Phenome Networks and Delair Establish Strategic Collaboration to Accelerate Plant Breeding and Variety Testing with Drone Data

First-of-its-kind partnership will combine research information management software solution with new-generation drone systems and aerial imagery analytics to empower seed companies

Rehovot, Israel and Toulouse, France – May 29, 2019 – At the annual ISF World Seed Congress, on June 3-5, Phenome Networks, a premier plant breeding software company, and Delair, a leading supplier of commercial drone solutions, will present their strategic collaboration to offer a combined system to accelerate plant breeding and variety testing. Seed breeders and variety testers will benefit from an integrated and easy-to use workflow to merge the advanced research data managed in PhenomeOne software with the high-throughput plant data collected by Delair drone solutions. This unique combination of capabilities will allow faster development of the most optimal varieties adapted to the current agriculture challenges, such as diseases or water stress.

Tracking and tracing the wealth of data generated by the plant breeding process represents a challenge in crop research. Data needs to be aggregated from hundreds of field trials, and the corresponding analysis must consider genetic connections in different generations among large seed populations, with traits observed and measured over a large range of locations and time.

Collecting large-scale, field-based plant phenotypic data with sufficient resolution and accuracy in a reproducible and non-invasive manner is also seen by seed breeders and variety testers as a bottleneck for the effective use of genomic data for crop improvement.

The partnership overcomes these two limiting factors by combining the extensive breeding management capabilities of the PhenomeOne software with the productive and plant-focused mapping performances of the Delair UX11 AG drone for agriculture, and the analytics and machine learning capabilities of both Delair.ai cloud platform and PhenomeOne modules.

"*We believe this unique collaboration is a real opportunity for seed breeders and variety testers to benefit from the best of our two worlds, state-of the-art crop research and advanced aerial intelligence,*" says Lénaic Grignard, Delair's Agriculture and Forestry Marketing Manager. "*The team at Phenome Networks also shares our vision to develop a wide and open ecosystem of partners to facilitate better decisions in agriculture and unlock the big data genetic potential of plants.*"

Inbar Stern, VP Sales and Business Development at Phenome Networks commented on the partnership: "With this collaboration seed companies will be able to manage and analyze data collected and extracted by Delair drone-based solutions in PhenomeOne software. Valuable information flow between these two innovative technologies will reduce labor and provide insights to derive better varieties developed by our customers. We found Delair to be a natural partner for Phenome due to the quality of their products and professionality of the team."

The new workflow will allow breeders to design field trials with the sophisticated maps provided in PhenomeOne and synchronize them with Delair.ai to build the digital twin of an experimental field based on drone data collection. Key traits data will be extracted at plot level and microplot level by delair.ai algorithms and agriculture-optimized analytics. Extracted environmental traits information at will be stored in PhenomeOne and merge with all other genetics, genomics and phenotypic breeding data available in the platform to provide new insights for plant breeders and variety testers.

Both solutions are used around the world by leading seed companies and academic institutions. Their cloud-based approach simplifies data storage and access, making it ideal for teams to collaborate online, anywhere, anytime.

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About Phenome Networks

Phenome Networks Ltd provides a state of the art bio-informatics platform that organizes the wealth of genotype-to-phenotype data generated in the plant breeding and variety testing processes in commercial companies and academic institutes. The platform provides data management capabilities and allows extracting knowledge and insights that accelerate plant breeding. More information can be found online at www.phenome-networks.com.

About Delair

Delair is a leading provider of end-to-end, drone-based solutions that enable enterprises to digitize their physical assets and turn the collected data into valuable business insights. The company's offerings combine high performance, long range fixed-wing UAV hardware with *Delair Aerial Intelligence* (delair.ai), the industry's most powerful platform to manage, analyze and share aerial data. Its solutions are sold in over 70 countries with a network of more than 100 resellers in industries such as mining, construction, agriculture, oil and gas, utilities and transportation. Delair has strengthened its position as a global leader through strategic acquisitions (Gatewing, Airware/Redbird), and a strategic investment by Intel Corporation. Founded in 2011 by experts in the aerospace industry, the company employs 180 people and has offices in Toulouse, Paris, Ghent, Belgium, Los Angeles, Beijing and Singapore. For more information, go to www.delair.aero.