



Capital Markets Day 2021

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Presentation by

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Shaping the Future of Agriculture

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Good afternoon and welcome! It's a pleasure to be with you today.

As Werner shared earlier, we are on the cusp of a bio-revolution that is poised to create significant value – value for consumers, customers and owners -- as we drive the transformation of agriculture and help create a more sustainable food system.

In many areas we have made significant progress since we last met in person and set our mid-term ambitions for 2018-2022, but we did not deliver on our financial commitments. I take accountability for this, irrespective of many aspects that were outside of our control. There are some explanations, but no excuses. We were too optimistic on general market growth, which was held back by unpredictable market events and extreme currency headwinds. In addition, we had to deal with some regulatory challenges in our product portfolio and lost market share in our soybeans business in North America. While we failed to achieve our original ambition, we still delivered strong competitive performance and even increased market share in corn and crop protection in North America. We also gained share in Brazil and are on the path to return North America soybeans to growth in 2022

Our business fundamentals are strong across all dimensions and allow us to take advantage of the much better market environment that has recently emerged. Our primary goal in the mid-term is to grow above market with industry leading profitability. As mentioned during our fiscal year 2020 earnings call, we consider 2021 a transitional year and if the market grows more than forecast, we will also grow more, and we'll revise our guidance as appropriate.

Let me now talk about the next phase of leadership, innovation and above market growth in Crop Science with our mid-term plans.

As the established leader in the Ag input space, we are strongly positioned to benefit from a better market environment, as we spearhead the bio-revolution and execute on our strategy.

We are the leader in sales, profitability and R&D investment, with sales of nearly 19 billion euros and a clean EBITDA margin that exceeds 24%, all fueled by an R&D investment that is 2-times our peers' average.

With consistent high-yielding performance in our iconic Dekalb and Asgrow brands, we have earned the number one position in corn and soybean seed and traits globally and enjoy leading positions in vegetable, as well as cotton seeds. Together, our seed and trait technologies reach more than 350 million acres annually, which we continually refresh-- with four key new traits moving into the market this year alone.

This leadership extends to our crop protection portfolio, with our top three positions in herbicides, insecticides and fungicides. In addition, we have an industry-leading biologicals portfolio in crop protection and seed treatment with a market penetration of over 80 million acres in row crops and the leading position in horticulture.

Our exceptionally strong portfolio is complemented by our leadership in digital farming, which allows farmers to take smarter agronomic decisions and increase transparency of performance. Our digital

platform Climate FieldView now reaches more than 150 million subscribed acres and is enabling both tailored solutions and new business models.

Looking forward we see an attractive and growing Ag input market fueled by multiple megatrends.

By 2050, we estimate there will be more than 2 billion additional people on the planet, requiring 50% more food --- from the same, or smaller, footprint.

When coupled with climate-driven harvest losses and increasing sustainability awareness, we must innovate to produce more with less.

Our leading position in this growing market is a strong starting point, but success for us means outgrowing the market.

We will drive superior growth by better commercial execution, particularly in North America, as well as delivering world-class innovation in products, digital solutions, whilst setting new standards for sustainable agriculture.

These four pillars remain core to our purpose of shaping agriculture for the benefit of farmers, consumers and the planet.

Let's start with our first pillar. Our plan is to deliver 2% growth in 2021, and then accelerate to **3-to-5% growth in sales**, exclusive of currency and portfolio changes, from **2022 to 2024**. At the same time, we will **expand our EBITDA before special items margin to 27-to-29 percent**.

To do that, we are focused on five key deliverables:

First, to achieve **strong annual sales growth in crop protection** with integrated offerings, new products and price.

Second to increase **corn** sales through the annual deployment of new hybrids, along with the launch of new insect control traits in the Americas

Third to transition and upgrade the Americas to **next-generation soybean trait technology**,

Fourth to expand our position in all other seeds with the Thryv-On trait launch in cotton and new vegetable seed offerings

Finally, our **fifth driver** focuses on **effective cost and efficiency management**.

Let's take a deeper dive into each of these growth drivers, starting with crop protection.

We are transitioning from volume to value as we move towards selling sustainable productivity to growers. This begins with a leading portfolio - in terms of value, reach and environmental impact.

Bayer's current crop protection portfolio has a very low environmental impact relative to its high market share, as recently confirmed by a preliminary assessment from an independent academic consortium. This strong starting point underlines progress towards our long-standing environmental commitments.

We constantly develop new products and formulations, and then combine this portfolio with our leading seed & trait products to provide integrated offerings like Bayer Plus, that promotes the beneficial use of multiple modes-of-action and rewards our loyal customers.

Through our digital farming platform, we can tailor that offering to a grower's unique operation, with the right products used exactly where they need to be. In parallel we are pioneering outcome-based business models to drive the shift from selling inputs to selling outcomes.

We'll achieve our mid-term growth in crop protection through a combination of innovation, product stewardship and price-volume measures around best in class overall solutions. Let's take a brief look at our plans in each indication.

In **herbicides**, our plan to deliver a compounded annual growth rate in sales of **3 to 4 percent until 2024** is focused in the Americas and comes largely from a balance of price and volume from our existing portfolio. We are laser focused on executing the **recovery of XtendiMax with VaporGrip** sales in the U.S., where it pairs with our dicamba-tolerance traits in soybeans and cotton to create the leading weed control platform in both crops. This is backed by the 5-year registration we received from the EPA last fall, along with all the necessary state registrations.

Besides new product solutions such as **Corvus**— a pre-emergence selective herbicide in corn and **Alion and Provence** herbicides, novel technologies for weed control in sugarcane and fruits, we also drive for improved pricing, with a major focus on soft currency countries, in particular Brazil. We plan to recover the majority of currency losses within 2 to 3 years across our crop protection portfolio.

Let's move to **fungicides** next, where the **innovation** is particularly compelling, especially for **Latin America** and **Europe**. We're currently planning for a compounded annual **growth rate of approximately 6 to 7%** until 2024 and the following three products are key contributors:

Fox Xpro continues to upgrade our Fox Family of fungicides in Brazil for excellent control of Asian Rust --- the industry's only offering to include three different actives in one product. We will upgrade this again in 2022 with the launch of **Fox Supra**

For cereals, we are particularly excited about **iblon**, which offers the most reliable control of multiple leaf diseases. It launched in 2020 in New Zealand and is earmarked to expand to multiple markets, including Europe, Australia and Argentina.

Finally, the **Luna family** rounds out our featured key drivers. This convenient and reliable solution for high-quality food and yield potential preservation expands our strong position in fruit & vegetable fungicides.

To complete our discussion of crop protection, I'll close out with two new **insecticides which are particularly interesting for Asia and Latin America**:

Velum/Verango sets the standard for soil-applied, sustainable nematicide solutions across horticulture crops globally. We are on track for strong market share gains with this product.

Meanwhile, **Vayego**, launched in 2020, shows great potential for growth across Asia and has shown efficacy in corn, horticulture and rice – staple crops in the region.

When combined with the rest of the portfolio, they drive our expected compounded **annual growth rate of approximately 6 to 7 percent** in insecticide sales until 2024.

For those of you following along on the audio stream with our handout, we've depicted several of the new crop protection products just discussed, on **slides 11-13** in the presentation.

Let's switch gears and move to **corn seed & traits** on **slide 14**, where we expect a **3 to 4 percent compounded annual** sales growth rate until 2024.

We hold leading share positions in nearly every key corn market around the globe. Our strong innovation capabilities are key to the annual refresh of this portfolio, which is critical for the growth of this **franchise**.

We'll launch **at least 150 new hybrids a year** through the end of 2030, which is unmatched in the industry – also in terms of performance, as we see again in ongoing trials. Bob will share more in his update tomorrow.

This growth in corn is further supported by **key launches of new insect control trait stacks** in the next two years, both of which will include our **new RNAi-based corn rootworm trait**, known as CRW3 – the first in the industry.

In **Brazil and Argentina**, we're launching **VTPro4 this year for the 2021/22** season, as an upgrade to our current corn trait offering, VTPro3. This new trait stack has received all necessary regulatory approvals and includes an additional mode of above-ground insect control to combat evolving resistance. We plan to convert and grow our current 15-million-acre trait footprint over the next few years.

In the **U.S.**, the new corn rootworm trait will be added to SmartStax, to be launched under the brand name **SmartStax PRO, in 2022**. We also plan to upgrade our current **15 million** SmartStax acres through our brands and a broad licensing approach.

Let's turn to our **global soybean** seed & traits business next, which generated roughly **2.0 billion euros** in annual **sales in 2020**. As mentioned already, **2021 will be a transition year** due to the US competitive situation, and we'll return to a compounded annual growth rate of **1 to 2 percent** thereafter, with the upgrade of the Americas with new trait offerings.

XtendFlex is quickly replacing Roundup Ready 2 Xtend in the U.S., where it will reach approximately 15 million acres in 2021, its first year on the market. It's strongly positioned to remain the number one weed control system in North America, when combined with Roundup Ready 2 Xtend. This latest offering adds glufosinate tolerance to Roundup Ready 2 Xtend soybeans to provide additional weed-control flexibility. Additionally, in our germplasm trials, our newest top-volume XtendFlex soybeans have a **4+ bushel per acre yield advantage** compared to Enlist. This performance, coupled with **14-days residual activity** and control of **significantly more weeds than the Enlist system**, gives us confidence in our **growth plan**.

Let's move to South America next, where we will upgrade **Intacta RR2PRO with Intacta 2 Xtend**. All regulatory approvals have now been secured **and launch is underway in Brazil**. This trait package, built on the performance of first-generation Intacta, adds two proteins for insect control, important for insect resistance management, as well as tolerance to dicamba. We are targeting a strong transition across our existing footprint in Brazil, which plants roughly 90 million acres of soybeans annually. The trait has been broadly licensed and will be priced at a premium.

You can review **slides 17-to-19** in the handout to learn more about each of these technologies and the tailored solutions we have in development.

I'd like to close out our overview of seed and traits growth drivers with a look at our other seed businesses, especially **vegetable seeds** and **cotton**, as shown on **slide 20**. These businesses' **sales will grow in the range of 4 to 5% annually**.

For our **vegetable seeds** business, we've made some changes to our strategy and now focus on four key customer segments; protected culture, smallholders, processing and open field. We've seen some early success from our new strategy and expect above-market growth going forward, particularly in China and India, and underpinned by our hallmark **annual refresh** of the global portfolio.

In **cotton**, the strong growth is driven by three key factors – first, the **recovery of high-value acres in Australia**, second, share **growth in the U.S. and Brazil** and third, the launch of our **ThryvOn Technology trait**. This trait is the first of its kind to protect against piercing, sucking insects, in any crop. We're preparing for a stewarded Ground Breakers Field Trial introduction in the U.S. this year. It will be paired with Bollgard 3 XtendFlex Technology and priced at a premium. We expect it to have a fit across the U.S. cottonbelt, with potential to expand to other key geographies.

Before we move to the next chapter on innovation, I'd like to briefly cover **our commitments on synergies and efficiencies**. Part of our industrial logic for bringing together Monsanto and Bayer was our expectation that we could secure significant synergies, and we've made good on that promise. We now expect to achieve our planned synergies one year earlier, in 2021. On top of that we **expect to deliver additional efficiencies** with a new program by the end of 2024. Altogether, these combined programs will contribute roughly **half of the planned clean EBITDA margin** improvement by 2024.

To achieve these savings, we are transforming our way of working, and anticipate savings from an acceleration of digital connectivity and optimization of the physical footprint of our business.

We also accelerated our sales synergies. The Bayer Plus program is an important driver of expected growth in crop protection and helped us gain market share in the U.S. Based on this experience, we look forward to driving further sales synergies around the world.

Our investment in innovation and our pipeline provides the foundation for continued future growth, as we help feed a growing population without starving the planet.

We are at the beginning of a decade where we will advance and transform agriculture with unmatched innovation. This translates into better outcomes across the entire value chain and delivers superior value. We expect a peak sales potential of up to 30 billion euros, half of which will be incremental to our current business footprint.

As depicted in the handout on **Slide 23**, **we will launch around 100 new crop protection formulations** within this decade. Beyond that, we are very excited about our **new mode of action herbicide** and a **new PPO herbicide**, both of which have trait pairings in the making. These herbicides have the potential to set new standards in a segment that has for decades lacked significant innovation.

We will also launch around **430 new hybrids and varieties** across corn, soybeans, and vegetables annually. These launches sustain and improve our leading seed portfolio, which is further enhanced

by **game-changing traits like short-stature corn** and **soybeans with tolerance to 5 different herbicides** – both of which are expected to be industry-firsts. Let's look at those next.

Short-stature corn will change the way corn is produced. Shorter than corn grown today, as seen in the center rows of this photo from our 2020 Vitala commercial beta in Mexico, it has several beneficial features.

First, it has **unparalleled production stability** in high winds, as evidenced by our still-standing plots of short-stature corn in Iowa following last summer's devastating windstorm. See for yourself in our handout on **Slide 25**.

Second, it allows for **extended in-season crop access** due to its shorter height, which enables tailored solutions for precise, late season applications of fertilizers or crop protection.

Finally, we see a more sustainable future with this technology. There is a **potential to use less nutrients** with late-season access, **as well as less land and water** with the opportunity to plant at higher densities, as seen with our Vitala beta.

This product has true global potential, with unique benefits that address diverse needs worldwide. And with three technological approaches – breeding, biotech and gene-edited – it has a more than 220-million-acre opportunity. For North America alone, we see an incremental **peak sales opportunity of 1 billion euros**, related to the premium and share gains this technology could drive. There's significant upside potential from the rest of the world, that we have not yet factored in. A true blockbuster in the making.

We're also developing a full-system recommendation for short-stature corn, fully optimized with Climate Fieldview, as depicted on **Slide 26**. This will be the result of the convergence of new short corn technology, next-generation crop protection and digitally enabled tailored solutions.

Short-stature corn *is* the next big thing in agriculture.

By about the middle of the decade, we plan to launch our fourth generation of herbicide tolerance in soybeans, which we currently refer to as HT4.

This industry-first will offer tolerances to **five different herbicides**. We're adding HPPD and our very own 2,4-D tolerance trait to our XtendFlex product, offering the most flexibility for weed control of any soybean product in the marketplace.

You can see the exceptional efficacy in this photo, with healthy HT4 soybeans next to a row of clearly dead soybean plants without the same herbicide tolerances.

Not only will this offer exceptional weed control, but we expect best-in-class genetics to optimize yield and enable tailored solutions.

Similar to short-stature corn, we are developing a full soybean weed management system that will include HT4 as its foundation, paired with proprietary chemistries and a digital prescription, as seen on **Slide 29**.

With a fit across more than **180 million soybean acres** in the Americas, we anticipate high demand across our footprint, yielding an incremental peak sales potential of approximately **500 million euros**.

This brings us to the third pillar of our strategy –pioneering the digital transformation.

To do this, we are focused on expanding our industry-leading platform – Climate FieldView - which currently boasts more than 150 million subscribed acres and operates in 23 countries.

We plan to use this platform to enable tailored solutions and unlock growth from new digital business models.

These new models range from solutions that showcase our portfolio and predict seed and chemistry performance, to ones that will allow us to partner on outcomes with our customers.

Additionally, digital technology is essential to enable incentivization of carbon sequestration in agriculture, a new market that we are developing with a pioneering approach.

And lastly, it's a means of accessing the more than 550 million smallholder growers around the globe--- a virtually untapped market where we'll do good and grow our business at the same time.

Put all of this together, and we envision that by 2030 all of our sales will be enabled by digital enhancements.

To bring us one step closer to this goal, we have been intensifying and diversifying our testing and development activities for new solutions across multiple crops and regions.

We're looking at options to tailor corn placement and density with ROI guarantees with our Seed Advisor product, and in other cases we are targeting fungicide applications in row crops, with products like Delaro fungicide in corn, showing growers the added value with their own data in Fieldview.

Digital technology that can help standardize how carbon is measured, verified and reported with Climate FieldView is yet another way we can unlock value for growers. When paired with our global sales organization to assist in the adoption of climate-smart practices and a new generation of products that yield more and sequester more carbon, we see the potential to create a continuous cycle of new value creation in "carbon farming" – for growers, Bayer and society. At today's price for carbon, the market opportunity is roughly 3 billion dollars for Brazil and the U.S. alone with tremendous growth opportunity and we are working with regulators around the world to make carbon farming a reality.

We've currently enrolled more than 1,000 growers in several pilots and we envision a sales opportunity of at least 500 million Euros by 2030.

This creates a perfect segue to the final pillar of our strategy – to set new standards for sustainability.

As you can see on **Slide 36**, our goals are unchanged since our announcement at our first Capital Markets Day back in December 2018 – as is our commitment to delivering on them.

We just discussed one of our central efforts to advance a carbon-zero future for agriculture – and the LEAPS investment in JOYNBIO, presents yet another pathway to reach this target. You'll hear more about it in our LEAPS sessions tomorrow.

I announced at the outset of our discussion today that we have measured our baseline for environmental impact, which was done by the University of Denmark – and it is clear we have a best-in-class crop protection portfolio. The chart shared here and on **Slide 37** depicts our strong competitive edge and we will continue to reduce our environmental impact going forward.

Finally, I'll close out my time with you today discussing our efforts to empower 100 million smallholders by 2030 – no small feat and no small opportunity.

Today we estimate we reach nearly 45 million smallholders, who generate roughly 1.7 billion euros of our annual revenue. That's about 9 percent of our 2020 sales and we think we can grow this to at least 3 billion euros by 2030 by empowering 100 million smallholders.

We're focused on the low to middle-income countries, with an emphasis on China and India, with huge populations and great challenges in sustainable agriculture. Building on our existing strengths, we will drive four core initiatives. These include value-chain partnerships, digital smallholder solutions, portfolio differentiation with tailored, more affordable crop protection products, and finally, licenses and biotech approvals to enter new markets in Asia and Africa with a strong focus on public private partnerships.

Looking to India specifically, on **slide 40**, this is a tremendous example of how we are well positioned to serve the potential in this market. This includes aligning our vision and deliverables to the government's goals of doubling farmer incomes and driving sustainable agriculture solutions. As the market leader already serving 20 million smallholder farmers today, we look forward to further strong growth in India based on our smallholder strategy.

Our important work in these markets is driving growth and takes us right back to the vision I outlined at the outset - to provide health for all and hunger for none as we seek to shape agriculture and create a sustainable, healthy food supply.

Our plans translate to **3 to 5 percent** annual sales growth from **2022 to 2024** based on the current and underlying market growth assumptions, as shared earlier. If the **market grows faster than 3 percent** per annum, you can **expect us to outperform** and grow faster as well. For modeling purposes, please keep in mind the significant currency headwind we expect in sales in 2021, over half in Q1, should currency rates remain at levels seen at the end of 2020. This could be roughly 1.1 billion euros in crop science, resulting in estimated reported sales of approximately 18 billion Euros for 2021. This is outlined on **Slide 42**, where we also include our expected sales growth rates for our strategic business entities, as shared earlier.

Simultaneously, with new products, pricing uplift and contributions from our new efficiency program, we expect to expand our clean **EBITDA margin from 23 percent in 2021 to 27 to 29 percent by 2024**. This equates to a **more than 10 percent compounded annual growth rate for EBITDA** from 2021.

Let me wrap up and summarize the take-aways my presentation:

We did not deliver on our 2018 financial aspirations – and take accountability for that

Still, we maintained and selectively increased our competitive strength with a strong and intact underlying business

Unmatched innovation, the leading digital platform and our exceptionally strong market positions will deliver above market sales growth and leading profitability for the guidance period

Finally, our strategy will drive the transformation of agriculture and will help ensure a sustainable food system as we move towards our vision of Health for all, Hunger for none.

Thanks for your time today and I look forward to taking your questions and meeting with you in the year ahead.

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