

Meet Qarbotech, making plants play a bigger role through photosynthesis

As part of our quick founder questions series - or QFQs - we spoke to Chor Chee Hoe, Co-Founder and Chief Executive Officer of Qarbotech, about photosynthesis, nanotechnology, and adaptability.

Temps de lecture : minute

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What was the catalyst for launching Qarbotech?

The catalyst for launching Qarbotech was the need to address the pressing global challenges of food security and climate change. Prof. Suraya Abdul Rashid's research into photosynthesis enhancers revealed a unique opportunity to significantly boost crop yields and resilience. The potential of this technology, combined with the urgent need for sustainable agricultural solutions, inspired the founding of Qarbotech in 2018. When I was doing MBA at Asia School of Business, I had an opportunity to work with Prof. Suraya Abdul Rashid from Universiti Putra Malaysia on an academic project. We worked synergistically, and the chemistry between us was great. Then, she invited me to be the co-founder of Qarbotech to bring her research into commercialisation. Since then, we have made good progress for Qarbotech.

Tell me about the business - what it is, what it aims to achieve, who you work with, how you reach customers and so on?

Qarbotech is a pioneering nanotechnology and agritech company specialising in the development and manufacturing of photosynthesis enhancers. Our flagship product, QarboGrow, is a biocompatible organic compound that enhances photosynthesis efficiency, leading to increased crop yields, shorter growth cycles, improved fruit quality, and greater resilience to drought.

Our aim is to revolutionise agriculture by providing innovative solutions that promote sustainable farming practices, mitigate climate change, and ensure global food security. We collaborate with farmers, agricultural businesses, research institutions, and government bodies to implement our technology across various agricultural sectors.

We reach our customers through a combination of direct sales, partnerships with agricultural distributors, and online platforms. Our marketing strategy includes demonstrations, workshops, and collaborations with agricultural organisations to showcase the benefits of QarboGrow.

How has the business evolved since its launch? When was this?

Since its launch in 2018, Qarbotech has made significant strides in product development, commercialisation, and market penetration. Initially focused on gathering data and testimonials from home gardening customers, we have since expanded our product range and market reach.

Key milestones include the commercialisation of Harvast for the home

gardening segment in 2020, the formulation and launch of QarboGrow in 2022, and various awards and recognitions, such as the Tech Planter Malaysia and Asia awards, and significant investments from Glocalink Singapore and 500 Global.

Tell us about the working culture at Qarbotech

At Qarbotech, we foster a collaborative and innovative working culture. Our team is driven by a shared commitment to sustainability and excellence. We encourage open communication, continuous learning, and a proactive approach to problem-solving. Our culture emphasises respect, integrity, and a passion for positively impacting the world.

How are you funded?

Qarbotech is funded through a combination of grants, investments, and awards. We have received market validation grants, angel investments, and funding from venture capital firms such as Glocalink Singapore and 500 Global. We have also won several innovation challenges, providing financial support and industry recognition.

What has been your biggest challenge so far and how have you overcome this?

Our biggest challenge has been scaling our technology from lab research to commercial application. This involved extensive field testing, data collection, and product refinement to ensure effectiveness and safety. We overcame this challenge by partnering with research institutions, leveraging funding opportunities, and maintaining a customer-focused approach to product development and feedback.

How does Qarbotech answer an unmet need?

Qarbotech addresses the unmet need for sustainable and effective agricultural solutions that enhance photosynthesis. Traditional farming methods often overlook the potential of optimising photosynthesis, focusing instead on soil and nutrient management. Our technology shifts the focus to the leaves, significantly boosting photosynthetic efficiency, which translates to higher yields, improved crop quality, and greater resilience to environmental stressors.

What's in store for the future?

The future for Qarbotech includes expanding our market presence in Southeast Asia and beyond, further refining our product range, and developing new applications for our nanotechnology. We aim to form strategic partnerships with global agricultural leaders and continue our commitment to research and innovation. Our long-term goal is to be at the forefront of sustainable agricultural technology, contributing to global food security and environmental sustainability.

What one piece of advice would you give other founders or future founders?

One piece of advice for other founders or future founders is to remain resilient and adaptable. The journey of building a startup is fraught with challenges and uncertainties. Stay focused on your vision, be open to learning from failures, and continuously seek feedback from your customers and stakeholders. Building a strong network and fostering collaborative partnerships can also provide invaluable support and opportunities for growth.

And finally, a more personal question! What's your daily routine and the rules you're living by at the moment?

My daily routine involves starting the day with a clear focus on priorities and goals. I dedicate time to strategic planning, team meetings, and engaging with our partners and customers. Continuous learning is also a key part of my routine, whether through reading, attending industry events, or exploring new innovations.

The rules I live by include maintaining a balance between work and personal life, staying committed to our mission of sustainability, and fostering a culture of respect and collaboration within the team. I believe in leading by example and staying true to our values of integrity, innovation, and impact.

Chor Chee Hoe is the Co-Founder and Chief Executive Officer of [Qarbotech](#).

Article by Chor Chee Hoe