

Press release

Bosch BASF Smart Farming



Bosch BASF Smart Farming and Stara intend to form first commercial sales collaboration in Latin America

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- ▶ Collaboration focuses on the Smart Spraying solution following successful field trials in Brazil during the 2020/21 season
- ▶ Smart Spraying solution has been integrated with Stara's flagship sprayer line into the Imperador 4000 Eco Spray smart sprayer
- ▶ Main sales focus in Latin America is the Brazilian market

Cologne, Germany – Bosch BASF Smart Farming GmbH, the joint venture between Bosch and BASF Digital Farming, intends to establish a commercial sales collaboration for its Smart Spraying solution with Stara, the largest agricultural machinery manufacturer in Brazil.

The commercial sales collaboration is for the Latin American market and initially focuses on Brazil. It will see the company's Smart Spraying solution incorporated into Stara's flagship sprayer line to create the Imperador 4000 Eco Spray smart sprayer, following successful product trials in Brazil during the 2020/21 growing season. The collaboration represents a major business milestone for Bosch BASF Smart Farming.

"The collaboration with Stara enables us to bring to market our innovative Smart Spraying solution in Latin America," says Silvia Cifre-Wibrow, Managing Director of Bosch BASF Smart Farming.

"The Latin America market offers great business growth potential for us, with this commercial collaboration re-confirming the relevance and value the agricultural industry places in our unique technology."

The Smart Spraying solution has a proven performance record, as demonstrated in extensive field testing conducted on several continents. By combining the know-how of Bosch and BASF Digital Farming, the Smart Spraying brings together the best of both companies. Bosch supplies state-of-the-art hardware and software, with cameras, control units and lights that make

it possible to detect weeds in row crops, both day and night, and in real time. BASF Digital Farming delivers the advanced agronomic logic and intelligence in the form of a smart spraying module in xarvio® FIELD MANAGER. This enables Smart Spraying in milliseconds to precisely detect weeds and spot apply herbicide, only where needed. Its unique configuration supports a more efficient use of herbicide, with trials showing herbicide volume savings of 70% are achievable, with variability dependent on the prevailing field conditions and weed pressure of individual fields.

The integration of the Smart Spraying solution with Stara's Imperador line of spray technology utilizes the joined expertise of the companies. It enables the creation of an innovative combined solution from Stara, the Imperador 4000 Eco Spray. In addition to being the only spot spraying solution on the market that has a data-driven support solution for decision making, the Imperador 4000 Eco Spray smart sprayer will distinguish itself from its competitors, with its ability to spray pre-crop emergence and post-crop emergence ("green-on-brown" and "green-on-green").

The Smart Spraying solution was first trialed by Stara in Brazil during the 2020/21 growing season. "We are constantly striving to improve our products to provide the best possible solutions to farmers and, together with the team at Bosch BASF Smart Farming, we have combined the innovative Smart Spraying solution with the Imperador 4000 to ensure the delivery of even greater benefits to farmers and to the environment," says Átila Stapelbroek Trennepohl, CEO of Stara.

"We are introducing a new digital solution to the market as well as a new approach to weed management. Our unique model is more precise compared to other technologies and more efficient in its spot application of herbicides, helping lessen environmental impacts while supporting the sustainability of farming businesses," adds Florian Gwosdz, Managing Director of Bosch BASF Smart Farming.

"In field tests using the Imperador 4000 Eco Spray, we achieved notable reductions in the use of herbicides, while maintaining a high-quality weed control. The Smart Spraying solution, with its targeted, localized application, also enables a significant reduction in production costs for farmers," concludes Stapelbroek Trennepohl.

Press photos: #2db71d94, #4da7ffdc

Further information: <https://www.smartfarming.ag>

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About Bosch BASF Smart Farming

Bosch BASF Smart Farming – a joint venture between Bosch and BASF Digital Farming – was established in 2021 to bring together the agricultural know-how of BASF and the hardware expertise of Bosch. The company has focused from the beginning on developing holistic solutions for use in the field, combining artificial intelligence with cutting edge technology to transform the future of agriculture.

About Stara

Stara is known for its strong focus on technology, as shown in its innovative product range and launches – a dynamic company which predicts the needs of rural producers, creating technologies aimed at increasing productivity and profits in this field. Stara is active throughout Brazil as well as on all five continents, and regularly exports to more than 35 countries.

About Bosch Mobility Solutions

Mobility Solutions is the largest Bosch Group business sector. It generated sales of 45.3 billion euros in 2021, and thus contributed 58 percent of total sales from operations. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector pursues a vision of mobility that is safe, sustainable, and exciting, and combines the group's expertise in the domains of personalization, automation, electrification, and connectivity. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,600 associates worldwide (as of December 31, 2021). The company generated sales of 78.7 billion euros in 2021. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 76,100 associates in research and development, of which more than 38,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPress.

About xarvio® Digital Farming Solutions – a brand by BASF Digital Farming GmbH

xarvio® Digital Farming Solutions is at the forefront of the digital transformation of agriculture, optimizing crop production. xarvio® offers digital products, based on a global leading crop modelling platform. The technology delivers independent, field-zone-specific agronomic advice that enables farmers to produce their crops most efficiently and sustainably. The products - xarvio® SCOUTING, xarvio® FIELD MANAGER and xarvio® HEALTHY FIELDS are used by farmers in more than 100 countries worldwide. More than 90,000 farmers and consultants have signed-up for xarvio® FIELD MANAGER, setting-up a field area greater than 12 million hectares in 18 countries. xarvio® SCOUTING has been downloaded by more than 7 million users. For more information please visit www.xarvio.com or any of our social media channels.

About BASF's Agricultural Solutions division

Farming is fundamental to provide enough healthy and affordable food for a rapidly growing population while reducing environmental impacts. Working with partners and agricultural experts and by integrating sustainability criteria into all business decisions, we help farmers to create a positive impact on sustainable agriculture. That's why we invest in a strong R&D pipeline, connecting innovative thinking with practical action in the field. Our portfolio comprises seeds and specifically selected plant traits, chemical and biological crop protection, solutions for soil management, plant health, pest control and digital farming. With expert teams in the lab, field, office and in production, we strive to find the right balance for success – for farmers, agriculture and future generations. In 2021, our division generated sales of €8.2 billion. For more information, please visit www.agriculture.basf.com or any of our social media channels.