There is No Innovation without Collaboration

World Agri-Tech Summit
March 20, 2019
Dr. Bob Reiter
Head of Research & Development
Bayer, Crop Science Division
Our expertise across disciplines uniquely positions us to deliver more breakthrough innovation, faster.

Potential

Potential for faster and more efficient development of tailored solutions that reflect the specific needs of our customers’ farms, crops, and soil.

- New types of products
- Data-based decision support
- More selective products

Shaping agriculture to benefit farmers, consumers and our planet
FieldView platform leads the digital transformation in agriculture

Data-driven tools help us to provide better agronomic insights to farmers and optimize our internal operations

Agronomic Services

Data-driven applications that visualize and analyze the field to help farmers make smarter decisions and improve yield in a sustainable manner

60+ partners leverage FieldView platform with a diverse set of features and insights
Opportunity for Digital Transformation and Tailored Solutions

Our evolution to capture the opportunity

- Leading Products
- Product Combinations
- Digitally Informed Offerings
- Tailored Solutions

Seed Advisor:
Predictive seed selection and placement technology

- Industry’s largest seeds genetics library
- Field-based performance data

Predicting the best performing hybrids for each of a farmer’s fields resulting in a significant yield advantage

Yield

Genetics

Environment

Farming Practices

1 USDA crop production summary report
**R&D Platforms Supplemented by ‘Open Innovation’ Model**

Designed to Ensure Growers have Access to the Best that Science can Offer

- **Internal R&D**
- **Universities & Research Institutes**
- **Customer-Sponsored Research**
- **Crowdsourcing**
  - Grants4Targets™
  - Grants4Traits™

**Cross-Organizational Innovation**

**Disruptive Innovation / Venture Capital**
- Bayer Growth Ventures

**Innovation Centers**

**Technology Collaborations**

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Expertise Supplemented by…

Increased the speed and probability of discovering and developing new crop protection products using artificial intelligence

Develop a broccoli plant that has the uniformity and structure to be more easily machine-harvested

Advance agricultural research and development in seeds and traits by leveraging gene-editing technology
Joyn Bio – Leaps by Bayer + Ginkgo Bioworks JV
Bayer Life Hubs: Connecting to the Innovation Ecosystem

**Science & Technologies**
- Co-creating with the local tech ecosystem
- Positioning Bayer as the partner of choice in AgTech

**Biologics & Vegetable Seeds**
- Gaining insights from local ag ecosystem
- Hosting startups in CoLaborator spaces to bring them close to our R&D & serve as a business development engine

**Societal Acceptance & Data Science**
- Engage with society to listen, learn and share knowledge on the future of Ag
- Incubating startups to accelerate our research with new data science solutions
Within our R&D scope, we are highly interested in…

- Novel target identification and elucidation
- High-throughout phenotyping and field-testing tools
- Precision farming and robotics
- Data integration/management solutions

Visit innovate.Bayer.com

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Thank you

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