





Joint News Release

BASF and TELUS Ventures invest in AgTech startup Hummingbird Technologies

Investment will fund advancements in remote sensing, artificial intelligence, machine learning and data analytics for in-field precision farming

London, United Kingdom; Vancouver, Canada; and Ludwigshafen, Germany; October 15, 2019 – BASF Venture Capital and Canada's TELUS Ventures are among the lead investors in a series B investment round for British startup Hummingbird Technologies, a global leader in advanced crop analytics. Other main investors include Saudi Agricultural and Livestock Investment Company (SALIC) and the British investment firm Downing Ventures.

Founded in 2016, Hummingbird Technologies has developed a technology platform to evaluate the condition of agricultural fields. Hummingbird's unique artificial intelligence, deep learning and imagery analytics solution uses proprietary algorithms driven by aerial images captured from satellites, planes and unmanned aerial vehicles. It processes image data to create precise harvest forecasts or accurately calculate how much fertilizer is needed. With its high-resolution system, Hummingbird can also locate potential pest infestation, plant diseases or planting gaps. These tools deliver real-time actionable recommendations, which both improve performance on farms through precise targeting of operations and inputs, as well as provide evidence-based justification and Return on Investment (ROI) proof for decision-making.

Within 24 hours, Hummingbird can provide farmers and their advisors with in-field zone maps that help them specifically target the application of fertilizers, crop protection products and growth regulators as well as selectively manage subsequent plantings. The main customers are progressive farm businesses which use this technology to manage their existing fields more efficiently and thus achieve significant yield increases and cost savings. There are approximately 2.2 billion hectares of agricultural land available

worldwide. Key areas for the use of advanced crop analytics include: Russia, Ukraine, China, the United States, Australia, Canada and Brazil, but also the United Kingdom.

"We are delighted to have received investment from BASF and TELUS Ventures. The investment will allow us to augment our leading position in core international markets, to pursue expansion opportunities that involve API (Application Program Interface) software integration and to extend our machine learning advantage at both a team and code level. We have a clear target to become the leading global remote sensing player in AgTech, and with such strong institutional backers, and technical expertise behind us, our journey towards achieving this goal has gathered serious momentum," said Will Wells, Chief Executive Officer, Hummingbird Technologies.

"We want to support Hummingbird to develop new markets for its unique technology and establish new business models," said Markus Solibieda, Managing Director, BASF Venture Capital. "Our colleagues in BASF's Agricultural Solutions division are already cooperating with Hummingbird. We are supporting these activities through this investment." Agricultural experts from BASF UK have been working with the startup since 2016 and supply aerial images to farmers. Hummingbird analyzes these photos and gives farmers detailed maps of the various in-field zones for precision farming.

"We believe innovative companies like Hummingbird – that provide farmers with data-driven, user friendly platforms to drive decisions – have the potential for wide-scale adoption as farmers increasingly look for tools to improve their bottom lines and reduce their environmental impact," said Rich Osborn, Managing Partner, TELUS Ventures. "Through our investment, we have the potential to change cultivation and help mature technology platforms to connect all aspects of the farm and food supply chain."

About BASF Venture Capital

BASF Venture Capital GmbH (BVC) was founded in 2001 and has offices in Europe, the U.S., China, India, Brazil and Israel. The aim of BVC is to generate new growth potential for BASF by investing in new companies and funds. The focus of investment is on chemical products and new materials, software and services as well as innovative and digital business models in the broader field of chemistry. For more information, please visit www.basf-vc.com.

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About Hummingbird

Hummingbird Technologies, founded at the Imperial College Technology Incubator by William Wells in

2016, is a global leader in remote sensing, artificial intelligence, machine learning and data analytics for

agriculture. The company has 40 full time employees headquartered in London, with satellite offices in

São Paulo, Sydney, Lviv and Moscow. The company has completed two previous fundraising rounds with

backers including: Downing Ventures, Sir James Dyson, the European Space Agency, Horizons Ventures

and Velcourt Farming Group.

About TELUS Ventures

As the strategic investment arm of TELUS Corporation (TSX: T, NYSE: TU), TELUS Ventures was founded in

2001 and is one of Canada's most active corporate venture capital funds. TELUS Ventures has invested in

over 70 companies since inception with a focus on innovative technologies such as Digital Health, IoT, Al

and Security. TELUS Ventures is an active investment partner and supports its portfolio companies

through mentoring; exposure to TELUS' extensive network of business and co-investment partners; access

to TELUS' technologies and broadband networks; and by actively driving new solutions across the TELUS

ecosystem.

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