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Classiq and Florence Quantum Lab partner to advance sustainability and food security with Quantum-Enhanced Precision Agriculture

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Classiq, a leading quantum computing software company, and Florence Quantum Labs announced their collaboration on research to develop quantum-enhanced precision agriculture. Quantum advancements will play a crucial role in addressing global challenges in 2025 as the International Year of Quantum Science and Technologies kicks off.

The Classiq platform will be used in this collaborative research to develop quantum computing solutions for precision agriculture. It will leverage Florence Quantum Lab-designed quantum-enhanced biosensors and include deployment of scalable AI-quantum hybrid algorithms for ecosystem modeling. The partnership focuses on significantly enhancing the efficiency and accuracy of soil health monitoring and nutrient management by integrating Classiqâ??s quantum computing platform with Florence Quantum Labsâ?? advanced agricultural technologies.

Classiq offers a leading quantum development platform with cutting-edge technology enabling high-level abstraction that simplifies and accelerates the development of efficient complex quantum programs and applications. The Classiq platformâ??s built-in functions, GitHub repository and seamless execution on a broad range of quantum computing hardware will be key components in research to develop transformative agricultural solutions.

Classiq CEO Nir Minerbi said, â??Classiq looks forward to enabling the development of sophisticated, optimized quantum programs to tackle food security challenges.â?•

â??This partnership represents a pivotal step toward harnessing quantum computing to address global food security challenges,â?• said Florence Quantum Labs CEO Dr. Pratima Vasistha. â??By combining Classiqâ??s innovative platform with our precision agriculture expertise, we are set to revolutionize sustainable farming practices.â?•

Florence Quantum Labs is pioneering the integration of quantum technologies to address critical challenges in sustainable farming and global food security. Through a rigorous multidisciplinary approach, the laboratory has established itself as a leader in the development of advanced quantum-enhanced biosensors, which provide unparalleled accuracy in real-time soil health diagnostics. These biosensors are coupled with AI-quantum hybrid algorithms, designed to optimize nutrient delivery systems and reduce inefficiencies in agricultural processes.