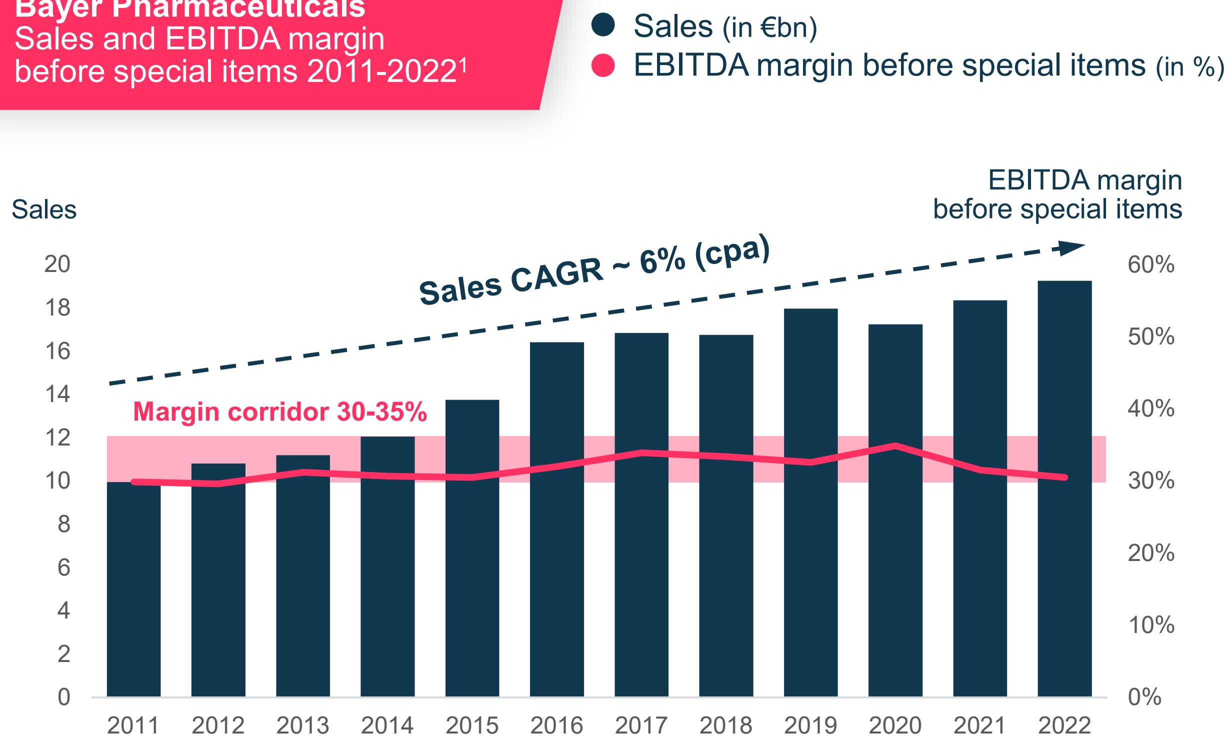
Trends and Challenges

- **Disruptive medicines** from breakthrough science
- Shift from **treatment to prevention** and potential cure
- **Loss of exclusivity**
- Pressure on **pricing**
- **Declining R&D** productivity
- **Increased pressure** for value and real-world evidence

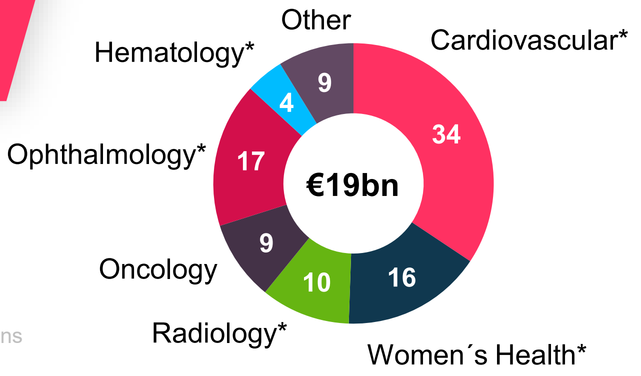
[1] Source: IQVIA Market Prognosis as of March 2023

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

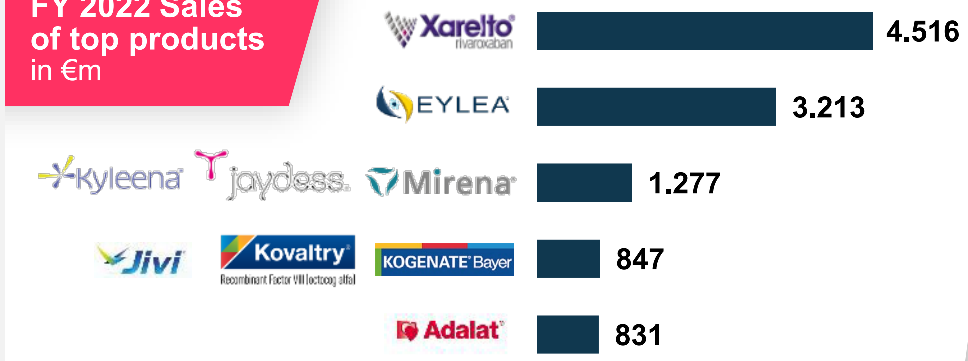
Bayer Pharmaceuticals
Sales and EBITDA margin before special items 2011-2022[1]



FY2022 Sales by therapeutic area
in %



FY 2022 Sales of top products
in €m



[1] As reported in the respective fiscal years

Driving our strategic agenda

1 **Renew topline**

Grow potential blockbusters

Capture the full commercial value of the current portfolio

2 **Reallocate resources**

Build & grow US business

Shift in marketing & R&D towards growth drivers

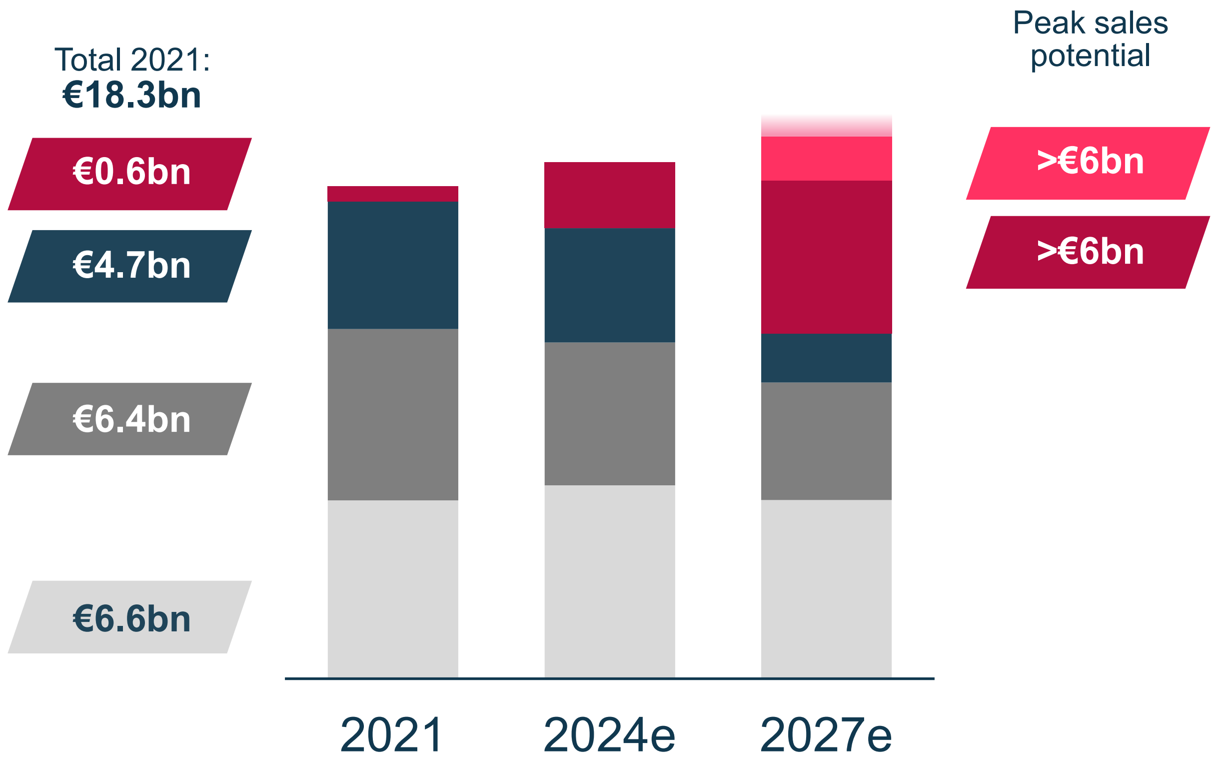
3 **Rebuild pipeline**

Progress late-stage pipeline

Strengthen early pipeline
through increasing contributions from platform companies as well as partnering

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

Projected Sales Bayer Pharmaceuticals (indicative)



Cell & Gene Therapies — Global rights

Phase 3 pipeline assets — Global rights
Asundexian, Elinzanetant

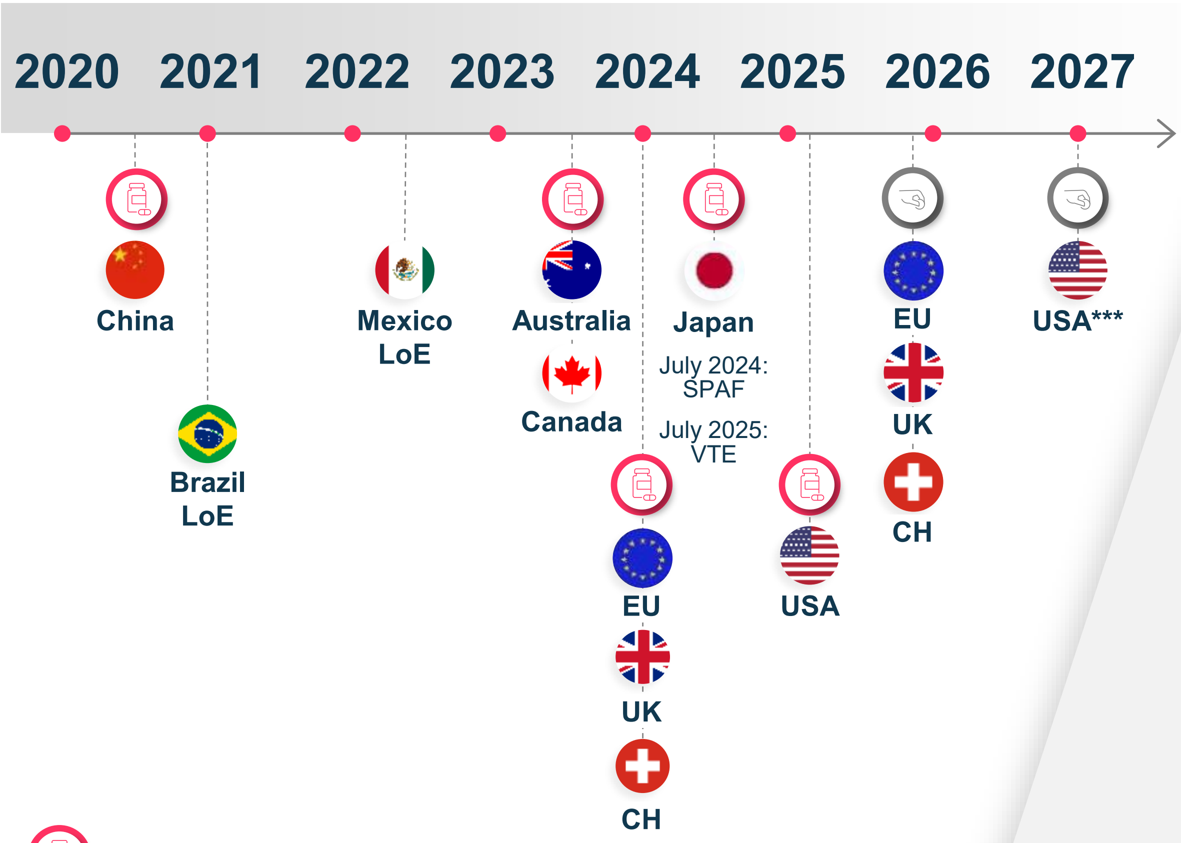
Launch assets — Global rights
Nubeqa, Kerendia, Vitrakvi

Xarelto

Other late lifecycle assets
e. g. Nexavar, Adalat, Hematology franchise

Stable / moderate growth
e. g. Radiology, Eylea & 8mg aflibercept, Women's Health

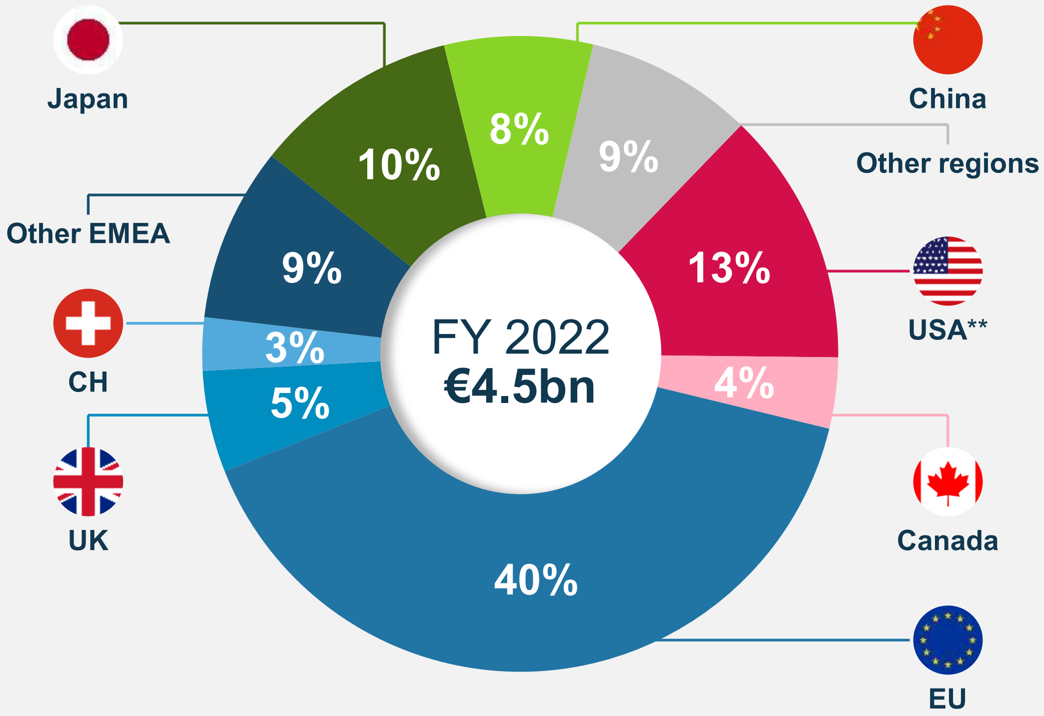
Xarelto's Main Patent Expirations* and Losses of Exclusivity (LoE)



Compound patent

Once-daily use patent

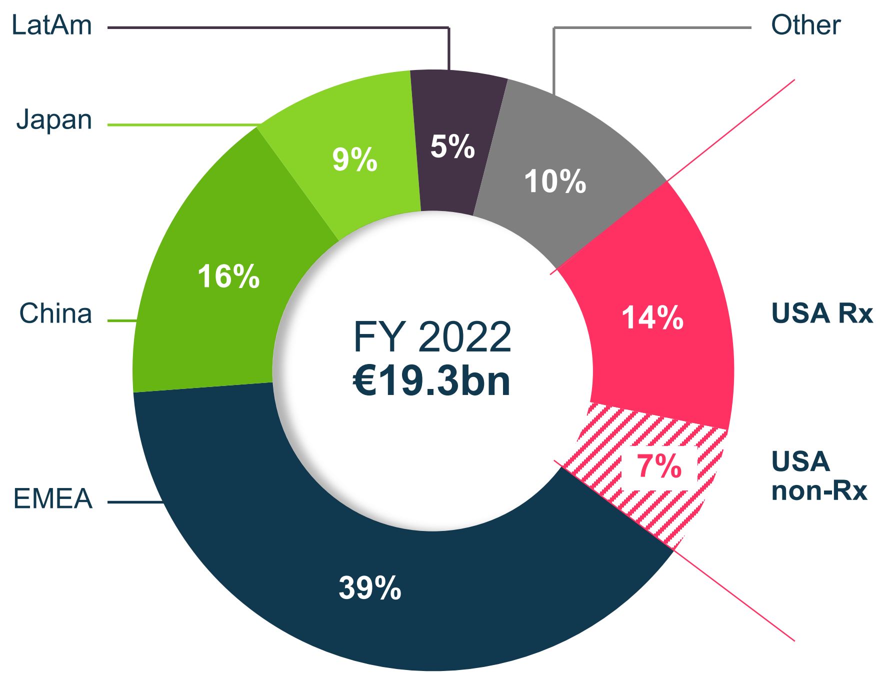
Xarelto sales by main markets in 2022



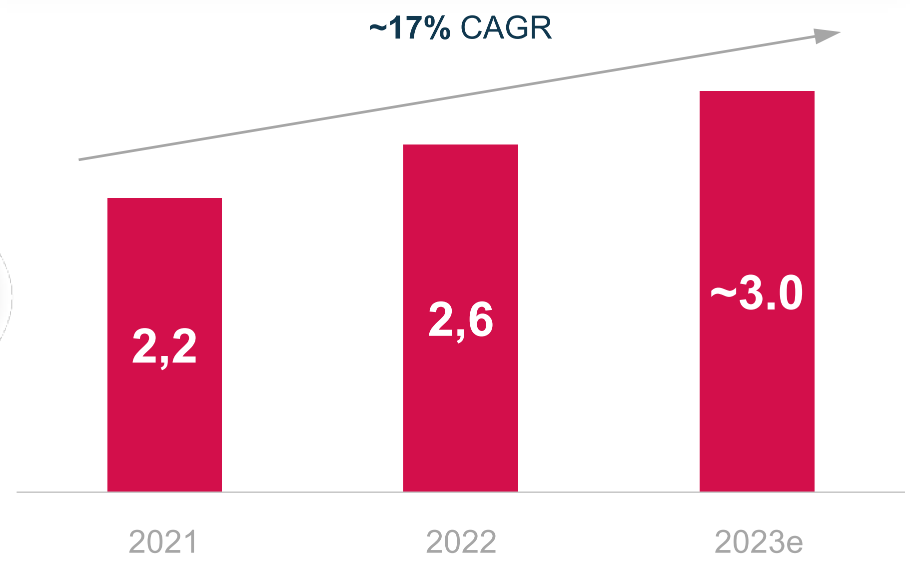
* Additional IP rights with later expiration dates exist in some countries; ** Bayer royalty income; *** Gx entry on once-daily patent

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

Bayer Pharmaceuticals Sales by Region



Sales of Rx Pharma US (€bn)



// Market share of **Nubeqa in the US expanded to >40%** in nmCRPC[1], being **#1**[2] **in 2nd generation ARIs**[3]; **#2**[2] **in mHSPC**[4]

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

[1] nmCRPC: non-metastatic castration resistant prostate cancer, [2] adjusted to reflect nmCRPC and mHSPC only, [3] ARI: Androgen Receptor Inhibitor, [4] mHSPC: metastatic hormone sensitive prostate cancer

A Focused R&D Strategy to Deliver an Innovative, Differentiated and Sustainable Pipeline

Our focus

4 Core Therapeutic Areas

// Oncology
// Cardiovascular+
// Neurology & Rare Diseases
// Immunology

6 Modalities

Small molecules, Protein Therapeutics, Radiotherapy, Chemoproteomics, Cell Therapy, Genetic medicine

3 Platform Companies

AskBio, BlueRock, Vividion

Our priorities

Science & Portfolio

// Launch **elinzanetant** and **asundexian**

// Progress and accelerate **high-value assets**

// Focused investments **in BD&L**

// **Maximize impact** from platform companies

// Unlock **full potential** of precision medicine

Productivity

// Excellence in execution to **generate more value** and **improve capital efficiency** in R&D

// Shift to **asset-centric operating model**

// Increase **agility and dynamic resource allocation**

// Accelerate **data science & AI** across R&D value chain

Refined Focus Areas with Highest Impact and Value Potential

Clear Strategic Mandates Guiding Decision Making and Resource Allocation

ONCOLOGY

Become a Top Oncology Company

Drive leadership in focus areas, accelerate growth through competitive early-stage pipeline

CARDIOVASCULAR+[1]

Remain Top player, shift to precision medicine

Enhance our leadership in precision cardiovascular, nephrology and acute care

NEUROLOGY & RARE DISEASES

Advance a competitive Cell & Gene therapy pipeline

Drive and de-risk platform with focus on first-in-market potential

IMMUNOLOGY

Build expertise and portfolio

Advance our pipeline to build a presence and support other focus areas

[1] including Precision Cardiovascular, Nephrology & Acute Care

A Multi Faceted Innovation Engine to Unlock Value for Patients

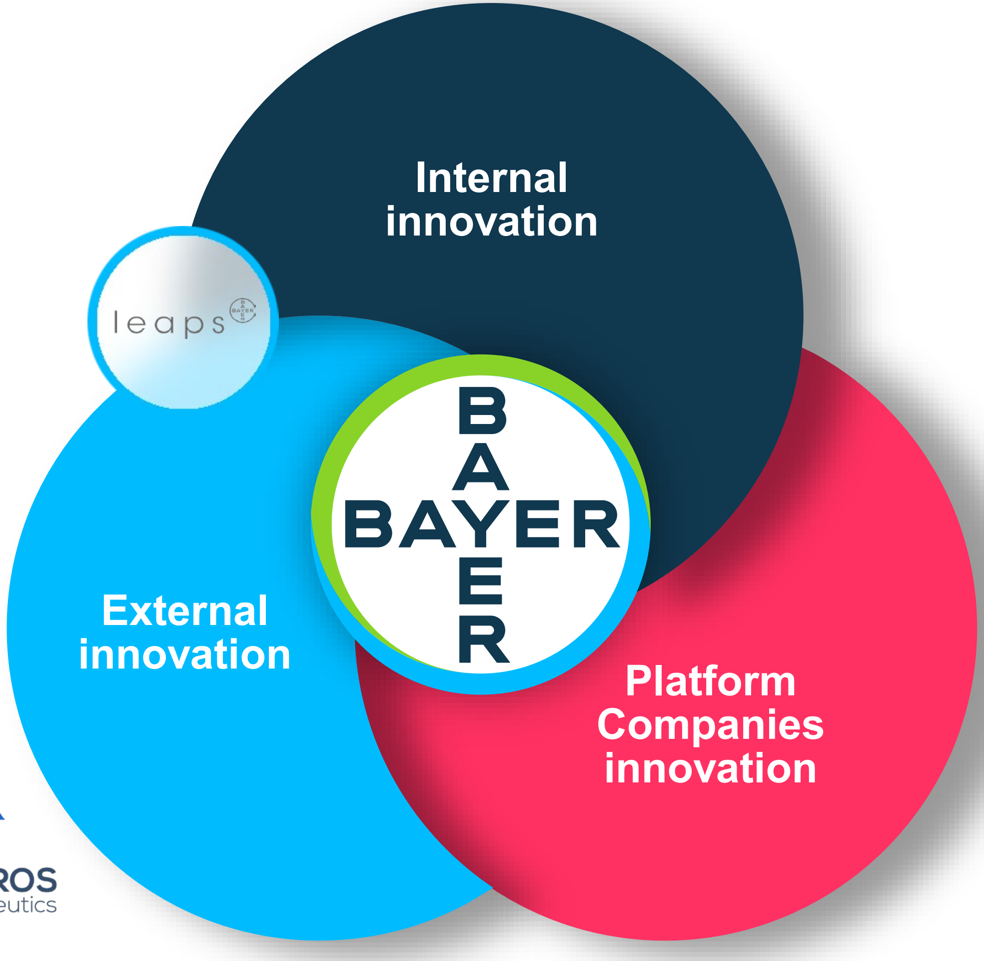
Addressing Need for Breakthrough Science with Diverse Research Capabilities, Technologies and Talents

ORION REGENERON Janssen Pharmaceutical Companies of Johnson & Johnson
Lilly MERCK

Google Cloud Recursion Schrödinger

imi innovative medicines initiative dkfz. BROAD INSTITUTE

Mammoth Biosciences ONYX PHARMACEUTICALS evotec
Cedilla THERAPEUTICS DEWPOINT THERAPEUTICS ALGETA
Bicycle ACUITAS THERAPEUTICS TAVROS therapeutics



AskBio

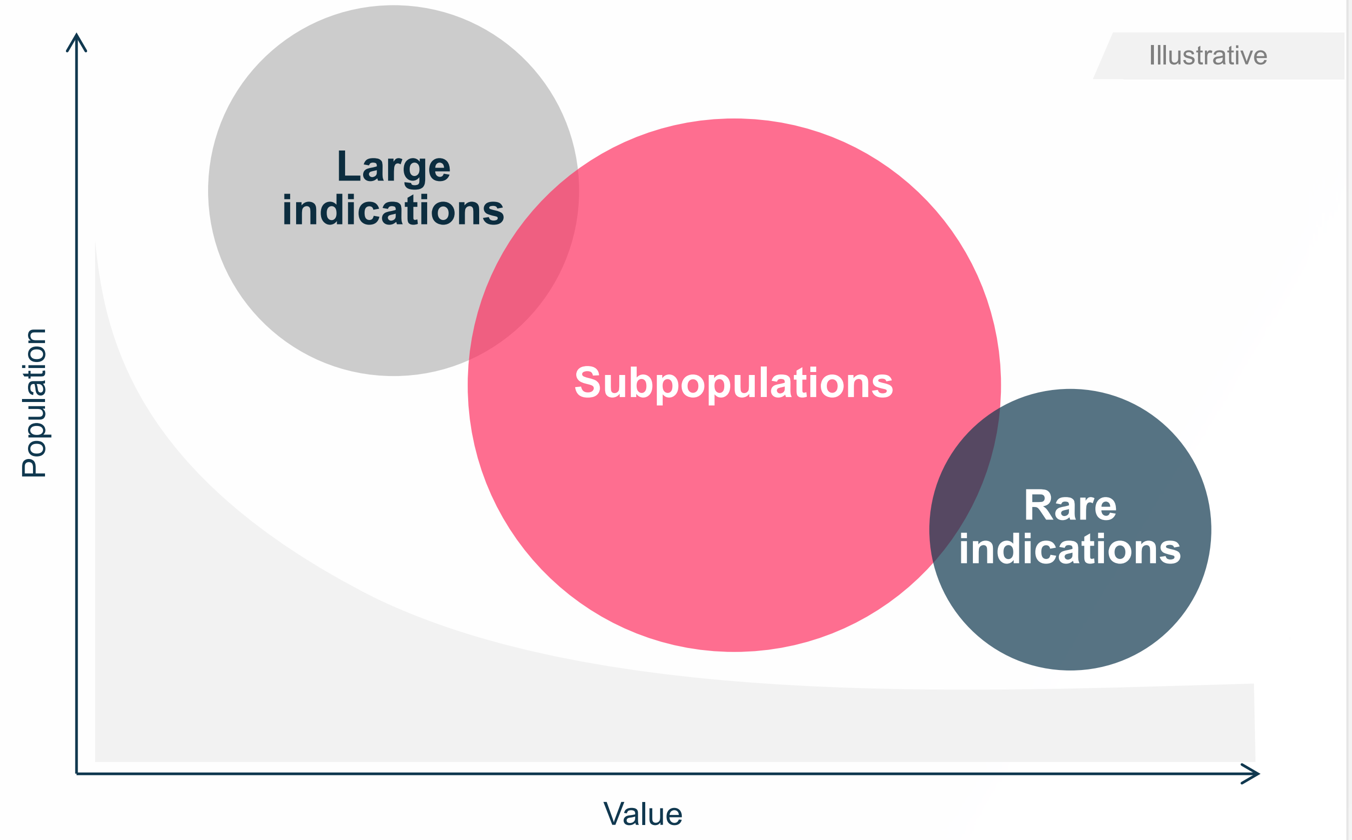
BlueRock Therapeutics

vividion THERAPEUTICS

Targeting the Sweet Spot of Precision Medicine Across our Focus Areas

02

Through Disease Understanding and Value Potential Assessment



- Address individual patients' needs to **achieve improved and sustainable health by delivering transformative medicines:** the right treatment, to the right patient, at the right time
- **Optimized outcomes** by focusing on highest unmet needs, value potential, differentiation and risk mitigation
- Open for **disruption in large indications**

Moving to Higher, Sustainable Level of R&D Productivity

Supported by Key Levers

Increase in pts

- Moving toward precision medicine
- Improved validation of targets and translation to patient - target disease link
- Strategic investments in new biomarker approaches
- Improved patient profiling and selection using advanced Data Science/AI approaches

Reduction of costs

- Digitization of clinical trials
- Lean, innovative, adaptive clinical trial design in stratified population, as well as platform studies
- Reduction of in-vivo/wet lab work by applying prediction tools
- New ways of working leveraging organizational synergies

Decrease in cycle times

- Improved governance and decision making (fail / accelerate fast)
- Accelerate development from IND to launch through tailored development approaches
- Unlock the potential of Real-World Data with AI and Machine learning. Automation and digitization enabling decentralized trails

A Diverse and Innovative Modality Toolkit to Deliver our Ambition

Delivering Innovative and Competitive Medicines in our Focus Therapeutic Areas

			Oncology	Cardiovascular+[1]	Neurology & Rare Diseases	Immunology
Small Molecules	Small Molecules (SMOL) RNA targeting Protein degraders Peptides Conjugates	BAYER	🟢	🟢		🟢
Protein Therapeutics	Antibody Conjugates Multispecific antibodies Monoclonal antibodies	BAYER	🟢	🟢		🟢
Radiotherapy	Targeted Radiotherapy Antibody | SMOL | peptide	BAYER	🟢			
Chemoproteomics	Covalent binders Heterobifunctional degraders Molecular glues	vividion THERAPEUTICS	🔵	🔵		🔵
Cell Therapy	Pluripotent Stem Cells (PSCs)	BlueRock THERAPEUTICS		🔵	🔵	🔵
Genetic Medicine	Adeno-Associated Virus (AAV) based gene therapy CRISPR-based gene editing Non-viral gene delivery	AskBio Mammoth Biosciences ACUITAS THERAPEUTICS *Combined with Bayer in-house innovation capabilities*	🔵	🔵	🔵	

[1] including Precision Cardiovascular, Nephrology & Acute Care

🟢 Bayer innovation capabilities 🔵 Innovation capabilities added since 2019

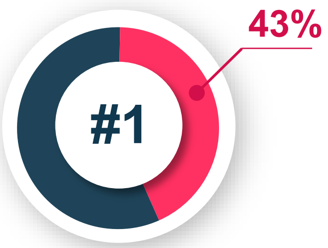
Nubeqa Has The Potential to Become The New Standard of Care in Prostate Cancer Across Indications

03

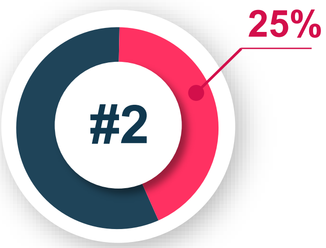
Launch performance

// **US Market Share[1]**

nmCRPC



mHSPC



Nubeqa | Others

NUBEQA® (darolutamide)

Sales
€0.5bn
2022

// Ex-US, additional approvals will drive further growth

Expanding to earlier prostate cancer settings

Patient progression in prostate cancer

	(Neo-) Adjuvant	*Nonmetastatic BCR*	*Nonmetastatic nmCRPC*	*Metastatic mHSPC*	*Metastatic mHSPC*
Drug treated patient estimates[2]:	~145k	~86k	~47k	~76k	
	2028	2028	2019 ✓	2022 ✓	2025
Phase III program:	**DaSL-HiCAP**	**ARASTEP** (ARAMON)[4]	**ARAMIS**	**ARASENS**	**ARANOTE** (ARASEC)[4]

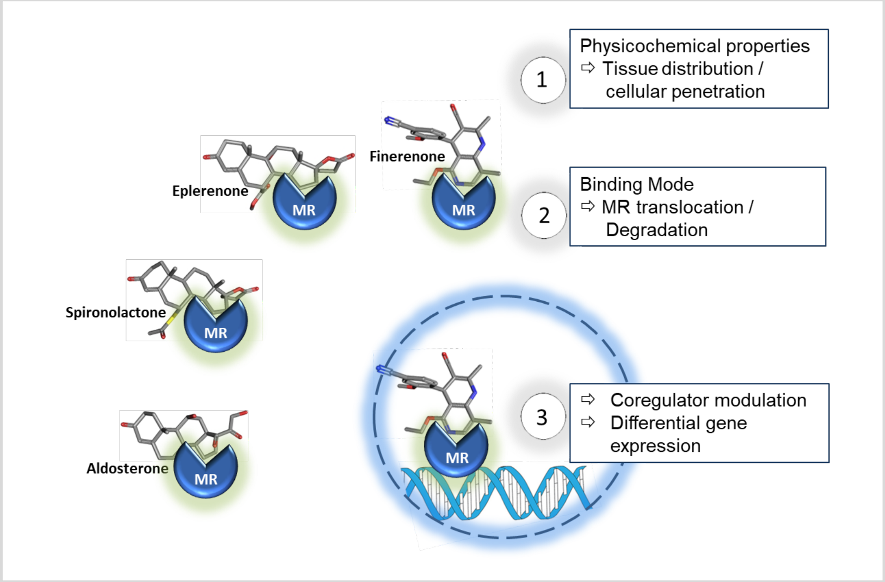
// Committed to make Nubeqa available to a broad spectrum of prostate cancer patients

[1] Source: IQVIA January 2023 3-month rolling market share, adjusted to reflect nmCRPC and mHSPC only [2] 2030 Treated Estimates G7: US, EU5, J [3] Peak Sales Potential
[4] Not label generating; supports ARASTEP/ARANOTE submission

>€3bn Peak[3]

Finerenone is a Potent, Highly Selective Non-Steroidal Mineralo-corticoid Receptor Antagonist (MRA) with Differentiated Profile

Different binding modes between steroidal MRAs and non-steroidal Finerenone[1]



// Finerenone and steroidal MRAs differ in their molecular receptor binding mode resulting in **distinct effects on gene expression**

Preclinical data: receptor profile, drug metabolism & tissue distribution of Finerenone[2]

	Spironolactone	Eplerenone	Finerenone
MRA Class	Steroidal	Steroidal	Non-steroidal
Potency	High	Low	High
Selectivity	Low	Medium	High
Metabolites	Multiple, active	No active	No active
Tissue distribution[3]	Kidney>>heart (>6-fold)	Kidney>heart (~3-fold)	Balanced (1:1)

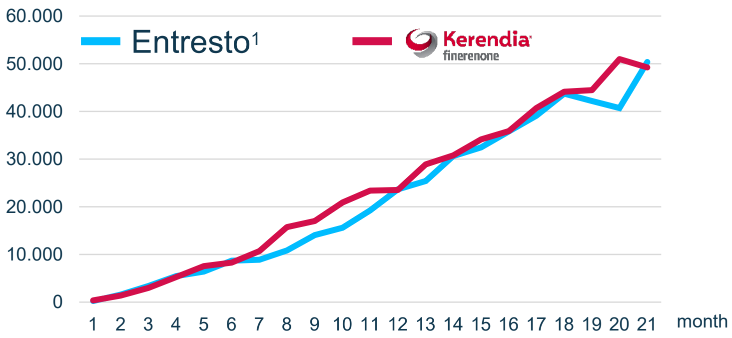
- No **sexual side effects** including gynecomastia
- **Balanced kidney** safety
- Low incidence of **hyperkalaemia-related adverse events** with clinical impact and permanent treatment discontinuation[4]

Source: [1]Kolkhof P, Nowack C, Eitner F. Curr Opin Nephrol Hypertens. 2015;24:417-424. [2]Modified from: Kolkhof B, Borden SA. Mol Cell Endocrinol. 2012;350:310-317. [3] Determined in rodents. [4] Agarwal R, Filippatos G, Pitt B, Anker SD, Rossing P, Joseph A, Kolkhof P, Nowack C, Gebel M, Ruilope LM, Bakris GL; FIDELIO-DKD and FIGARO-DKD investigators. Cardiovascular and kidney outcomes with finerenone in patients with type 2 diabetes and chronic kidney disease: the FIDELITY pooled analysis. Eur Heart J. 2022 Feb 10; 43(6):474-484. doi: 10.1093/eurheartj/ehab777. Erratum in: Eur Heart J. 2022 May 21;43(20):1989.

Kerendia With Strong Launch Dynamics And The Option to Broaden The Use in CKD And to Expand into HF

Launch Performance

US launch performance (monthly TRx)[2]



Kerendia finerenone

Sales
€0.1bn
2022

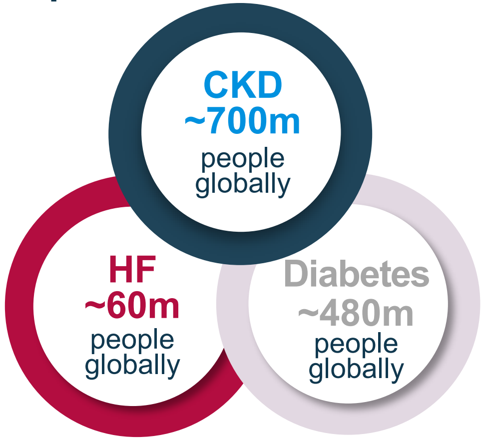
One of the **strongest launch dynamics in CV** despite initial COVID restrictions

Continued **US market uptake** with broad utility and relevance across GPs and specialists

China: NRDL **Listing starting March 2023**; granted Extended Indication in China in mid-May, including CV outcomes from FIGARO-DKD

Expanding to additional indications

Global Patient Population[3]



// Growing **recognition of strong interlink** between CKD and HF

Chronic Kidney Disease			*HF*
T2D	**T1D**	**Non-diabetic**	**HFmr/pEF**
FIGARO-DKD ✓	FINE-ONE	FIND-CKD	FINEARTS-HF
FIDELIO-DKD ✓	**2025**	**2026**	**2024**

>€3bn Peak[4]

[1] Entresto developed and commercialized by Novartis
[2] Source: IQVIA TRx April 2023 [3] Source: Vijay et al, 2021 [4] Peak Sales Potential

Existing Phase III data support potential expansion into Heart Failure

03

Unmet medical need

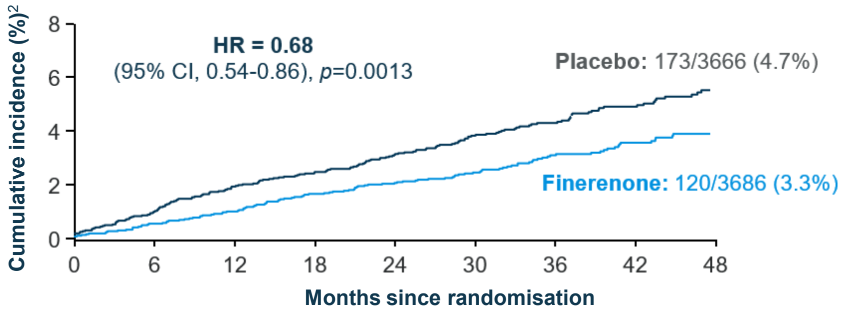
- HF is the **fastest-growing global CV disease** with approximately ~60m HF patients worldwide
- About 50% of HF patients have HF with LVEF ≥ 40%. They suffer from a high **CV mortality rate** (42% within 5y of diagnosis) despite SoC
- Renal dysfunction and HFmrEF/pEF frequently coexist, due to **shared comorbidities and factors impacting macrovascular and microvascular circulation**

Upcoming development milestones

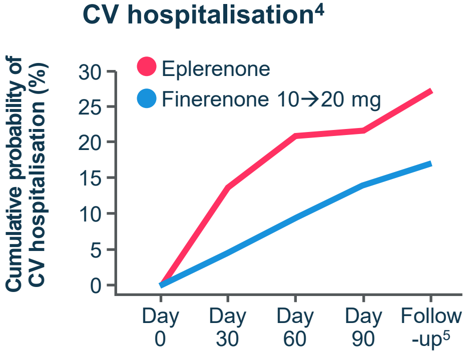
- FINEARTS-HF Phase III data **expected in 2024**

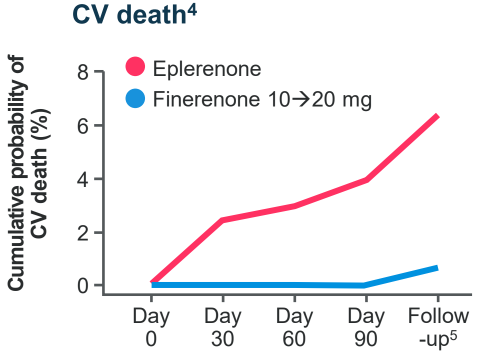
Clinical data suggest benefit of Finerenone in Heart Failure

Phase III FIGARO-DKD: Reduced risk of HF-related death or first HHF[1]



Phase III ARTS-HF[3]: Reduced risk of CV hospitalization and CV death vs eplerenone





[1] First hospitalisation for HF defined as first event after randomisation; [2] Source: cumulative incidence calculated by Aalen–Johansen estimator using deaths due to other causes as competing risk. Filippatos G, *et al. Circulation* 2022;145:437–447
[3] Both phase 2a study ARTS and phase 2b study ARTS-HF were in HFrEF, [4] Source: Kolkhof P, et al. Handb Exp Pharmacol 2017;243:271–305; 2. Filippatos G, et al. Eur Heart J 2016;37:2105–2114; [5] 30-day period after cessation of study drug

Elinzanetant as Investigational Non-hormonal Treatment Option in The Menopause Market With Peak Sales Potential of >€1bn

Market Characteristics

80% of women will experience vasomotor symptoms, with over half reporting moderate or severe symptoms

~60%[1] of women with menopausal syptoms are not treated

1.2 billion women menopausal or postmenopausal by **2030**

Elinzanetant

// **First, non-hormonal**, once-daily, oral neurokinin-1,3 receptor antagonist

// Differentiated, **double mode of action**

// **Phase II indicated significant and rapid improvement** in VMS and positive safety profile

Current Status

// **Four Phase III studies** (OASIS-1 – OASIS-4)

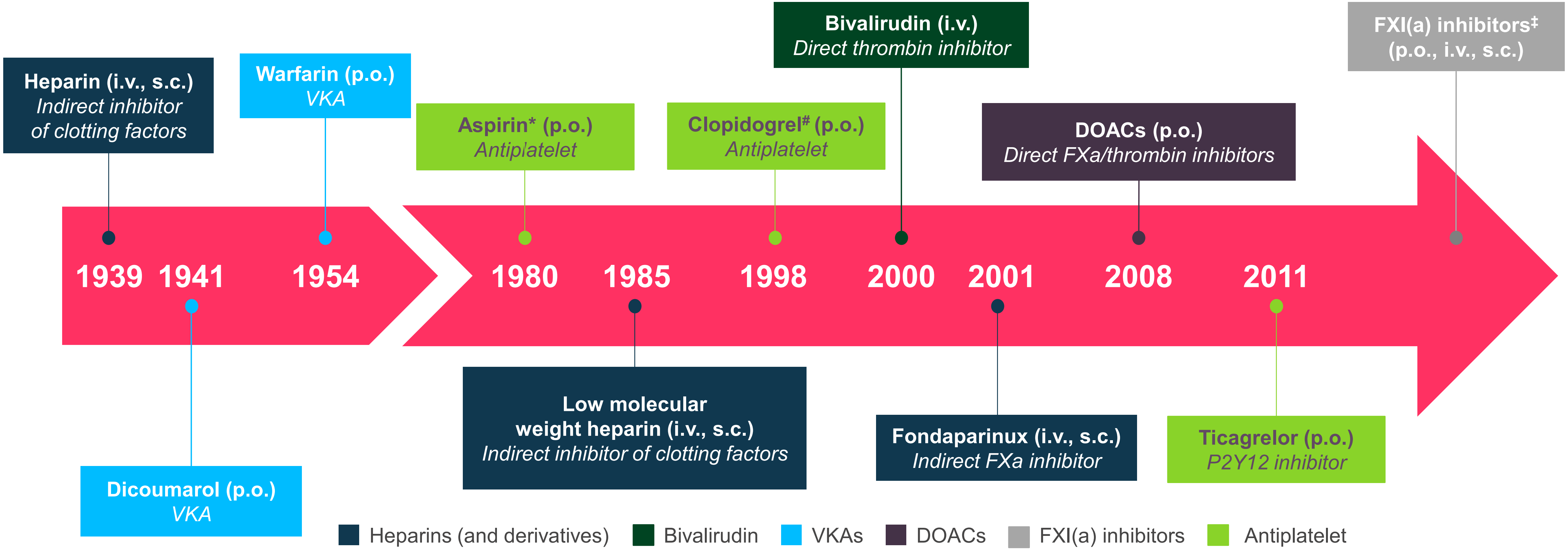
// **First Phase III data** expected in H2 2023

// **Potential launch:** 2025

>€1bn
Peak[2]

[1] Source: Market Research - IPSOS - Global VMS Women Segmentation [2] Peak Sales Potential

Antithrombotic Therapy Timeline[1-9]



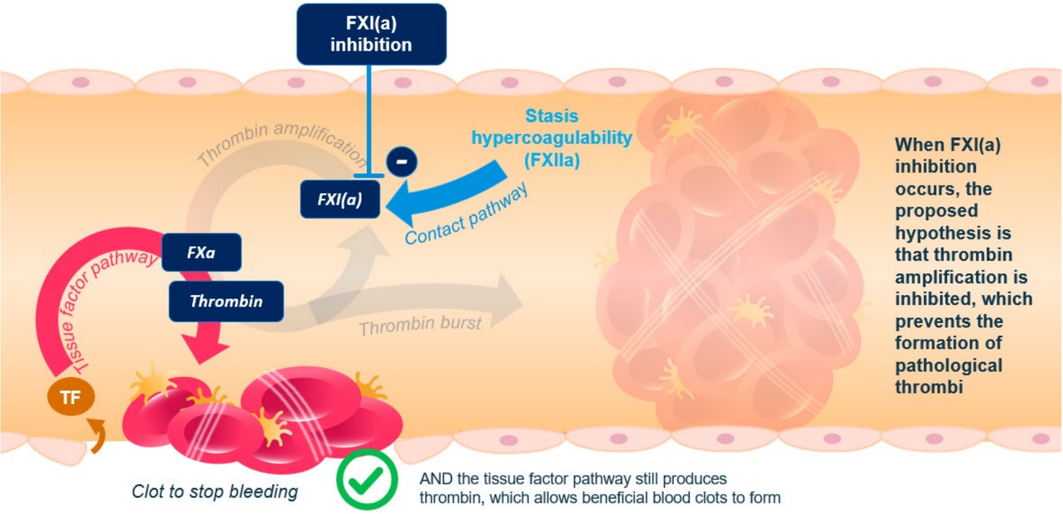
*Year aspirin approved for stroke prevention. #EU approval in 1998, FDA approval in 1997. ‡FXI(a) inhibitors are a class of antithrombotics that are currently being investigated in clinical trials; they are not approved for use in any country.
DOAC, direct oral anticoagulant; FDA, US Food and Drug Administration; FXa, activated factor X; FXI(a), activated Factor XI; i.v., intravenous; p.o., oral; s.c., subcutaneous; VKA, vitamin K antagonist.

1. Weitz JI, Fredenburgh JC. Arterioscler Thromb Vasc Biol 2018;38:304–310. 2. Franchini M et al. Blood Transfus 2016;14:175–184. 3. Heestermans M et al. Cells 2022;11:3214. 4. Campello E et al. J Clin Med 2022;11:6314. 5. Ugurlucan M et al. Recent Pat Cardiovasc Drug Discov 2012;7:71–76. 6. FDA. 1997. https://www.accessdata.fda.gov/drugsatfda_docs/nda/97/020839_plavix_toc.cfm. 7. MarketScreener. 2021. https://www.marketscreener.com/amp/quote/stock/SANOFI-4698/news/Sanofi-New-indication-for-Plavix-now-approved-in-the-European-Union-32407078/. 8. European Pharmaceutical Review. 2010. https://www.europeanpharmaceuticalreview.com/news/4713/european-commission-approves-brilique-ticagrelor-tablets/. 9. Angioplasty.Org. 2011. http://www.ptca.org/news/2011/0720_TICAGRELOR.html.

FXI(a) Inhibitors Are a Promising And Distinct New Class of Drugs For Thrombosis Prevention

Separating Thrombosis Protection from Haemostasis via Selective Modulation of the Coagulation System

Mode of Action[1-3]



Paradigm shift in thrombosis prevention, with the potential to uncouple efficacy from bleeding risk

Patients with genetically higher FXI levels show increased risk of ischemic stroke[4]

Ischemic stroke subtype^x	Cases (N)	Controls (N)	OR 95% CI	*p*-value
Cardioembolism	3,071	28,722		0.0003
Large artery atherosclerosis	2,454	28,880		0.02
Small vessel occlusion	2,736	27,588		0.69
Undetermined cause	4,755	25,292		0.0002

0,1 1 10

Favors control FXI levels

Favors genetically higher FXI levels

FXa, activated Factor X; FXI(a), activated Factor XI, FXII(a), activated Factor XII; TF, tissue factor.
Source: [1] Piccini JP et al. Lancet 2022;399:1383–1390. [2] Fredenburgh JC, Weitz JI. Hamostaseologie 2021;41:104–110. [3] Gailani D et al. J Thromb Haemost 2015;13:1383–1395. [4] Gill D et al. Stroke 2018;49:2761–2763

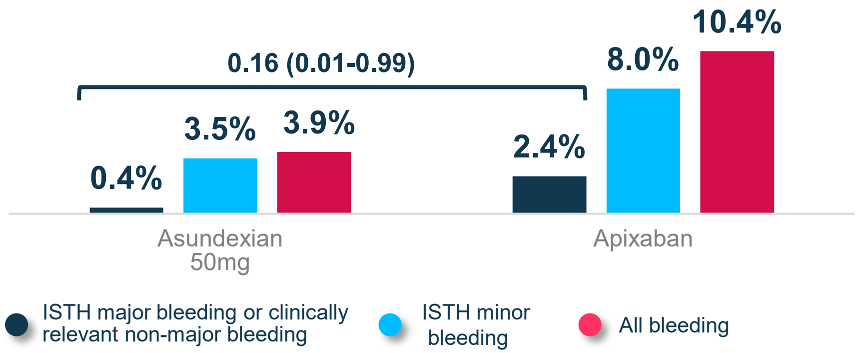
Phase III Decision for Asundexian Strongly Backed by Results From PACIFIC Phase II Program

Innovative, Once-daily, Oral Small Molecule FXIa Inhibitor

Study Data: PACIFIC-AF

- **Bleeding:** Asundexian at near maximum FXIa inhibition showed lower rates of observed bleeding versus apixaban in PACIFIC-AF
- **Efficacy:** too few events to draw conclusion

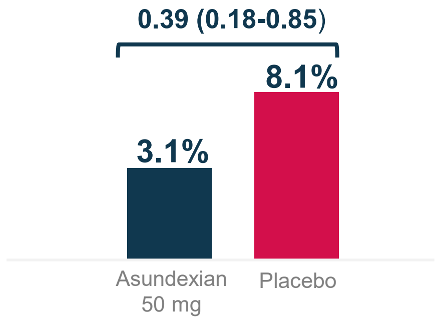
PROPORTION OF PARTICIPANTS WITH BLEEDING EVENT, % OF PATIENTS[1]



Study Data: PACIFIC-STROKE

- **Bleeding:** no significant increase vs. Placebo on top of Antiplatelet/Dual Antiplatelet

RECURRENT STROKE AND TIA IN PATIENTS WITH ANY EXTRA-/INTRACRANIAL ATHEROSCLEROSIS[2]



Broad Phase II study program PACIFIC confirmed consistent safety at near maximum FXIa inhibition[1]

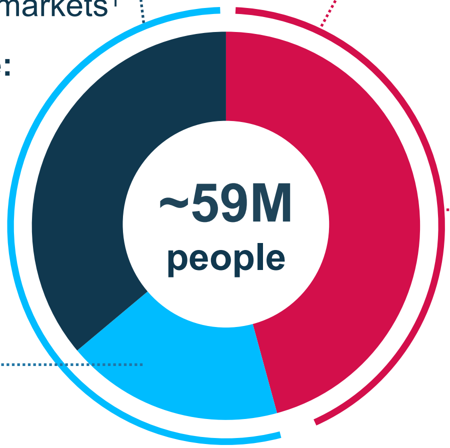
Source: [1] Piccini JP, Caso V, Connolly SJ, Fox KAA, Oldgren J, Jones WS, Gorog DA, Durdil V, Viethen T, Neumann C, Mundl H, Patel MR; PACIFIC-AF Investigators. Safety of the oral factor XIa inhibitor asundexian compared with apixaban in patients with atrial fibrillation (PACIFIC-AF): a multicentre, randomised, double-blind, double-dummy, dose-finding phase 2 study. Lancet. 2022 Apr 9;399(10333):1383-1390. doi: 10.1016/S0140-6736(22)00456-1. Epub 2022 Apr 3. PMID: 35385695. Data presented at ACC 2022 and ESC 2022. [2] Data presented at ESC in August-2022 in Barcelona, and ESOC May-2023 in Munich (data on file)

Currently Un(der)treated Patients May Provide Asundexian a Strong Entry Point Into The Anticoagulation Market

Market Characteristics

Stroke prevention in AF

- **~32m diagnosed AF patients** in top 8 markets[1]
- **Standard of care:** DOACs (or VKA)
- Unmet need: lower bleeding with potential for efficacy benefits vs. SOC



- **~1 in 3 patients in AF un(der)treated** with OACs mostly due to risk of bleeding

Non-cardioembolic stroke

- **~27m diagnosed patients** in top 8 markets[1]
- **Standard of care:** Single/Dual APT
- Continuous high recurrence despite APT,and safety concerns with DAP
- Unmet need: higher efficacy without increase in bleeding vs. SOC

Asundexian

// **Innovative**, once-daily, oral small molecule FXIa inhibitor

// **Paradigm shift in thrombosis prevention**, with the potential to uncouple efficacy from bleeding risk

// **Broad Phase II study program PACIFIC** confirmed consistent safety and near maximum FXIa inhibition

Current Status

// **Two Phase III studies** (OCEANIC-AF and OCEANIC-STROKE)

// **U.S. FDA Fast Track Designation** granted for both indications

// **Phase III data expected** in H2 2025

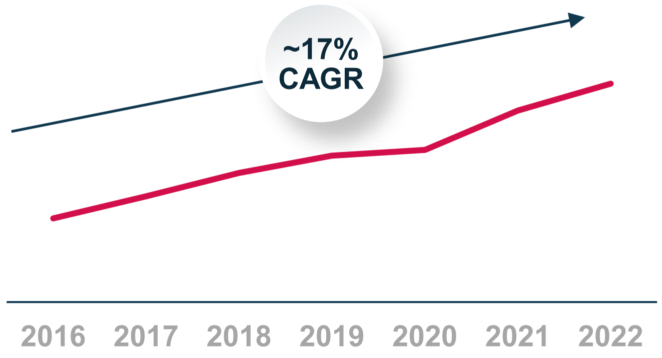
>€5bn Peak[2]

[1] Top 8 markets: US, CN, JP, EU5;
[2] Peak Sales Potential

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

Leading medicine in wAMD and DME treatment

Eylea Volume Development
(vials + prefilled syringes)



Share in ex-US markets
~60%

// Gold standard in efficacy and safety

// High competitive hurdle: >8 million of treated years for patients and physicians

// First biosimilar launches expected in 2023 (CA, JP)

Unparalleled clinical data further raising the bar

Aflibercept 8mg

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

1) after 48 weeks; comparator arms: Eylea every 8 weeks

// Significant prolongation of injection intervals without compromising efficacy and safety

// Set to become new standard of care despite increasing competitive dynamics

// Submissions in major markets in 2023, launch by 2024

Commercial potential substantially strengthened

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

Oncology will Remain a Major Segment of the Pharma Market and we have a Strong Foundation to Build on

Oncology Opportunity

MARKET ATTRACTIVENESS

High unmet need

- // Growing health burden, with cancer being the second leading cause of death at present
- // 30M new cases annually expected by 2040

One of the largest and fastest growing segments

- // 2021-28 CAGR of 12%, expected to reach >€300bn by 2028

Disruptive innovation in Oncology

- // Access to “undruggable” targets, new biomarker approaches & diagnostic tools create numerous opportunities for new precision therapeutics

ONCOLOGY

BAYER'S KEY STRENGTHS

Scientific and clinical expertise

- // SMOL chemistry and peptide therapeutics
- // Vividion as leaders in chemoproteomics
- // Targeted Radiotherapy (TRT)
- // GI, GU (notably prostate) and other high unmet need cancers

Commercial capabilities

- // Successfully launched several assets

Nexavar (sorafenib) tablets · Stivarga (regorafenib) tablets · Xofigo · Aliqopa (copanlisib) · VITRAKVI (larotrectinib) · NUBEQA (darolutamide) tablets

6
Approved medicines

€1.8bn
2022 Oncology Revenue

Source: EvaluatePharma (July 2022), Pharmaprojects (Oct 2021); IQVIA Pharma Deals (January 2021); McKinsey analysis

Focus Where External Opportunity Meets Internal Strength

Scientific focus:
PRECISION DRUG DEVELOPMENT

(Projected) Unmet need

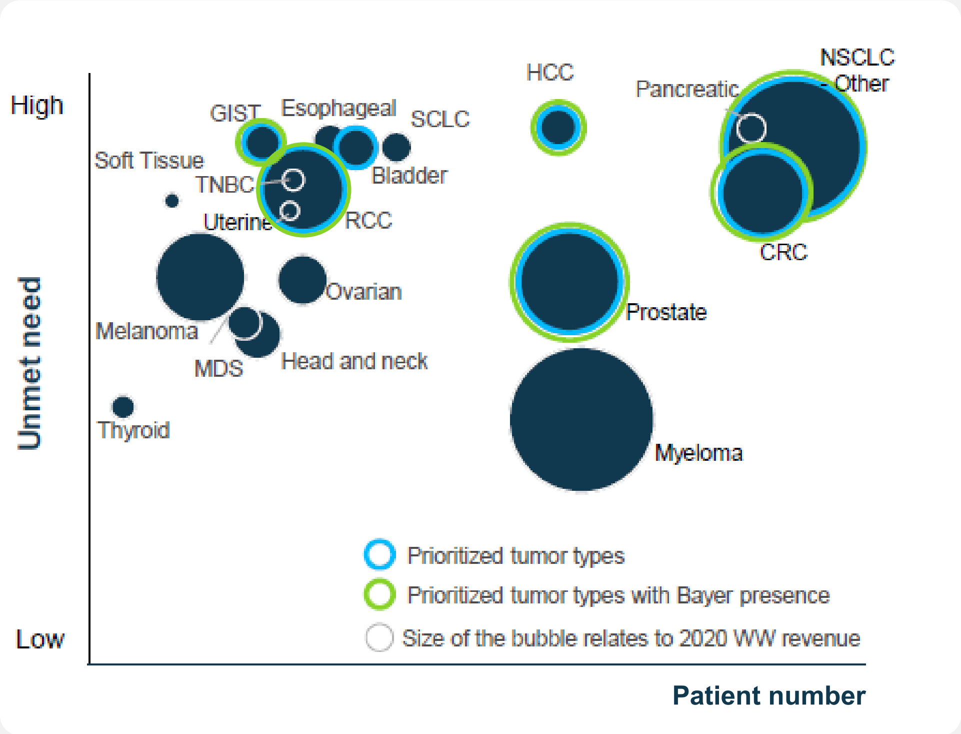
- Targeted Radionuclide Therapies (TRT)
- Precision Molecular Oncology (PMO)
- Next Generation Immuno Oncology (IO)

Genitourinary (GU)
Prostate, Bladder, Renal cancers

Gastrointestinal (GI)
Colorectal, Liver, Gastric cancers

Lung Cancer
(NSCLC)

Other Tumors
with high unmet need



Bayer to Continue Leadership Position in CV

MARKET ATTRACTIVENESS

High unmet medical needs
- // Leading cause of death
- // Increasing disease burden and rising comorbidities
- // Huge impact on healthcare systems and workforce

Emerging trends
- // Novel drug modalities offer new opportunities
- // Advanced tools like multi-omics enable precision medicine
- // Digital solutions enable early diagnosis and targeted treatment

Attractive growth market
- // Worldwide market value of €65bn (2022) continuing to grow at a steady pace
- // Pharma industry underinvests in CV R&D in relation to disease burden
- // Huge opportunity in precision CV due to scientific progress

CARDIOVASCULAR+[1]

BAYER'S KEY STRENGTHS

Record of success
- // Industry leader in cardiovascular
- // Expertise along the entire value chain
- // Established global commercial footprint

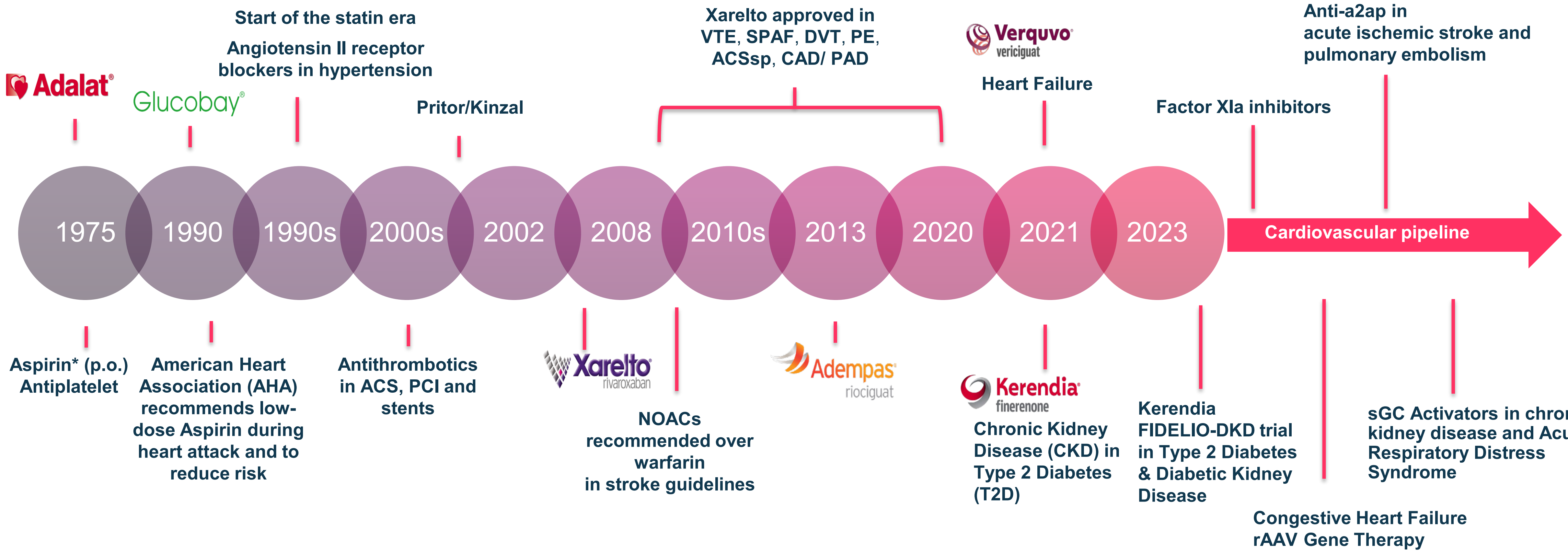
Exciting recent and near-term launches
- // Late-stage pipeline asset asundexian: Innovative, once-daily, oral small molecule FXIa inhibitor
- // Successful launch of Kerendia with LCM potential

Strategic focus on precision CV
- // Expertise available to address and internalize scientific progress
- // External collaborations & platform companies further enhance our transition into precision CV

[1] including Precision Cardiovascular, Nephrology & Acute Care

Bayer's Heritage in Cardiovascular Disease

04



*Year aspirin approved for stroke prevention.
Acute coronary syndrome (ACS), acute coronary syndrome secondary prevention (ACSsp), coronary artery disease (CAD), deep vein thrombosis (DVT), novel oral anticoagulants (NOACs), peripheral artery disease (PAD), percutaneous coronary intervention (PCI), pulmonary embolism (PE), stroke prevention in atrial fibrillation (SPAF), venous thromboembolism pharmacoprophylaxis (VTEp),

We Focus on Three Value Pools to Build on our Leadership in CV

Gradual Shift from Large Indications to High Value Subpopulations and Rare Indications

Patient focus

Addressing the **highest unmet medical need** for patients with rare diseases

Catering to subpopulations of **larger indications with high unmet** medical need

Opportunistic **focus on real disruption** in large indications with highest standard of care

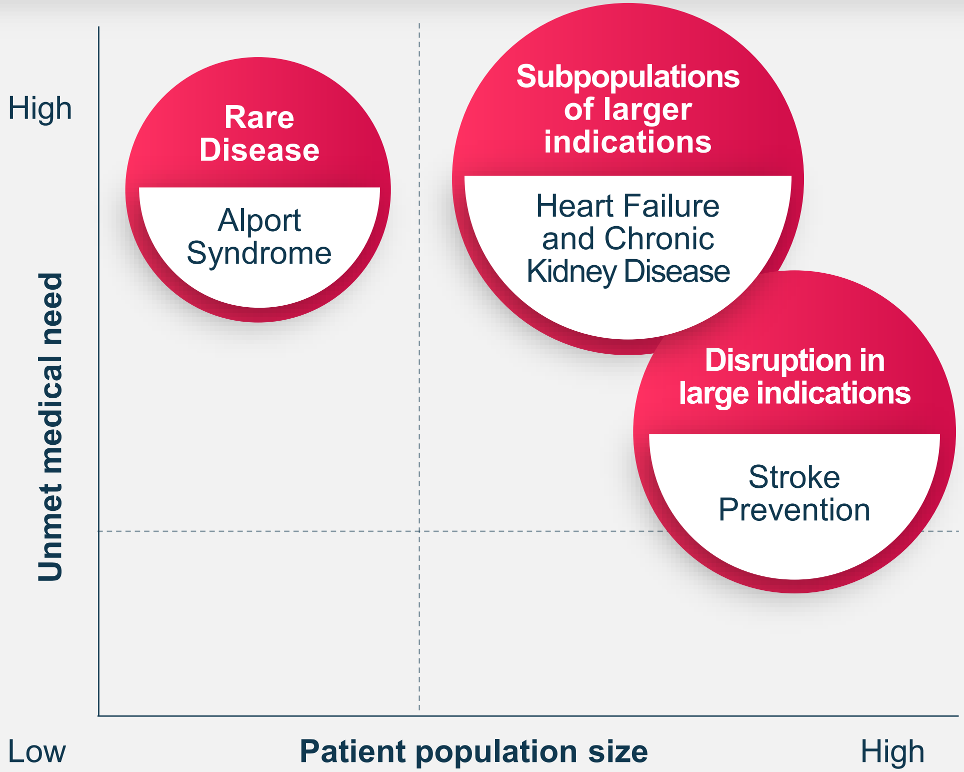
Disease areas

Cardiovascular

Nephrology

Acute Care

Selected indications *(indicative)*



Bayer in Neurology & Rare Diseases

Opportunity to Become Leaders in Transforming Patient Care

MARKET ATTRACTIVENESS

High unmet medical needs

- // Many underserved or previously intractable diseases with high unmet need

Paradigm shift in patient treatments

- // Transition from symptomatic treatment to transformative therapies addressing disease root causes with long-lasting clinical benefit

Attractive growth market

- // Exciting scientific breakthroughs in Neurology and rapid advances in new modalities including CGT
- // ~7,000 known rare disease, 80% of which are genetic in origin

NEUROLOGY & RARE DISEASES

BAYER'S KEY STRENGTHS

Enabled by our existing capabilities

- // State-of-the-art technology platforms for cell and gene therapy
- // Bundling capabilities of strong in-house teams, platforms and partnerships in key technologies such as gene editing and lipid nanoparticles
- // Bayer know-how and experience across the value chain
- // Infrastructure and upscaling know-how

Synergies with other therapeutic areas

- // Opportunity to address unmet needs at the intersection of cardiovascular and ophthalmology to leverage synergies

Bayer Entering Immunology

Significant Unmet Medical Need Despite Rapid Scientific Advances

MARKET ATTRACTIVENESS

High unmet medical needs
- Many underserved diseases
- Globally increasing incidence & prevalence

Robust research innovation
- Advancing disease understanding, biomarker research to drive future precision therapies

Potential for long-lasting remission
- Novel precision targets empowered by new technology (incl. Machine Learning & AI) for better disease understanding

Attractive growth market
- Among top-growing pharma markets
- Efficient clinical trials and attractive PTS

IMMUNOLOGY

BAYER'S KEY STRENGTHS

Enabled by our existing capabilities
- Access to highly differentiated Vividion's chemoproteomics platform
- Highly differentiated small molecules library
- Covalent and non-covalent small molecules, direct functional modulators, degraders
- Rapidly accelerating assets in preclinical and clinical development

Synergies with other therapeutic areas
- Relevant expertise enabling Bayer's other strategic focus areas

AskBio is a Pioneer in AAV-based Gene Therapy with Unparalleled Pipeline, Talent and Manufacturing Capabilities

- Founded in 2001 by **R. Jude Samulski, Sheila Mikhael and Xiao Xiao** who pioneered the AAV gene therapy field
- Dedicated to developing life-saving medicines **that can potentially cure genetic diseases**

  // ~7,000 rare diseases are known to date; ~80% of rare diseases are genetic in origin

FIRST

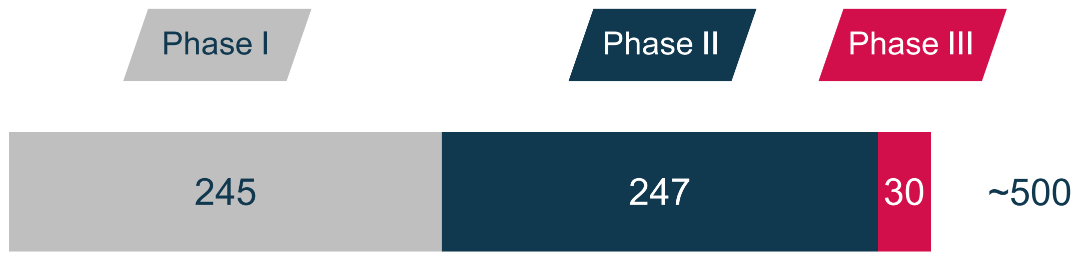
- to clone AAV for **therapeutic purposes**
- to deliver AAV **intrathecally**
- to treat **DMD and Pompe** patients
- to deliver AAV **to the brain**

PILLAR I	*PILLAR II*	*PILLAR III*	*TRANSLATE INTO*
Technology	**Manufacturing**	**Clinical development**	**Promising therapeutic pipeline**
Renowned toolbox (capsids, regulatory elements, gene editing)	Distinguished manufacturing capabilities (cell line/infrastructure)	Strong translational expertise, combined with academic network	

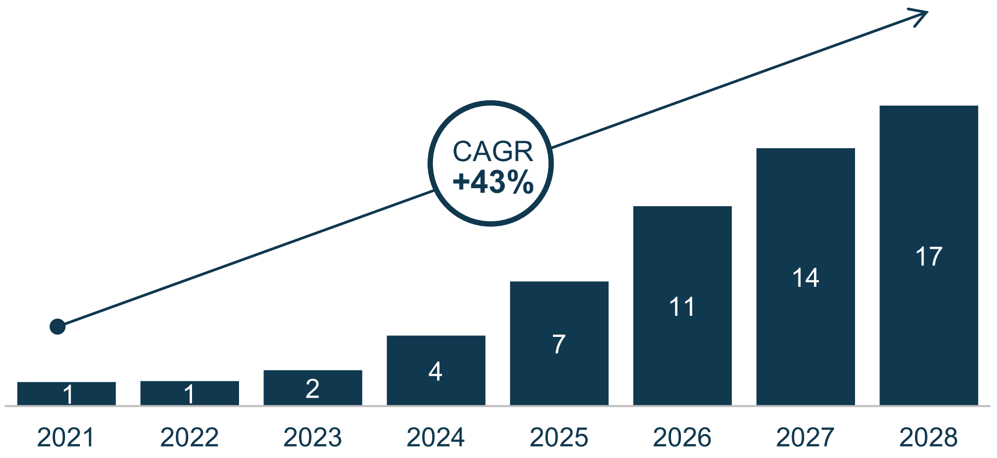
The Gene Therapy Market is Expected to Reach €17bn in 2028

04

Gene therapies in clinical development [1]



Gene Therapy projected sales (€bn) [2]



- Majority of approved gene therapies are based on AAV vector technology
- First AAV gene therapy approval in 2017; number of gene therapy approvals is expected to increase significantly until 2030, resulting in strong anticipated sales growth
- Shaping of access models, policies and payer environment are crucial to sustainable success

Source: [1] ASGCT Q1/2023 report; [2] Evaluate Pharma Feb 2023 , Fx rate based on central financial 1.01US$ = 1€

AskBio's Balanced Portfolio is Addressing Monogenic and Pathway Disorders

AskBio
MAKING HISTORY

Monogenic disorders

// Mutation occurs in the **DNA sequence of a single gene**

// **Most monogenic disorders are rare diseases** such as Pompe disease, Huntington's disease, hemophilia and cystic fibrosis.

// Historically the first to be targeted by **gene therapy**

// **Smaller** patient populations

Pathway disorders

// **Caused by mutations in several genes** and can be compounded by environmental factors such as smoking or diet

// Common examples **include heart disease, cancer and type 2 diabetes**

// Require **more complex therapeutic approaches** than monogenic disease-targeting therapies, which are mainly gene addition (or augmentative) gene therapies

// **Larger** patient populations

BlueRock Therapeutics is a Leader in PSC Biology, Bringing Therapies From Bench to the Clinic

MISSION: To discover and develop new cell therapies that change the way disease is treated and improve patients' lives

Cell Replacement

REPLACE Cells | **RESTORE** Function | **REVERSE** Disease

Founding science

Lorenz Studer, MD

// MSK Cancer Center

Gordon Keller, PhD

// University Health Network

Bruce Blazar, MD

// University of Minnesota

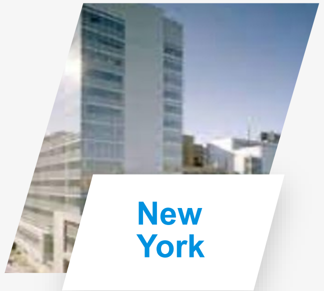
Engineered Cells

ENGINEER Cells | **DELIVER** Payload | **TREAT** Rare & Common

FOUR SITES ACROSS USA, Canada and Germany

Cambridge (HQ)

// Immunology Research
// Clinical & Regulatory
// Pilot cGMP facility
// Genome Biology

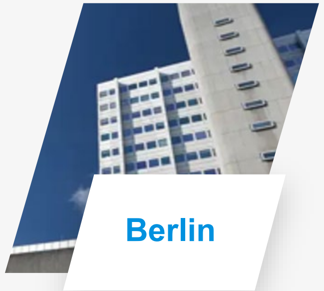


New York

// Neurology Research
// Platform Technology

Toronto

// Cardiac Research
// Device and Formulations
// Pilot cGMP Facility



Berlin

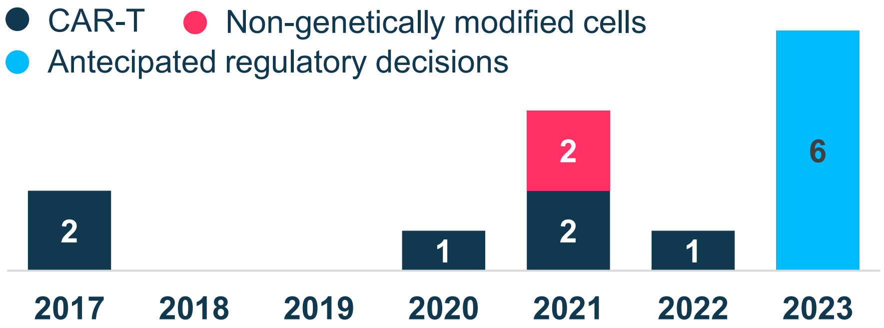
// Support for clinical programs and coordination of regulatory processes in Europe

Focus on four disease areas (Neurology, Cardiology, Immunology, Ophthalmology)

The Cell Therapy Market Is Expected to Reach >USD25bn by 2026

04

History of FDA cell therapy approvals[1]

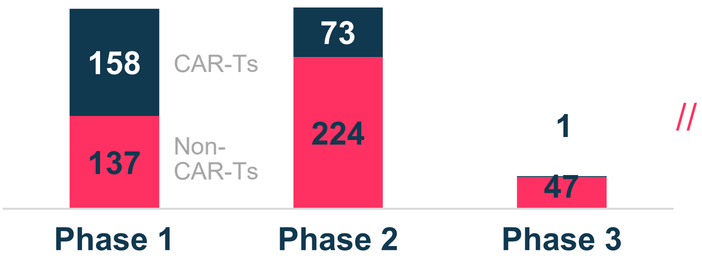


FDA Approved Cellular and Gene Therapy Products

- // First cell therapy approved in 2017, majority of currently approved cell therapies still CAR-T based for hematological malignancies
- // Cell therapies expected to remain one of the fastest growing therapeutic options in the pharmaceutical sector
- // Key considerations for successful commercialization:
  - // streamlining supply chain and administration logistics
  - // patient and caregiver support
  - // innovative payment solutions

Number of cell therapies in clinical development today[2]

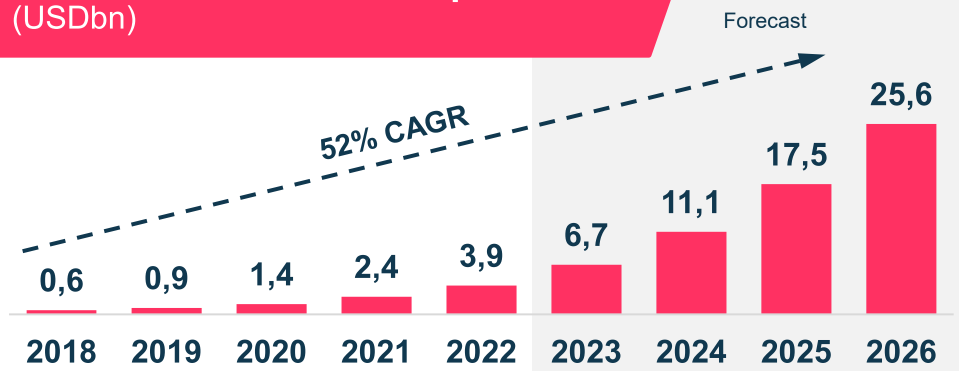
Informa, June 2023



Only unapproved agents in clinical development included

- // ~640 cell therapies in clinical development across TAs
- // Multiple ongoing phase 3 trials for approved CAR-T (e.g., label expansion)

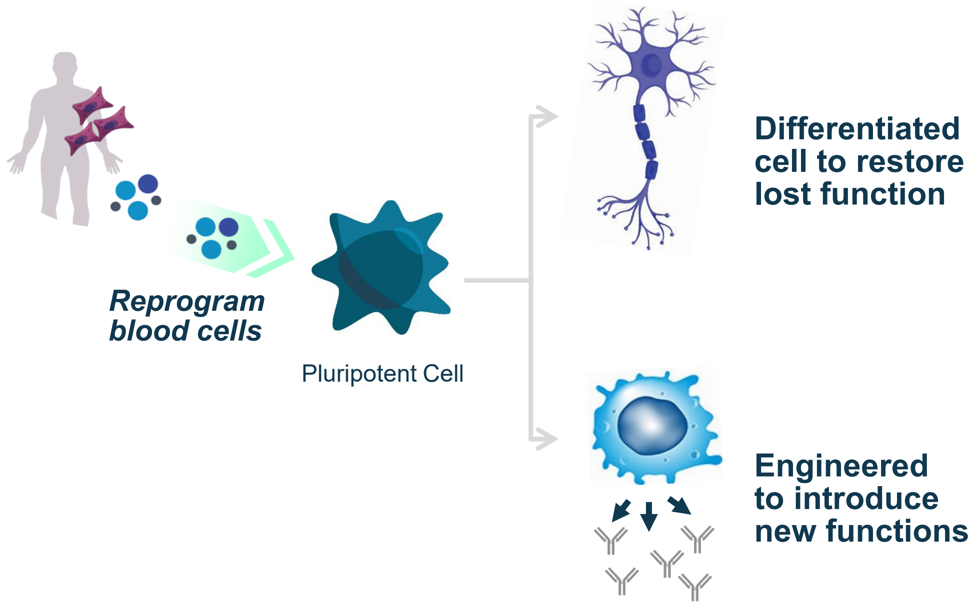
Global sales of cell therapies[3]
(USDbn)



Cord Blood approvals not included in approved therapies
Sources: [1] FDA Approved Cellular and Gene Therapy Products [2] Pharma Intelligence, Informa [3] EvaluatePharma, Oct. 2022 for pipeline and sales/ forecast

Pluripotent Stem Cells (PSCs): Potential to Restore Lost Cellular Function and Introduce New Functions to Address Multiple Diseases

Therapeutic potential of PSCs



Examples of target disease areas

// Parkinson's Disease
// Heart Failure
// Retinitis Pigmentosa
// Geographic Atrophy (AMD)

// Oncology
// Alzheimer's Disease
// Metabolic Diseases
// Autoimmune Diseases

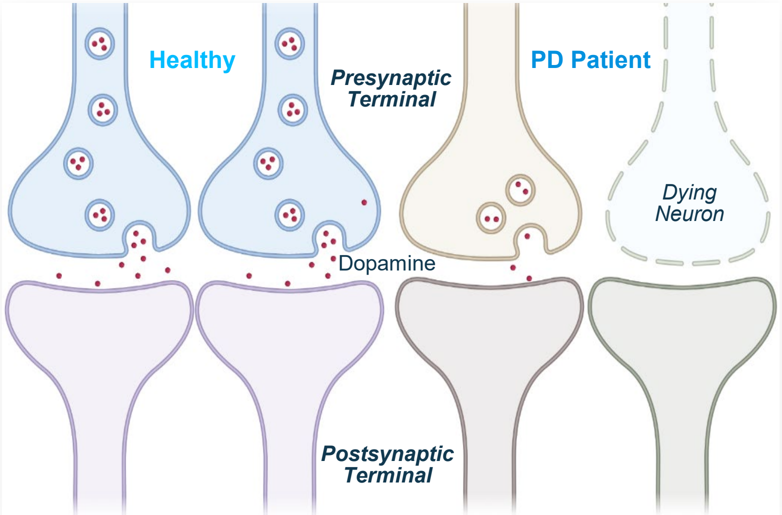
Source: El-Kadiry 2021. Frontiers in Medicine, p.2340

Parkinson's Disease is a Progressive, Neurodegenerative Condition Defined by Dopaminergic Neuron Loss and Motor Impairment

PD motor symptoms caused by loss of DA neurons

// **Healthy dopamine neurons** (DA) in the brain make the **neurotransmitter** dopamine critical for **several brain functions**, including movement

// **Loss of DA cells** results in less dopamine and leads to **Parkinson's Disease**



Current treatments and unmet need

// **PD** is the **second most common neurodegenerative disorder** in the US

// Limited **treatment options** available as **patients progress**

// **Medications**, effective at early stages, become less and **less effective with disease progression**

// Significant unmet need for **longer-lasting therapies** that will alter the **disease trajectory**

Bemdaneprocel is being developed as a one-time cell therapy that will provide dopaminergic neurons to the brain to **restore lost dopaminergic function**

The goal is to **alter disease progression and reverse symptoms** over time, so patients remain independent and live a life that is **not defined by their diagnosis**

Source: Song 2016. Frontiers in aging neuroscience, 8, p.65.; Kalia 2015. The Lancet. 386(9996), 896-912.; Bridi 2018. Frontiers in neuroscience, 12, p.80

Bemdaneprocel is the First PSC-derived Dopaminergic Cell Therapy with Positive Data in Parkinson's Disease

Topline Phase I results

- // The study met the primary endpoint; bemdaneprocel was well tolerated with no major safety issues by all twelve patients in both the low and high dose cohorts through one year
- // Feasibility of transplantation, and evidence of transplanted cell survival and engraftment in both cohorts was demonstrated through one year
- // Detailed phase 1 trial data from primary and secondary endpoints will be presented at the 2023 International Congress of Parkinson's Disease and Movement Disorders (MDS) taking place in Copenhagen from Aug. 27 – 31, 2023

Phase I study endpoints

Primary Endpoint:

- // Safety and tolerability at 1-year post-transplant

Secondary Endpoints (1- and 2-year post transplant):

- // Evidence of cell survival – F-DOPA PET
- // Changes in motor function – Changes in MDS-UPDRS III
- // Changes in waking hours in "OFF" state
- // Continued safety and tolerability

Addressable patient population

Indication	Patients
Parkinson's Disease	US ~1 million

Asset potential

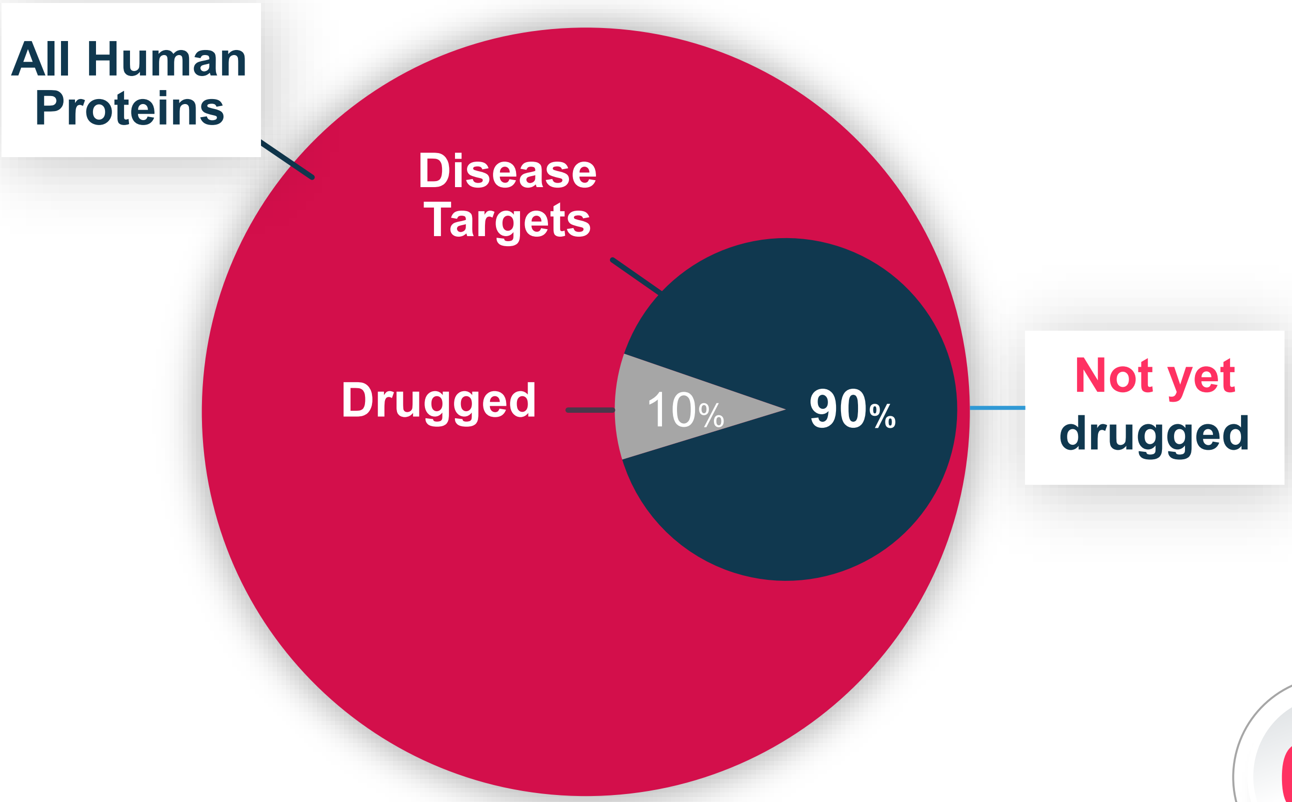
Indication	Asset Potential
Parkinson's Disease	●●●

●○○ <€500m ●●○ €500m–€1bn ●●● >€1bn

Status and upcoming development milestones

- // Q3 2023 planned presentation of Phase 1 data in a medical meeting
- // Phase 2 clinical study expected to begin enrolling patients in H1 2024

Vividion Adresses Limitations of Conventional Small Molecule Drug Discovery



01 **100s of human proteins** are known to cause disease

02 **Only ~10% of these disease-causing proteins/targets** are drugged by current therapies[1]

03 **Despite advances in genomics, structural biology,** and high-throughput screening, most disease relevant targets are inaccessible to conventional chemistry – perceived as pocketless or undruggable

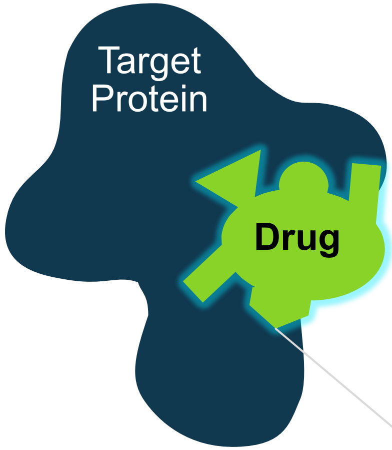
[1] Source: Oprea et al.,Nature Reviews Drug Discovery, 17: 317-332, 2018.

Vividion's "Covalent First" Platform Expands Druggable Space

04

Reversible drug

Drug-like potency and selectivity requires

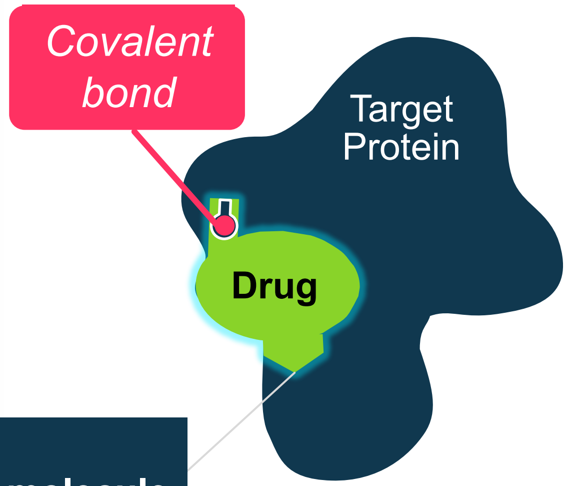


- Large contact surface between drug and protein
- Multiple specific types (polar) of interactions
- **Deep pockets**

Drugs for targets **within druggable classes** (e.g., enzymes, receptors)

VIVIDION "covalent first" drug

Drug-like potency and selectivity requires



- Small contact surface and minimal polar interactions that guide covalent bond formation
- Reactive amino acid (cysteine)
- **Shallow pockets**

Allows for druggability **of all/any disease relevant targets** (e.g., enzymes, receptors, transcription factors, ubiquitin ligases)

Protein-small molecule interaction surface

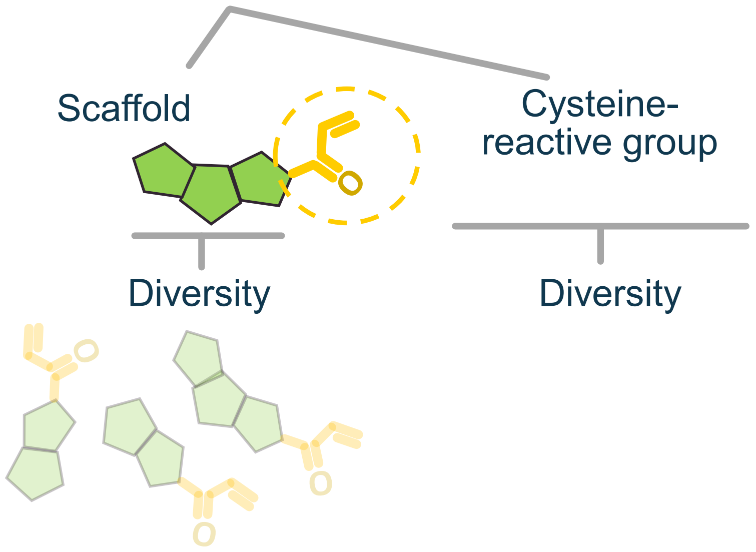
[1] Source: Market Research - IPSOS - Global VMS Women Segmentation
[2] Peak Sales Potential

Foundations of the Vividion Platform

01 The chemistry

Unique Covalent Small Molecule Library

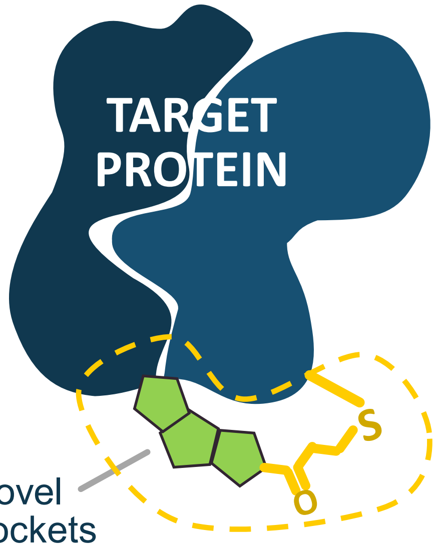
VVD compounds are comprised of 2 distinct structural elements:

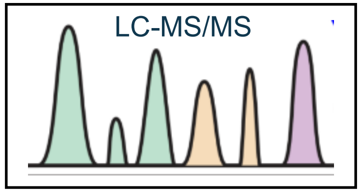


02 The platform (assay)

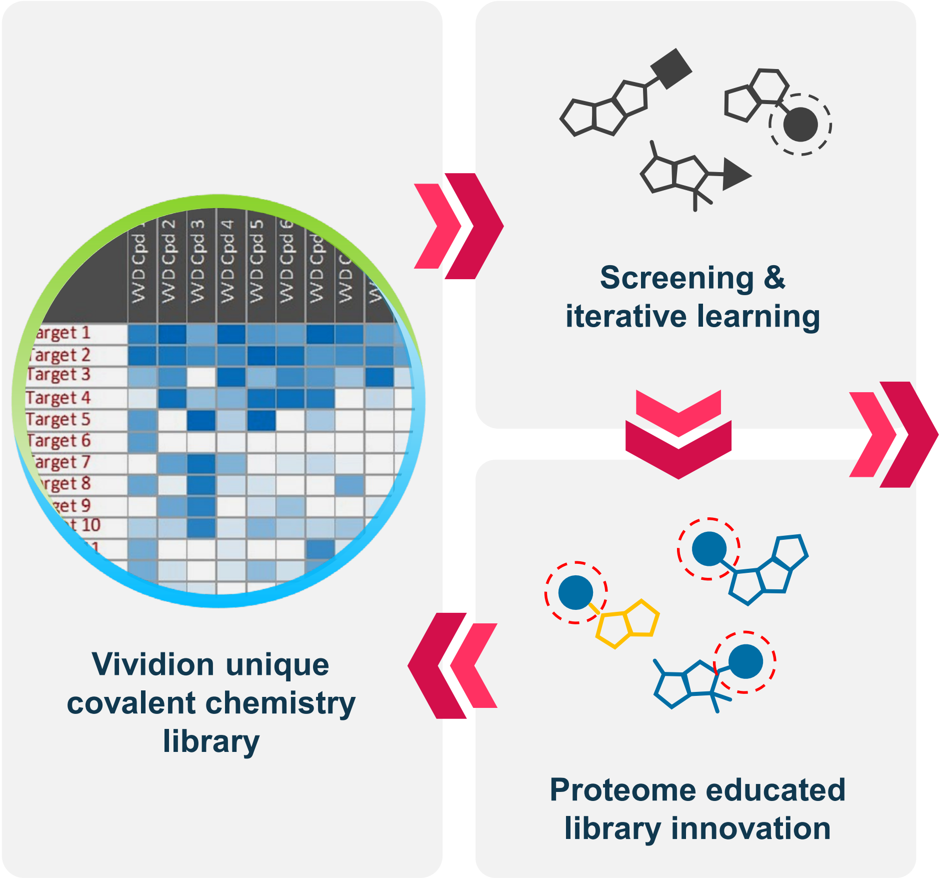
Proteome-wide Footprinting of Small Molecule-Target Interactions in Native Systems

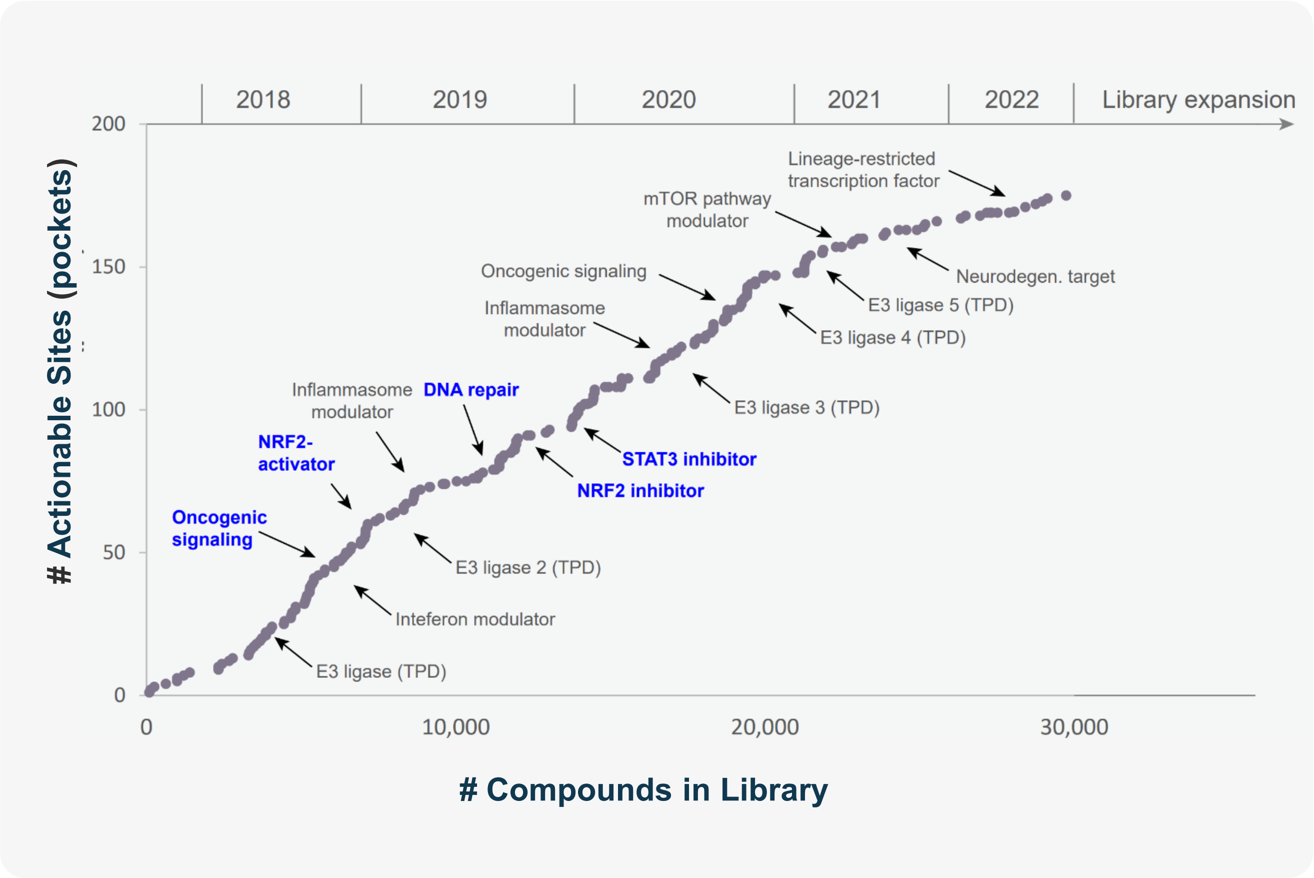
CELLS / LYSATES / TISSUE





Vividion's Continuous Library Expansion Allows for Pipeline Growth and Durable Competitive Advantage





Pharmaceuticals – Pipeline Overview[1] (as of July 31, 2023)

Phase 0[2]

DGKalpha Inh *(BAY 2862789)*	Small Molecule	New molecular entity
PSMA TAC *(BAY 3546828)*	Radiotherapy	New molecular entity
PSMA SMOL TAC *(BAY 3563254)*	Radiotherapy	New molecular entity
VVD STAT3 Inh *(BAY 3630914)*	Small Molecule	New molecular entity
Anti-coagulant *(BAY 3389934)*	Small Molecule	New molecular entity
Next Generation Liver MRI *(BAY 3393081)*	Contrast Agent	New molecular entity

Phase I

Elimusertib (ATR Inhibitor) *(BAY 1895344)*	Small Molecule	New molecular entity
AhR Inhibitor *(BAY 2416964)*	Small Molecule	New molecular entity
mEGFR Inhibitor *(BAY 2927088)*	Small Molecule	New molecular entity
DGKzeta Inhibitor *(BAY 2965501)*	Small Molecule	New molecular entity
CCR8 Ab *(BAY 3375968)*	Protein Therapeutics	New molecular entity
VVD KEAP1 Act *(VVD-13307 aka NRF2 Inh, BAY 3605349)*	Small Molecule	New molecular entity
Congestive Heart Failure rAAV Gene Therapy *(AB-1002 aka NAN-101)*	Genetic Medicine	New molecular entity
sGC Activator Oral *(BAY 3283142)*	Small Molecule	New molecular entity
Anti-a2AP *(BAY 3018250)*	Protein Therapeutics	New molecular entity
sGC Activator Inhale *(BAY 1211163)*	Small Molecule	New molecular entity
SEMA 3a *(BAY 3401016)*	Protein Therapeutics	New molecular entity
Bemdaneprocel (Parkinson's Disease Cell Therapy) *(BRT-DA01)*	Cell Therapy	New molecular entity
Parkinson's Disease rAAV Gene Therapy *(AB-1005 aka AAV2-GDNF-PD)*	Genetic Medicine	New molecular entity
Multiple System Atrophy rAAV Gene Therapy *(AB-1005 aka AAV2-GDNF-MSA)*	Genetic Medicine	New molecular entity
Pompe Disease rAAV Gene Therapy *(ACTUS-101)*	Genetic Medicine	New molecular entity
Huntington's Disease rAAV Gene Therapy *(AB-1001 aka BV-101)*	Genetic Medicine	New molecular entity
LGMD2I/R9 rAAV Gene Therapy *(AB-1003 aka LION-101)*	Genetic Medicine	New molecular entity
GPR84 Antagonist *(BAY 3178275)*	Small Molecule	New molecular entity

Phase II

Regorafenib (combi Nivolumab) *(BAY 734506)* // Solid tumors (recurrent or metastatic)	Small Molecule	Life cycle management
Asundexian (FXIa Inhibitor) *(BAY 2433334)* // Major Adverse Cardiac Events Prevention (PACIFIC-AMI)	Small Molecule	New molecular entity
Zabedosertib (IRAK4 Inh.) *(BAY 1834845)* // Atopic Dermatitis (DAMASK)	Small Molecule	New molecular entity
Runcaciguat (sGC Activator) *(BAY 1101042)* // Non-prolif. Diabetic Retinopathy (NPDR) (NEON-NPDR)	Small Molecule	New molecular entity

Phase III

Copanlisib (PI3K Inhibitor) // Non-Hodgkin Lymphoma (CHRONOS-4)	Small Molecule	Life cycle management
Darolutamide (AR Inhibitor) // Prostate Cancer (mHSPC) (ARANOTE) // Adjuvant Prostate Cancer (DASL-HiCaP) // Prostate Cancer with Biochemical Recurrence after Curative Radiotherapy (ARASTEP)	Small Molecule	Life cycle management
Finerenone (MR Antagonist) // Heart Failure (HFmr/pEF) (FINEARTS-HF) // Non-diabetic CKD (FIND-CKD)	Small Molecule	Life cycle management
Vericiguat (sGC Stimulator) // Heart Failure (HFrEF) (VICTOR[3])	Small Molecule	Life cycle management
Asundexian (FXIa Inhibitor) // Stroke Prevention in Atrial Fibrillation (OCEANIC-AF) // 2° Stroke Prevention (OCEANIC-STROKE)	Small Molecule	New molecular entity
Elinzanetant (Neurokinin-1,3 Rec Antagonist) // Vasomotor Symptoms (OASIS)	Small Molecule	New molecular entity
Aflibercept 8mg (VEGF Inhibitor) // Retinal Vein Occlusion (QUASAR)	Protein Therapeutics	Life cycle management
Gadoquatrane (High Relaxivity Contrast Agent) // Magnetic Resonance Imaging (QUANTI-CNS, QUANTI-OBR))	Contrast Agent	New molecular entity

Submissions

Aflibercept 8mg (VEGF-Inhibitor) // EU, JP, US[4]: Diabetic Macular Edema (DME) // EU, JP, US[4], CN: Neovasc. Age-rel. Macular Degen. (nAMD)	Protein Therapeutics	Life cycle management

Full pipeline package available for download under:
https://www.bayer.com/en/pharma/development-pipeline

Oncology
Cardiovascular+[5]
Neurology & Rare Diseases
Immunology
Others

New molecular entity
Life cycle management

Protein Therapeutics | Cell Therapy | Contrast Agent | Genetic Medicine | Radiotherapy | Small Molecule

1 Bayer and partner sponsored + 3rd party label enabling studies with first patient first visit 2 Pre-clinical selected assets on path to IND
3 Conducted by Merck & Co 4 US submission made by Regeneron 5 Including Precision Cardiovascular, Nephrology & Acute Care

Science for a Better Life

Driving Sustainable Outperformance in Consumer Health

03

Investment Case
August 2023 /
Bayer AG

Driving Sustainable Outperformance in Consumer Health

01

Market & Position

02

Strategy

03

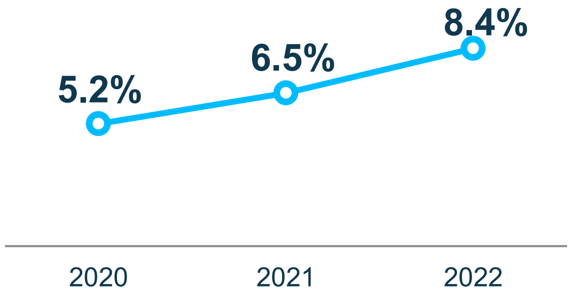
Sustainability

Consumer Health: A Leading Global OTC Player

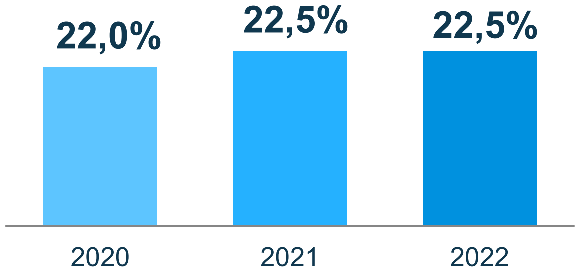
01

FINANCIALS

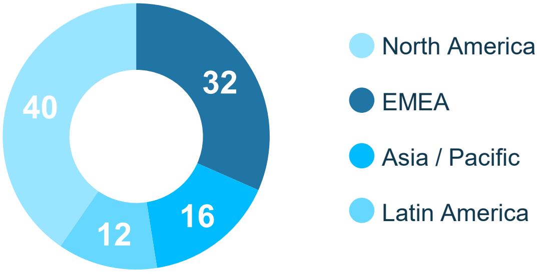
Sales development
% yoy cpa



EBITDA margin development
In %, before special items

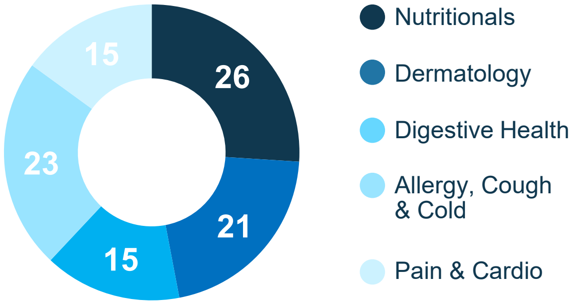


Sales by region: €5.3bn
In %, in 2022

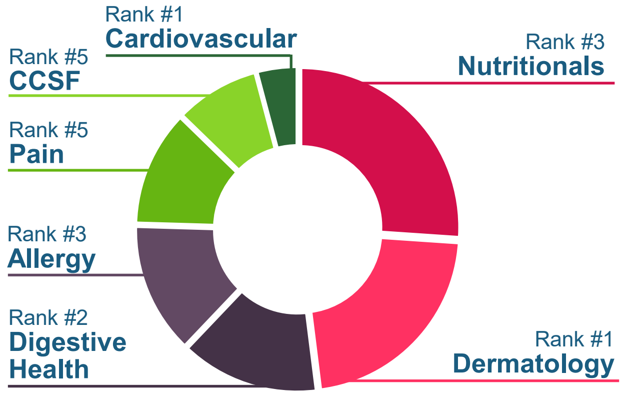


PRODUCTS

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



Market positions by category[1]



Key Products

Pain & Cardio

Dermatology

Digestive Health

Allergy & Cold

Nutritionals

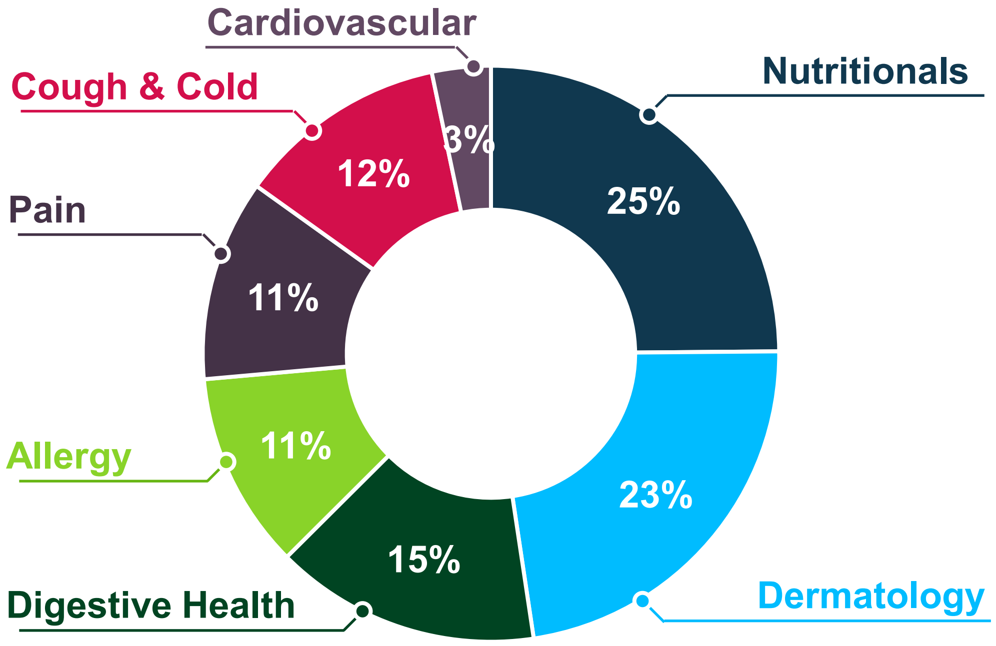
[1]Source: November MAT 2022 Consumer Health proprietary data base

A Clear Game Plan to Sustain Outperformance

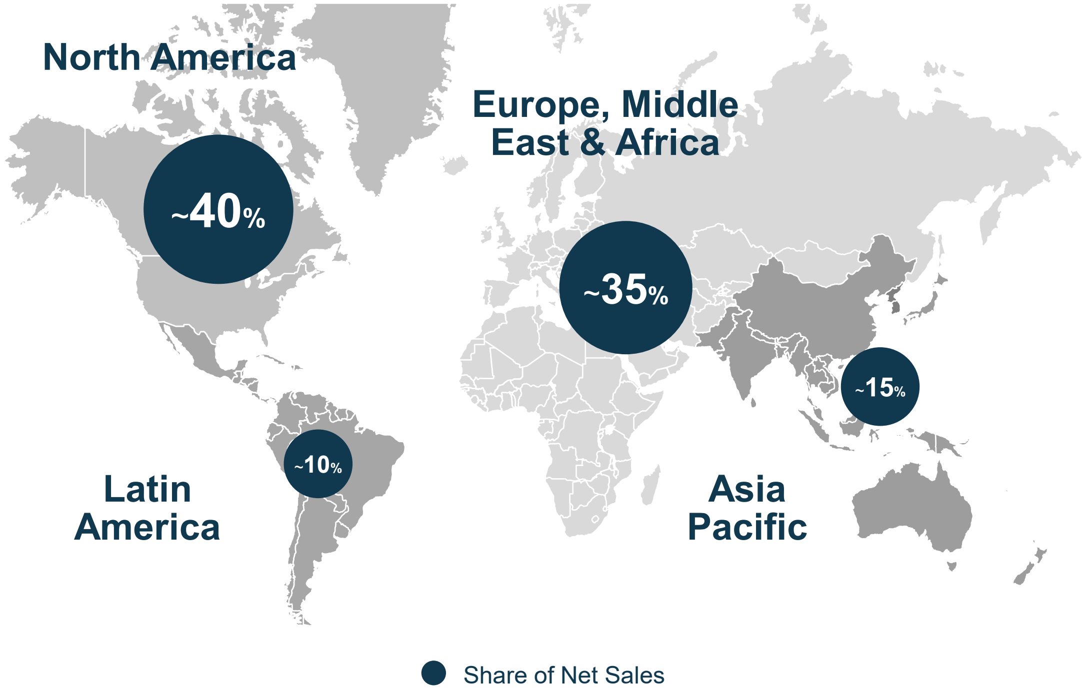
AMBITION	**Grow ahead of the market** and increase margins
WHERE TO PLAY	Winning **Portfolio** focused on where Bayer can win
HOW TO WIN	Driving Growth-focused Innovation / Modernizing Marketing & Sales / Optimizing Costs & Cash
OUR ACCELERATORS	**Digital Transformation**
	Sustainability

A leading Consumer Health Player with a Well-Balanced Portfolio

Category Portfolio



Geographic Footprint

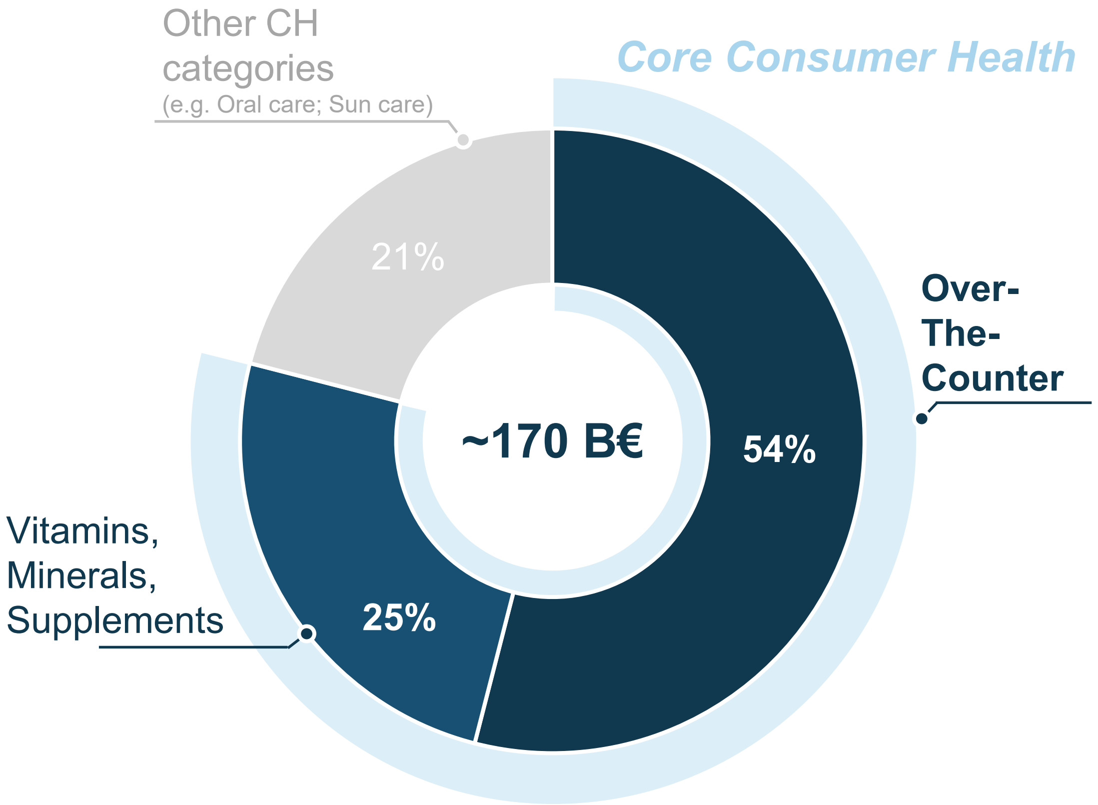


Sources: Bayer CH Portfolio – Company BD, IQVIA, IRI, & Nielsen, May MAT 2022; Bayer Geographic Footprint – Net Sales 2021

Focused portfolio on Core Consumer Health Where We Can Win

02

Clear Focus on Core CH Market



Key Portfolio Moves Executed

Divestures

Derma Rx
Jul 2019

Sun care
Sep 2019

Foot care
Nov 2019

Acquisitions / Licenses

Personalized Nutritionals
Nov 2020

Nutritionals eCom Pure-players
*Oct 2021 & Jun 2022**

Astepro (Rx-to-OTC Switch)
Jun 2022 (Launch)

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

Accelerating Growth from Innovation

Iconic Global and Local Brands Built Over Decades

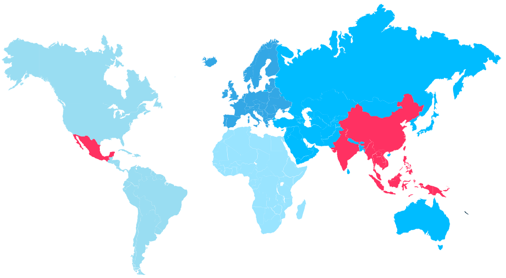
02

ASPIRIN®
Alka-Seltzer
Redoxon® IMMUNITY SUPPLEMENTS
elevit®
Rennie®
Canesten®
Bepanthen®
Claritin®
Iberogast®
Afrin®
MiraLAX®
ALEVE®
Supradyn®
ONE A DAY®
Berocca®

Key levers to sustain above-market growth

02

Attractive Demand Spaces	High-growth Markets	Rx-to-OTC Switches	Digital Commerce & Health Platforms
// Premium Nutritionals	// China	// Astepro	// eCommerce
// Healthy Aging	// India	// Switch #2	// Digital Diagnostics
// Stress and Sleep	// Mexico	// Switch #3	// Digital Therapeutics
// Medicated Skin	// ASEAN		



amazon Walmart.com Shopee

Modernizing Our Brand Building and Sales Capabilities

	elevit	Canesten	Bepanthen
Brands with Purpose →			

From Mass to Precision Marketing →	% Precision marketing[1]	25%	58%	80%
		2018	2021	2024 - Ambition

Accelerating E-commerce →	% Net Sales[2]	04%	11%	15%+
		2019	2022	2024 - Ambition

[1] Percentage of digital media which is data-driven precision marketing
[2] Percentage of net sales which is through e-commerce channels

Accelerating Use of Data to Personalize Consumer Engagement

02

Data & Digital First		Leading in Digital Platforms	Contextual Engagement
	2019 - 2022		
Share of Digital Media[1]	2X	TikTok, Instagram	
Share of Data-driven Marketing Investments[1]	3X	alexa, YouTube, twitch	
Share of Personalized Creatives[1]	5X	tinder, Facebook	

[1] Bayer internal data

Doubling Down on e-Commerce and Growth Platforms

02

Winning in Key eCom Platforms

	2019	2022	2024
Share of Digital Commerce[1]	4%	~11%	>15%
eCom Growth FY’21[1]	>50%		

Redcare PHARMACY, amazon, Walgreens, zur Rose, CVS pharmacy, 天猫 TMALL.COM, Shopee, Walmart.com, Rappi, Lazada

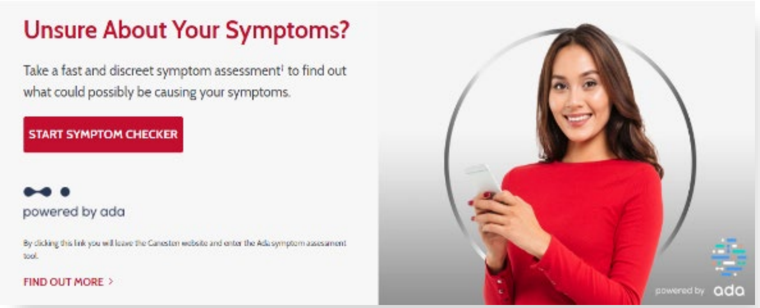
Strategic Portfolio Moves

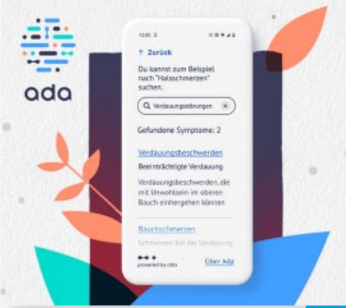
care/of — Nov. 2020

GloryFeel — Oct. 2021

n. — June. 2022*

Digital Engagement Mechanisms





[1] Bayer internal sales data * Strategic minority stake in Natsana

Pricing and Trade Excellence to Drive Value Creation with Customers

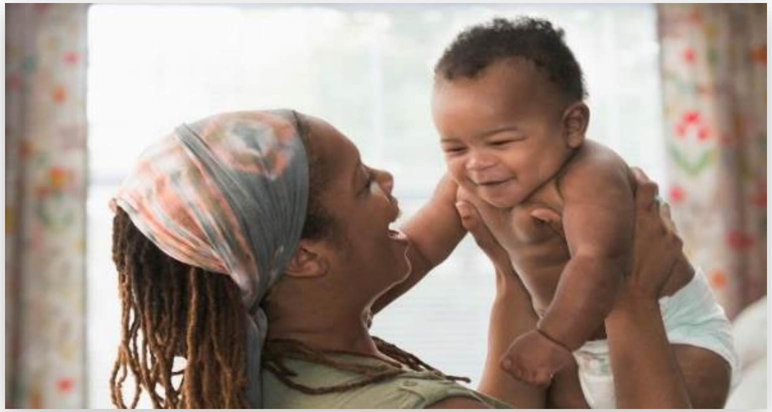
Innovations Playing Across Different Value Tiers

Premium

Value Offerings

Consumer Health as a Force for Good

Expand Access to Everyday Health



59 Million people with improved access to self-care in underserved communities

// Investing in accessible and more sustainable products

// Reached 4+ Million underserved women and babies through the Nutrient Gap Initiative

Path to Climate Neutrality

35% CO_2 emissions reduction achieved across our operations

// Investing in energy efficiency projects and increasing green energy across our sites

// Advancing sustainable packaging

Note: 2021 Health access and environmental footprint achievements vs 2019 baseline

Driving Sustainable Outperformance in Consumer Health

- **A leading Consumer Health player with a well-balanced portfolio**
- **World-class science, consumer and HCP capabilities**
- **Clear strategy to sustain outperformance**
- **Track record of execution excellence**
- **Attractive growth profile and cash flow generation**

Science for a Better Life

Sustainability

04

Investment Case
August 2023 /
Bayer AG

Sustainability @Bayer

01
Strategy

02
Targets

03
Governance

04
Ratings

Sustainability is Integral to Our Values, Strategy and Operations

We Intend to Create Bold Impact and Generate Sustainable Business Opportunities

PHARMACEUTICALS • CONSUMER HEALTH • CROP SCIENCE

Megatrends	AGING POPULATION	GROWING POPULATION	PRESSURE ON ECOSYSTEMS
Societal Needs	**Preserve and restore health**	**Secure sufficient supply of quality food**	**Increase productivity and farm incomes while renewing nature**

Impact

Help more people thrive

OUR VISION: HEALTH FOR ALL, HUNGER FOR NONE

Decrease ecological footprint

Sustainable Growth

Long-term business growth through sustainable innovation

Ambitious Measurable Targets for Sustainable Development

Our 2030 Targets positively contribute to today's pressing challenges

Decrease ECOLOGICAL footprint

Climate neutrality at own sites + SCIENCE BASED TARGETS reduced emissions in our supply chain

- 42% reduction target[1] for Scope 1 & 2
  - 500m € CapEx for emission reduction
  - 50m-200m € OpEx for offsetting projects
- 12.3% reduction target[2] for Scope 3

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

Water strategy addressing our own operations and up-/downstream activities

CS: **-30% greenhouse gas emissions** in key agricultural crops in main regions; **-30% environmental impact** of our crop protection products

CH: Transition all Consumer Health products to **100% recyclable or reusable packaging**

Help more PEOPLE thrive

Support **100m smallholder farmers** in LMICs[3]

Fulfill the need of **100m women** in LMICs[3] for **modern contraception**

Support **100m people** in underserved[4] communities with **self care**

Achieve **gender parity** at each individual managerial level

PH: Increase **availability** and **affordability** of our innovative pharma products in LMICs[3]

[1] By 2029 from a 2019 base year is in line with limiting global warming to 1.5 C°
[2] By 2029 from a 2019 base year is in line with limiting global warming to below 2 C°

[3] LMIC: low and middle income countries - all countries included in the World Bank list as per 1 July 2019
[4] Underserved: economically or medically
For more info here: https://www.bayer.com/en/sustainability/targets

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

02

Scope 1&2

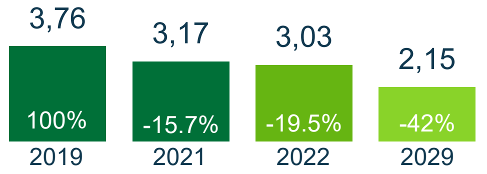
SCIENCE BASED TARGETS

42% less CO_2 in our own operations by 2029 & **Net Zero** by 2050

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

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

Additionally, offsetting of 450,000 metric tons of greenhouse gas emissions[1]



in mio metric tons of CO_2 equivalent; % change vs. base year 2019

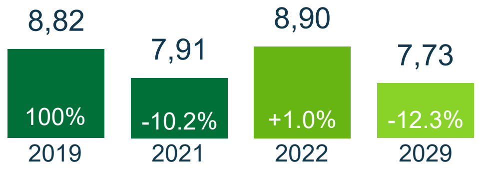
Scope 3

SCIENCE BASED TARGETS

12.3% less CO_2 in the value chain by 2029

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

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



in mio metric tons of CO_2 equivalent; % change vs. base year 2019

On the Field

30% less greenhouse gas emissions by 2030[2]

Continued efforts in **Carbon Initiative Program** supported by our digital application **Climate FieldView™**

Digital platform was used on >220m acres of farmland in 23 countries in 2022

Carbon Program was further expanded in 10 countries in 2022

Launched "For Ground" in the U.S.

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

[2]30% less in our farming customers' in-field GHG emissions per kg of crop yield in the most emitting cropping systems in the regions we serve; baseline calculated based on 2020 data

Ambitious water strategy aiming at transformational impact beyond own operations

Contribution to climate resilience and a more sustainable water usage

01 Valuation of water

We plan to develop a method to value water

We aim to start to **incorporate in 2024 water** quality and quantity **into business decisions and investment**

02 Own operations

We are committed to provide **safe drinking water, sanitation and hygiene to all our employees**

We **apply safe discharges limits** for active ingredients into wastewater at all sites where they are produced

By 2025 we aim to set context-relevant water targets for own operations to be achieved by 2030

03 Upstream activities

We updated our Supplier Code of Conduct with **strengthened and dedicated topics addressing water and wastewater**

We **evaluate the sustainability performance of all Key and of selected high-sustainability-risk suppliers**, using a classification that includes water-risks with a priority-weighting

We aim to **continuously raise suppliers' sustainability awareness** by leveraging sustainability initiatives TfS and PSCI.

We aim to continue to **drive improvements in water use efficiency with growers** across the **seed production footprint**

04 Downstream

We strive for driving positive change in water productivity in water scarce regional cropping systems – starting with **rice** where we aim to **improve water use per kg of crop by 25%** in 2030 by transforming rice cropping system for our smallholder customers in the relevant regions where Bayer operates.

By 2030, we target to reduce the environmental impact of our crop protection portfolio by 30%, which contributes to water quality.

Support 100m Smallholder Farmers

Accessing Smallholders Improves Lives and Creates Business Opportunities

Challenges

~550M Smallholder farmers worldwide

// **Lack** of access to **new technologies**

// **Limited** access to **knowledge**

// **Limited productivity** of their crops

// **Climate Change**

Feed **>50%** of population in developing countries

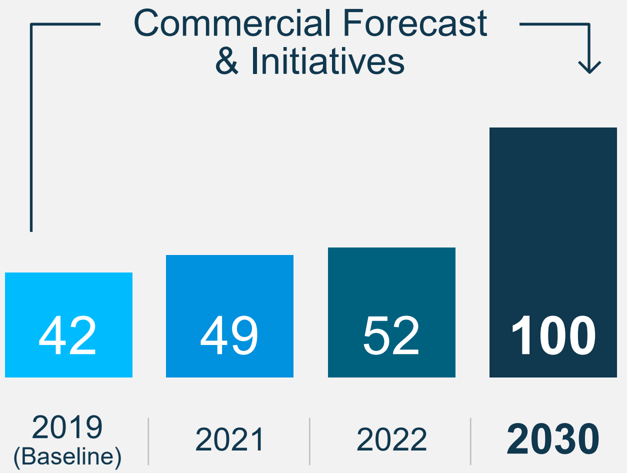
// Exposed to the markets; **price volatility** and fluctuations

// **Lack of access to markets** and **capital**

// **Hunger** & malnutrition

// Additional challenges caused by **Covid-19**

Progress



How to get there

// **Commercial operations:** Regional commercial strategies focused on smallholders' needs

// **Value-Chain-Partnerships:** Better Life Farming centers and integration into other value chain ecosystems

// **Digital Solutions:** Digital Incubator & Innovation Hub in APAC

// **Portfolio Differentiation:** Better & affordable crop protection products, tailored to local farmer needs

// **License-to-Operate & Biotech Approvals:** Large regulatory approval pipeline in Africa and APAC to enter new markets

Access for 100m Women to Family Planning

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

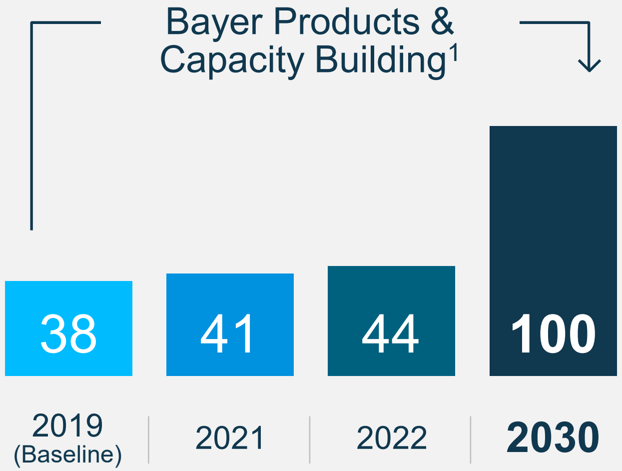
// **Capacity building[1],** e.g. cooperation with urban health project 'The Challenge Initiative' (TCI)

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

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

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

Progress



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

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

02

Everyday Health as the First and Last Line of Care

Challenges

// **Ageing population,** a rise in **lifestyle related diseases** and a constantly increasing level of healthcare costs

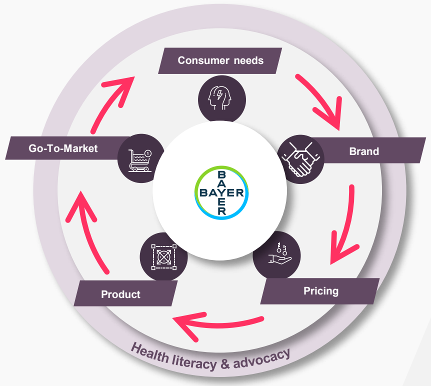
// Expanding access to self-care solutions helps with **early intervention and lowers healthcare costs** for society

// Consumers are **4-6 times more likely** to purchase, protect, champion or trust **brands with a strong purpose**

How to get there

// **Appropriate Portfolio:** adapting our science-based portfolio to design everyday health solutions with the underserved in mind, from formula to pricing

// **Deeper Penetration:** meeting low-income consumers where they shop to bridge the physical gap



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

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

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

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

Progress

[1] We successfully integrated the consumer business in India, which was previously managed by a third party. India is reported separately and will be included in 2024. We reached 21 million people in India in 2022 in addition.

Bayer's Sustainability Governance framework

Holistic approach ensuring sustainable execution and advancement

Independent Oversight

Supervisory Board
ESG & Audit Committees

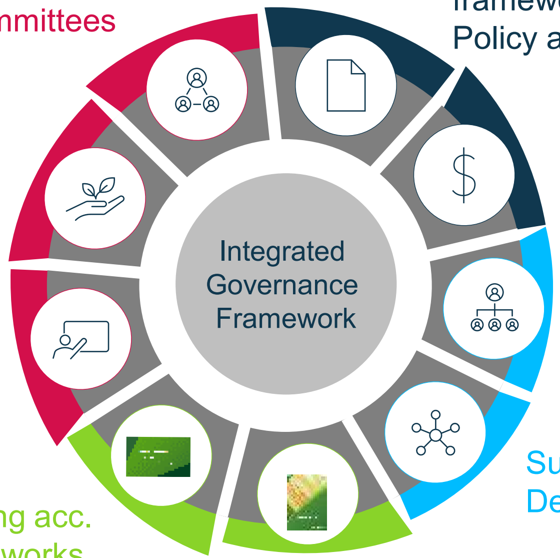
Sustainability Council[1] &
Bioethics Council[2]

External &
Internal Audits

Regulations & Processes

Broad group-wide policy-based framework, incl. Sustainability Policy and BASE principles[5]

ESG included in Compensation



Reporting & Transparency[3]

Reporting acc. to relevant frameworks, incl. SASB & TCFD

Topic specific transparency initiatives[4]

Organizational Setup

CEO as Chief Sustainability Officer

Sustainability Decision Committee

Latest updates (selected):

// Reports on GMOs, UNGC adherence, and Crop Science Sustainability Progress

// New Bioethics Council established

// Extension of Bayer Science Collaboration Explorer with US launch

// OpenLabs 360° launched

// Progress on climate sphere (e.g., publication of offsetting approach, updated supplier code of conduct, and industry asssociation climate review)

[1] https://www.bayer.com/en/sustainability/sustainability-council
[2] https://www.bayer.com/en/sustainability/the-bayer-bioethics-council
[3] https://www.bayer.com/en/sustainability/transparency
[4] https://www.bayer.com/en/sustainability/initiatives
[5] https://www.bayer.com/en/sustainability/base

Bayer with strong results in ESG ratings and assessments

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

	Agency	Score Type	Latest Score	Year*	△	Explanatory information
Major ESG Ratings	MSCI	ESG Score Controversy level**	A (industry average) severe (GMO)	2022	▲ ▲	Improvement of rating from BB to A (GMO) removed
	ISS ESG	ESG Score Norm-Based Research	C+ (1st decile of industry) (Neonics)	2022	▲	(Neonics) removed New assessment in progress
	SUSTAINALYTICS	Risk Score Controversy level**	27.4 (medium) 5 (severe)	2023	▲ ►	Overall high exposure & above subindustry average Impacted by Glyphosate litigation, outlook positive
	Moody's Analytics	ESG Score	55 / 100	2023	▲	Above industry average and sector average performance
Other focus assessments	access to medicine FOUNDATION	Index of pharmaceutical companies worldwide	3.36 / 5 (Rank 1: 4.06) #9 out of 20	2022	▲	Bayer entered the top 10 of the 2022 ATM ranking
	ecovadis Business Sustainability Ratings	Supply Chain Sustainability Assessment	76 / 100	2023	▲	Top 2% of all evaluated companies Strong improvements in environmental score
	CDP DISCLOSURE INSIGHT ACTION	Climate Change Forests Water Security	A B A-	2022	►	Score maintained on high level New assessment in progress

* year of latest rating/scoring publication
** evaluation of controversial issues related to the company within the last 3 to 5 years through media and press releases

Thank You